Task 1- Identify at least 3 real-world applications and specify:
● Which type of database they use (SQL / NoSQL / In-memory)
● Why that database is suitable

Real World Case - 1: Checking real time status - like online/offline(whatsapp), live delivery tracking, typing..(whatsapp,telegram,etc.)
Database: In-Memory like Redis
Why:

- Live updates in milliseconds
- Provides almost no latency in data
- Easy to store live states and automatically deletes when active sessions expires

Real World Case - 2: College Examination Management
Database: SQL(structured data)
Why:

- Structured Data of every student present
- Easy to perform Join operations
- Easy calculation of Grades, Top -10 students
- Proper connection and join operations in multiple tables and required complex queries which nosql lacks

Real World Case - 3: Player Selection(can be used by IPL Teams to check whether player suits the team or not)
Database: SQL(structured data) + NoSql (for json records like feedbacks from coach, player impact on team)
Why:

- Structured player stats like total matches, runs, economy, etc.
- Helps in complex queries like player consistency, performance against specific teams, and season-wise comparisons
- Schema flexibility asNoSQL allows adding new evaluation metrics without making changes in existing tables

Real World Case - 4: Product Recommendations / Personalized Feed (Netflix / YouTube / Amazon)
Database: NoSQL (Graph DB) like Neo4j
Why:

- Works best for relationship-based data (user → watched → movie, user → likes → category)
- Finds similar users/items quickly using graph connections
- Makes recommendations faster compared to joining many SQL tables
- Handles complex links like friends, interests, follows, and interactions easily