INTERVIEW QUESTIONS

1.

1.what if we delete three elements from an array and pass that array to a function. Explain the memory allocation.
2. Memory allocation of maps
3. Difference between overloading and overriding

2.

1. OOP features in C++
2. Normalization in DBMS
3. Joins in MySQL
4. Questions on resume
5. Projects and BE Project title/domain"

3.

1. How would you migrate an angular project from version x to any higher version
2. Explain the MVC architecture and how it work
3. Ways to convert a categorical feature to numerical and methods to fill NaN values in data.
4. Explain about ARIMA and it's how it works
5. Explain back propagation algorithm

4.

1.Quick sort
2.polymorphism
3.linked list
4.subject oriented basics
5.explain code of any project by going on source code on git
6.on the spot code in 15mins
7.diamond problem
8.queens problem

5.

1. OS - Semaphore-Mutex, Process Scheduling
2. DSA - 2Sum (Lee code), set kth bit of an integer, count number of ways to reach nth step (we can climb either 1 or 2 steps at a time)
3. C/C++ - All steps involved from source code to executable, where is function definition stored in C.
4. Project related stuff.
5. A few questions related to microprocessor 80386.

6.

1.Revese given array
2.Find avg marks of each student in given subject
3.write code of BST
 4. Tell me about normalization
5.what is indexing
6.Tell me about iso/osi model
7. OOP
8.what is thread

7.

1. Describe your most recent project.What Data Structures did you use?
 2. Walk me through the major OOPS concepts.
3. Which language do servers and browsers communicate in?
4. What are the HTTP methods?

8.

1. Guesstimate
2. Puzzles from GFG
3. Deep discussion on Projects
4. DBMS
5. Queries SQL
6. OOP
7. Software development model and processes

9.

First Tech Round(30 min)
1. (puzzle from geeksforgeeks) Measure 45 minutes using two identical wires

2. SQL vs NOSQL, when would you prefer to use which
3. Abstraction v Encapsulation with real world examples.
4. (resume based) what do you understand about Nodejs from your experience and what issues did you face working with it
5. How was the lockdown for you. What did you do?

Second Tech Round (45 min)
1. Reverse a linked list
2. Implement stack using queue

HR (20 min)
1. Tell me about your hackathon experience
2. What challenges did you face while working in a team. How did you overcome them
3. Why does the banking sector excite you
4. Some questions for formality like do you have an indian passport

Profit round with VP(30 min)
1. N people are standing in a circle. The first person has a gun and he shoots the second person and gives the gun to the third person. The third person shoots the fourth person and gives the gun to the fifth person and so on. Write a program to find the last person remaining(alive) at the end.
2. Why do you want to join Deutchse Bank.
3. If you're given an offer to join a service based company that will send you on onsites to different countries, which will you prefer.
4. Do you plans for Masters.

10.
1. Different oops concept.
2. Static vs dynamic Polymorphism with example via code
3. Swapping two numbers without using third variable
4. Swapping two strings without using third variable

11.
1. Tell me about yourself
2. OOPS Concept
3. How does Runtime Polymorphism takes place
4. Reversing a string

5. Finding whether a string is palindrome or not
6. Project work discussion
7. Why MasterCard(hr)
8. How would describe yourself?(hr)
9. Strength and Weakness(hr)
10. Your role in internship(hr)
11. How would your friends describe you and which areas would they suggest to improve on. (hr)
12. Whic programming language you enjoy the most working with and why?(hr)

12.

1. Resume probing(Although they show as if they r interested to know abt all your projects but all they want is that you lead them to ur DBMS project).
2. Mysql queries related to joins
3. Basic HR questions like tell us abt urself, why do u wanna join ZS, why should we hire u, why do you think u r good for the role, what r ur strengths,weakness, what r u passionate about, where do u see urself in 5 years etc
4. Puzzles, guestimates
5. Do you have any queries(Do company research and have some good questions prepared before hand).

13.

1. DBMS Basics
2. Why us?
3. About Yourself
4. How to plan for a long project?
5. Explain any project where had to work excessively and then achieved exceptionally.
6. Situation - What would you do if your boss gives you a deadline for a project and you know it is impossible to complete it in the given time?
7. Situation - Consider you are boss and have to fire an employee out of three. One is a guy whom you are a little uncomfortable with, second is a lady with some family issues going on and third is a pregnant lady with a excellent track record. Whom will you fire and how?
8. Guestimmate - Estimate the number of doctors in India.

14.

1. Tell me about yourself
   2. What projects have you done in second year (in detail)
   3. What projects have you done in third year (in detail)
   4. Resume related questions
   5. What is the difference between switch and router
   6. Structure of switches and routers in college
   7. How much are you familiar with linux
   8. Shell Scripting
   9. How to locate a specific file in folder (Your approach)
   10. Difference between HTTP and HTTPS
   11. What do you know about us?
   12. Do you have any questions for me

15.

   1. Tell me about yourself
   2. What are the different things you have done during last 5 months (during pandemic)
   3. Explain your projects in detail
   4. Puzzle - 4 people want to cross the bridge. They have only one torch. At a time only 2 can cross the bridge. The time taken by each to cross the bridge are 1,2,5,8 respectively. Find minimum time
   5. Why us?
   6. Where do you heard the name of company
   7. What are the 3 things that you expect from company
   8. What makes you happy at the end of the day
   9. Your strengths and weaknesses
   10. one-way hash, use of salt in the algorithm
   11. Real time application of one-way hash
   12. Difference between digital signature, and encryption
   13. Do you have any questions for me

16.

1. Program for second maximum element in array
2.what are triggers,
3.Round Robin Scheduling
4.Database questions
5.Projects related questions

17.

1.Describe your project
2.Why did you used sqlite for your project?
3.If given same scope of the project would you use sqlite or other database?
4.Difference between sqlite and mongodb
6.What is RDBMS?
7.Is python scripting language or programming language?Why?
8.Why did you applied for …......?

18.

HR Interview Questions:
 1. Introduce yourself and your family
 2. What are your hobbies? I said writing poems, so the next Question was
3. Why don't you pursue that as a career?
4. Do you have a PPO from any of the companies you interned at?
5. How was your campus recruitment experience at the other companies that visited your campus?

19.

1. Why do we use views?
2. What are the drawbacks of normalisation?"

20.

Projects
OOP concepts
why is pyhton slower than cpp
sorting algos
quick sort vs merge sort
How is a HTTP request made what data is being shared b/w client and server
Memory leak
Memory allocation Stack and Heap
if palindrome
reverse a string

21.

First Tech Round(60 min)
1. Check if the given integer(NOT string/array) is a palindrome. (not to be converted into string/array)
2. (resume based) If the requirements of the REST APIs that you've built have changed, how will you modify your code, such that it supports the previous and new requirements.(was looking for versioning of APIs)
3. (resume based) What are some good REST API practices to be followed.
4. (resume based) What are promises in Javascript and where did you use them.
5. TCP vs UDP. Which is used in video conferencing.
6. HTTP vs HTTPS. What is SSL and how does it work. Encryption vs Hashing
7. What are some joins in DBMS, Left join vs right join
8. What is multithreading, why is it used
9. Since you're from Mumbai, will you be fine with working in Pune.
10. Any plans for Masters.

HR + tech(30min)
1. Tell me about yourself and your family.
2. Since your father is at a good position at his current company, why not join that company
3. Why Avaya
4. What non-technical challenges did you face.
5. What technical challenges did you face. How did you solve it. Grilled me on my solution and where it could go wrong.
6. Why did you join PICT instead of a college in Mumbai.(was looking for a better answer than 'mila nai kuch better')
7. Any plans for masters
8. What product would you like to work on, if you joined Avaya"

22.
1. DBMS Basics
2. Why ZS?
3. About Yourself
4. How to plan for a long project?
5. Explain any project where had to work excessively and then achieved exceptionally.
6. Situation - What would you do if your boss gives you a deadline for a project and you know it is impossible to complete it in the given time?
7. Situation - Consider you are boss and have to fire an employee out of three. One is a guy whom you are a little uncomfortable with, second is a lady with some

family issues going on and third is a pregnant lady with a excellent track record. Whom will you fire and how?
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23.

- Partial Marking
- TechGig platform
- Question 1: Modified Job Scheduling (Input was in string format so it became bit time consuming at least for me)
- Question 2: String Manipulation
  - **Technical Interviews** (I messed up an answer cause I got confused with some terms) - Business Skype
    - What Technologies do you like working on?
    - About my projects
      - Do you know what is responsive website
      - Tell me about Materialise CSS
      - About my SIH project
      - Had to explain my projects
      - I talked about my data analysis internship to explain how it's important to know how to implement your knowledge. Application based learning basically.
    - How will you implement these particular technologies in MasterCard (in my case web development and Data Analysis)
    - What will you like to work in, Data Analysis and database Management or Web Development?
    - How do you keep yourself updated with the recent trends in technology and like how do keep updating your skillset
    - I asked him for feedback and he said:
      - You know a lot of things and you are enthusiastic and that's good but instead of trying to learn a lot of things focus on concepts and getting in depth knowledge, cause I think anyone can learn syntax using google and stack overflow but you should know concepts.
  - **HR Interview** (Some people had two HR interviews but I only had one and interview went up till 11:30pm and you get only 5-10 minutes to prepare for HR) - Zoom

- Introduce Yourself:
- Made me explain two of my projects
- Why MasterCard?
  - I talked about how their company's values went in hand with my personal values. Your company is purpose driven and I would wanna work in a company like that. They talked about how 85% transactions are in cash in their ppt so i said that if MasterCard has that many opportunities available for them, so will I, if I happened to work with them.
  - I also talked about how other companies talk about equality but MasterCard actually has policies that show that they value equality and are not only talking about it but are also putting it into application.
  - Also talked about priceless movement, which is a movement by MasterCard. (Related to social work, basically about giving back to the society)
- Top 3 technologies according to you?
  - Data Science and Machine Learning:

Cause Data is an important resource and it's important for us to understand what is working, what is not, what are our customers using, how they are using,.....

- IOT:

Talked about magic mirror which was a project during pasckathon 18 and how people are trying to modernize everything.

  - VR and AR
  - Security is always in fashion and it's always gonna play an important role.
- If someone who has no knowledge about technical domain, how will you explain them about engineering and what you do?
  - This is what I even tell my juniors that IT and Computer Engineering is not about some fancy technologies like ML, AI but about problem Solving.
  - You need to look around you, understand what the problem is, find it's solution then see how this solution can be implemented.

- o All you need to develop is Problem Solving and then learning a technology to implement it is gonna just be a matter of time.
  - o Also if you know one programming language, like I know C++, learning other languages is just about the syntax.
- Any Questions for me : I asked anything you expect from your employees:
  - o They said that I am happy that you value our company's way of working and we are open minded and we want our employees to maintain that working culture.
- At the end of his answer I talked about how I liked what he said during Ppt about giving medical insurance to your partner even if someone is gay or lesbian and how they have paternity leaves while other companies don't. Also how MasterCard is so confident about their work that they removed their name from their logo in 2019 and how they said they don't consider visa and rupay as their competition but cash as their competition and how I would want to work with a company like that. I also told him how I note down interesting points from Ppt and I found so many interesting things in their ppt.

- **Some questions my friends were asked:**
  - What is your favourite subject ? And then questions based on that
    - SQL queries
    - Stack and Queue based questions
  - Strengths and Weaknesses
  - Heroic movement