Machine Learning & Deep Learning:

1. Can you explain the difference between a **decision tree** and a **random forest**?
2. How does **Random Forest** improve over a single **decision tree**?

Python & Libraries:

3. How would you handle **missing or null values** in a large dataset using **Pandas**?
4. Could you give an example of how you would handle **categorical data** for machine learning models?

Text Preprocessing & NLP:

5. In your **sentiment analysis** project, you used **NLTK, spaCy, and TextBlob**.
    - How did you decide which library to use for different preprocessing tasks (**tokenization, lemmatization, etc.**)?
    - Can you explain the **advantages and disadvantages** of each?

Image Classification:

6. You have used **Convolutional Neural Networks (CNNs)** for image classification in your emergency vehicle project.
    - Can you explain **how CNNs work** and why they are well-suited for image classification tasks?

Model Evaluation:

7. When evaluating the performance of a **classification model**, what **metrics** would you consider important and why?
8. How do you choose the right **evaluation metric** for different types of problems (e.g., **imbalanced datasets**)?

SQL & Databases:

9. How would you write a **SQL query** to find the **second-highest salary** from an Employee table?
10. Can you discuss the advantages of using **SQL vs. NoSQL databases**, and how you would decide which to use?
11. Can you explain the following concepts in SQL?
    - **Joins**
    - **Indexing**

- **rowid & rownum**
- **Stored Procedure and its types**

Dashboard & Predictive Analysis:

12. Can you design a **dashboard** for my **diabetes dataset** and perform **predictive analysis** based on the dataset?