

Coffee Supplier

ID	Name	Quantity	Date of Delivery	Quantity	TrackingNo	DeliveryAgentID
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graph LR; ID --> Name; ID --> Q1[Quantity]; ID --> DOD[Date of Delivery]; ID --> Q2[Quantity]; ID --> TN[TrackingNo]; ID --> DAID[DeliveryAgentID]
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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
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Functional Dependencies: None

Primary Key: ID + Type

Candidate Key: ID + Type

Foreign Key: ID (Coffee Supplier ID)

Coffee Supplier Address

ID	Street	State	City	Zip
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Functional Dependencies: None

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: None

Primary Key: ID + Email

Candidate Key: Id + Email

Foreign Key: Id (Coffee Supplier ID)

Coffee Supplier Phone

ID	Phone

Functional Dependencies: None

Primary Key: ID + Phone

Candidate Key: ID + Phone

Foreign Key: ID (Coffee Supplier ID)

Delivery Agent

AgentId	Name	State	City	Zip	DateOfDelivery	ExpectedDate	DeliveryCost	RefundAmt	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

Coffee Shop Phone

CShopId	Phone
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Functional Dependency: None

Primary Key: CShopId (Coffee Shop ID) + Phone

Foreign Key: CShopId (Coffee Shop Id)

Coffee Shop Email

CShopId	Email
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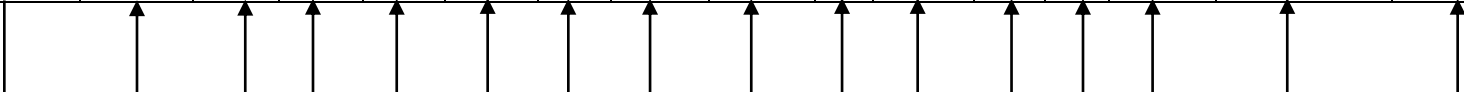
Functional Dependency: None

Primary Key: CShopId (Coffee Shop ID) + Email

Foreign Key: CShopId (Coffee Shop Id)

Employee

EmpId	Name	Gen	DOJ	Pan	DOB	Sal	Desg	Email	St	State	Zip	Ph	MgrId	ChkInTime	ChkOutTime
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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)

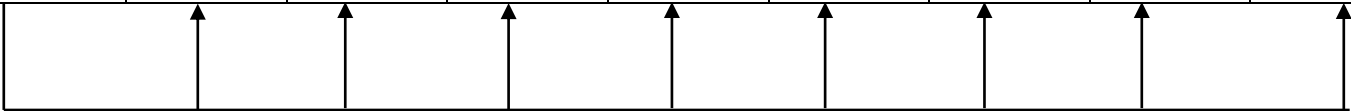
Candidate Key: EmpId (EmployeeId)

Foreign Key: MgrId (ManagerId)

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

Customer

CustID	Name	Phone	City	State	Zip	Mail	DOB	Gender



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	TransacationID
_____		_____

Functional Dependencies: None

Primary Key: CustomerID + CoffeeID + TransactionID

Candidate Key: CustomerID + CoffeeID + TransactionID

Foreign Key: CustomerID and CoffeeID

Customer ModeOfPayment

CustomerID	CoffeeID	ModeOfPayment
_____		_____

Functional Dependencies: None

Primary Key: CustomerID + CoffeeID + ModeOfPayment

Candidate Key: CustomerID + CoffeeID + ModeOfPayment

Foreign Key: CustomerID and CoffeeID

Customer Date of Purchase

<u>CustomerID</u>	CoffeeID	DateOfPurchase
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Functional Dependencies: None

Primary Key: CustomerID + CoffeeID + DateOfPurchase

Candidate Key: CustomerID + CoffeeID + DateOfPurchase

Foreign Key: CustomerID and CoffeeID

Customer Feedback

<u>CustomerID</u>	CoffeeID	Feedback
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Functional Dependencies: None

Primary Key: CustomerID + CoffeeID + Feedback

Candidate Key: CustomerID + CoffeeID + Feedback

Foreign Key: CustomerID and CoffeeID

Coffee

<u>CoffeeID</u>	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: None

Primary Key: CoffeeID + Cost

Candidate Key: CoffeeID + Cost

Foreign Key: CoffeeID

Coffee Type

CoffeeID	Type
_____	_____

Functional Dependencies: None

Primary Key: CoffeeID + Type

Candidate Key: CoffeeID + Type

Foreign Key: CoffeeID

Final Coffee Cost

CoffeeID	CCost
_____	_____

Functional Dependencies: None

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

Candidate Key: CoffeeID + CCost

Foreign Key: CoffeeID

Coffee Weight

CoffeeID	Weight

Functional Dependencies: None

Primary Key: CoffeeID + Weight

Candidate Key: CoffeeID + Weight

Foreign Key: CoffeeID

Flavors

FID	Name	Supplier_ID

The diagram illustrates functional dependencies. A horizontal line extends from the underlined 'FID' attribute in the 'Flavors' table. From the end of this line, two vertical arrows point upwards to the 'Name' and 'Supplier_ID' attributes, indicating that FID functionally determines both Name and Supplier_ID.

Functional Dependencies: Name, Supplier_Id is dependent on FID

Primary Key : FID

Candidate Key: FID

Foreign Key: Supplier_ID