

## **Q1: Talk about the data life cycle.**

The data lifecycle is the journey data takes from the moment it is created or collected to when it is stored or deleted. This journey includes steps like gathering the data, cleaning it to fix errors, saving it safely, using it to find useful information, and finally getting rid of it when it's no longer needed. Each step is important to keep the data accurate, easy to use, and secure.

## **Q2: What is Database Normalization and Denormalization?**

**Normalization** organizes data into smaller tables to avoid duplication and ensure consistency. It's best for faster updates and maintaining data accuracy.

**Denormalization** combines tables or adds duplicate data to speed up searches. It's used when faster reading is more important than reducing data duplication.