Checking 2NF

Airport

AirportCode	AirportName	City	Country	EstablishedYear

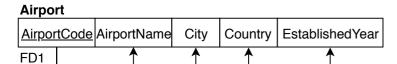FD1 (full functional dependency arrows pointing to all non-key attributes)

The table **Airport** is already in 1NF.
All the non primary key attributes of the table **Airport** depends on it's super key which is <u>AirportCode</u>**.**
Therefore, the functional dependency 1(FD1) of the table Airport is a full functional dependency.
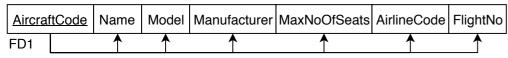There are no partial dependencies so the table **Airport** is in 2NF

Airline

AirlineCode	AirlineName	Owner	FleetSize	Address	NoOfDestinations	HeadOfficeEmail	WebsiteURL	CommencementYear

FD1

The table **Airline** is in 1NF.
All the non primary key attributes of the table **Airline** depends on it's super key which is <u>AirlineCode</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Airline** is a full functional dependency.
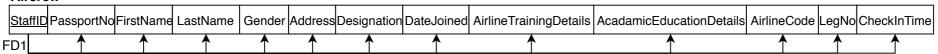There are no partial dependencies so the table **Airline** is in 2NF.

Aircraft

AircraftCode	Name	Model	Manufacturer	MaxNoOfSeats	AirlineCode	FlightNo

FD1

The table **Aircraft** is in 1NF.
All the non primary key attributes of the table **Aircraft** depends on it's super key which is <u>AircraftCode</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Aircraft** is a full functional dependency.
There are no partial functional dependencies so the table **Aircraft** is in 2NF.
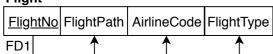
Aircrew

StaffID	PassportNo	FirstName	LastName	Gender	Address	Designation	DateJoined	AirlineTrainingDetails	AcadamicEducationDetails	AirlineCode	LegNo	CheckInTime

FD1

The table **Aircrew** is in 1NF.
All the non primary key attributes of the table **Aircrew** depends on it's super key which is <u>StaffID</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Aircrew** is a full functional dependency.
There are no partial functional dependencies so the table **Aircrew** is in 2NF.

Flight

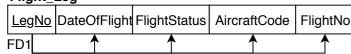| FlightNo	FlightPath	AirlineCode	FlightType

FD1

The table **Flight** is in 1NF.
All the non primary key attributes of the table **Flight** depends on it's super key which is <u>FlightNo</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Flight** is a full functional dependency.
There are no partial functional dependencies so the table **Flight** is in 2NF.
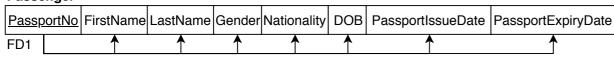
Flight_Leg

LegNo	DateOfFlight	FlightStatus	AircraftCode	FlightNo

FD1

The table **Flight_Leg** is in 1NF.
All the non primary key attributes of the table **Flight_Leg** depends on it's super key which is <u>LegNo</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Flight_Leg** is a full functional dependency.
There are no partial functional dependencies so the table **Flight_Leg** is in 2NF.
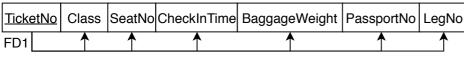
Passenger

PassportNo	FirstName	LastName	Gender	Nationality	DOB	PassportIssueDate	PassportExpiryDate

FD1

The table **Passenger** is in 1NF.
All the non primary key attributes of the table **Passenger** depends on it's super key which is <u>PassportNo</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Passenger** is a full functional dependency.
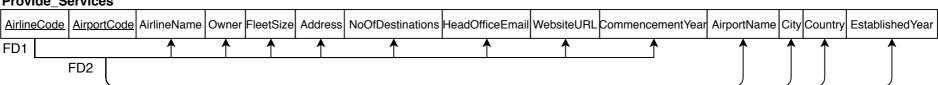There are no partial functional dependencies so the table **Passenger** is in 2NF.

Reservation

TicketNo	Class	SeatNo	CheckInTime	BaggageWeight	PassportNo	LegNo

FD1

The table **Reservation** is in 1NF.
All the non primary key attributes of the table **Reservation** depends on it's super key which is <u>TicketNo</u>**.**
Therefore, the functional dependency 1(FD1) of the table **Reservation** is a full functional dependency.
There are no partial functional dependencies so the table **Reservation** is in 2NF.

Provide_Services

AirlineCode	AirportCode	AirlineName	Owner	FleetSize	Address	NoOfDestinations	HeadOfficeEmail	WebsiteURL	CommencementYear	AirportName	City	Country	EstablishedYear

FD1
FD2

The table **Provide_Services** is in 1NF.
But, some of the non primary key attributes of the table **Provide_Services** depends on <u>AirlineCode</u>**.**
Other non primary key attributes depends on <u>AirportCode.</u>
Therefore FD1 and FD2 are partial functional dependencies.
Therefore the table **Provide_Services** is not in 2NF.