

SAP Labs

Role: Scholar @SAP Program → also known as VT (Vocational Training) / STAR (Student Training and Rotation program)

Compensation Details:

- **SAP Scholar 2 years program:** 4.56 LPA Stipend (earlier they have given 6 LPA stipend)
- **Integrated Master's Program:** M.Tech Software Engineering from BITS, Pilani (fully paid by SAP)
- **After conversion to Full Time:** 11.15 LPA expected CTC (varies every year but usually FTE salary is in the range of 8 to 12 LPA)

Selection Process:

- Online Coding Test
- 2 Rounds of Technical Interview
- VT Managerial Interview

1. Online Coding Test:

- Platform: SHL or HackerRank
- Duration: 45 mins
- Two coding questions were given.
- Mostly they will ask **String** or **Array**-based questions only. Very few people got DSA questions like **Linked List**. They prefer Java over Python/C++.
- Be clear and thorough with string, array problems in Leetcode and also Linked List.
- Questions will likely be very simple only, but timing is important → Hit the submit button as soon as you get all the test cases passed for both problems.
- Don't waste time in optimizing the code for this round → If you get the brute-force solution and it passes all the test cases, just submit the code.

- Practice basics of arrays, string-manipulation based Qns, data conversion (string to array, array to string).

Previous years coding questions:

- I got a string-based **Pattern Matching** problem and a **Company Cab Distance** problem.

A company wants to provide cab service for its N employees. Employees have IDs ranging from 0...N-1. Given an array of the distances of each employee's house from the company, where the distance for employees who live on the left side of the company is marked by negative sign, and the distance for employees who live on the right side of the company is marked by positive sign. The company is allotted a distance range for its cab. Give the start distance and end distance, write a program to find the distances of the employees who live within the distance range.

- Finding the count of perfect square numbers in an array of numbers.
- Program to check palindromes in strings.
- Getting odd numbers from a list program
- Program to move all zeros to the end of an array.
- Reverse the string and find the number of characters that didn't change their position.
- **Pattern Matching** is an important string question.

2. Two rounds of Technical Interview

- Duration: 30 - 45 mins each
- The two technical interviews will cover your project and internship experiences so be sure to be thorough with those → Prepare a backstory for each project in your resume if possible.
- The first interview **TR1** is Resume and Project based along with internship and Subject basics, while second round **TR2** is deep programming concepts.
- For projects, they may ask whether you worked in frontend or backend, what was your role and contributions.

- Be careful what you put in your resume (projects, certifications, internships), as most Qns will be based on resume only.
- **OOPs** and **SQL** are essential. Also, questions on CS fundamentals (OS, CN, DBMS, and CD) are usually asked.
- For arrays, be clear with **merging, sorting, searching algorithms** along with their **time** and **space efficiency**.
- Expect a few coding questions from DSA - Focus more on arrays and have a good understanding of data structures → delve as deep into DSA as you can.
- Few **mathematical puzzles** are also usually asked → practice on GeekForGeeks.
- Try to demonstrate your multitasking skills, and express a curiosity to learn even if you don't answer properly.
- Keep one or two questions to ask the interviewer at the end (for both TR1 & TR2):-
 - How long have you been working in SAP and why? (what made you stay in SAP)
 - How does it feel to work at SAP / How is the work culture at SAP?
 - What is the interviewer's current role / what was his journey at SAP like?
 - You can even ask the interviewer what technologies they are working on.

Previous years Interview Qns:

- Binary Search Tree operations (insertion, deletion)
- Three-way handshaking protocol in CN
- 7 Layers of the OSI network model
- Phases of a Compiler
- Memory Management in OS
- DBMS basic Qns like - what is primary key, explain cardinality, ACID properties.
- SDLC life cycle

- Difference between C++ and Java and Python.
- Difference between algorithm and pseudocode.
- SQL queries → select, insert, update, joins, and nested queries.
- Selecting the Nth highest salary in the employees table is an **important Qn.**
- Coding Qn to move all zeros to the end of the array.
- **Red Hat Certifications** like RHCSA, RHCE are useful BUT ensure that you can answer Qns on **Red Hat Linux** and **Ansible** → Ansible in particular is **used extensively** at SAP so if you have ansible mentioned in your resume, expect to write a simple playbook using ansible.
- Google Cloud if mentioned in resume
 - What is GCP?
 - What is SSH? (expect 2 mark Qns related to any technology mentioned in your resume).

My Tech Interview Experience (TR1 and TR2):

- In my first interview TR1, I was asked what I knew about SAP (German MNC) and SAP Labs in India – I told what I knew about SAP's products, their clients, what SAP offers to businesses and its uniqueness.
- Coding Qn to print a string "SAP" 100 times without using loops → I implemented a solution using recursion → but then the interviewer pointed out the large time complexity of my solution and asked to optimize the code.
- SQL query to select the 4th maximum salary from an employee table (TR1 qn).
- In TR2, I was asked what I knew about **OOPs** → I explained Inheritance, Polymorphism, Abstraction, and Encapsulation with a **practical example** for each concept. The interviewer seemed satisfied with my answer.

- I mentioned an NPTEL course on Google Cloud Computing Foundations in my resume, so in TR2 the interviewer asked me for my NPTEL exam score and what I learnt or did in the certification course.
- Since I had a ML-based project in my resume, the 2nd interviewer asked me some questions on AI/ML:-
 - What is tokenization? (its an NLP concept)
 - Difference between Deep Learning and Neural Networks.

3. VT Managerial Interview

- Duration: around 20 minutes
- This is a short cultural round/ HR interview with one of the VT Managers at SAP Labs.
- Discussion on Pre-Placement Talk notes, SAP Culture, a few questions about the Scholar@SAP program + what more they know about SAP Labs.
- Behavioural interview testing for cultural fit.
- Common questions include:-
 - Will you be able to manage both academics and work? / Would you be able to manage your time?
 - Ready for the rigour (balancing academics with work)?
 - Leadership-based Qn → Talk about a situation where you took on a leadership role or exhibited your leadership qualities.
 - Resume-based Qns → about your certifications, projects, or internships.
 - Are you okay with relocating to Bangalore for the Scholar program?

Resources:

1. Interview Experience Article on [Medium](#)
2. Previous SAP Labs coding problems on [GFG](#).
3. [GFG Puzzles](#) for practice.
4. SAP Labs Interview experiences: [video 1](#) [video 2](#)
5. Leetcode DSA sheet (Striver A2Z most helpful)