1. Solution:-

Diagram

Description automatically generated

PRIMARY KEYS and FOREIGN KEYS:

1. CustomerID is the primary key in the Customers table.
2. OrderID is the primary key in the Orders table and CustomerID is the foreign key in the Orders table which is specifying the Customers table
3. ProductID is the primary key in the Products Table.
4. OrderID and ProductID are the foreign keys which are specifying the Orders table and Products Table in the OrdersToItem Table

RELATIONSHIPS:

1. Customers table and Orders table have one to many relationships between them on CustomerID
2. Orders table and OrdersToItem table have one to many relationships between them on OrderID
3. Products table and OrdersToItem table have one to many relationships between them on ProductID
4. Solution: -

Diagram

Description automatically generated

TABLES ADDED:

OrderLocator table and AssigningOrder table have been added for necessary purposes with LocatorID as primary key for OrderLocator table.

PRIMARY KEYS AND FOREIGN KEYS:

1. ShippingID is the primary key and OrderID is the foreign key specifying the Orders table in the Shipping table.
2. LocatorID is the primary key in the OrderLocator table and there are three foreign keys called ShippingID, CustomerID and OrderID which are specifying to Shipping, Customer and Order tables respectively.
3. EmployeeID is the primary key in the Employees table
4. EmployeeID, ShippingID and OrderID are the three foreign keys in the AssigningOrder table which are referring to Shipping, Employee and Order tables respectively.

RELATIONSHIPS:

Four one to may relationships have been added other than the existing relationships in Question one.

1. On EmployeeID column between Employees and AssigningOrder table
2. On ShippingID column between Shipping and AssigningOrder table
3. On OrderID column between Orders and AssigningOrder table
4. On ShippingID column between Shipping and OrderLocator table
5. On CustomerID column between OrderLocator and Customer table
6. On OrderID column between Order and OrderLocator table
7. Solution:

Diagram

Description automatically generated

TABLE CREATION:

1. I have created three tables named Employee with primary key EmployeeID and other required information such as name, contact details, age etc.
2. Groups table which has GroupID as primary key and the name of the group.
3. EmployeeAssignment which was created to relate both Employee and Group table.It consists of GroupID and EmployeeID as foreign key which is referring to Groups and Employee table respectively.

RELATIONSHIPS

1. Employee table and EmployeeAssignment table has a one to many relationship on EmployeeID column.
2. Groups table and EmployeeAssignment table has one to many relationship on GroupID column
3. Solution: -

Diagram

Description automatically generated

Other than the tables used in Question 3, I have created table called Duties which had DutiesID as primary key and also consists details such as duty name and its description and GroupID as a foreign key specifying to Groups table.

New Relationships which aren’t used in Question 3 are:

1. On GroupID column has a one-to-many relationship between Groups table and Duties table
2. On DutiesID column has a one-to-many relationship between Duties table and EmployeeAssignment table