

Samples Interview Questions & Reading List

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33 Behavioral Interview questions

1. Walk me through your resume. Tell me what you're looking for at this stage of your career.
2. Why Amazon and why left current position.
3. How would you improve Amazon?
4. What is the worst mistake you ever made? What did you learn from it?
5. What was the hardest challenge you've overcome?
6. What is your greatest achievement in life?
7. Tell me a success story of a project you spearheaded.
8. What one thing would you change about Amazon?
9. What was your worst group experience? What have you learned from it?
10. Tell me about a difficult decision you've made in the last year.
11. Describe a situation in which you were able to convince someone to see things your way.
12. Give an example of a time when you set a goal and were able to achieve your goal.
13. Give an example about a time when you had too many things to do and you were required to prioritize your tasks.
14. What is one good thing your last manager would say about you?
15. What is one bad thing your last manager would say about you?
16. What are three strengths of yours?
17. If you saw someone steal a quarter. Would you report it?
18. For manager position: You're asked to build a new team from scratch. How would you quickly recruit and build a good team?
19. For manager position: What do you look for in job candidate?
20. The most challenging work/project. Describe that and tell why was it so.
21. What do you see as the most important part of Amazon business model?
22. How would you handle working with a team in India.
23. You seem more like a coordinator than a program manager, why should I hire you as a program manager.
24. Tell me about a recent situation in which you had to deal with a very upset customer or co-worker.
25. How do you handle conflict?
26. How do you manage your time?
27. Have you ever been a member of a group where two of the members did not work well together? What did you do to get them to work together?
28. Who was the most difficult customer you ever dealt with? What did you do to make the customer satisfied?
29. How do you persuade people?

30. Tell the story of the last time you had to apologize to someone
31. What is the most difficult situation you have ever faced in your life? How did you handle it?
32. Give me an example of a time when you were 75% of the way through a project, and you had to pivot strategy--how were you able to make that into a success story?
33. Which Amazon leadership principle do you resonate most with?

72 Technical Questions

1. Discuss the UI problems of a previous project, how would you resolve them now?
2. How are requests handled in a Java servlet container?
3. How to reverse a linked list in Java?
4. Here's a string with numbers from 1-250 in random order, but it's missing one number. How will you find the missed number?
5. What objects are required in a movie ticket reservation system?
6. Write a function that given a list of items and weights return a random item in the list taking the weights into account.
7. Implement a simple load balancing algorithm in pseudo code
8. How would you implement a top 3 word count in a text editor application?
9. Given a Binary Search Tree, write a program to print the kth smallest element without using any static/global variable.
10. What are the 4 basics of OOP?
11. Define Data Abstraction. Why is it important?
12. Given an array of size n. It contains numbers in the range 1 to n. Each number is present at least once except for 2 numbers. Find the numbers that are not present.
13. Given a string, find the first un-repeated character in it?
14. You are given a dictionary of all valid words. You have the following 3 operations permitted on a word: delete a character, insert a character, replace a character. Now given two words - word1 and word2 - find the minimum number of steps required to convert word1 to word2. (one operation counts as 1 step.)
15. Given a cube of size $n*n*n$ (i.e made up of n^3 smaller cubes), find the number of smaller cubes on the surface. Extend this to k-dimension.
16. What is a C array and illustrate the how is it different from a list.
17. What is the time and space complexities of merge sort and when is it preferred over quick sort?
18. Write a function which takes as parameters one regular expression(only ? and * are the special characters) and a string and returns whether the string matched the regular expression.
19. Given n red balls and m blue balls and some containers, how would you distribute those

balls among the containers such that the probability of picking a red ball is maximized, assuming that the user randomly chooses a container and then randomly picks a ball from that.

20. Find the second largest element in an array with minimum number of comparisons and give the minimum number of comparisons needed on an array of size N to do the same.
21. Given an array of size n, containing every element from 1 to n+1, except one. Find the missing element.
22. How do you convert a decimal number to its hexadecimal equivalent. Give a C code to do the same
23. Explain polymorphism. Provide an example.
24. Given an array all of whose elements are positive numbers, find the maximum sum of a subsequence with the constraint that no 2 numbers in the sequence should be adjacent in the array. So 3 2 7 10 should return 13 (sum of 3 and 10) or 3 2 5 10 7 should return 15 (sum of 3, 5 and 7)
25. You are given some denominations of coins in an array (int denom[]) and infinite supply of all of them. Given an amount (int amount), find the minimum number of coins required to get the exact amount. What is the method called?
26. Given an array of integers or other numbers (reals, doubles, etc), tell us if any two of the numbers in the array sum up to another given number.
27. What is the difference between aggregation and association in a UML class diagram?
28. Print out all the permutations of a string.
29. Difference between process and thread
30. What does it mean for a method to be thread safe
31. Know what a stack crash is? (What happens during a function call, how can this be exploited.)
32. Find unique words in text files
33. How would you output a tree by level
34. How could you tell if a byte only contained a 1 in the leftmost bit
35. How could you count the number of ones in a byte
36. Email sender, need to send 100,000,000 emails and you have 5 machines how could you do it efficiently
37. What is multiple inheritance? How is it possible in C++ vs. Java?
38. What are design patterns good for? Explain MVC and its components.
39. Reverse the order of words in a string.
40. Find the number of 1's in the binary representation of an integer.
41. Implement a queue, using only a finite number of stacks.
42. Number of 1's in binary representation of integer?
43. Given a dictionary of words, how do you calculate the anagrams for a new word
44. How do you represent an unlimited dimensional maze and traverse it to find the exit.
45. How would you implement integer division if your language did not offer it.

46. What is the difference between a stack and a queue?
47. You are given two lists of strings, print out all the alphabet appear in the lists in order and how many times.
48. Given a 2D 100*100 image, how will you shrink it to 50*50 image?
49. Since you are working on web application, what would be the problem you think Amazon would encounter?
50. Given an array of integers, all but one of which appears an even number of times, find the one integer which appears an odd number of times. Upon completion, asked to improve the algorithm in terms of both time and space, eventually asked to do it in $O(n)$ time and constant space.
51. You are to write a spell checker. Discuss the API, Data Structures and Algorithms.
52. What is the difference between Java and C++
53. What is Hash table and issues can happen working with hash table
54. Difference between Hashtable and Set
55. Why we need abstract classes
56. write a binary search function for an integer array.
57. You are given an array with N integers. Each integer is in the range of $[1, N-1]$. Furthermore only one integer is repeated. How can you find the repeated integer?
58. Write a program to count the number of words in a file.
59. Given a database of all the known stars, describe how you would determine the 200 stars closest to Earth. What is the efficiency of the algorithm you described?
60. Design an algorithm to calculate the most user viewed pages
61. Design an algorithm to find duplicates in an array.
62. Design an algorithm and write code to serialize a binary tree.
63. Design an algorithm and write code to find two numbers in an array whose sum equals a given value
64. How would you find the nth to last element in a linked list?
65. Explain algorithm to shuffle cards
66. Jigsaw puzzle. What are the data structures? Assume you have some method which can tell you if two pieces fit together. How would you solve the puzzle, minimizing the number of times you have to call that function?
67. You have 50,000 html files, some of which contain phone numbers. How would you create a list of all the files which contain phone numbers?
68. How would you detect a repeated element in an integer array.
69. Write a function to smooth out stock fluctuations.
70. Design a vending machine
71. Design a Netflix like streaming video service
72. Design an online payment system

Amazon Reading List (books and articles)

- Best overall book on Amazon: [The Everything Store: Jeff Bezos and the Age of Amazon by Brad Stone](#).
- Must read: [Jeff Bezos's 2016 letter to shareholders](#)
- To prepare for coding/programming questions:
 - [Cracking the Coding Interview: 189 Programming Questions and Solutions](#) by Gayle Laakmann McDowell.
 - [Programming Interviews Exposed: Secrets to Landing Your Next Job](#) by John Mongan, Noah Kindler, Eric Giguere
 - [Introduction to Algorithms](#) by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein
- Practice coding questions
 - [LeetCode.com](#)
 - [HackerRank.com](#)
 - [InterviewBIT.com](#)
- [Amazon Web Service Blog](#)
- Motivational & Personal Development: these books will keep you motivated and persevere through the Interview process:
 - [The Magic of Thinking Big](#) (6 million copies sold)
 - [How I Raised Myself From Failure To Success In Selling](#) – this is a book about selling, but job interviews is about selling yourself. I have found this book super helpful from my own experience.

Most Recent Email Newsletter (June 2017)

Amazon news you should know

This is Andrew Franklin, founder of [NailYourJobInterview.com](#) and author of [How to Get a Job at Amazon](#).

Since I published my book on Amazon Kindle Store last month, I have heard from many readers who successfully landed offers at Amazon. Incorporating their feedback and learnings, periodically I will share with you additional amazon interview tips and top amazon news analysis.

Here is a list of major amazon news in the past two weeks with my quick observation:

News: [Amazon is buying Whole Foods in a deal valued at \\$13.7 billion](#)

Observation: This gives Amazon a large physical grocery footprint, grocery expertise, and

attractive customer base in the high growth health/organic category. With Wholefood as its anchor, Amazon Fresh and AmazonFresh Pickup will see accelerated growth, and take shares away from other grocery chains. Watch out, Kroger and Walmart!

News: [Amazon sells stuff from Ikea now](#)

Observation: Retailers and brands are all facing one big problem – the “Amazon problem”. Amazon has a lot of traffic and demand. Should retailers and brands sell on Amazon 3rd party marketplace? It’s interesting that IKEA is doing a test on Amazon Marketplace. If you’re applying for positions in product management, vendor management, or 3rd party marketplace related teams, you should really pay attention to this interesting competitive dynamics and strategic implications in this area.

News: [Amazon sues former AWS VP over non-compete deal](#)

Observation: This former VP joined Seattle based startup SmartSheet. My employer actually uses SmartSheet, so I’m familiar with what it offers. It is a project management and collaboration tool. Normally you would not expect Amazon considers SmartSheet a competitor. I think this lawsuit has a couple implications: 1) Amazon has a lot more ambition in enterprise application computing. For example, Bloomberg reported message startup unicorn Slack has drawn interest from Amazon. 2) Amazon is a highly secretive company and taking its non-compete agreement very seriously. It employs an army of lawyers. You need be very careful with Amazon employment agreement, and consult an attorney if you have doubts and questions.

Cheers,

Andrew Franklin

Founder, [NailYourJobInterview.com](#) & Author of [How to Get a Job At Amazon](#)