Tell me about your self?

“Thank you for the opportunity. My name is Manjunatha Reddy, and I’ve been working as a HIL Validation & Verification Engineer for just over five years in the automotive domain. My core strengths include HIL testing, in-vehicle testing, ECU validation, automation, and a strong knowledge of CAN, LIN, and CAN-FD diagnostics.

I started my career in 2021 at Mobase Electronics, where I’ve been involved in validating automotive ECUs both on HIL benches and in vehicle environments. My key project has been the Body Domain Control (BDC) ECU for Hyundai and Kia, which integrates both BCM and SMK functionalities into a single controller.

In this role, I’ve validated a wide range of comfort, convenience, security, and safety-related features. My responsibilities include designing and executing HIL test cases, developing CAPL automation scripts, performing functional and fault injection testing, and ensuring robust diagnostic validation.

I have strong hands-on experience with Vector tools like the VT System, vTESTstudio, and I’m confident in analyzing logs in CANoe. I also regularly use tools like the oscilloscope and multimeter for debugging. As part of my achievements, I received an On-the-Spot Award in 2023, and I also worked onsite in South Korea to support HIL bench setup and BDC feature validation.

Currently, I’m looking for a role where I can apply my skills in HIL testing, automation, and ECU validation and contribute to a strong engineering team.

Why do you want to join KPIT? / Why KPIT?

I want to join KPIT to contribute to next-generation mobility solutions while growing technically and professionally.
I believe KPIT’s innovation-driven environment and global automotive projects are the perfect platform to apply my HIL and ECU validation expertise.

Why are you looking for a change?

I’m looking for a change to take on bigger challenges and grow in a more advanced automotive engineering environment. I want to work on system-level validation and contribute more effectively to complex automotive projects.

What is your biggest strength?

My biggest strength is my ability to quickly analyze and debug issues using CAN logs, signal behaviour, and system requirements, which helps in resolving problems efficiently and keeping validation on track.”

What are your improvement areas?

I’m improving my automation skills, especially Python and CAPL, to increase efficiency in validation.”

How do you handle conflicts or pressure?

I handle conflicts and pressure by staying calm, focusing on facts, and communicating clearly so that we can solve the issue quickly without affecting delivery.

Where do you see yourself in the next 3–5 years?

In the next 3–5 years, I see myself as a Lead Validation Engineer, taking ownership of system-level testing, contributing to automation, and guiding junior team members while delivering high-quality validation for complex automotive features.

Describe a challenging issue you solved in HIL. (Very common at KPIT)

Situation:
During BDC ECU HIL validation, one of the antenna signals was not getting detected by the ECU.

Task:
I needed to identify whether the issue was due to the HIL setup, wiring, configuration, BDC controller, or the ECU itself.

Action:

- Checked the I/O mapping in the HIL configuration
- Verified the CAN signals and cross-checked the DBC entries
- Reviewed panel connections and measured voltages to ensure proper signal levels
- Used the BDC controller to manually simulate the antenna input and confirm expected behavior
- Identified that the antenna signal was mapped incorrectly in the HIL I/O configuration file
- Corrected the mapping and reloaded the configuration

Result:
The antenna signal was detected correctly, testing resumed without delay, and we prevented an incorrect defect from being raised against the ECU software team.

Do you have experience interacting with clients or cross-functional teams?

Yes. I interact regularly with OEM validation teams, software developers, functional owners, and vehicle integration teams. I give daily status, defect discussions, and support software flashing activities."

Do you have any questions for us? (Very important) Ask any one of these:

1. What are the major validation activities for this project?
2. What is the automation expectation for this team?
3. How is performance measured in this project?
4. What growth or training opportunities exist at KPIT?”