

Checking for BCNF

Provide_Services

<u>AirlineCode</u>	<u>AirportCode</u>	AirlineName	Owner	FleetSize	Address	NoOfDestinations	HeadOfficeEmail	WebsiteURL	CommencementYear	AirportName	City	Country	EstablishedYear
FD1		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

The table **Provide_Services** is in 3NF. It has a functional dependency named FD1.
It's determinant which is AirlineCode AirportCode is the super key of the table **Provide_Services**.
Therefore the table **Provide_Services** is in BCNF.

Airline_Contact_No

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

The table **Airline_Contact_No** is in 3NF. It has a functional dependency named FD1.
It's determinant which is AirlineCode is the not the super key of the table **Airline_Contact_No**.
Therefore the table **Airline_Contact_No** is not in BCNF. However, this table cannot be divided any further.
Therefore it's not possible to normalise this to BCNF.

Landing

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

The table **Landing** is in 3NF. It has a functional dependency named FD1.
It's determinant which is FlightNo is the not the super key of the table **Landing**.
Therefore the table **Landing** is not in BCNF. However, this table cannot be divided any further.
Therefore it's not possible to normalise this to BCNF.

Take_Off

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

The table **Take_Off** is in 3NF. It has a functional dependency named FD1.
It's determinant which is FlightNo is the not the super key of the table **Take_Off**.
Therefore the table **Take_Off** is not in BCNF. However, this table cannot be divided any further.
Therefore it's not possible to normalise this to BCNF.

Schedule_Days

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

The table **Schedule_Days** is in 3NF. It has a functional dependency named FD1.
It's determinant which is FlightNo FlightDate is the super key of the table **Schedule_Days**.
Therefore the table **Schedule_Days** is in BCNF.

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 3NF. It has a functional dependency FD1 and it's determinant which is StaffID is the super key of the table **Pilot**.
Therefore the table **Pilot** is in BCNF.