Task - 1:

1. Given the table: orders

order_id	user_id	status	created_at

2. Suggest appropriate indexes
3. Explain why you chose them

Indexes:

- To choose an index first we need to think what will the most searched/queried thing on our table.
  - ➔ The most queried property on our table could be finding order for particular user.
  - ➔ Fetch all orders for particular user_id
  - ➔ Might be the case where user asks for particular date or fixed timebound

Indexes Suggestions:

- **Primary Key Index on (order_id)**
  - ➔ Fast lookup by order ID.
- **Composite Index on (user_id , created_at)**
  - ➔ User's order history
  - ➔ Recent orders
  - ➔ Sorting by date
- **Secondary Key Index on (user_id)**
  - ➔ Fetch all orders for a particular user
  - ➔ Optimizes queries where only user_id is used as filter