Original Table

customer_id	username	password	name	email	mobile_no	role
1	alice123	pass@123	Alice Khan	alice@example.com	03001234567	customer
2	bob456	bob@secure	Bob Ahmed	bob@example.com	03012345678	customer
3	admin	admin123	Ahad	ahad@gmail.com	03306359272	admin

1NF (First Normal Form)

- ✓ **Already in 1NF**
- ✓ All attributes are atomic
- ✓ No repeating groups or arrays.

2NF (Second Normal Form)

- ✓ The **primary key** is customer_id.
- ✓ All non-key attributes are fully functionally dependent on customer_id.
- ✓ **Already in 2NF.**

3NF (Third Normal Form)

- ✓ Check for **transitive dependencies**:
- ✓ Does any non-key column depend on another non-key column?
- ✓ Observation:
- ✓ username, email, and mobile_no must be unique, but they are direct properties of customer_id.
- ✓ No transitive dependencies.
- ✓ **Table is in 3NF.**

BCNF (Boyce-Codd Normal Form)

- ✓ Check if **every determinant** is a **candidate key**.
- ✓ customer_id → all other attributes ✔
- ✓ No partial or non-trivial functional dependencies with non-superkeys.
- ✓ **Satisfies BCNF.**

4NF (Fourth Normal Form)

- ✓ Check for **multivalued dependencies**:
- ✓ There are no multivalued dependencies here (e.g., multiple emails or phone numbers per customer).
- ✓ **Satisfies 4NF.**

5NF (Fifth Normal Form)

- ✓ Check for **join dependencies** or **composite data** that needs to be broken down.
- ✓ All data is already atomic, and there's no decomposable fact requiring reconstruction via joins.
- ✓ **Already in 5NF.**