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This is the Java version of our book. See the website for links to the C++ version, as well as to a version that uses larger fonts. Have you ever... Wanted to work at an exciting futuristic company? Struggled with an interview problem that could have been solved in 15 minutes? Wished you could study real-world computing problems? If so, you need to read Elements of Programming Interviews (EPI). EPI is your comprehensive guide to interviewing for software development roles. The core of EPI is a collection of over 250 problems with detailed solutions. The problems are representative of interview questions asked at leading software companies. The problems are illustrated with 200 figures, 300 tested programs, and 150 additional variants. The book begins with a summary of the nontechnical aspects of interviewing, such as strategies for a great interview, common mistakes, perspectives from the other side of the table, tips on negotiating the best offer, and a guide to the best ways to use EPI. We also provide a summary of data structures, algorithms, and problem solving patterns. Coding problems are presented through a series of chapters on basic and advanced data structures, searching, sorting, algorithm design principles, and concurrency. Each chapter starts with a brief introduction, a case study, top tips, and a review of the most important library methods. This is followed by a broad and thought-provoking set of problems. A practical, fun approach to computer science fundamentals, as seen through the lens of

common programming interview questions. Jeff Atwood/Co-founder, Stack Overflow and Discourse This book contains answers to more than 300 awesome coding interview questions. A preview of the contents of the book is available on the website www.interviewdruid.com. The github link to the code for the book is <https://github.com/parineeth/tbboci-3rd-edition-java> It is ideally suited for preparing for programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! 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. Be prepared for your next job interview with this tried-and-true advice In today's tight job market, competition for programming jobs is hotter than ever. This third edition of a popular guide to programming interviews includes new code examples, information on the latest languages, new chapters on sorting and design patterns, tips on using LinkedIn, and a downloadable app to help prepare applicants for the interview. Like its earlier editions, this guide covers what software companies and IT departments want their programmers to know and includes plenty of helpful hints to boost your confidence. Looks at current job search and hiring processes, such as the rise of LinkedIn and other social networks as recruiting resources Addresses the most important languages for a programmer to know and features examples in multiple languages Includes new programming questions designed to sharpen your knowledge Features all-new chapters on design patterns and sorting, including how to deal with memory constraints and mobility issues Walk into your next job interview with confidence, knowing you have thoroughly studied this newest edition of Programming Interviews Exposed. This book contains over 300 awesome coding interview questions. It is ideally suited for preparing for

programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! Must Have for Google Aspirants !!! This book is written for helping people prepare for Google Coding Interview. It contains top 20 programming problems frequently asked @Google with detailed worked-out solutions both in pseudo-code and C++(and C++11). Matching Nuts and Bolts Optimally Searching two-dimensional sorted array Lowest Common Ancestor(LCA) Problem Max Sub-Array Problem Compute Next Higher Number 2D Binary Search String Edit Distance Searching in Two Dimensional Sequence Select Kth Smallest Element Searching in Possibly Empty Two Dimensional Sequence The Celebrity Problem Switch and Bulb Problem Interpolation Search The Majority Problem The Plateau Problem Segment Problems Efficient Permutation The Non-Crooks Problem Median Search Problem Missing Integer Problem 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. I wanted to compute 80th term of the Fibonacci series. I wrote the rampant recursive function,

```
int fib(int n){ return (1==n || 2==n) ? 1 :
```

fib(n-1) + fib(n-2); } and waited for the result. I wait... and wait... and wait... With an 8GB RAM and an Intel i5 CPU, why is it taking so long? I terminated the process and tried computing the 40th term. It took about a second. I put a check and was shocked to find that the above recursive function was called 204,668,309 times while computing the 40th term. More than 200 million times? Is it reporting function calls or scam of some government? The Dynamic Programming solution computes 100th Fibonacci term in less than fraction of a second, with a single function call, taking linear time and constant extra memory. A recursive solution, usually, neither pass all test cases in a coding competition, nor does it impress the interviewer in an interview of company like Google, Microsoft, etc. The most difficult questions asked in competitions and interviews, are from dynamic programming. This book takes Dynamic Programming head-on. It first explain the concepts with simple examples and then deep dives into complex DP problems. 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 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. This book contains answers to more than 300 awesome coding interview questions. A preview of the contents of the book is available on the website www.interviewdruid.com. The github link to the code for the book is <https://github.com/parineeth/tbboci-3rd-edition-python> It is ideally suited for preparing for programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you

can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! 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 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. Are you preparing for a programming interview? Would you like to work at one of the Internet giants, such as Google, Facebook, Amazon, Apple, Microsoft or Netflix? Are you looking for a software engineer position? Are you studying computer science or programming? Would you like to improve your programming skills? If the answer to any of these questions is yes, this book is for you! The book contains very detailed answers and explanations for the most common dynamic programming problems asked in programming interviews. The solutions consist of cleanly written code, with plenty of comments, accompanied by verbal explanations, hundreds of drawings, diagrams and detailed examples, to help you get a good understanding of even the toughest problems. The goal is for you to learn the patterns and principles needed to solve even dynamic programming problems that you have never seen before. Here is what you will get: A 180-page book presenting dynamic programming problems that are often asked in interviews. Multiple solutions for each

problem, starting from simple but naive answers that are gradually improved until reaching the optimal solution. Plenty of detailed examples and walkthroughs, so that you can see right away how the solution works. 350+ drawings and diagrams which cater towards visual learners. Clear and detailed verbal explanations of how to approach the problems and how the code works. Analysis of time and space complexity. Discussion of other variants of the same problem, with solutions. Unit tests, including the reasoning behind choosing each one (edge case identification, performance evaluation etc.). Suggestions regarding what clarification questions you should ask, for each problem. Multiple solutions to the problems, where appropriate. General Python implementation tips. Wishing you the best of luck with your interviews! 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. The Complete Coding Interview Guide in Java is an all-inclusive solution guide with meticulously crafted questions and answers that will help you crack any Java Developer job. This book will help you build a strong foundation and the skill-set required to confidently appear in the toughest coding interviews. 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 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. "Coding Interview Questions" is a book that presents interview questions in simple and straightforward manner with a clear-cut explanation. This book will provide an introduction to the basics. It comes handy as an interview and exam guide for computer scientists. Daily Coding Problem contains a wide variety of questions inspired by real programming interviews, with in-depth solutions that clearly take you through each core concept. You'll learn about: * Linked Lists * Arrays * Heaps * Trees * Graphs * Randomized Algorithms * Backtracking * Dynamic Programming * Stacks and Queues * Bit Manipulation * System Design Get ready for interview success Programming jobs are on the rise, and the field is predicted to keep growing, fast. Landing one of these lucrative and rewarding jobs requires more than just being a good programmer. Programming Interviews For Dummies explains the skills and knowledge you need to ace the programming interview. Interviews for software development jobs and other programming positions are unique. Not only must candidates demonstrate technical savvy, they must also show that they're equipped to be a productive member of programming teams and ready to start solving problems from day one. This book demystifies both sides of the process, offering tips and techniques to help candidates and interviewers alike. Prepare for the most common interview questions Understand what employers are looking for Develop the skills to impress non-technical interviewers Learn how to assess candidates for programming roles Prove that you (or your new hires) can be productive from day one Programming Interviews For Dummies gives readers a clear view of both sides of the process, so prospective coders and interviewers alike will learn to ace the interview. This book is about coding interview questions from software and Internet companies. It covers five key factors which determine performance of candidates: (1) the basics of programming languages, data structures and algorithms, (2) approaches to writing code with high quality, (3) tips to solve difficult problems, (4) methods to optimize code, (5) soft skills required in interviews. The basics of languages, algorithms and data structures are discussed as well as questions that explore how to write robust solutions after breaking down problems into manageable pieces. It also includes examples to focus on modeling and creative problem solving. Interview questions from the most popular companies in the IT industry are taken as examples to illustrate the five factors above. Besides solutions, it contains detailed analysis, how interviewers evaluate solutions, as well as why they like or dislike them. The author makes clever use of the fact that interviewees will have limited time to program meaningful solutions which in turn, limits the options an interviewer has. So the author covers those bases. Readers will improve their interview performance after reading this book. It will be beneficial for them even after they get offers, because its topics, such as approaches to analyzing difficult problems, writing robust code and optimizing, are all essential for high-performing coders. This book contains answers to more than 300 awesome coding interview questions. A preview of the contents of the book

is available on the website www.interviewdruid.com. The github link to the code for the book is <https://github.com/parineeth/tbboci-3rd-edition-c-and-cpp> It is ideally suited for preparing for programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! 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 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 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 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 k th 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 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. 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 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. A complete primer for the technical programming interview. This book reviews the fundamentals of computer programming through programming problems posed to candidates at Amazon, Apple, Facebook, Google, Microsoft, and others. Complete solutions to every programming problem is provided in clear explanations and easy to read C++11 code. If you are learning to code then this book provides a great introduction to C++11 and fundamental data structures and algorithms. If you are preparing for an interview or want to challenge yourself, then this book will cover all the fundamentals asked at major companies such as Amazon, Google, and Microsoft. Mike Driscoll takes you on a journey talking to a hall-of-fame list of truly remarkable Python experts. You'll be inspired every time by their passion for the Python language, as they share with you their experiences, contributions, and careers in Python. Key Features Hear from these key Python thinkers about the current status of Python, and where it's heading in the future Listen to their close thoughts on significant Python topics, such as Python's role in scientific computing, and machine learning Understand the direction of Python, and what needs to change for Python 4 Book Description Each of these twenty Python Interviews can inspire and refresh your relationship with Python and the people who make Python what it is today. Let these interviews spark your own creativity, and discover how you also have the ability to make your mark on a thriving tech community. This book invites you to immerse in the Python landscape, and let these remarkable programmers show you how you too can connect and share with Python programmers around the world. Learn from their opinions, enjoy their stories, and use their tech tips. • Brett Cannon - former director of the PSF, Python core developer, led the migration to Python 3. • Steve Holden - tireless Python promoter and former chairman and director of the PSF. • Carol Willing - former director of the PSF and Python core developer, Project Jupyter Steering Council member. • Nick Coghlan - founding member of the PSF's Packaging Working Group and Python core developer. • Jessica McKellar - former director of the PSF and Python activist. • Marc-André Lemburg - Python core developer and founding member of the PSF. • Glyph Lefkowitz - founder of Twisted and fellow of the PSF • Doug Hellmann - fellow of the PSF, creator of the Python Module of the Week blog, Python community member since 1998. • Massimo Di Pierro - fellow of the PSF, data scientist and the inventor of web2py. • Alex Martelli - fellow of the PSF and co-author

of Python in a Nutshell. • Barry Warsaw - fellow of the PSF, Python core developer since 1995, and original member of PythonLabs. • Tarek Ziadé - founder of Afpy and author of Expert Python Programming. • Sebastian Raschka - data scientist and author of Python Machine Learning. • Wesley Chun - fellow of the PSF and author of the Core Python Programming books. • Steven Lott - Python blogger and author of Python for Secret Agents. • Oliver Schoenborn - author of Pypubsub and wxPython mailing list contributor. • Al Sweigart - bestselling author of Automate the Boring Stuff with Python and creator of the Python modules Pyperclip and PyAutoGUI. • Luciano Ramalho - fellow of the PSF and the author of Fluent Python. • Mike Bayer - fellow of the PSF, creator of open source libraries including SQLAlchemy. • Jake Vanderplas - data scientist and author of Python Data Science Handbook. What you will learn How successful programmers think The history of Python Insights into the minds of the Python core team Trends in Python programming Who this book is for Python programmers and students interested in the way that Python is used - past and present - with useful anecdotes. It will also be of interest to those looking to gain insights from top programmers. Elements of Programming provides a different understanding of programming than is presented elsewhere. Its major premise is that practical programming, like other areas of science and engineering, must be based on a solid mathematical foundation. The book shows that algorithms implemented in a real programming language, such as C++, can operate in the most general mathematical setting. For example, the fast exponentiation algorithm is defined to work with any associative operation. Using abstract algorithms leads to efficient, reliable, secure, and economical software. This is a larger-format version of Elements of Programming Interviews in Java. Specifically, the font size is larger, and the page size is 7"x10" (the regular format uses 6"x9"). The content is identical. This is the Java version of our book. See our website for links to the C++ version. Have you ever... Wanted to work at an exciting futuristic company? Struggled with an interview problem that could have been solved in 15 minutes? Wished you could study real-world computing problems? If so, you need to read Elements of Programming Interviews (EPI). EPI is your comprehensive guide to interviewing for software development roles. The core of EPI is a collection of over 250 problems with detailed solutions. The problems are representative of interview questions asked at leading software companies. The problems are illustrated with 200 figures, 300 tested programs, and 150 additional variants. The book begins with a summary of the nontechnical aspects of interviewing, such as strategies for a great interview, common mistakes, perspectives from the other side of the table, tips on negotiating the best offer, and a guide to the best ways to use EPI. We also provide a summary of data structures, algorithms, and problem solving patterns. Coding problems are presented through a series of chapters on basic and advanced data structures, searching, sorting, algorithm design principles, and concurrency. Each chapter starts with a brief introduction, a

case study, top tips, and a review of the most important library methods. This is followed by a broad and thought-provoking set of problems. A practical, fun approach to computer science fundamentals, as seen through the lens of common programming interview questions. This book contains over 300 awesome coding interview questions. It is ideally suited for preparing for programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! This book contains over 300 awesome coding interview questions. It is ideally suited for preparing for programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! 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 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 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 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 k th 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 Have you ever... - Wanted to work at an exciting futuristic company? - Struggled with an interview problem that could have been solved in 15 minutes? - Wished you could study real-world computing problems? If so, you need to read Elements of Programming Interviews (EPI). EPI is your comprehensive guide to interviewing for software development roles. The core of EPI is a collection of over 250 problems with detailed solutions. The problems are representative of interview questions asked at leading software companies. The problems are illustrated with 200 figures, 300 tested programs, and 150 additional variants. The book begins with a summary of the nontechnical aspects of interviewing, such as strategies for a great interview, common mistakes, perspectives from the other side of the table, tips on negotiating the best offer, and a guide to the best ways to use EPI. We also provide a summary of data structures, algorithms, and problem solving patterns. Coding problems are presented through a series of chapters on basic and advanced data structures, searching, sorting, algorithm design principles, and concurrency. Each chapter starts with a brief introduction, a case study, top tips, and a review of the most important library methods. This is followed by a broad and thought-provoking set of problems. A practical, fun approach to computer science fundamentals, as seen through the lens of common programming interview questions. Jeff Atwood/Co-founder, Stack Overflow and Discourse ∞ Inside Topics at a Glance ∞ 01.Preface, Hold On ! First Read It ! It will Help You ! 02.Interview Myths. 03.Convincing them

you're right for the job. 04.Can you do the job? 05.Your potential to tackle New Tasks. 06.Employers Love Motivated Employees. 07.The 'Big Five' Questions. 08.Building Rapport and Trust. 09.Ten Effective Answers To Common Questions. 10.The Apple Interview. 11.The Google Interview. 12.The Microsoft Interview. 13.The Yahoo Interview. 14.The Facebook Interview. 15.Interview FAQ'S - I 16.How to Prepare for Technical Questions. 17.Handling Technical Questions in easy way. 18.Top Ten Mistakes Candidates Make. 19.The 16 Most Revealing Interview Questions & Answers. 20.Java Interview Questions & Answers. 350+ Q/A (PART-1) 21.Java Interview Questions & Answers. 350+ Q/A (PART-2) 22.Java Interview Questions & Answers. 250+ Q/A (PART- 3) 23.Top 10+ Advance Java Que-Ans for Experienced Programmers. 24.Java Random All-In-One Que-Answers 50+ Q/A (PART- 4) 25.Java Random All-In-One Que-Answers 250+ Q/A (PART- 5) 26.Java Concurrency Interview Que-Answers 27.Java Collection Interview Que-Answers 40+ 28.Java Exception Interview Que-Answers 15+ 29.Java Interview Brain Wash Que & Ans. 201+ Q/A (PART- 6) 30.Java 8 Features for Developers - Lambdas.(PART- 7) 31.Java 8 Functional interface,Stream & Time API. (PART- 8) 32.Java Random Brain Drills Que-Answers 50+ 33.Java Random String Que-Answers 20+ 34.Finally Kick on Java and Say Bye Bye.. 35.Java Coding Standards (Advance) 36.Java Code Clarity/Maintainability/ 37.Java DataBase Issues/Analysis. 38.Dress/Body Appropriately Guidelines By Pictures & Graphics. ∞ Essential Java Interview Skills--Made Easy! ∞ I mentioned approx 2000+ Java Technical Questions and 200+ Non- Technical Questions for before the technical round. This book is world's Biggest Java Interview book you ever read. That's why this book is Best-selling book of 2014 in Job Hunting & Campus Interview of Top MNC's. Must See sample of this book or at the end of description please see "Inside Contents" press down key and see how beautiful interview book it is. The main objective of this interview book is not to give you just magical interview question & tricks, I have followed a pattern of improving the question solution with deep Questions-Answers explanations with different interview complexities for each interview problem, you will find multiple solutions for complex interview questions. What Special - In this book I covered and explained several topics of latest Java 8 Features in detail for Developers & Freshers, Topics Like- Lambdas. Java 8 Functional interface, Stream and Time API. As a job seeker if you read the complete book with good understanding & seriously, i am 101% sure you will challenge any Interview & Interviewers (Specially Java) in this world. and this is the objective of this book. This book contains more than Two Thousands Technical Java Questions and 200 Non-Technical Questions like before This book is very much useful for I.T professionals and the students of Engineering Degree and Masters during their Campus Interview and academic preparations. If you read as a student preparing for Interview for Computer Science or Information Technology, the content of this book covers all the required topics in full details. While writing the book, an intense care has been taken to

help students who are preparing for these kinds of technical interview rounds. Both Physical Paperback and Digital Editions Are Available on LuLu.com & Amazon.com ||Google Books & Google Play Book Stores ,Order today and Get a Discounted Copy. According to the Last year and this year Data that we have collected from different sources, More than 5,67,000 students and IT professionals gone through this book and Successfully Cracked their jobs in IT industry and Other industries as well. Don't Forget to write a customer review or comment about this book. For Data structure and Algorithms & C-C++ Interview questions, Read Harry's Upcoming Book- "Cracking the C & C++ Interview" and Cracking the "Algorithms Interview" Tell your friends about this ultimate Java Book. Searching & sorting algorithms form the back bone of coding acumen of developers. This book comprehensively covers In-depth tutorial & analysis of all major algorithms and techniques used to search and sort across data structures. All major variations of each algorithm (e.g. Ternary, Jump, Exponential, Interpolation are variations of Binary search). 110 real coding interview questions as solved examples and unsolved problems. Case studies of implementation of searching and sorting in language libraries. Introduction to how questions are asked and expected to answer on online competitive coding and hiring platforms like hackerrank.com, codechef.com, etc. Introduction to data structures. 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 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.

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-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. Table of Contents

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

Design 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. When programmers list their favorite books, Jon Bentley's collection of programming pearls is commonly included among the classics. Just as natural pearls grow from grains of sand that irritate oysters, programming pearls have grown from real

problems that have irritated real programmers. With origins beyond solid engineering, in the realm of insight and creativity, Bentley's pearls offer unique and clever solutions to those nagging problems. Illustrated by programs designed as much for fun as for instruction, the book is filled with lucid and witty descriptions of practical programming techniques and fundamental design principles. It is not at all surprising that Programming Pearls has been so highly valued by programmers at every level of experience. In this revision, the first in 14 years, Bentley has substantially updated his essays to reflect current programming methods and environments. In addition, there are three new essays on testing, debugging, and timing set representations string problems All the original programs have been rewritten, and an equal amount of new code has been generated. Implementations of all the programs, in C or C++, are now available on the Web. What remains the same in this new edition is Bentley's focus on the hard core of programming problems and his delivery of workable solutions to those problems. Whether you are new to Bentley's classic or are revisiting his work for some fresh insight, the book is sure to make your own list of favorites. We've been using Python as our daily language at Facebook and Uber for quite some time now, and have grown to appreciate its power, versatility, and aesthetics. We wrote Python code for EPI Python from the ground up, and invested a great deal of effort to find the most efficient ways to solve interview problems in Python. We hope you enjoy reading this book as much we we enjoyed writing it. As always, we look forward to hearing our readers thoughts and criticisms of our work. Feel free to drop us a line, come by in person if you are in the Bay Area. (Ice Cream at the Facebook Sweet Shop is always fun.) - from the publisher This book contains answers to over 300 awesome coding interview questions. A preview of the contents of the book is available on the website www.interviewdruid.com It is ideally suited for preparing for programming interviews conducted by top technology companies such as Google, Facebook, Amazon, Microsoft, etc. The questions in the book have been carefully selected so that they represent the most frequently asked questions in interviews. The solutions are clearly explained with plenty of diagrams and comments in the code so that you can easily understand. So if you are looking for saving precious time and effort for preparing for an interview then this is the right book for you. Wishing you all the best for the interviews ahead! Be prepared to answer the most relevant interview questions and land the job

Programmers are in demand, but to land the job, you must demonstrate knowledge of those things expected by today's employers. This guide sets you up for success. Not only does it provide 160 of the most commonly asked interview questions and model answers, but it also offers insight into the context and motivation of hiring managers in today's marketplace. Written by a veteran hiring manager, this book is a comprehensive guide for experienced and first-time programmers alike. Provides insight into what drives the recruitment process and how hiring managers think Covers both practical knowledge and recommendations for handling the interview process Features 160 actual interview questions, including some related to code samples that are available for download on a companion website Includes information on landing an interview, preparing a cheat-sheet for a phone interview, how to demonstrate your programming wisdom, and more Ace the Programming Interview, like the earlier Wiley bestseller Programming Interviews Exposed, helps you approach the job interview with the confidence that comes from being prepared. This newly expanded and updated second edition of the best-selling classic continues to take the "mystery" out of designing algorithms, and analyzing their efficacy and efficiency. Expanding on the first edition, the book now serves as the primary textbook of choice for algorithm design courses while maintaining its status as the premier practical reference guide to algorithms for programmers, researchers, and students. The reader-friendly Algorithm Design Manual provides straightforward access to combinatorial algorithms technology, stressing design over analysis. The first part, Techniques, provides accessible instruction on methods for designing and analyzing computer algorithms. The second part, Resources, is intended for browsing and reference, and comprises the catalog of algorithmic resources, implementations and an extensive bibliography.

NEW to the second edition:

- Doubles the tutorial material and exercises over the first edition
- Provides full online support for lecturers, and a completely updated and improved website component with lecture slides, audio and video
- Contains a unique catalog identifying the 75 algorithmic problems that arise most often in practice, leading the reader down the right path to solve them
- Includes several NEW "war stories" relating experiences from real-world applications
- Provides up-to-date links leading to the very best algorithm implementations available in C, C++, and Java