

**These questions were asked in the interview with various students.**

1. Print Left View of a Binary Tree
2. Print Right View of a Binary Tree
3. How to check if the given tree is a BST or not?
4. Snake and Ladder Problem
5. Check whether the given tree is a perfect binary tree or not?
6. Bridge Building (DP)
7. Median of Stream of Running Integers
8. Kadane Algorithm (Also with slight modifications in it Like count number of elements which form maximum sum in the array. You can delete one number in the array, find maximum sum of contiguous array elements)
9. Clone a Linked List
10. Stack from Queue
11. LRU Cache Implementation
12. Check if a tree is a mirror of itself
13. Given a Binary Tree, count how many subtrees are possible which are BSTs
14. Detect loop in linked list
15. Find Closest Palindrome Number
16. Find smallest Palindrome nearby given number
17. Given a string, Is it possible to shuffle characters to make it palindrome

Given a string, Is it possible to arrange characters such that no same chars are adjacent

Given a BST, Find out the no. of pairs of nodes whose absolute difference is less than k without using extra space (I guess only the interviewer know the answer for this problem :-P) If someone found a solution for it please share it.

18. In total, you have to go through 4 technical interviews in order to get selected and the major skills that you must possess are Excellent

Problem Solving and Coding skills. Some of the interviewers also asked questions from operating systems and SQL queries.

### **Other Amazon interview questions for freshers**

- 1) Tell me what you know about AWS?
- 2) Tell me about a time you handled a crisis.
- 3) Tell me about a time you had to deal with ambiguity.
- 4) Give me a time you had to act quickly without any data.
- 5) What would you change about the website?
- 6) Tell me a time when you took on a role higher than yours.
- 7) Tell me a time you failed at a project.
- 8) Tell me a time when you led a project.
- 9) Describe a time you were innovative.
- 10) Describe a time you disagreed with a professor.
- 11) Describe a time you were very disappointed.
- 12) Describe a time you exhibited trial and error execution of any task.
- 13) Describe a time you handled an event/project/budget on your own, if any.
- 14) Behavioral questions
- 15) Case studies
- 16) Tell me about a time you skipped a deadline.

### **This list of Amazon interview questions for freshers and experienced candidates does not include technical questions.**

Q1. Tell me about yourself.

Q2. Why do you want to work for Amazon?

Q3. What are your short and long-term career goals?

Q4. Who is the CEO of Amazon?

Q5. Which Amazon leadership principle do you connect with most?

Q6. Can you describe your most difficult customer experience? How did you handle the customer's needs?

Q7. Explain a time when you faced a crisis at work. How did you handle it?

Q8. Tell me about a time when you faced criticism and how you responded.

Q9. Tell me about a time you disagreed with your manager. How did you resolve it?

Q10. What metrics do you consider important for growth?

Q11. How do you go about persuading people?

Q12. Have you ever taken an unfamiliar project that was outside of your expertise or job description? How did you handle it?

Q13. Can you tell me about a time you had to make a decision without all of the data or options in front of you?

Q14. What would you do in a situation where you saw your close work colleague stealing?

Q15. How would you handle the situation if one of your colleagues wasn't contributing their share to your work?

Q16. What has been the most difficult professional situation in your life? How did you handle it?

Q17. Can you explain a time when you created a poor customer experience and how you fixed it?

Q18. Explain a time that you dealt with a hostile customer.

Q19. How will you handle a situation if you're given conflicting directions from two different managers?

Q20. If you saw one of your coworkers being unsafe at work, what would you do?

Q21. What is the worst mistake you ever made? How did you fix it?

Q22. Can you tell me about the last time you had to apologize to someone?

Q23. Explain a time when you disagreed with the feedback you received. How did you handle it?

Q24. How would you solve problems if you were from Mars?

Q25. What is the most challenging thing about working with you?

Q26. Can you tell me about the time when you had to make a quick customer service decision without any guidance?

Q27. Have you ever handled a project outside of your scope of work? How was your experience?

Q28. Describe the time when you had to deal with ambiguity while making a decision.

Q29. Tell me about your qualities that will help you succeed with Amazon.

Q30. Have you ever missed a deadline? How did you handle it?

### Amazon SDE interview questions for freshers

Let's now take a look at some of the frequently asked Amazon SDE interview questions and answers for freshers.

### Amazon coding interview questions

- **Finding maximum depth of a BST**
- **Count set bits in an integer**
- **Count the total number of ways to reach the Nth stair**
- **Circular rotation of an array by K positions**
- **Print all possible permutations of a given string**
- **Balanced parenthesis checking**
- **Find the minimum cost path from origin to destination**
- **Pythagorean triplet in an array**
- **Arrange given numbers to form the biggest number**
- **Josephus problem**
- **Minimum salary hike problem**
- **Boolean parenthesization**
- **Largest sum contiguous subarray**
- **Stock span problem**

- **N queen problem**
- **Minimum jump array**

## Amazon HR Interview questions

The Amazon HR interview is conducted to test the personality and the qualities of the candidates. The HR also evaluates the candidate's self worth to the position. Some of the frequently asked HR questions in the Amazon interview are mentioned below.

1. Why do you want to be a part of Amazon?
2. Describe yourself in just three words
3. What are your weaknesses? How will you overcome them if we hire you?
4. When did you fail by taking a risk ? What did you learn from that experience ?
5. What inspires you to be a part of the Amazon family?
6. How is Amazon different from its other competitors?
7. What makes you better than the other candidates?
8. What are your salary expectations?

## Online Coding Round:

- In the online coding round, two questions (different questions to different candidates) were asked, one a bit tricky and the other one easier. I actually ended up doing neither with complete success (:3).
- In my first question, I remember I passed about 8 out of the 13 total test cases and passed only 2 out of the 9 in the other one. I thought

I had no chances for qualifying through but when the shortlist was published, I ended up being quite high up in the list. I was surprised but later what I learned was, the developers who make those questions, actually go through your code thoroughly and find out whether you used the correct logic (or at least close to it) or not.

- If your logic seems fine, and you miss a few edge cases and end up not passing every test case, you'll still have decent chances of going through (like me!). So, do focus on your logic as well!

### **Interview Round 1:**

- Coming to the first round of the interview process, I was asked to brief myself and how I developed my interest for such a software role.
- Then the interviewer moved on to a few coding questions after providing me with a live coding link where I had to write my code (just the required functions/classes/structures not the whole code from top to bottom).
- He asked me to find an element in a rotated array that was otherwise sorted(<https://practice.geeksforgeeks.org/problems/search-in-a-rotated-array4618/1>). I told him I can provide him with a binary search solution which will take  $O(\log n)$  time.
- Learning that I already know the approach, he moved on and asked me to write a function to find the Lowest Common Ancestor in a Binary Tree(<https://practice.geeksforgeeks.org/problem-page.php?pid=700221>). I wrote the code successfully and ran a few manual test cases on it. After that, he modified the LCA question a bit and asked my approach. I shared what I thought but it was not 100% correct so he told me the correct approach to that.
- Then he asked me another question: <https://practice.geeksforgeeks.org/problems/maximum-gap3845/1>

- He asked me to solve it in  $O(n)$  time complexity and after thinking for sometime, I told him what approach I thought of. I didn't know Pigeonhole Sorting technique, and tried to solve it using stacks but couldn't arrive at a proper solution in that limited time. But the interviewer was happy with my approach and told me "Quite close".
- Within a couple of hours, I received a call and got notified that my second round of interviews was scheduled in an hour.

## Interview Round 2:

- After briefing myself just like the previous round, the interviewer asked me about my Machine Learning Project and then moved on to a coding question.
- He asked me about the Circular Tour problem (<https://practice.geeksforgeeks.org/problems/circular-tour/1>) which was actually new to me because I didn't solve it before. When the interviewer asked me what extra data structure I would like to use, he was quite surprised when I told him that I wouldn't need any of it (not even a queue since its solution is quite popular, as I have learned after my interview). I solved it in  $O(n)$  time complexity and  $O(1)$  space complexity and took about 15-20 minutes to think of the approach.
- We later went on to check a few test cases manually and inside my code, I found out a couple of mistakes and corrected them. In the end, he was actually quite happy with my approach, and we had a little discussion about the Big O, theta, Omega notations before the interview ended.
- After the second round, I was quite confident that I shall get shortlisted for the third round which was indeed true after I received the mail which said the final and third round was scheduled for the next morning.



- Now some tension started creeping in my mind as I could actually see the finishing line inside my head. I didn't sleep well at all and was ready for the interview quite early in the morning.

### **Interview Round 3:**

- After talking about my past, the interviewer thoroughly asked me about my project and the concepts I used in it.
- He actually worked on those concepts beforehand, so he asked me every detail of it and I actually enjoyed having that conversation because for the first time one was truly interested in what I did (;3).
- Then he asked me a few behavioral questions based on their leadership principles (very important!).
- Next, he asked me to implement any cache and write the get() and set() function. I had no idea of cache as it wasn't in my curriculum since am from an Electrical Engineering background. But I had a little idea about how LRU cache works and tried to implement it using an array list and a hashmap.

### There are 3 questions which the hiring managers asks while conducting Amazon Interview

- Will you admire this person?
- Will this person raise the level of effectiveness?
- Along what dimension might this person be a superstar?

Amazon founder and CEO Jeff Bezos believes that the answer to these three questions helps hiring managers zero in on new talent that meets the company's exacting standards, which in turn will improve the overall talent pool in the long run. Bezos himself has been very hands-on with the Amazon hiring process, personally interviewing every single employee throughout Amazon's early years, according to Wired magazine.

So if you're headed into an Amazon Q and A session, know that any questions your recruiter asks are an attempt to determine how you fare on these three counts. Here are 10 questions you may be asked:

**Do you know our CEO? How do you pronounce his name?**

Tip: It is “Bay-zohs,” not “Bee-zos”.

**How would you solve problems if you were from Mars?**

The interviewer wants to see if you can think out-of-the-box. Consider sharing a personal anecdote that shows how you came up with a creative solution to a customer problem, improved an internal process or made a sale via an innovative strategy.

**Up for a telephonic interview with Amazon? Get tips to handle it well here:**

**Tell the story of the last time you had to apologise to someone.**

Can you admit to mistakes? Are you a team player? That’s what the recruiter wants to know. Most of us have made several mistakes, but pick one where you apologised and managed to right the wrong successfully, and let that be the focus of your story. NEVER say you have not had to apologise - it makes you appear highhanded.

**What is the most difficult situation you have ever faced in your life? How did you handle it?**

Stick to a professional anecdote - don't share a personal story - and find one that has a happy end. Be positive; it tells your interviewer that you are resilient and willing to work around a problem. Seeing a project through on a tight budget, getting a project back on track when a deadline is missed, handling a difficult client, etc are some situations you can talk about.

### **Some more ideas on tackling behavioural questions with Amazon interviews:**

#### **Walk me through how Amazon Kindle books would be priced.**

Read up on how the royalty system works. Our recommendation is - Amazon pays out a royalty of 70% on all Kindle titles priced between \$2.99 to \$9.99. For eBooks priced below \$2.99 and above \$9.99, Amazon pays out only 35%. For writers who want to generate leads via their online books, say for seminars, it makes sense to price the title below \$2.99; specialised titles will sell over \$9.99. All other categories should stick to the 70% royalty.

#### **Who was your most difficult customer?**

Share an anecdote where you managed to solve the problem. Emphasise how you stayed calm and diffused the situation.

#### **What would you do if you found out that your closest friend at work was stealing?**

Your loyalty - to the company and your friend - is being questioned. Say you'll consider the nature of the offence before deciding how to proceed.

**If your direct manager was instructing you to do something you disagreed with, how would you handle it?**

Your interviewer wants to know how you handle disagreement and how good your negotiation skills are. Convey that you aren't averse to speaking up, that you believe in communicating till you find a solution and that you can be flexible.

**What would you do if you saw someone being unsafe at work?**

Tell the interviewer that you have a duty of care to yourself and your work colleagues. Under these circumstances, you will let the person know that the way they are working can lead to an accident. If you know a safer way to do the job, you will suggest it. Otherwise you will contact your supervisor.

**Do you think you'll reach a point where you storm off the floor and never return?**

Make it clear you are able to keep your temper in check. Share how you would deal with a situation where have been provoked. Be sure to emphasise that you're not indifferent, just calm.

Interview Questions asked by Amazon from candidates of various job role vacancies.

1. Tell me something about yourself?
2. Define your short and long term career goals?

3. Describe me the way to introduce AWS in an elevator pitch?
4. Can you tell me the steps you would take to improve Amazon's website?
5. Graph the design of an online payment system?
6. Which Amazon leadership principle do you resound with us?
7. How would you explain a customer "what wifi is"?
8. Who was your most difficult customer?
9. Why do you want to work for Amazon?
10. Do you consider yourself successful?
11. Tell me your greatest strength & weakness?
12. What experience do you hold in this field?
13. Do you think we should sell private-label cleaning products?
14. What would your approach if somehow you misdirected 12,000 units of something?
15. Are you a team player?
16. Define your ability to work under pressure?
17. Do your skills match this job or another job more closely?
18. Are you willing to make sacrifices for this company?
19. You are Amazon and Samsung offers you 10,000 Samsung Galaxy S3 at a 30% discount rate. Is that a good deal?
20. Tell me about how Amazon Kindle books would be priced?
21. How do you influence people?
22. Tell me the most challenging thing about working with you?
23. Would you rather be liked or feared?
24. How do you cope up with stress?

25. Do you have any questions for me?