**Q1) WHAT IS THE PRIMARY KEY?**

**Pimary key** is a field (or a combination of fields) that uniquely identifies each record in a table. It ensures that each record can be uniquely distinguished from every other record. And it can not be null.

**Q2) What is Foreign Key and why it is needed?**

A foreign key is a field in one table that references the primary key of another table. It creates a link between the two tables, ensuring data integrity by enforcing valid relationships between records. This prevents orphaned data, supports data consistency, and facilitates efficient querying and management of related data.

**Why is a Foreign Key Needed?**

1. **Maintaining Data Integrity**

Foreign keys ensure that relationships between tables remain consistent. For example, you can’t insert an order for a customer who doesn’t exist in the Customers table. This prevents the creation of orphaned records and ensures that every record in the Orders table corresponds to a valid record in the Customers table.

1. **Enforcing Referential Integrity**

Foreign keys enforce referential integrity by ensuring that the value in the foreign key field matches a value in the primary key field of the referenced table. This prevents invalid or mismatched data relationships.

1. **Preventing Data Duplication**

By using foreign keys, you can avoid duplicating data. Instead of storing customer details in every order, you can store a reference to the customer using a foreign key, which reduces redundancy and improves data management.