

Checking for BCNF

Provide_Services_Airline

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

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

Provide_Services_Airport

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

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