

HCL Technical Interview Questions & Answers for Freshers

1. What is the use of the pointer in C?

- Call by Reference: The pointers are used to pass the reference of a variable to another function.
- Data Structures like a graph, tree, linked list, etc.: The pointers are used to construct a number of data structures like graphs, trees, linked lists, and so on.
- To access array elements: Pointers are used in traversing through an array of integers and strings. The string is an array of characters that is terminated by a null character '\0'.
- For dynamic memory allocation: Pointers are used in the allocation and deallocation of memory while the program is being executed.

2. What is input-output (I/O) in C++?

In C++, the input stream is used to get inputs from the console i.e. the user. The output stream is used to display the results of the operations to the console, or to the output device. iostream represents the standard input-output stream in C++. It contains different methods like cin, court, etc.

3. Explain about virtual functions

Virtual functions are used in C++ as member functions that are declared (and perhaps defined) in the base class and (re)defined by the derived class. That is, a virtual function can be overridden by the derived class with its own implementation.

4. Can we have a Private Constructor in Java?

Private Constructor is used if you do not want other class to instantiate the object. Private Constructor is used in Singleton design Pattern, Factory Method Design Pattern.

5. How is a constant variable different from a global variable?

Global variables can be modified and are accessible by all the functions in a program. Constant variables have a fixed value that cannot be changed throughout the program.



6. What are access specifiers?

Access specifiers or modifiers define the access of a particular class, method, or variable to the other parts of the application. There are mainly 3 access specifiers – Public, Private, and Protected.

7. How do you achieve multiple inheritances in Java?

The only way to implement multiple inheritances is to implement multiple interfaces in a class. In Java, one class can implement two or more interfaces. As all methods declared in interfaces are implemented in the class, this does not cause any ambiguity.

8. What is the difference between compiler, interpreter, and assembler?

One of the key differences is - The compiler converts the whole high-level language program to machine language at a time. On the other hand, an interpreter converts high-level language programs to machine language line by line. An assembler converts assembly language programs to machine language. Copyright to https://www.freshersnow.com/

9. Difference Between Primary Key and Unique Key

- **Primary Key:** In the need of a primary key there must be at least one key at the table and the use of this key helps in blocking the duplicate and also the null value.
- **Unique Key:** Whereas, in the unique key process, there can be more than one key in the table and here it will block the duplicated value and will rather accept the null value.

10. What are constraints in SQL?

Constraints in SQL are the limits or rules that we can apply to the different types of data in a given table. Constraints are used to ensure the accuracy and reliability of the data in the table.

- **NOT NULL:** This particular constraint informs us that one cannot store a null value within a column.
- **UNIQUE:** When specified with a column, this constraint informs that all the values in a given column must be unique.
- **PRIMARY KEY:** A primary key is a field that can uniquely identify each row in a table. This is typically used to specify a field in a table as the primary key.
- FOREIGN KEY: A Foreign key is a field that can uniquely identify each row in another table.
- CHECK: This constraint helps us to validate the values of a column to attain a particular condition.



• **DEFAULT:** This constraint gives a default value for the column when the user does not specify a value.

11. What is DBMS?

The Database management system (DBMS), is basically a tool or say a software tool that helps in managing the data of the entire company. Now, this massive amount of data is stored properly and can be presented as information when required to take further decisions.

12. What are SQL joins?

Joins are used to fetch data from different tables as a single record using foreign keys and common columns.

13. Write an SQL query to remove the duplicate record from a table.

DELETE FROM Table_name WHERE fieldname1 NOT IN (SELECT MAX(fieldname1) FROM

Table_name GROUP BY FieldName2, FieldName2);

14. What is a Foreign Key?

When we relate two tables then the primary key of the first table is declared as the foreign key for another table.

15. Explain CLS

Common Language Specification (CLS) helps the application developers to use the components that are inter-language compatible with certain rules that come with CLS. It also helps in reusing the code among all of the .NET-compatible languages.

16. Explain role-based security in .NET

Role-based security is used to implement security measures in .NET, based on the roles assigned to the users in the organization. In the organization, authorization of users is done based on their roles. **For example**, windows have role-based access like administrators, users, and guests.



17. What is a delegate in .NET?

- A delegate is a .NET object which defines a method signature and it can pass a function as a parameter. Delegate always points to a method that matches its specific signature.
 Users can encapsulate the reference of a method in a delegate object.
- When we pass the delegate object in a program, it will call the referenced method. To create a custom event in a class, we can make use of delegate.

18. Do you know about BigData?

It is just large volumes of data. The data that we get from various platforms today is complex and huge and for traditional software to analyze and process, interpreting something meaningful from the data is next to impossible. Because of this huge volume of information gathered over the internet, big data is useful to solve a range of business issues from machine learning, customer experience, predictive maintenance.

19. What are 8v's of BigData?

- Velocity
- Volume
- Value
- Variety.
- Veracity.
- Validity.
- Volatility.
- Visualization

20. Can you explain how HashMap works?

When we call the get(key) method, the hashcode method is called and the hash value returned is then used to find the bucket location of the key-value pairs that are stored as Entry objects. HashMap is not thread-safe because it is not synchronized.

21. What do you mean by the Process States in Linux?

Linux Process is a type of process that can be in a number of different states. The process enters these states from start till end. Process states in Linux are as follows:

- New or Ready: In this state, a new process is created and is ready to run.
- Running: In this state, the process is being executed.



- Blocked or Wait: In this state, the process is waiting for input from the user and if
 doesn't have resources to run such as memory, file locks, input, then it can remain in a
 waiting or blocked state.
- **Terminated or Completed:** In this state, the process has completed the execution or terminated by the OS.
- **Zombie:** In this state, the process is terminated but information regarding the process still exists and is available in the process table.

22. What is BASH?

BASH is short for Bourne Again SHell. It was written by Steve Bourne as a replacement to the original Bourne Shell (represented by /bin/sh). It combines all the features from the original version of Bourne Shell, plus additional functions to make it easier and more convenient to use. It has since been adapted as the default shell for most systems running Linux. Copyright to https://www.freshersnow.com/

23. What is the difference between UNIX and LINUX?

Unix originally began as a propriety operating system from Bell Laboratories, which later on spawned into different commercial versions. On the other hand, Linux is free, open-source, and intended as a non-propriety operating system for the masses.

24. How do you share a program across different virtual desktops under Linux?

To share a program across different virtual desktops, in the upper left-hand corner of a program window look for an icon that looks like a pushpin. Pressing this button will "pin" that application in place, making it appear in all virtual desktops, in the same position onscreen.

25. What are threads?

In any OS, there are multiple processes going on at the same time. For example, you could be writing a document, listening to songs, and browsing stuff on IE all at the same time. These processes are divided into small execution units known as threads that allow for parallel processing thus making your system fast. Threads have their own memory space and resources for execution. Different types of threads are – user threads and kernel threads.



HCL HR Interview Round

HCL HR Interview Questions & Answers

1. Introduce yourself

The foremost question you can expect in an interview from the interviewer is Tell About Yourself. From this question, the interviewer expects you to shed some light on you as an individual till now, what you have achieved, your educational background, family details, your passion, the projects you have worked/ internships you have done to gain industrial experience, etc., Make sure you don't give mugged up answers to this question. Try to be innovative and confident while speaking. And finally, do remember that the answer to this question will act as a foundation for the rest of the Interview. Therefore, try to gain as much attention from the interviewer & create a positive impression through your answer.

2. What are your long-term and short-term goals?

Short-Term goals are nothing but the immediate things you want to achieve in a short while and whereas, Long Term goals are things you wish to do and achieve in the next five years. Through this question, the interviewer will be accessing how your equation will be with the company in a long while. While answering this question do keep in mind to share the goals that can help you grow as an individual at the same time tell them about the value you can create for the company for a long period of time.

3. What are the qualities you look for in a good leader?

Answer this question in such a way that shows how you will be as a leader to your colleagues/ subordinates and wish to expect from your superior. Put yourselves in the leader role and say which qualities will help you in achieving the work done and create synergy among the team. You can particularly mention some qualities like Assisting the team members when they are stuck in a particular work, Giving them confidence when they are unsure regarding something, Guiding them & helping them to achieve their career goals, etc., Copyright to https://www.freshersnow.com/

4. Why do you want to join our organization?

Tell them why you are interested in joining HCL Technologies as an employee. That you like their work culture/ work environment they create for their employees or that how you want to create a profitable value for the company with their existing resources, and you can also speak



about how you want to grow as an individual & professional by working along with their intellectual workforce.

5. Give us two of your biggest strengths and weaknesses

While answering this question, you guys have to be particular about the strengths and weaknesses you have, you can't be generic and just give vague answers. Talk about your strengths and explain them in brief on how you think they are your strengths for example you can say "You're a continuous Leaner", "You're Quick Thinker", "Quick At Problem Solving", etc., while speaking about strengths make sure you give certain examples where your strengths helped you to achieve your desired result. And same is the case with Weaknesses, you can say your weakness as "You're a Workaholic", "Overthinker", "Attention To Details", etc., But do remember to say your weakness in such a way that it is ultimately helping you to achieve positive results while working.

6. How do you think your friends will define you?

Your friends are your biggest character judges. So, there will be no surprise if the interviewer wants to know how your friends view you. You can talk about the instances on how your friends see you as their Biggest Motivator, Patient/ Good listener, Warm and Friendly, And a reasonable individual.



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