

Cracking Design Interviews System Design

With Learning JavaScript Design Patterns, you'll learn how to write beautiful, structured, and maintainable JavaScript by applying classical and modern design patterns to the language. If you want to keep your code efficient, more manageable, and up-to-date with the latest best practices, this book is for you. Explore many popular design patterns, including Modules, Observers, Facades, and Mediators. Learn how modern architectural patterns—such as MVC, MVP, and MVVM—are useful from the perspective of a modern web application developer. This book also walks experienced JavaScript developers through modern module formats, how to namespace code effectively, and other essential topics. Learn the structure of design patterns and how they are written. Understand different pattern categories, including creational, structural, and behavioral. Walk through more than 20 classical and modern design patterns in JavaScript. Use several options for writing modular code—including the Module pattern, Asynchronous Module Definition (AMD), and CommonJS. Discover design patterns implemented in the jQuery library. Learn popular design patterns for writing maintainable jQuery plug-ins. "This book should be in every JavaScript

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developer's hands. It's the go-to book on JavaScript patterns that will be read and referenced many times in the future."—Andrée Hansson, Lead Front-End Developer, presis!

Our world is being revolutionized by data-driven methods: access to large amounts of data has generated new insights and opened exciting new opportunities in commerce, science, and computing applications. Processing the enormous quantities of data necessary for these advances requires large clusters, making distributed computing paradigms more crucial than ever. MapReduce is a programming model for expressing distributed computations on massive datasets and an execution framework for large-scale data processing on clusters of commodity servers. The programming model provides an easy-to-understand abstraction for designing scalable algorithms, while the execution framework transparently handles many system-level details, ranging from scheduling to synchronization to fault tolerance. This book focuses on MapReduce algorithm design, with an emphasis on text processing algorithms common in natural language processing, information retrieval, and machine learning. We introduce the notion of MapReduce design patterns, which represent general reusable solutions to commonly occurring problems across a variety of problem domains. This book not only intends to help the reader "think in MapReduce", but also

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discusses limitations of the programming model as well. This volume is a printed version of a work that appears in the Synthesis Digital Library of Engineering and Computer Science. Synthesis Lectures provide concise, original presentations of important research and development topics, published quickly, in digital and print formats. For more information visit www.morganclaypool.com

Learn how to hack systems like black hat hackers and secure them like security experts
Key Features
Understand how computer systems work and their vulnerabilities
Exploit weaknesses and hack into machines to test their security
Learn how to secure systems from hackers
Book Description
This book starts with the basics of ethical hacking, how to practice hacking safely and legally, and how to install and interact with Kali Linux and the Linux terminal. You will explore network hacking, where you will see how to test the security of wired and wireless networks. You'll also learn how to crack the password for any Wi-Fi network (whether it uses WEP, WPA, or WPA2) and spy on the connected devices. Moving on, you will discover how to gain access to remote computer systems using client-side and server-side attacks. You will also get the hang of post-exploitation techniques, including remotely controlling and interacting with the systems that you compromised. Towards the end of the book, you will be able to pick up web

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application hacking techniques. You'll see how to discover, exploit, and prevent a number of website vulnerabilities, such as XSS and SQL injections. The attacks covered are practical techniques that work against real systems and are purely for educational purposes. At the end of each section, you will learn how to detect, prevent, and secure systems from these attacks. What you will learn Understand ethical hacking and the different fields and types of hackers Set up a penetration testing lab to practice safe and legal hacking Explore Linux basics, commands, and how to interact with the terminal Access password-protected networks and spy on connected clients Use server and client-side attacks to hack and control remote computers Control a hacked system remotely and use it to hack other systems Discover, exploit, and prevent a number of web application vulnerabilities such as XSS and SQL injections Who this book is for Learning Ethical Hacking from Scratch is for anyone interested in learning how to hack and test the security of systems like professional hackers and security experts. The System Design Interview, by Lewis C. Lin and Shivam P. Patel, is a comprehensive book that provides the necessary knowledge, concepts, and skills to pass your system design interview. It's written by industry professionals from Facebook & Google. Get their insider perspective on the proven, practical techniques

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for answering system design questions like Design YouTube or Design a TinyURL solution. Unlike others, this book teaches you exactly what you need to know. FEATURING THE PEDALS METHOD(tm), THE BEST FRAMEWORK FOR SYSTEM DESIGN QUESTIONS The book revolves around an effective six-step process called PEDALS: Process Requirements Estimate Design the Service Articulate the Data Model List the Architectural Components Scale PEDALS demystifies the confusing system design interview by breaking it down into manageable steps. It's almost like a recipe: each step adds to the next. PEDALS helps you make a clear progression that starts from zero and ends with a functional, scalable system. The book explains how you can use PEDALS as a blueprint for acing the system design interview. The book also includes detailed examples of how you can use PEDALS for the most popular system design questions, including: Design YouTube Design Twitter Design AutoSuggest Design a TinyURL solution ALSO COVERED IN THE BOOK What to expect and what interviewers look for in an ideal answer How to estimate server, storage, and bandwidth needs How to design data models and navigate discussions around SQL vs. NoSQL How to draw architecture diagrams How to build a basic cloud architecture How to scale a cloud architecture for millions of users Learn the best system strategies to reduce latency, improve

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efficiency, and maintain security Review of technical concepts including CAP Theorem, Hadoop, and Microservices Here's what readers are saying I just wanted to say that I got the Amazon Senior SDE job offer. I've failed the system design interview several times, and your material is the best resource out there. - Beto A., Senior SDE Just finished the dreaded Facebook Pirate interview. I used a modified version of PEDALS, and I had him grinning from ear to ear. - Jesse T., Software Engineer My recruiter just gave me the Google role, and I accept!!! I couldn't have made it through the technical round without PEDALS and your system design material. - Priya D., Product Manager

Programming Interviews Exposed

Losing the Signal

Learning JavaScript Design Patterns

The System Design Interview, 2nd Edition

Learn Ethical Hacking from Scratch

Notebook to Crack the Coding Interview

Cracking Programming Interviews

Part I Algorithms and Data Structures 1

Fundamentals Approximating the square

root of a number Generating Permutation

Efficiently Unique 5-bit Sequences

Select Kth Smallest Element The Non-

Crooks Problem Is this (almost) sorted?

Sorting an almost sorted list The

Longest Upsequence Problem Fixed size

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generic array in C++ Seating Problem
Segment Problems Exponentiation
Searching two-dimensional sorted array
Hamming Problem Constant Time Range
Query Linear Time Sorting Writing a
Value as the Sum of Squares The
Celebrity Problem Transport Problem
Find Length of the rope Switch Bulb
Problem In, On or Out The problem of
the balanced seg The problem of the
most isolated villages 2 Arrays The
Plateau Problem Searching in Two
Dimensional Sequence The Welfare Crook
Problem 2D Array Rotation A Queuing
Problem in A Post Office Interpolation
Search Robot Walk Linear Time Sorting
Write as sum of consecutive positive
numbers Print 2D Array in Spiral Order
The Problem of the Circular Racecourse
Sparse Array Trick Bulterman's
Reshuffling Problem Finding the
majority Mode of a Multiset Circular
Array Find Median of two sorted arrays
Finding the missing integer Finding the
missing number with sorted columns Re-
arranging an array Switch and Bulb
Problem Compute sum of sub-array Find a
number not sum of subsets of array Kth
Smallest Element in Two Sorted Arrays

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Sort a sequence of sub-sequences Find
missing integer Inplace Reversing Find
the number not occurring twice in an
array 3 Trees Lowest Common
Ancestor(LCA) Problem Spying Campaign 4
Dynamic Programming Stage Coach Problem
Matrix Multiplication TSP Problem A
Simple Path Problem String Edit
Distance Music recognition Max Sub-
Array Problem 5 Graphs Reliable
distribution Independent Set Party
Problem 6 Miscellaneous Compute Next
Higher Number Searching in Possibly
Empty Two Dimensional Sequence Matching
Nuts and Bolts Optimally Random-number
generation Weighted Median Compute a^n
Compute a^n revisited Compute the
product $a \times b$ Compute the quotient and
remainder Compute GCD Computed
Constrained GCD Alternative Euclid'
Algorithm Revisit Constrained GCD
Compute Square using only addition and
subtraction Factorization Factorization
Revisited Decimal Representation
Reverse Decimal Representation Solve
Inequality Solve Inequality Revisited
Print Decimal Representation Decimal
Period Length Sequence Periodicity
Problem Compute Function Emulate

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Division and Modulus Operations
Sorting Array of Strings : Linear Time
LRU data structure
Exchange Prefix and Suffix
7 Parallel Algorithms
Parallel Addition
Find Maximum Parallel Prefix Problem
Finding Ranks in Linked Lists
Finding the kth Smallest Element
8 Low Level Algorithms
Manipulating Rightmost Bits
Counting 1-Bits
Counting the 1-bits in an Array
Computing Parity of a word
Counting Leading/Trailing 0's
Bit Reversal
Bit Shuffling
Integer Square Root
Newton's Method
Integer Exponentiation
LRU Algorithm
Shortest String of 1-Bits
Fibonacci words
Computation of Power of 2
Round to a known power of 2
Round to Next Power of 2
Efficient Multiplication by Constants
Bit-wise Rotation
Gray Code Conversion
Average of Integers without Overflow
Least/Most Significant 1 Bit
Next bit
Permutation
Modulus Division
Part II
C++
8 General
9 Constant Expression
10 Type Specifier
11 Namespaces
12 Misc
13 Classes
14 Templates
15 Standard Library

Analyzes and refutes twenty of the most predominant theories involving the United States government's role in

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perpetrating the September 11, 2001 terrorist attacks.

Are you preparing for technical interviews? Do you know the number one cause of people failing to crack interviews is lack of preparation? Though coding is still the major part of technical interviews, companies these days are including at least one system design question to check the expertise of the candidate in designing large scale systems. For example :- careers page of facebook clearly mentions there will be one round of system design interview. Sample questions will be like "Design Twitter" or "Design an e-commerce website like amazon". So, How do you prepare to tackle such tough questions in interviews? Unfortunately, there are no good resources to learn system design. Part of it comes through practical experience and part of it from understanding various architectures and tradeoffs. Added to that, in most cases there wont be a single solution to the problem. Depending on the conversation and interviewer, interview can go in any direction and may go deep into

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certain areas. So, it makes preparing for system design interviews very challenging. This book is written primarily to help candidates get ready for the system design interview in short period of time. It provides step-by-step approach (10 steps) to navigate through any system design interview effortlessly. It also provides guidance on how to design each layer of software systems like Storage Layer, Cache Layer, Application Layer, Web Layer, Client Layer etc. It covers topics like High-Availability, Scalability, Consistency that are important properties of any software system. It also provides sample solutions for designing write-heavy systems like dropbox and read-heavy systems like twitter. Check it out. All the best. Happy interviewing.

Proceedings of RILEM TC-PRC third conference on this subject. Papers from road authorities, engineers, researchers, contractors and manufacturers discussing the implementation and the long term behaviour of overlay systems. The following topics are covered:

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prevention and cracking assessment,
choice and design of overlay systems,
practical implementation, case
histories and long term performance.
How to Land a Project Manager Job in
Technology

System Design Interview (large Print
Edition)

150 Programming Interview Questions and
Solutions

Cracking the Coding Interview

Understanding Distributed Systems

For Beginners and Interviews (Design
Interview Questions)

The Untold Story Behind the
Extraordinary Rise and Spectacular Fall
of BlackBerry

System design interview is one of the most dreaded and difficult aspects of technical job interviews. The questions involved are scary. But a careful study of the analysis and methodologies recorded in this journal will enable you to scale through any hurdles you may meet during assessments using data engineering processes. This manual will give you a clear and in-depth understanding of the various processes involved in using data-intensive applications. If you are a practitioner or a non-backend engineer, after reading it, you will discover amazing facts about the ways you can apply data

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systems across networks such as RDBMS, NoSQL, IMS, and others. You will learn various ways engineers are interviewed using different frameworks. This book enables you to know more about scalability or distributed systems. Other things you will learn in this book include: The Foundation for System Design Interviews How to Design a Key-Value Store Ways to Scale Users in System Design Interviews Using Distributed Systems in Designing an Identity Generator How to Design a Web Crawler Different Methods of Designing News Feed System How to Design a System for Search Autocomplete Chat System Designing YouTube Designing How to Design a URL Shortener Rate Limiter Designing How to Design a Notification System Methods of Designing Google Drive How to Design Consistent Hashing and more And many more... You Can Download FREE with Kindle Unlimited and Discover Things You Need to Know Prior to the Interview. So what are you waiting for? Scroll up you will see the orange "BUY NOW" button on the top right corner and download your copy now! See you inside!!!

"Peeling Design Patterns: For Beginners and Interviews" by Narasimha Karumanchi and Prof. Sreenivasa Rao Meda is a book that presents design patterns in simple and straightforward manner with a clear-cut explanation. This book will provide an introduction to the basics and covers many real-

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time design interview questions. It comes handy as an interview and exam guide for computer scientists. Salient Features of Book: Readers without any background in software design will be able to understand it easily and completely. Presents the concepts of design patterns in simple and straightforward manner with a clear-cut explanation. After reading the book, readers will be in a position to come up with better designs than before and participate in design discussions which happen in their daily office work. The book provides enough real-time examples so that readers get better understanding of the design patterns and also useful for the interviews. We mean, the book covers design interview questions. Table of Contents: Introduction UML Basics Design Patterns Introduction Creational Patterns Structural Patterns Behavioral Patterns Glossary and Tips Design Interview Questions Miscellaneous Concepts

The pressure is on during the interview process but with the right preparation, you can walk away with your dream job. This classic book uncovers what interviews are really like at America's top software and computer companies and provides you with the tools to succeed in any situation. The authors take you step-by-step through new problems and complex brainteasers they were asked during recent technical interviews. 50 interview scenarios

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are presented along with in-depth analysis of the possible solutions. The problem-solving process is clearly illustrated so you'll be able to easily apply what you've learned during crunch time. You'll also find expert tips on what questions to ask, how to approach a problem, and how to recover if you become stuck. All of this will help you ace the interview and get the job you want. What you will learn from this book

- Tips for effectively completing the job application
- Ways to prepare for the entire programming interview process
- How to find the kind of programming job that fits you best
- Strategies for choosing a solution and what your approach says about you
- How to improve your interviewing skills so that you can respond to any question or situation
- Techniques for solving knowledge-based problems, logic puzzles, and programming problems

Who this book is for This book is for programmers and developers applying for jobs in the software industry or in IT departments of major corporations. Wrox Beginning guides are crafted to make learning programming languages and technologies easier than you think, providing a structured, tutorial format that will guide you through all the techniques involved.

PRACTICE! PRACTICE!! PRACTICE! So you are preparing for the FAANG Tech interview? You already know that, everyone who made it to or

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aspire for FAANG, must have read/reading the most famous Cracking The Coding Interview at least once. Its like bible for coding interviews - irreplaceable. Then what this notebook is about? While reading the Cracking The Coding Interview, I had prepared my own notes, everybody does that. The main theme of this notebook is to give a structure to your own notes, help in immediate whiteboarding practice in line with CTCI. This notebook helps as a companion for your preparation along with CTCI and make the learning completely customized for YOU, just like the way it helped me. You can use pencil to make your prep & practice multiple times or alternatively you can order multiple books, I kept my best efforts to keep the price minimal, almost equivalent to any notebook of this size, you purchase. But the best thing is (I'm repeating) this notebook is in line with CTCI and helps faster revision & immediate whiteboarding practice.

Why Conspiracy Theories Can't Stand Up to the Facts

System Design Interview - An Insider's Guide

Get the Job at FAANG

System Design

A Developer 's Guide to Using Soft Skills to Get Hired

The Insiders' Guide

Debunking 9/11 Myths

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Do you wish to ace your System Design Interview? If yes, read on... This system design interview book is an amazing product from Maurice Jayson. It is a systematic guide on how to answer difficult questions from System Design interviewers. Maurice has headed several panels of interviewers looking to recruit system and User interface designers and has compiled a list of recurrent question and hidden intricacy that all system designers should know when job hunting. Some vital information you will get in this book include: How to scale from zero to millions of users Guidelines for system design interviews Point of evaluation from system design interview How to evaluate the system design interview How to prepare for system design interview Some important and not so important system design information APIS and their uses API examples How APIs drive innovation API improvements SOAP and REST SOA and Micro Services Architectures How to build a web crawler How to create a short URL system Multiple machines How to design google docs Hoe to Design YouTube Rate limiting strategies and methods How to create Photo Sharing Apps How to design a NEWS Feed System And Lots More Scroll up and hit the BUY NOW WITH 1-CLICK to get this book in your library and start preparing for your interview

Become the applicant Google can't turn down Cracking the Tech Career is the job seeker's guide to landing a coveted position at one of the top tech firms. A follow-up to The Google Resume, this book provides new information on what these companies want, and how to show them you have what it takes to succeed in the role. Early planners will learn what to study, and established professionals will discover how to make their skillset and experience set them apart from the crowd. Author Gayle Laakmann McDowell worked in engineering at Google, and interviewed over 120 candidates as a member of the hiring committee ? in this book, she

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shares her perspectives on what works and what doesn't, what makes you desirable, and what gets your resume saved or deleted. Apple, Microsoft, and Google are the coveted companies in the current job market. They field hundreds of resumes every day, and have their pick of the cream of the crop when it comes to selecting new hires. If you think the right alma mater is all it takes, you need to update your thinking. Top companies, especially in the tech sector, are looking for more. This book is the complete guide to becoming the candidate they just cannot turn away. Discover the career paths that run through the top tech firms Learn how to craft the perfect resume and prepare for the interview Find ways to make yourself stand out from the hordes of other applicants Understand what the top companies are looking for, and how to demonstrate that you're it These companies need certain skillsets, but they also want a great culture fit. Grades aren't everything, experience matters, and a certain type of applicant tends to succeed. Cracking the Tech Career reveals what the hiring committee wants, and shows you how to get it.

The industry standard whiteboard interview can be daunting for developers. Let 's face it: it combines the worst aspects of a typical interview, on-the-spot public speaking, a quiz show, and a dinner party full of strangers judging you—all at once. Brilliant developers can let their nerves get the best of them and completely bomb a whiteboard interview, while inexperienced developers who excel in soft skills can breeze through them. In *Surviving the Whiteboard Interview*, author William Gant uses his real-world knowledge and expertise to guide you through the psychological roadblocks of a coding test while also providing you with a sample coding challenge. With enough preparation, information, and assured confidence, you can survive a whiteboard interview at any organization. In addition to the benefits listed above, Gant

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helps you explore how you can create a good soft skills impression that will last beyond the whiteboard test by showing your work ethic, positive attitude, and ability to take and implement criticism effectively. These assets will unequivocally serve other parts of your life outside of an interview context, as well. While Gant does not promise that you will ever truly enjoy interviewing, he does promise to arm you with the proper preparation techniques and knowledge needed to tame the common fears and dread that come along with it. Maximize your career potential and get inspired with *Surviving the Whiteboard Interview*. The steps to your dream role just might be closer than you think. *What You Will Learn* Practice both hard and soft skills required to succeed at a whiteboard interview, covering coding tests as well as psychological preparation Learn how to make other aspects of your interview stronger, so you can create a great impression Master solving common whiteboard problems in different programming languages Who This Book is For This book is primarily for aspiring software developers who are looking for a job in the field. However, it will also be helpful for more seasoned developers who find interviewing painful and want to improve their skills.

Principles of Computer System Design is the first textbook to take a principles-based approach to the computer system design. It identifies, examines, and illustrates fundamental concepts in computer system design that are common across operating systems, networks, database systems, distributed systems, programming languages, software engineering, security, fault tolerance, and architecture. Through carefully analyzed case studies from each of these disciplines, it demonstrates how to apply these concepts to tackle practical system design problems. To support the focus on design, the text identifies and explains abstractions that have proven successful in practice such as remote procedure call,

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client/service organization, file systems, data integrity, consistency, and authenticated messages. Most computer systems are built using a handful of such abstractions. The text describes how these abstractions are implemented, demonstrates how they are used in different systems, and prepares the reader to apply them in future designs. The book is recommended for junior and senior undergraduate students in Operating Systems, Distributed Systems, Distributed Operating Systems and/or Computer Systems Design courses; and professional computer systems designers. Features: Concepts of computer system design guided by fundamental principles. Cross-cutting approach that identifies abstractions common to networking, operating systems, transaction systems, distributed systems, architecture, and software engineering. Case studies that make the abstractions real: naming (DNS and the URL); file systems (the UNIX file system); clients and services (NFS); virtualization (virtual machines); scheduling (disk arms); security (TLS). Numerous pseudocode fragments that provide concrete examples of abstract concepts. Extensive support. The authors and MIT OpenCourseWare provide on-line, free of charge, open educational resources, including additional chapters, course syllabi, board layouts and slides, lecture videos, and an archive of lecture schedules, class assignments, and design projects.

A Quick Guide to Answer System Design Interview Questions
Cracking the Tech Career

Surviving the Whiteboard Interview

500 Questions with Solutions

Fluent Forever

A JavaScript and jQuery Developer's Guide

How to Learn Any Language Fast and Never Forget It

The core of EPI is a collection of over 300 problems with

detailed solutions, including 100 figures, 250 tested programs, and 150 variants. The problems are representative of questions asked at the leading software companies. The book begins with a summary of the nontechnical aspects of interviewing, such as common mistakes, strategies for a great interview, perspectives from the other side of the table, tips on negotiating the best offer, and a guide to the best ways to use EPI. The technical core of EPI is a sequence of chapters on basic and advanced data structures, searching, sorting, broad algorithmic principles, concurrency, and system design. Each chapter consists of a brief review, followed by a broad and thought-provoking series of problems. We include a summary of data structure, algorithm, and problem solving patterns.

NATIONAL BESTSELLER • For anyone who wants to learn a foreign language, this is the method that will finally make the words stick. “A brilliant and thoroughly modern guide to learning new languages.”—Gary Marcus, cognitive psychologist and author of the New York Times bestseller *Guitar Zero*

At thirty years old, Gabriel Wyner speaks six languages fluently. He didn’t learn them in school—who does? Rather, he learned them in the past few years, working on his own and practicing on the subway, using simple techniques and free online resources—and here he wants to show others what he’s discovered. Starting with pronunciation, you’ll learn how to rewire your ears and turn foreign sounds into familiar sounds. You’ll retrain your tongue to produce those sounds accurately, using tricks from opera singers and actors. Next, you’ll begin to tackle words, and connect sounds and

spellings to imagery rather than translations, which will enable you to think in a foreign language. And with the help of sophisticated spaced-repetition techniques, you'll be able to memorize hundreds of words a month in minutes every day. This is brain hacking at its most exciting, taking what we know about neuroscience and linguistics and using it to create the most efficient and enjoyable way to learn a foreign language in the spare minutes of your day.

In 2009, BlackBerry controlled half of the smartphone market. Today that number is one percent. What went so wrong? Losing the Signal is a riveting story of a company that toppled global giants before succumbing to the ruthlessly competitive forces of Silicon Valley. This is not a conventional tale of modern business failure by fraud and greed. The rise and fall of BlackBerry reveals the dangerous speed at which innovators race along the information superhighway. With unprecedented access to key players, senior executives, directors and competitors, Losing the Signal unveils the remarkable rise of a company that started above a bagel store in Ontario. At the heart of the story is an unlikely partnership between a visionary engineer, Mike Lazaridis, and an abrasive Harvard Business school grad, Jim Balsillie. Together, they engineered a pioneering pocket email device that became the tool of choice for presidents and CEOs. The partnership enjoyed only a brief moment on top of the world, however. At the very moment BlackBerry was ranked the world's fastest growing company internal feuds and chaotic growth crippled the company as it faced its gravest test: Apple and Google's entry in to mobile phones.

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Expertly told by acclaimed journalists, Jacquie McNish and Sean Silcoff, this is an entertaining, whirlwind narrative that goes behind the scenes to reveal one of the most compelling business stories of the new century. Now in the 5th edition, Cracking the Coding Interview gives you the interview preparation you need to get the top software developer jobs. This book provides:

- 150 Programming Interview Questions and Solutions:** From binary trees to binary search, this list of 150 questions includes the most common and most useful questions in data structures, algorithms, and knowledge based questions.
- 5 Algorithm Approaches:** Stop being blind-sided by tough algorithm questions, and learn these five approaches to tackle the trickiest problems.
- Behind the Scenes of the interview processes at Google, Amazon, Microsoft, Facebook, Yahoo, and Apple:** Learn what really goes on during your interview day and how decisions get made.
- Ten Mistakes Candidates Make -- And How to Avoid Them:** Don't lose your dream job by making these common mistakes. Learn what many candidates do wrong, and how to avoid these issues.
- Steps to Prepare for Behavioral and Technical Questions:** Stop meandering through an endless set of questions, while missing some of the most important preparation techniques. Follow these steps to more thoroughly prepare in less time.

**Pattern Enterpr Applica Arch
Site Reliability Engineering
Your stepping stone to penetration testing
189 Programming Questions and Solutions (Indian Edition)
An Insider's Guide to Ace System Design Interviews**

**Principles of Computer System Design
For Software Engineers**

Land that job! An in-depth overview of System Design and how to prepare for your interview. When it comes to answering system design questions, many of us don't know where to start. We don't have the logic and knowledge to effectively communicate back a reply that impresses the interviewer. System Design Interview: A Strategic Guide for a Successful Interview is an easy to understand step-by-step book that provides clarity on how to prepare and respond to questions in an interview. So...do you want to know if you have a good design? This book will tell you! Do you want to know how to approach a system design interview? This book will show you how! In Addition When You Buy This Book Right Now You'll Also Discover: The System Development Life Cycle Analysis The Functional Side of System Design User Interface Design Scalable Architecture and Distributed Systems Services CAP Theorem Things You Need to Know Prior to the Interview Steps to Approach Your System Design Interview The Most Common Questions Much more inside! This book will provide you with information that will help you navigate through an interview and confidently answer any question presented

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to you. Act now and order *System Design Interview: A Strategic Guide for a Successful Interview* and land that dream job!

The ultimate guide to successful interviews for Enterprise, Business, Domain, Solution, and Technical Architect roles as well as IT Advisory Consultant and Software Designer roles About This Book Learn about Enterprise Architects IT strategy and NFR - this book provides you with methodologies, best practices, and frameworks to ace your interview A holistic view of key architectural skills and competencies with 500+ questions that cover 12 domains 100+ diagrams depicting scenarios, models, and methodologies designed to help you prepare for your interview Who This Book Is For This book is for aspiring enterprise, business, domain, solution, and technical architects. It is also ideal for IT advisory consultants and IT designers who wish to interview for such a role. Interviewers will be able leverage this book to make sure they hire candidates with the right competencies to meet the role requirements. What You Will Learn Learn about IT strategies, NFR, methodologies, best practices, and frameworks to ace your interview Get a

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holistic view of key concepts, design principles, and patterns related to evangelizing web and Java enterprise applications Discover interview preparation guidelines through case studies Use this as a reference guide for adopting best practices, standards, and design guidelines Get a better understanding with 60+ diagrams depicting various scenarios, models, and methodologies Benefit from coverage of all architecture domains including EA (Business, Data, Infrastructure, and Application), SA, integration, NFRs, security, and SOA, with extended coverage from IT strategies to the NFR domain In Detail An architect attends multiple interviews for jobs or projects during the course of his or her career. This book is an interview resource created for designers, consultants, technical, solution, domain, enterprise, and chief architects to help them perform well in interview discussions and launch a successful career. The book begins by providing descriptions of architecture skills and competencies that cover the 12 key domains, including 350+ questions relating to these domains. The goal of this book is to cover all the core architectural domains. From an architect's

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perspective, it is impossible to revise or learn about all these key areas without a good reference guide - this book is the solution. It shares experiences, learning, insights, and proven methodologies that will benefit practitioners, SMEs, and aspirants in the long run. This book will help you tackle the NFR domain, which is a key aspect pertaining to architecting applications. It typically takes years to understand the core concepts, fundamentals, patterns, and principles related to architecture and designs. This book is a goldmine for the typical questions asked during an interview and will help prepare you for success! Style and approach This book will help you prepare for interviews for architectural profiles by providing likely questions, explanations, and expected answers. It is an insight-rich guide that will help you develop strategic, tactical, and operational thinking for your interview. Over the past several years of interviewing candidates, we have come across a large number of talented engineers who have excellent technical competencies but also have considerable discomfort in explaining the details of a current project and how its design challenges were resolved. In this book, we

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have collected the behavioral questions most frequently presented in software engineering interviews. We provided strategies for addressing each question, followed by sample responses from engineers currently working in large tech companies. This collection has been validated with a number of hiring managers to ensure that the dialogues are aligned with their expectations.

The system design interview is considered to be the most complex and most difficult technical job interview by many. Those questions are intimidating, but don't worry. It's just that nobody has taken the time to prepare you systematically. We take the time. We go slow. We draw lots of diagrams and use lots of examples. You'll learn step-by-step, one question at a time. Don't miss out. What's inside?— An insider's take on what interviewers really look for and why.— A 4-step framework for solving any system design interview question.— 16 real system design interview questions with detailed solutions.— 188 diagrams to visually explain how different systems work.

System Design Interview

Cracking the IT Architect Interview

An Introduction

Technical Program Manager Interview Guide Data-intensive Text Processing with MapReduce

Reflective Cracking in Pavements

Ace technical interviews with smart preparation Programming Interviews Exposed is the programmer's ideal first choice for technical interview preparation. Updated to reflect changing techniques and trends, this new fourth edition provides insider guidance on the unique interview process that today's programmers face. Online coding contests are being used to screen candidate pools of thousands, take-home projects have become commonplace, and employers are even evaluating a candidate's public code repositories at GitHub—and with competition becoming increasingly fierce, programmers need to shape themselves into the ideal candidate well in advance of the interview. This book doesn't just give you a collection of questions and answers, it walks you through the process of coming up with the solution so you learn the skills and techniques to shine on whatever problems you're given. This edition combines a thoroughly revised basis in classic questions involving fundamental data structures and algorithms with problems and step-by-step procedures for new topics including probability, data science, statistics, and machine learning which will help you fully prepare for whatever comes your way. Learn what the interviewer needs to hear to move you forward in the process Adopt an effective approach to phone screens with non-technical recruiters Examine common interview problems and tests with expert explanations Be ready to demonstrate your skills verbally, in contests, on GitHub, and more Technical jobs require the skillset, but you won't get hired unless you are able to effectively and efficiently demonstrate that skillset under pressure, in competition with hundreds of others with

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the same background. Programming Interviews Exposed teaches you the interview skills you need to stand out as the best applicant to help you get the job you want.

Learning to build distributed systems is hard, especially if they are large scale. It's not that there is a lack of information out there. You can find academic papers, engineering blogs, and even books on the subject. The problem is that the available information is spread out all over the place, and if you were to put it on a spectrum from theory to practice, you would find a lot of material at the two ends, but not much in the middle. That is why I decided to write a book to teach the fundamentals of distributed systems so that you don't have to spend countless hours scratching your head to understand how everything fits together. This is the guide I wished existed when I first started out, and it's based on my experience building large distributed systems that scale to millions of requests per second and billions of devices. If you develop the back-end of web or mobile applications (or would like to!), this book is for you. When building distributed systems, you need to be familiar with the network stack, data consistency models, scalability and reliability patterns, and much more. Although you can build applications without knowing any of that, you will end up spending hours debugging and re-designing their architecture, learning lessons that you could have acquired in a much faster and less painful way.

Product management is a big role, and this a big book. From the authors of the best-selling Cracking the PM Interview comes the comprehensive guide to the skills, frameworks, and practices to become a great product manager. It will help you level-up your skills and career from your first product management role through product leadership. You'll learn how to:

- * Design high-quality products that delight users and solve people's needs.
- * Run and deliver your projects quickly,

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smoothly, and effectively.* Create product visions and strategies to set direction and optimize for long-term impact.* Lead people and influence without authority.* Manage people, develop great PMs, build great teams, and create great product organizations.* Manage your career so you can translate your efforts into the recognition you deserve.This book will teach you the reliable frameworks and best practices that improve your chances of shipping a successful product. The frameworks won't transform you into a great product manager overnight or guarantee that your products never fail, but they'll help you avoid the most common problems and give you the structure to start experimenting, reflecting, and improving.Topics include:*

- * Getting Started: the product life cycle; the first 90 days*
- * Product Skills: user research; A/B tests; problem solving frameworks; systems thinking; product discovery; design sprints; ethical product design; technical terms and concepts; product documentation (specs and PRDs)*
- * Execution Skills: agile project management; minimum viable products (MVPs); incremental development; product launches; time management; overcoming obstacles*
- * Strategic Skills: product vision; strategy; roadmaps; goals and OKRs*
- * Leadership Skills: growth mindset; ownership mentality; influencing without authority; stakeholder management; collaboration; communication; inspiring a team; mentoring; working with designers, engineers, and executives*
- * People Management Skills: becoming a people manager; being a member of the leadership team; reviewing work; holding people accountable; coaching and development; recruiting and interviewing; product processes; organizational structures*
- * Careers: career ladders; career goals; partnering with your manager; picking the right team; negotiations; networking; handling bad situations; career options beyond PM

Land that Dream Product Manager Job...TODAYSeeking a

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product management position? Get *Decode and Conquer*, the world's first book on preparing you for the product management (PM) interview. Author and professional interview coach, Lewis C. Lin provides you with an industry insider's perspective on how to conquer the most difficult PM interview questions. *Decode and Conquer* reveals:

- Frameworks for tackling product design and metrics questions, including the CIRCLES Method(tm), AARM Method(tm), and DIGS Method(tm)
- Biggest mistakes PM candidates make at the interview and how to avoid them
- Insider tips on just what interviewers are looking for and how to answer so they can't say NO to hiring you
- Sample answers for the most important PM interview questions

Questions and answers covered in the book include: Design a new iPad app for Google Spreadsheet. Brainstorm as many algorithms as possible for recommending Twitter followers. You're the CEO of the Yellow Cab taxi service. How do you respond to Uber? You're part of the Google Search web spam team. How would you detect duplicate websites? The billboard industry is under monetized. How can Google create a new product or offering to address this? Get the Book that's Recommended by Executives from Google, Amazon, Microsoft, Oracle & VMWare...TODAY

Coding Your Way Through the Interview

A Strategic Guide for a Successful Interview

Secrets to Landing Your Next Job

The Perfect Escape

The Complete Guide to System Design Interview Tips,

Software Analysis and 20 Frequently Most Asked Questions

Cracking The Machine Learning Interview

Cracking the TPM Code

"A breakthrough in machine learning

would be worth ten Microsofts." -Bill

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Gates Despite being one of the hottest disciplines in the Tech industry right now, Artificial Intelligence and Machine Learning remain a little elusive to most. The erratic availability of resources online makes it extremely challenging for us to delve deeper into these fields. Especially when gearing up for job interviews, most of us are at a loss due to the unavailability of a complete and uncondensed source of learning. Cracking the Machine Learning Interview Equips you with 225 of the best Machine Learning problems along with their solutions. Requires only a basic knowledge of fundamental mathematical and statistical concepts. Assists in learning the intricacies underlying Machine Learning concepts and algorithms suited to specific problems. Uniquely provides a manifold understanding of both statistical foundations and applied programming models for solving problems. Discusses key points and concrete tips for approaching real life system design problems and imparts the ability to apply them to your day to day work.

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This book covers all the major topics within Machine Learning which are frequently asked in the Interviews. These include: Supervised and Unsupervised Learning Classification and Regression Decision Trees Ensembles K-Nearest Neighbors Logistic Regression Support Vector Machines Neural Networks Regularization Clustering Dimensionality Reduction Feature Extraction Feature Engineering Model Evaluation Natural Language Processing Real life system design problems Mathematics and Statistics behind the Machine Learning Algorithms Various distributions and statistical tests This book can be used by students and professionals alike. It has been drafted in a way to benefit both, novices as well as individuals with substantial experience in Machine Learning. Following Cracking The Machine Learning Interview diligently would equip you to face any Machine Learning Interview.

Cracking the PM Interview is a comprehensive book about landing a Technical Program Manager role in any big tech company. The book contains 80+

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Questions, Sample Answers, 25+ Worksheets, 7+ Mock Interviews, Mind Maps. Questions range from Behavioural, PM specific, Technical Questions, System Design & Generic Questions. Inspiration: As interviewers, it was noticed that many stellar program managers fail in TPM interviews due to incorrect guidance. This course is primarily focused as a complete guide to master the TPM interview, both technical and non-technical. It's is created in consultation with interviewers who've been working for companies like Google, Facebook, Microsoft and Amazon. The questions you practice here, have been repeatedly asked in all these top companies. Hope our efforts help you to get your next big paycheque!

Data is at the center of many challenges in system design today. Difficult issues need to be figured out, such as scalability, consistency, reliability, efficiency, and maintainability. In addition, we have an overwhelming variety of tools, including relational databases, NoSQL datastores, stream or batch processors,

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and message brokers. What are the right choices for your application? How do you make sense of all these buzzwords? In this practical and comprehensive guide, author Martin Kleppmann helps you navigate this diverse landscape by examining the pros and cons of various technologies for processing and storing data. Software keeps changing, but the fundamental principles remain the same. With this book, software engineers and architects will learn how to apply those ideas in practice, and how to make full use of data in modern applications. Peer under the hood of the systems you already use, and learn how to use and operate them more effectively Make informed decisions by identifying the strengths and weaknesses of different tools Navigate the trade-offs around consistency, scalability, fault tolerance, and complexity Understand the distributed systems research upon which modern databases are built Peek behind the scenes of major online services, and learn from their architectures

The System Design Interview, by Lewis C. Lin and Shivam P. Patel, is a

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comprehensive book that provides the necessary knowledge, concepts, and skills to pass your system design interview. It's written by industry professionals from Facebook & Google. Get their insider perspective on the proven, practical techniques for answering system design questions like Design YouTube or Design a TinyURL solution. Unlike others, this book teaches you exactly what you need to know. FEATURING THE PEDALS METHOD?, THE BEST FRAMEWORK FOR SYSTEM DESIGN QUESTIONS

The book revolves around an effective six-step process called PEDALS:- Process Requirements- Estimate- Design the Service- Articulate the Data Model- List the Architectural Components- Scale PEDALS demystifies the confusing system design interview by breaking it down into manageable steps. It's almost like a recipe: each step adds to the next. PEDALS helps you make a clear progression that starts from zero and ends with a functional, scalable system. The book explains how you can use PEDALS as a blueprint for acing the system design interview. The book also

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includes detailed examples of how you can use PEDALS for the most popular system design questions, including:- Design YouTube- Design Twitter- Design AutoSuggest- Design a TinyURL solutionALSO COVERED IN THE BOOK-What to expect and what interviewers look for in an ideal answer- How to estimate server, storage, and bandwidth needs- How to design data models and navigate discussions around SQL vs. NoSQL- How to draw architecture diagrams- How to build a basic cloud architecture- How to scale a cloud architecture for millions of users- Learn the best system strategies to reduce latency, improve efficiency, and maintain security- Review of technical concepts including CAP Theorem, Hadoop, and Microservices

Fowler

How Google Runs Production Systems

Elements of Programming Interviews

Decode and Conquer

Cracking the Behavioral Interview
Questions

A Step by Step Guide to Master the
System Design Interview

Java Programming Interviews Exposed

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The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. Patterns of Enterprise Application Architecture is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology--from Smalltalk to CORBA to Java to .NET--the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include

- Dividing an enterprise application into layers
- The major approaches to organizing business logic
- An in-depth treatment of mapping between

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objects and relational databases · Using Model-View-Controller to organize a Web presentation · Handling concurrency for data that spans multiple transactions · Designing distributed object interfaces

If you are a skilled Java programmer but are concerned about the Java coding interview process, this real-world guide can help you land your next position. Java is a popular and powerful language that is a virtual requirement for businesses making use of IT in their daily operations. For Java programmers, this reality offers job security and a wealth of employment opportunities. But that perfect Java coding job won't be available if you can't ace the interview. If you are a Java programmer concerned about interviewing, *Java Programming Interviews Exposed* is a great resource to prepare for your next opportunity. Author Noel Markham is both an experienced Java developer and interviewer, and has loaded his book with real examples from interviews he has conducted. Review over 150 real-world Java interview questions you are likely to encounter. Prepare for personality-based interviews as well as highly technical interviews. Explore related topics, such as middleware frameworks and server technologies. Make use of chapters individually for topic-specific help. Use the appendix for tips on Scala and Groovy, two other languages that run on JVMs. Veterans of the IT employment space know that interviewing for a Java programming position isn't as simple as sitting down and answering questions. The technical coding portion of the interview can be akin to a difficult puzzle or an interrogation. With *Java Programming Interviews Exposed*, skilled Java coders can prepare themselves for this daunting process and better arm themselves with the knowledge and interviewing skills necessary to succeed.

This invaluable roadmap for startup engineers reveals how to successfully handle web application scalability challenges to

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meet increasing product and traffic demands. *Web Scalability for Startup Engineers* shows engineers working at startups and small companies how to plan and implement a comprehensive scalability strategy. It presents broad and holistic view of infrastructure and architecture of a scalable web application. Successful startups often face the challenge of scalability, and the core concepts driving a scalable architecture are language and platform agnostic. The book covers scalability of HTTP-based systems (websites, REST APIs, SaaS, and mobile application backends), starting with a high-level perspective before taking a deep dive into common challenges and issues. This approach builds a holistic view of the problem, helping you see the big picture, and then introduces different technologies and best practices for solving the problem at hand. The book is enriched with the author's real-world experience and expert advice, saving you precious time and effort by learning from others' mistakes and successes. Language-agnostic approach addresses universally challenging concepts in Web development/scalability—does not require knowledge of a particular language Fills the gap for engineers in startups and smaller companies who have limited means for getting to the next level in terms of accomplishing scalability Strategies presented help to decrease time to market and increase the efficiency of web applications

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world.

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You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

Cracking Design Interviews

The Big Ideas Behind Reliable, Scalable, and Maintainable Systems

Web Scalability for Startup Engineers

Designing Data-Intensive Applications

Peeling Design Patterns

Cracking the PM Career

Cracking the PM Interview

Cracking Design InterviewsSystem Design

This book (also available online at www.designgurus.org) by Design Gurus has helped 60k+ readers to crack their system design interview (SDI). System design questions have become a standard part of the software engineering interview process. These interviews determine your ability to work with complex systems and the position and salary you will be offered by the interviewing company. Unfortunately, SDI is difficult for most engineers, partly because they lack experience developing large-scale systems and partly because SDIs are unstructured in nature. Even engineers who've some experience building such systems aren't comfortable with these interviews, mainly due to the open-

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ended nature of design problems that don't have a standard answer. This book is a comprehensive guide to master SDIs. It was created by hiring managers who have worked for Google, Facebook, Microsoft, and Amazon. The book contains a carefully chosen set of questions that have been repeatedly asked at top companies. What's inside? This book is divided into two parts. The first part includes a step-by-step guide on how to answer a system design question in an interview, followed by famous system design case studies. The second part of the book includes a glossary of system design concepts.

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First Part: System Design Interviews: A step-by-step guide. Designing a URL Shortening service like TinyURL. Designing Pastebin. Designing Instagram. Designing Dropbox. Designing Facebook Messenger. Designing Twitter. Designing YouTube or Netflix. Designing Typeahead Suggestion. Designing an API Rate Limiter. Designing Twitter Search. Designing a Web Crawler. Designing Facebook's Newsfeed. Designing Yelp or Nearby Friends. Designing Uber backend. Designing Ticketmaster.

Second Part: Key Characteristics of Distributed Systems. Load Balancing. Caching. Data Partitioning. Indexes. Proxies. Redundancy and Replication. SQL vs. NoSQL. CAP Theorem. PACELC Theorem. Consistent Hashing. Long-Polling vs. WebSockets vs. Server-Sent Events. Bloom Filters. Quorum. Leader and Follower. Heartbeat. Checksum.

About the Authors

Designed Gurus is a platform that offers online courses to help software engineers prepare for coding and system design interviews. Learn more about our courses at www.designgurus.org.

The perfect girls' weekend turns deadly in this twisty unforgettable thriller that is perfect for fans of Shari Lapena and Riley Sager. A girls' weekend to die for. New friends Sam, Margaret and Diana are thrilled to be getting out of the city for a girls' weekend—they've bonded over their messy

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divorces, and every mile on the odometer feels like another step towards putting their exes in the past. But when car trouble halfway into their trip strands them in the most unlikely of mountain towns, they come face-to-face with the hurts and betrayals they were so desperate to leave behind. When Diana doesn't return home after a night out, Sam and Margaret's search for her reveals just how little they know about their friend. As eerie coincidences and secrets begin to pile up, and an ex-boyfriend arrives in the tiny town, the women realize that their detour may not have been a mistake...and that someone wants to guarantee that they never make it out.

How many pizzas are delivered in Manhattan? How do you design an alarm clock for the blind? What is your favorite piece of software and why? How would you launch a video rental service in India? This book will teach you how to answer these questions and more. Cracking the PM Interview is a comprehensive book about landing a product management role in a startup or bigger tech company. Learn how the ambiguously-named "PM" (product manager / program manager) role varies across companies, what experience you need, how to make your existing experience translate, what a great PM resume and cover letter look like, and finally, how to master the interview: estimation questions, behavioral questions, case questions, product questions, technical questions, and the super important "pitch."

Answers to Product Management Interviews

Insider Advice on Landing a Job at Google, Microsoft, Apple, Or Any Top Tech Company

Cracking the Coding Interview, 6th Edition

Grokking the System Design Interview

Design and performance of overlay systems