

🕒 IBM (Associate Software Engineer) Exam 🕒

🔹 Selection Process: (There Are 3 Round):

- 1) Coding Assessment.
- 2) English Language.
- 3) Group Discussion.

- 4) Interview:
 - a) Technical Round.
 - b) HR Round.

Coding Section: (Coding Round Is Divided Into Two Sections):

- a) 1 Coding Qsn.
- b) 5 MCQ Qsn.

✅ Note: IBM Coding Section Consists Of Problems Related To Data Structures & Algorithms & Duration 30 Min.

🔹 Topics To Prepare For IBM MCQs:

- 1) DBMS.
- 2) Operating System.
- 3) Software Engineering.
- 4) OOPS Concepts.
- 5) Any Programming Language of Your Choice.

🔹 Topics to Prepare for the IBM Coding:

- 1) Arrays.
- 2) Linked lists.
- 3) Stacks.
- 4) Queues.
- 5) Trees.
- 6) Graphs.
- 7) Heaps.
- 8) Hash Sets.
- 9) Hash Maps.
 - 1) Depth-First Search
 - 2) Breadth-First Search
 - 3) Binary Search
 - 4) Quicksort
 - 5) Merge Sort
 - 6) Dynamic Programming
 - 7) Divide and Conquer.

Previous Year Coding Qsn:

- 1) Write a program to remove the Nth node from the end of a linked list.
- 2) Write a program to find duplicate characters in each string.
- 3) Write a program to convert byte array to string.
- 4) Write a program to find the middle element of a singly linked list in one pass.
- 5) Write a program to find the fourth node from the end in a singly linked list.
- 6) Write a program to find the length of a singly linked list.
- 7) Write a program to implement a binary search tree.
- 8) Write a program to perform in order traversal in each binary tree.
- 9) Write a program to implement a post order traversal algorithm.
- 10) Write a program to implement an LRU Cache.

How to Prepare for an IBM Coding Assessment:

1) Choose Your Programming Language:

Choose an object-oriented programming language you're comfortable with, Python, Java, or C++, and master the basics. Practice preparing programs in this language and understand the nuances of the language.

2) Know Your Basics:

Learn the basics of data structures and algorithms thoroughly. Learn the basics and keep practicing. Solve as many previous IBM coding challenges as you possibly can.

3) Spend Time on Solving Problems:

Coding challenges are not that easy. They take hours to solve. While practicing, follow this technique: 1) Understand the problem description, and next, think about how to approach it.

Tips to crack the IBM coding Assessment:

1) Create a Study Plan:

Create a study plan of Technical Topics To Cover.

2) Focus on the Test Input:

All coding challenges come with a test input to verify that your solution works. This test input rarely covers all edge cases. The ideal solution should not only handle test input, but it should be able to handle all possible edge cases. Most of the time, developers make the mistake of spending more time handling edge cases, and they miss the chance to handle test input in a robust way.

3) Review and Refactor Your Code:

Once you are done with the solution, don't be tempted to close the IDE and submit the solution. Take time to review the code and remove any unused methods and variables. Try to check if there is any scope for refactoring. You can avoid these simple mistakes — making these mistakes will leave an impression that you are not serious enough.

4) Be Prepared for Constructive Criticism:

Once the solution is submitted, the next step would probably be a discussion with the recruiter over the phone or a pairing interview where you're challenged to extend your solution to include new requirements. Be ready to accept the feedback provided by the reviewer positively and not go into the Défense mode.

◆ Previous Year Coding Qsn:

1) Vaccination Drive List Preparator Code:

Language Use: C++

2) Extract User Message From Transcript Code: Language Use: C++ 14

○ IBM Interview Experience ○

◆ Technical Round:

- 1) Interviewer will also assess your Problem-Solving Abilities.
- 2) Collage Projects.
- 3) Any One Programming Language of Your Choice. (C++, Java Or Python)
- 4) Questions from basic computer fundamentals.
- 5) Object-Oriented Programming Systems (OOPs).
- 6) Database Management Systems (DBMS).
- 7) Computer Networks (CN).
- 8) Computer Organization and Architecture (COA).
- 9) Operating Systems (OS).
- 10) They Ask Some Basic Java Questions.
- 11) What do you mean by 3NF in DBMS? What is the operating system?
- 12) What is the difference between Java and C++?
- 13) What is a pointer?
- 14) Tell us more about pointers?
- 15) Write about double linked list programs?
- 16) What is Join in DBMS?

HR Round:

HR Interview's main purpose is to assess:

- a) Candidate's Personality.
- b) Background.
- c) Strengths.

Question From Resume:

- a) Personal Information.
- b) Data you have Provided.

✔ Note: Question from IBM's History, including when the Company was Founded, As well As Its Aims, Beliefs, & Organizational Structure.

- 1) Tell us something about yourself.
- 2) Which is your favorite subject and why?
- 3) Why do you want to work for IBM?
- 4) Would you be interested in joining any other company?
- 5) Would you be comfortable working in shifts?
- 6) What subjects have you done in your project?
- 7) Why IBM?
- 8) About IBM?
- 9) Hobbies?
- 10) Where Do You See Yourself in The Next Five Years?
- 11) Why Should I Hire You?
- 12) Would you be willing to Relocate to other parts of India?
- 13) What do you want to achieve from this position?
- 14) What motivates you to join IBM?
- 15) Describe your internships and projects to me.
- 16) How would you rate yourself on a scale of 1 to 10?
- 17) Tell me about a time when you faced difficulty and how did you overcome it?
- 18) Describe a situation where you worked hard but could not succeed.

✔ Note: Be Confident & Don't Be Nervous. Be Clear & Throw With Resume Because Most Of The Qsn Are Raised From IT.