PRESIDIO:

Role: Associate Engineer

Two Tracks for Placement:

1. Direct hiring by Presidio via off-campus pooled drive and/or on-campus drive.
2. Through ProGrad-Presidio Off Campus drive.

Selection Rounds (4 in total):

I. ROUND 1: ONLINE ASSESSMENT

- 1 hour 30 mins to 2 hours long.
- It consists of MCQs as well as Coding questions.
- Comprehensive assessment with 6 sections/components.

A. Web Development Task:

Code the given webpage using HTML, CSS and JavaScript.
Eg: Login Page (prev asked Qn)

B. SQL:

2 SQL based coding Qs were asked for the last two years.

C. Coding Snippets:

- Output questions related to C/C++, Javascript and Java.
- Tip: learn coding snippets for these languages with their outputs.
- Bash Commands and Shell Scripting are also asked.
- **Playlist for C aptitude:** https://www.youtube.com/playlist?list=PLhP5RsB7fhE3h5MvxjC2MHPbCjcL_8-e5

D. Technical MCQs:

Note: These MCQs will be different and a little difficult. They will expect you to answer real time questions like actual working developers.

- Questions on computer networks, DBMS, OOP, operating systems, and data structures.

- Use Sanfoundry for learning technical aptitude (OOPS, DBMS, CN, other CS fundamentals).
- Search for real time interview Qs of given domains like DevOps , Cloud, Data Analytics.

E. Aptitude:

Equal importance for Logical Reasoning and Quants. Qs will mostly be simple only.
Eg. out of 40 Qs, they might ask 7 aptitude questions.

F. Coding Questions:

- 2- 4 coding questions will be asked.
- Qs will be from easy and Medium level.

G. Extra Sections:

- In 2022/2023 ProGrad drive, there were 9 sections including MCQs on HTML, CSS and JavaScript.

II. ROUND 2: TECH INTERVIEW (1 on 1):

- Around 30 mins to 1 hour interview.
- **5 sections/areas:**
  - Resume → most important. Know your resume inside out and make sure you are thorough with all the programming languages and technologies mentioned in your resume.
  - OOPS concept: Kurnal Kushwaha playlist
  - Pen and Paper Coding Logic will be asked. For coding questions : Striver's Datasheet
  - SQL
  - Real Time Questions.
- **Coding questions:**

- Most classical questions from DSA like Google phone pad, find the occurrence of a character , similar kinds of questions can be asked.
- Resources: Striver's Datasheet, neetcode.io.

- **Previously asked Coding Qs:-**
  1. Input: aaabbc
     Output: a3b2c1

  2. Sum an array without a loop in Python

  3. Multiply two elements without using “*”

  4. Write an SQL query for integrating it within your backend for login authentication.

  5. Reverse a Linked List.

  Imp. Note: Give the optimal solutions for all

- **Interview Questions:-**
  a. **Domain wise:**
     - Do you know ____? (domain will be asked based on resume, like devops, data analytics)
     - Have you done any hands-on / projects? Explain it?
     - **Eg.** If you’ve mentioned a project in your resume, they’ll ask what was your contribution, and you might have to implement one of the features that you worked on.

  b. **Resume wise:**
     - You have done this Certification, so Do you know ___?
     - They will question you on all the Technologies / Programming Languages mentioned in your resume, so be prepared.
     - How much does it cost for ____?
       (They can ask the cost for any particular project or Technology that you have used)

- Why use this?, and Why not that?
  Eg. Why Java over Python? Why SQL / MySQL over NoSQL / MongoDB.
- Difference between ___ and ___?

c. Language wise:

- Memory Allocation for the programming language (Java, Python or C)
- Learn the Architecture of the programming language.
- Will it work in this condition / situation?
- What are the frameworks you have learnt for this language?
- Why this language over other languages?

- **OOPS Concepts (previously asked Qs) :-**
  - What is Singleton class? Where is it used?
  - Difference between method Overloading and method Overriding.
  - What is encapsulation?
  - What is polymorphism?
  - Explain access modifiers in Java?
  - Define super() keyword?
  - Define this(), static, and final keywords?

III. ROUND 3: APP DEV ROUND

- 3 hours long round.
- Depending on the role or domain they identify for you, you will be asked to develop either a Frontend project or a Backend project.

- Sample Tasks asked in Prev years:
  a. **Frontend Tasks**:
     - Build a Movie Ticketing Booking Site
     - Build a Flight Ticketing Booking Site
  b. Backend Task:
     - Build an Application like gpay for money Transaction
  c. Cloud based task:

- Build the given application using lambda function

d. FullStack based task:

- Build a complete hotel management website
- Build a full-stack Car Wash application (asked for 2022 ProGrad drive)

IV. ROUND 4: Behaviour Analysis.

- HR interview - expect the usual Behavioural questions.

REFERENCES:

1. codeClubs tamil: https://youtu.be/slboC5N5Sxs?si=l3x7tsHYoXABz0An
2. PRAJ TALKIES: https://youtu.be/fboEB_egb40?si=8DAHFd_VcZsWem86
3. GeekForGeeks: https://www.geeksforgeeks.org/presidio-interview-experience-for-associate-engineer-full-time-campus-placement-2024/

My Presidio Assessment Experience

- There were 36 questions in total split into continuous sections.
- It was a 2 hours long assessment.
- First 30 questions were MCQs which consisted of Quantitative aptitude, Logical reasoning, HTML, CSS and JS, Output type questions in C++ and Java, and Devops/Cloud based questions.
- Last six questions included 2 programming questions, 2 SQL questions and 2 Pseudo Code questions.
- **Coding Questions asked in my test:**
  1. Find the largest adjacent LCM in an array:
     - Implement using a set S for storing all the LCMs of adjacent elements in the given array and then return the largest LCM among them.
     - No “wrap around” here ⇒ {5,1} is not counted for [1,2,3,4,5]
     - **EXAMPLE:**
       Input: n = 4, arr = [1,3,2,4,]
       Output:
       Set S = { lcm(1,3), lcm(3,2), lcm(2,4) } = {3, 6, 4}

Largest LCM = {6} ⇒ output is 6

2. Martian Lucky Year

- **Pseudo Code Question asked:**
  - You are given two large containers filled with X and Y amounts of water respectively. You have a mug that can hold Z amount of water.
  - Consider one move as removing Z amt of water from one container and pouring it into the other container.
  - Write a pseudo code to find the number of moves required to make the amount of water in both the containers as equal.