

# PropTiger Experience

## Round 1

Duration: 2hr 30 mins

14/38 students were selected for interview

- 30 MCQ on DS, Algo and DBMS
- 4 Coding questions
  1. Given an array of positive and negative numbers. You are allowed to flip some contiguous numbers only. Flipping a number changes its sign (from positive to negative and vice versa). Flip them in such a way that total sum of the numbers is maximised.
  2. Given preorder and inorder traversal of a binary tree, find its postorder traversal.
  3. Reverse a string word by word and capitalise only the first alphabet of each word.  
*Input*      How ARE you?  
*Output*    Woh Era ?uoy
  4. Find all duplicates in a given array.

## Round 2 (Technical Interview I)

Duration: 40-50 mins

6/14 were selected

Started with tell me about yourself. He was going through my resume while I was answering.

Pointing to `Skills` in my resume he said "Do you know about or have you worked on any other database other than MySQL". I said "I know a bit about MongoDB". He then asked me about basic difference between MySQL and MongoDB. Their applications, properties, pros, cons etc.

What is git. What is version control system. Why have you used git in your projects. Why is git preferred over other version control systems.

Then he discussed my projects in details. Didn't asked me to code but to thoroughly explain them. What problems did I face, how I overcome them. Why have you used fork() instead of multithreading in this project. Difference between them. When to use multithreading. What problems do we face in multithreaded program. A bit about critical section and locking system. Do your computer run any multithreaded program? (Answered yes) Which ones? Have you seen them? Where? (In Activity monitor)

He then asked me 2 questions:

1. Given a pointer to a node of a linked list. You have to delete this node but you are not given head of linked list and you do have to free the memory.

*I gave him 2 approaches. He asked me to code the 2nd approach and was satisfied.*

2. Given a 2-D matrix whose rows and columns are sorted. Find the given element.

*I gave him 3 approaches. He asked me code the last one.*

Then some questions on sessions. What is session. Where and why do you store them. Are these browser independent. Where in memory are they saved.

He then asked if I have any questions. I asked a few about the technologies and projects we will be working on, companies policies etc.

## Round 3 (Technical Interview II)

*Duration: 30-35 minutes*

*All 6 were selected*

Going through my resume he asked me to introduce myself. Repeated some points from my resume saying "Good". He then asked me my marks from school to PG. He straight away then jumped to the questions.

1. Given a sorted array where entries are not unique. Find the number of occurrences of each distinct entry.

*I gave him 3 approaches. He asked me to code last 2 approaches and was satisfied.*

2. Design a data structure supporting 4 operations. All operations should be  $O(1)$

Add - To add the given value in DS

Delete - To delete the given from DS

Find - To check if given value is present

Random - Return random number from this collection

*I gave him few different approaches. None was perfect but he was satisfied saying I didn't even expect this much.*

## Round 4 (HR)

*Duration: 20-30 minutes*

Again started with my introduction and my hobbies.

*I said "Street racing" and he laughed.*

What do you do in your free time?

*"I watch tons of videos and read a lot of articles about cosmology, higher dimension, time travelling etc. I'm even working on my own theory." He found that interesting and asked me more about it. I explained it to him and he was actively listening.*

After that he asked if I have any questions. I asked a lot of questions. He patiently answered all of them. He later asked me "In which company would you like to work, a startup or a well established company if they have same CTC, working conditions, reviews and location". Some questions about my family and education.

*2 people (including me) got Internship + Full-time offer and  
2 people got Internship + Conditional job offer*