**explain about merge sort and code it, I explained what happens in that, what is the best/aver/the worst case, and code it.**

create a BST Iterator class and what methods/data structures I’d need for inorder traversal essentially just Leetcode #173: Binary Search Tree Iterator.

Dynamic programming (might be climbing stairs)

1. **Technical Interview - Second Round:** This is also an hour-long round where questions are mostly based on your resume. Based on the experience of our alumni, you can expect questions on algorithms or be given a set of non-negative integers and a value sum and asked to determine if there is a subset of the given set with a sum equal to a given sum.
2. **Managerial Round:** The last round lasts for about 45 minutes, and you can expect a mix of both technical and behavioral questions. You might be given real-life examples and be asked which OOPs (Object-Oriented Programming System) concept you will use to solve those problems. You can also expect questions about your previous internships and other questions based on your resume.
3.  Binary Tree Example Code
4.  Strings and [**Arrays**](https://www.interviewkickstart.com/learn/array-data-structure)
5.  Linked List
6.  [**Recursion**](https://www.interviewkickstart.com/learn/recursion)
7.  Bit Manipulation
8.  Small Programs (string, memory functions, etc.)
9.  Math and Probability

**Common Paypal Technical Interview Questions:**

In this section, we cover some of the questions that have come up often during Paypal interviews.

**Sample PayPal Interview Questions on Data Structures and Algorithms:**

1. How do you reverse a singly linked list without recursion?
2. How are duplicate nodes removed in an unsorted linked list?
3. How do you find the length of a singly linked list?
4. How to find the third node from the end in a singly linked list?
5. If you’re given an array “X” comprising “n” positive integers, write a function to compute the inversion count of the array.
6. You’re given the data for tennis players. Design an algorithm to rank the tennis players.
7. You’re given two Linked Lists, “A” and “B,” that are sorted. Write a code to merge the two Linked Lists.
8. How to implement a postorder traversal algorithm?
9. How to traverse a binary tree in postorder traversal without recursion?
10. How to find the missing number in a given integer array of 1 to 100?

**Add up all of the values, subtract that sum from the total sum(1 – 100), and the answer will be given**

1. How do you find the duplicate number on a given integer array?
2. You’re given a binary tree and a number. Your task is to return “true” if the tree has a root-to-leaf path where all values along the path add up to the given number. Return “false” if the path is not found.
3. You’re given a set of non-negative integers and a value *sum.*Your task is to determine if there is a subset of the given set where the values add up to *sum*.

**Sample PayPal Interview Questions on Systems Design:**

1. Design a product based on maps, e.g., hotel/ATM finder given a location.
2. Design malloc, free and garbage collection system. What data structures to use?
3. Design a logging system for web applications.
4. Design a chatbot
5. Design a search engine that’s able to capture unique results
6. Design a full-fledged API rate limiter
7. Design a web crawler that identifies uniqueness in pages and ranks them accordingly.
8. Design a platform like Uber that relies and operates on location data

**Sample Java PayPal Technical Interview Questions:**

1. Explain the concept of polymorphism in Java. How is it used in modern-day problem-solving?
2. Explain Dynamic Polymorphism and Runtime Polymorphism with relevant examples. Write program functions to execute each of these properties.
3. Explain Method Overriding and Method Overloading in Java by providing examples.
4. Explain the techniques of Encapsulation, Aggregation, and Association in Java.
5. What is an object-oriented paradigm?
6. What is the static method?
7. Why does Java not support pointers?
8. What are the various access specifiers in Java?

**Sample Python PayPal Interview Questions:**

1. What are lists and tuples? What is the key difference between the two?
2. What are the common built-in data types in Python?
3. What are modules and packages in Python?
4. Explain Slicing in Python
5. Explain the differences between SciPy and NumPy in Python.
6. Write a program to arrange the numbers from 1 to 100 in a perfect triangle using Python.
7. What are Python namespaces, and why are they used?
8. Describe the role of Lambda in Python.

**Sample PayPal Behavioral Interview Questions:**

1. Tell me about a time when you used your negotiation skills?
2. Describe a project where you had to take the initiative?
3. What was the biggest mistake you made in your last role?
4. Describe a time you went above and beyond for a customer.
5. What do you think you will like about this role with PayPal?
6. At PayPal, we are proud of our ability to stay one step ahead of our competitors. How will you contribute to this trend?
7. Tell us about the most interesting project you have worked on this year and the biggest thing you learned from it.
8. Tell us how you convinced a client to chart a different course for a project.
9. Describe a time you were asked to work on a client project that you were unsure about how to proceed.
10. Tell me what others would say about you

## **Sample Questions for Various Domain-Specific Roles at PayPal**

Here are some domain-specific questions commonly asked during PayPal interviews:

**Data Engineer:**

1. Create a database to represent a Tinder-style dating app. What does the schema look like?
2. Write a query on the given tables to get the car model with the fastest average times for the current day.
3. Given a grid and a start and end, find the maximum water height you can traverse before there is no path.
4. How would you design a data pipeline?
5. Describe the architecture of Spark?
6. Tell us about a challenge you've faced handling big data for a company?
7. Walk us through a situation where you had to deal with a technology that you weren't familiar with?

**Software Developer:**

1. What is a lexical closure
2. What are the processes and microtask queues in Javascript?
3. Write a code to find the breadth of a given tree.
4. Write a program to validate IPv4 addresses.
5. What is the difference between var, let, const in Javascript?
6. What is an event loop?
7. Describe the singleton pattern.
8. Print a given matrix in spiral form.
9. What is the difference between comparator vs. comparable?

**Front-End Developer**:

1. What is and why to use the Block Element Modifier (BEM) convention?
2. Explain how you can use JavaScript functions such as forEach, Map, or Reduce.
3. Explain the difference between Async/Await and Promises.
4. What is a callback function?
5. Explain the difference between visibility:hidden; and display:none?
6. Explain how variables differ in CoffeeScript from JavaScript?
7. Explain the importance of HTML DOCTYPE?
8. Explain the syntax and how to use a Function as A Class?
9. What is the difference between == and ===?
10. What is functional programming in JavaScript?

**Back-End Developer:**

1. What is your favorite programming language? Why?
2. Multiple trains are traveling between multiple stations. Write a query to find the number of trains between 2 given stations.
3. How do you do testing? And what do you think about this? How would you improve QA?
4. What do you know about CORS?
5. How to take into account SEO, maintainability, UX, performance, and security when someone is building a web application?