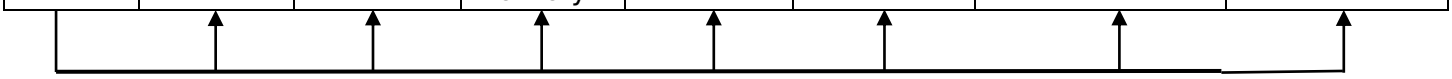
Coffee Supplier

ID	Name	Quantity	Date of Delivery	Quantity	TrackingNo	DeliveryAgentID	DateOfSupply



Functional Dependencies: Name, Quantity, Date of Delivery, Quantity, TrackingNo, DeliveryAgentId is dependent on Coffee Supplier ID (Candidate key & Primary Key)

Primary Key: ID

Candidate Key: ID

Foreign Key: DeliveryAgentID

This relation is in 2NF,3NF, BCNF.

Coffee Supplier Type

ID	Type

Functional Dependencies: {(ID→Type),(Type→ID)}

Primary Key: ID + Type

Candidate Key: ID + Type

Foreign Key: ID (Coffee Supplier ID)

Coffee Supplier Address

ID	Street	State	City	Zip

Functional Dependencies: {(ID → Street),(ID->State),(ID->City),(ID->Zip),(Street->ID),(Street->State),(Street->City),(Street->Zip),(State->ID),(State->Street),(State->City),(State->Zip),(City->ID),(City->Street),(City->State),(City->Zip),(Zip->ID),(Zip->Street),(Zip->State),(Zip->City)}

Primary Key: ID + Street + State + City + Zip

Candidate Key: ID + Street + State + City + Zip

Foreign Key: ID (Coffee Supplier ID)

Coffee Supplier Email

ID	Email

Functional Dependencies: {(ID->Email),(Email->ID)}

Primary Key: ID + Email

Candidate Key: Id + Email

Foreign Key: Id (Coffee Supplier ID)

Coffee Supplier Phone

ID	Phone

Functional Dependencies: {(ID->Phone),(Phone->ID)}

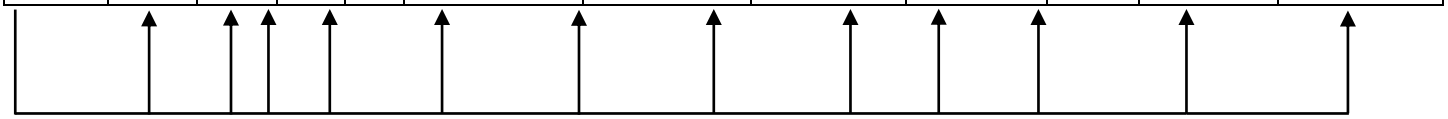
Primary Key: ID + Phone

Candidate Key: ID + Phone

Foreign Key: ID (Coffee Supplier ID)

Delivery Agent

AgentId	Name	State	City	Zip	DateOfDelivery	Expected Date	Delivery Cost	Refund Amt	Status	TrackingNo	CoffeeShopId



Functional Dependencies: Name, State, City, Zip, DateOfDelivery, ExpectedDate, DeliveryCost, RefundAmt, Status, TrackingNo, CoffeeShopId is dependent on AgentId.

Primary Key: AgentId

Candidate Key: AgentId

Foreign Key: CoffeeShopId

Delivery Agent Phone

DAgentId	Phone

Functional Dependency: {(DAgentID -> Phone),(Phone -> DAgentId)}

Primary Key: DAgentId (Delivery Agent ID) + Phone

Foreign Key: DAgentId (Delivery Agent Id)

Delivery Agent Email

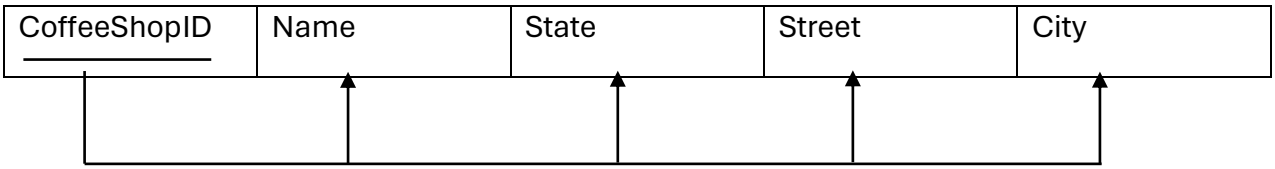
DAgentId	Email

Functional Dependency: {(DAgentId->Email),(Email->DAgentId)}

Primary Key: DAgentId (Delivery Agent ID) + Email

Foreign Key: DAgentId (Delivery Agent Id)

Coffee Shop



Functional Dependencies: Name, State, Street, City is dependent on CoffeeShopId.

Primary Key: CoffeeShopID

Foreign Key: None

Relation is in 1NF,2NF,3NF, BCNF

Coffee Shop Phone

CShopId	Phone

Functional Dependency: {(CShopId->Phone),(Phone->CShopId)}

Primary Key: CShopId (Coffee Shop ID) + Phone

Foreign Key: CShopId (Coffee Shop Id)

Coffee Shop Email

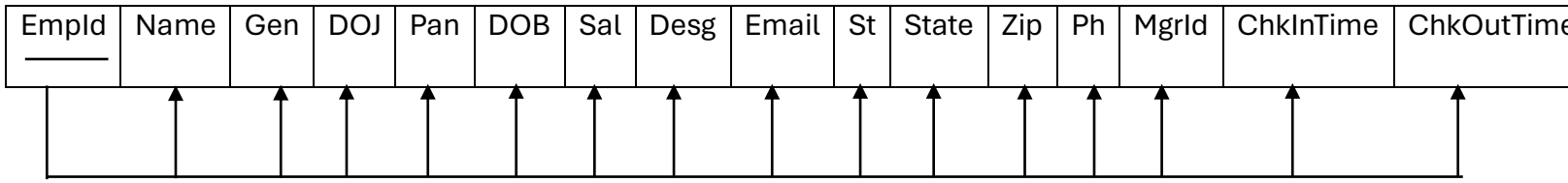
CShopId	Email

Functional Dependency: {(CShop->Email),(Email->CShopId)}

Primary Key: CShopId (Coffee Shop ID) + Email

Foreign Key: CShopId (Coffee Shop Id)

Employee



Functional Dependencies: Name, Gen (Gender), DOJ (Date Of Joining), Salary, Desg (Designation), Email, St (Street), State, Zip, Ph (Phone), MgrId (ManagerId), ChkInTime (CheckInTime), ChkOutTime (CheckOutTime)

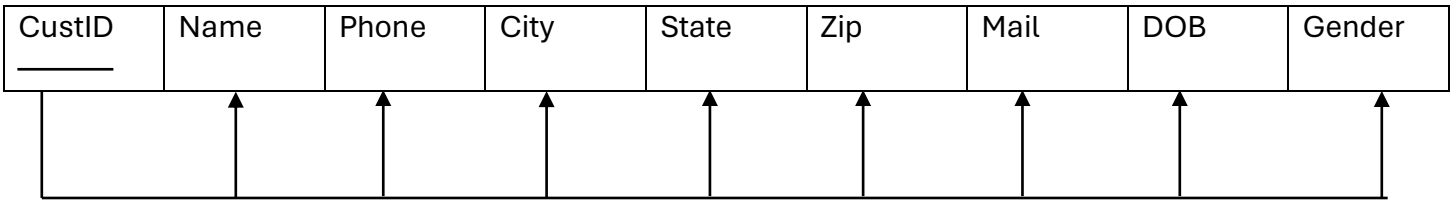
Primary Key: EmpId (EmployeeId)

Candidate Key: EmpId (EmployeeId)

Foreign Key: MgrId (ManagerId)

Relation is in 1NF,2NF,3NF, BCNF

Customer



Functional Dependencies: Name, Phone, City, State, Zip, Mail, DOB, Gender are functionally dependent on CustID

Primary Key: CustID

Candidate Key: CustID

Foreign Key: None

Customer Transaction

CustomerID	CoffeeID	TransacationD

Functional Dependencies: {(CustomerID -> CoffeeID),(CustomerID -> TransactionD),(CoffeeID ->CustomerID),(CoffeeID->TransactionD),(TransactionD->CustomerID),(TransactionD->CoffeeID)}

Primary Key: CustomerID + CoffeeID + TransactionD

Candidate Key: CustomerID + CoffeeID + TransactionD

Foreign Key: CustomerID and CoffeeID

Customer ModeOfPayment

CustomerID	CoffeeID	ModeOfPayment

Functional Dependencies: {(CustomerID -> CoffeeID),(CustomerID -> ModeOfPayment),(CoffeeID ->CustomerID),(CoffeeID->ModeOfPayment),(ModeOfPayment->CustomerID),(ModeOfPayment->CoffeeID)}

Primary Key: CustomerID + CoffeeID + ModeOfPayment

Candidate Key: CustomerID + CoffeeID + ModeOfPayment

Foreign Key: CustomerID and CoffeeID

Customer Date of Purchase

CustomerID	CoffeeID	DateOfPurchase

Functional Dependencies: {(CustomerID -> CoffeeID),(CustomerID -> DateOfPurchase),(CoffeeID ->CustomerID),(CoffeeID->DateOfPurchase),(DateOfPurchase->CustomerID),(DateOfPurchase->CoffeeID)}

Primary Key: CustomerID + CoffeeID + DateOfPurchase

Candidate Key: CustomerID + CoffeeID + DateOfPurchase

Foreign Key: CustomerID and CoffeeID

Customer Feedback

CustomerID	CoffeeID	Feedback

Functional Dependencies: {(CustomerID -> CoffeeID),(CustomerID -> Feedback),(CoffeeID ->CustomerID),(CoffeeID->Feedback),(Feedback->CustomerID),(Feedback->CoffeeID)}

Primary Key: CustomerID + CoffeeID + Feedback

Candidate Key: CustomerID + CoffeeID + Feedback

Foreign Key: CustomerID and CoffeeID

Coffee

CoffeeID	Name	SupplierID	Packaging

Functional Dependencies: Name, SupplierID, Packaging is dependent on CoffeeID

Primary Key: CoffeeID

Candidate Key: CoffeeID

Foreign Key: None

Coffee Cost

CoffeeID	Cost

Functional Dependencies: {(CoffeeID->Cost),(Cost->CoffeeID)}

Primary Key: CoffeeID + Cost

Candidate Key: CoffeeID + Cost

Foreign Key: CoffeeID

Coffee Type

CoffeeID	Type

Functional Dependencies: {(CoffeeID->Type),(Type->CoffeeID)}

Primary Key: CoffeeID + Type

Candidate Key: CoffeeID + Type

Foreign Key: CoffeeID

Final Coffee Cost

CoffeeID	CCost

Functional Dependencies: {(CoffeeID->CCost),(CCost->CoffeeID)}

Primary Key: CoffeeID + CCost (final coffee cost after flavoring)

Candidate Key: CoffeeID + CCost

Foreign Key: CoffeeID

Coffee Weight

CoffeeID	Weight

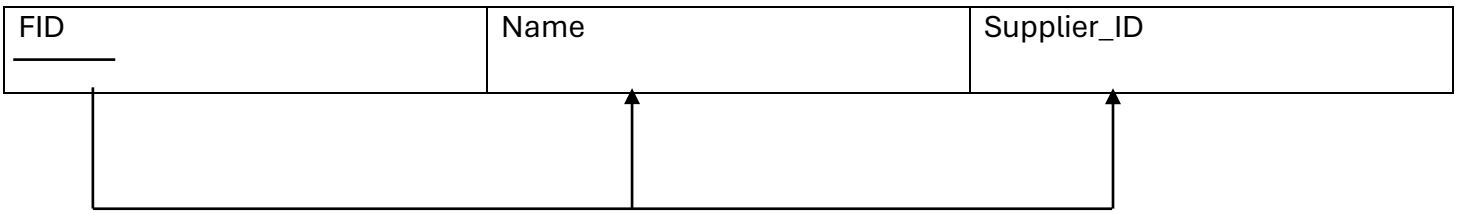
Functional Dependencies: {(CoffeeID->Weight),(Weight->CoffeeID)}

Primary Key: CoffeeID + Weight

Candidate Key: CoffeeID + Weight

Foreign Key: CoffeeID

Flavors



Functional Dependencies: Name, Supplier_Id is dependent on FID

Primary Key : FID

Candidate Key: FID

Foreign Key: Supplier_ID

Purchase

CustID	Coffee_Shop_ID	Coffee_ID

Functional Dependencies: Coffee_Id is dependent on CustId,Coffee_Shop_ID

Coffee_Shop_ID is dependent on CustID

CustID is dependent on Coffee_Shop_ID

Primary Key : CustID + Coffee_shop_ID

Candidate Key: CustID + Coffee_Shop_ID

Foreign Key: Coffee_ID