**Task:**

1) choose a company and study its business process

2) create a complete database model of exact 6 entities (including associative entities) for this company

3) write SQL statements to develop database tables for each of these entities in the model

A complete database model must include entities, attributes, and relationships. If necessary, you may define and describe the entities and attributes in your model.

**Description:**

As part of globalisation, technology grows, the number of people participating in e-commerce purchases will grow along with it. Electronic commerce, known as e-commerce, is a type of business model that involves making transactions over the internet. So, I have chosen E commerce site called amazon which is too popular nowadays and tried to work on its database w.r.t some of its entities.

**Entities:**

1. Customers,
2. Employees,
3. Products,
4. Orders,
5. Payments and
6. Shipments.

**SQL Statements to develop the database tables:**

**Customer Table:**

CREATETABLE Customer(

Customer\_IDINTIDENTITY(1,1)PRIMARYKEY

,First\_NameVARCHAR(100) NOT NULL

,Middle\_NameVARCHAR(100)

,Last\_NameVARCHAR(100) NOT NULL

,GenderCHAR(1)

,Email\_AddressVARCHAR(100) NOT NULLCONSTRAINTCust\_EMail\_AddCHECK (Email\_AddressLIKE'%@%')

,Login\_NameVARCHAR(100),Login\_PasswordVARCHAR(100)COLLATEdatabase\_default

,Phone\_NumberINTCONSTRAINTCust\_PhoneCHECK (Phone\_NumberLIKE'%[^0-9]%')

,Address\_Line\_1 VARCHAR(400)

,Address\_Line\_2 VARCHAR(400)

,Address\_Line\_3 VARCHAR(400)

,CityVARCHAR(50)

, Country VARCHAR(50)

)

**Employee Table:**

CREATETABLE Employees(

Employee\_IDINTIDENTITY(1,1)PRIMARYKEY

,First\_NameVARCHAR(100) NOT NULL

,Middle\_NameVARCHAR(100)

,Last\_NameVARCHAR(100)NOT NULL

,GenderCHAR(1)

,Email\_AddressVARCHAR(100)NOT NULLCONSTRAINTEmployee\_EMail\_AddCHECK (Email\_AddressLIKE'%@%')

,Login\_NameVARCHAR(100)NOT NULL

,Login\_PasswordVARCHAR(100)NOT NULLCOLLATEdatabase\_default

,Office\_CodeVARCHAR(20)

,Reports\_ToINT

,Job\_TitlesVARCHAR(100)

,Phone\_NumberINTCONSTRAINTEmp\_PhoneCHECK (Phone\_NumberLIKE'%[^0-9]%')

,Address\_Line\_1 VARCHAR(400)

,Address\_Line\_2 VARCHAR(400)

,Address\_Line\_3 VARCHAR(400)

,CityVARCHAR(50)

)

ALTERTABLE Employees ADDCONSTRAINTEmployees\_ReportsFOREIGNKEY (Reports\_To)REFERENCESEmployees(Employee\_ID)

**Products Table:**

CREATETABLE Products(

Product\_IDINTIDENTITY(1,1)PRIMARYKEY

,Product\_TypeVARCHAR(50)NOT NULL

,Product\_NameVARCHAR(200)NOT NULL

,Product\_PriceFLOATNOT NULL

,Product\_ColorVARCHAR(20)

,Product\_SizeVARCHAR(50)

,Product\_WeightFLOAT

,Product\_DescriptionVARCHAR(400)

)

**Orders Table:**

CREATETABLEOrders(

Order\_IDINTIDENTITY(1,1)PRIMARYKEY

,Customer\_IDINTFOREIGNKEYREFERENCES Customer(Customer\_ID)

,Product\_IDINTFOREIGNKEYREFERENCES Products(Product\_ID)

,Order\_StatusVARCHAR(50)

,Order\_DateDATETIME

,Sale\_Rep\_Employee\_IDINTFOREIGNKEYREFERENCES Employees(Employee\_ID)

,Order\_ReturnCHAR(1)CONSTRAINTOrders\_ReturnCHECK (Order\_ReturnIN('Y','N'))

,Order\_Return\_ReasonVARCHAR(400)

)

**Payments Table:**

CREATETABLE Payments(

Payment\_IDINTIDENTITY(1,1)PRIMARYKEY

,Order\_IDINTFOREIGNKEYREFERENCES Orders(Order\_ID)

,Payment\_TypeVARCHAR(100)

,Payment\_DateDATETIMECONSTRAINTPayments\_DateDEFAULTGETDATE()

,Payment\_AmountFLOAT

)

**Shipments Table:**

CREATETABLE Shipments(

Shipment\_IDINTIDENTITY(1,1)PRIMARYKEY

,Order\_IDINTFOREIGNKEYREFERENCES Orders(Order\_ID)

,Payment\_IDINTFOREIGNKEYREFERENCES Payments(Payment\_ID)

,Shipment\_DateDATETIMECONSTRAINTShipments\_DateDEFAULTGETDATE()

)

**4. Database Model:**

