

Java Technical

1. What is JVM, explain to me briefly?
2. What is the difference between JVM ,JDK and JRE?
3. Give me a real time example of oop with your choice topic?
4. What is the constructor?
5. Explain static and non static variables in Java.
6. What is the 'finally' block?
7. Concepts of interfaces.
8. Questions on multiple inheritance.
9. Explain Abstract methods and their use.
- 10.Explain Pillars of OOP with real time examples.
11. What is OOP and What is the need of OOP?
- 12.Explain Polymorphism with real time example
- 13.Difference between compile time and run time polymorphism
- 14.Why are Strings immutable?
- 15.Difference between equals() method and == operator.
- 16.Difference between method overloading and method overriding.
- 17.What are Inner Classes in Java?
- 18.Explain Java Collection Framework.
- 19.What is HashMap in Java and its use?
- 20.Explain Multithreading in Java.
- 21.How to create threads in Java?
- 22.Difference between String and StringBuffer.
- 23.What is the difference between C and Java?
- 24.What is HashSet in Java?
- 25.What is exception handling and types of exception.
- 26.What is the Diamond problem inheritance?
- 27.Difference between a simple string and string made with "new string()" Explain with code.
- 28.What is thread?
- 29.Explain Check and unchecked exceptions.
- 30.Explain Exception handling hierarchy.
 - 31.Inheritance in Java and what types are supported by Java
 - 32.What is byte code?
 - 33.Difference between interface and abstract classes.
 - 34.What is a static block and when does it run?
 - 35.What is an instance block and when does it run?
 - 36.How multiple inheritance is achieved in java?
 - 37.What are different types of constructor?
 - 38.What is constructor chaining?
 - 39.What is the use of this keyword?
 - 40.Can we call this() from the main method?
 - Other Technical
 - 1. Real time example questions on Git and Github.

- 2. Some Mathematics related questions (Line question and explained it...,then give angle between x and y axis find question of this line)
- 3. What is the word for 3D Circle?
- 4. How to debug a lengthy code.
- 5. Preferences about development and testing. What are the phases of testing?
- 6. Where can you work either in the frontend or backend?
- 7. Rate yourself in java
- 8. What is devops?
- 9. Do you know about AngularJs?
- 10.Explain cloud Computing.
- 11. DevOps related questions
- 12.What is a deadlock?
- 13.What do you know about OS?
- 14.Commands used in operating systems.
- DSA related questions
- Mostly questions were asked on :
 - - Array
 - - Linkedlist
 - - Stack and Queue

- Searching
- Binary Search
- Sorting
- Merge
- Quick
- Bubble
- Recursion
- Tree
- Binary Tree
- Tree Traversal Techniques

Questions :

1. Explain Recursion.
2. What is the difference between Linked List and doubly Linked list?
3. Sort the array of 0 1 2 in $O(n)$ without using any sorting technique.
4. Bubble sort algorithm.
5. Explain HashMap and linked list.
6. What are trees and graphs?
7. Write a code(palindrome, array reverse with recursion)?
8. Reverse the array and tell it's time complexity, give optimized code.
9. Reverse array without using for and while loop.
- 10.Which built in data structure allows to store duplicate value , sorted value and unsorted value?
11. What is pivot in quicksort and explain Merge Sort?
- 12.What is heap?
- 13.What is a singly linked list?

Code Questions

1. Write a code to find factorial with and without loop.
2. Swap two numbers without using the 3rd variable.
3. Write a code for the fibonacci series with recursion.
4. C language code - if there are two different code files then how can I use another file code in my current file
5. Sum of digits(The integer number was given first and after that same question but number is in string write the code without converting it to an integer)
6. Reverse a String
7. Remove Duplicate Elements from an ArrayList using HashMap and HashSet.
8. Print prime numbers from 1 to 100,Optimized approach(with and without loops).
9. Prime number code.
- 10.Count the number of digits in a number.
11. Find the duplicate letter in a string- aabaa,
- 12.Print array using recursion.
- 13.Input array given arr[]={2, 4 ,3 ,5 ,7, 6} output arr[]={4,2,5,3,6,7}
- 14.10 bags with 100 coins one bag has less weight find it with minimum iterations.
- 15.Take arguments from the command line and show the addition of arguments.
- 16.Printing array in reverse order (without using loop)
- 17.Code of fibonacci series using recursion.
- 18.Replace string elements without using replace () method.

DBMS and Queries

1. Using the sql denote a 'one to many relationship'.
2. Write sql query to find data of 2nd table by id, the id was denoted in 1st table.
3. Explain Left outer & Righter outer join.
4. MySQL query to find employee not present in dept Table Both connected with Primary and Foreign key?
5. What is the schema in the database?
6. Write a sql query to create a table?
7. What is DBMS and SQL, explain it properly.
8. What is the primary key, foreign key and unique key?
9. Explain the difference between primary key and unique key.
- 10.Basic mysql queries of inner join
11. Write a query to find the second highest salary.
- 12.What are SQL, DML and DDL command keywords?
- 13.Write a query for selecting people whose name starts from A.
- 14.What is the difference between "a%" and "a_"?

Project Questions

1. Tell me about your project.

2. Give brief details related to the project and internship you did.
3. Explain Projects? What was your role?
4. What is your upcoming project and tell me about its working(flow) ?
5. What do you do in this internship Project?
6. Tell me about your Internship?

Puzzles

1. Puzzle - truth and liar person
2. Puzzle-the puzzle of jars
3. Puzzle- arithmetic problem
4. Puzzle-direction recognition problem
5. Puzzle- how to cut a cake into 8 pieces in 3 cuts.
6. Puzzle-how to measure the 1 and 1.1gm stone from the no of same size of container
7. Puzzle-There are 2 buckets, one bucket is 4 liter and 2nd one is 9 liter and in two buckets unlimited water 💧 you are use there is no half or else measurement only know 4 liter and 9 liter water in that bucket ..how to give 7 liter water 💧 ?
8. Puzzle: 3 3 3 3 3 . use any operations to get answer 30
9. Puzzle: 8 balls
- 10.Mixture and Alligation
11. Car and wheel puzzle
- 12.Puzzle - 10 balls which is to be arranged in such manner that 5 lines are formed each line containing 4 balls
- 13.Defective ball puzzle
- 14.Puzzle of 2 jars. In one jar there was 3 liters of water and in another jar there was 5 liters of water. There is unlimited supply of water. And you have to give me 4 litres of water. How will you give me 4 liters of water using these two jars?
- 15.An arithmetic operation to solve and a puzzle about recognizing the final direction of a bird flying given prior conditions.

HR Questions

1. What is your goal?
2. In the next 5 years, where do you see yourself in the company?
3. How will you manage time when you have an internship?
4. How can you handle the pressure of completing a final year project while working at a company?
5. Why PTC?
6. Why PTC and not Google?
7. What do you know about our company?
8. Which are the products of PTC?
9. Why do you need a job?
- 10.What is your family occupation?
11. Any plan for post graduation?
- 12.Will you attend the office on Saturday if called for it?

- 13.What will you do in your off time in the office?
- 14.Why do you want to do the internship?
- 15.Tell me about your family members.
- 16.Why should we select you?
- 17.What are your strengths