

Checking for 3NF

Provide_Services_Airline

<u>AirlineCode</u>	AirlineName	Owner	FleetSize	Address	NoOfDestinations	HeadOfficeEmail	WebsiteURL	CommencementYear
FD1	↑	↑	↑	↑	↑	↑	↑	↑

The table **Provide_Services_Airline** is in 2NF. It doesn't have transitive dependencies. All the non primary key attributes depend on the primary key of the table which is AirlineCode.
It has a functional dependency named FD1 and it's determinant is the super key of the table.
Therefore the table **Provide_Services_Airline** is in 3NF.

Provide_Services_Airport

<u>AirportCode</u>	AirportName	City	Country	EstablishedYear
FD1	↑	↑	↑	↑

The table **Provide_Services_Airport** is in 2NF. It doesn't have transitive dependencies. All the non primary key attributes depend on the primary key of the table which is AirportCode.
It has a functional dependency named FD1 and it's determinant is the super key of the table.
Therefore the table **Provide_Services_Airport** is in 3NF.

Airline_Contact_No

<u>AirlineCode</u>	<u>ContactNo</u>
FD1	↑

The table **Airline_Contact_No** is in 2NF. It doesn't have transitive dependencies.
It has a functional dependency named FD1 and it's dependent which is ContactNo is a prime attribute.
Therefore the table **Airline_Contact_No** is in 3NF.

Landing

<u>FlightNo</u>	<u>AirportName</u>
FD1	↑

The table **Landing** is in 2NF. It doesn't have transitive dependencies.
It has a functional dependency named FD1 and it's dependent which is AirportName is a prime attribute.
Therefore the table **Landing** is in 3NF.

Take_Off

<u>FlightNo</u>	<u>AirportName</u>
FD1	↑

The table **Take_Off** is in 2NF. It doesn't have transitive dependencies.
It has a functional dependency named FD1 and it's dependent which is AirportName is a prime attribute.
Therefore the table **Take_Off** is in 3NF.

Schedule_Days

<u>FlightNo</u>	<u>FlightDate</u>	EstimatedArrivalTime	EstimatedDepartureTime
FD1	↑	↑	↑

The table **Schedule_Days** is in 2NF. It doesn't have transitive dependencies. All the non primary key attributes depend on the composite primary key of the table which is FlightNo FlightDate.
It has a functional dependency named FD1 and it's determinant is the super key of the table.
Therefore the table **Schedule_Days** is in 3NF.

Pilot

<u>StaffID</u>	FirstName	LastName	PassportNo	Adress	Gender	Designation	DateJoined	AirlineTraining Details	AcadamicEducation Details	TotalFlying Hours	LegNo	AirlineCode
FD1	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

The table **Pilot** is in 2NF and it does not have any transitive functional dependencies and all the non primary key attributes depend on the primary key which is StaffID.
There's only one functional dependency (FD1) and it's determinant is a super key.
Therefore the table **Pilot** is in 3NF.