

Checking for 3NF

Provide_Services

| | |
|--------------------|--------------------|
| <u>AirlineCode</u> | <u>AirportCode</u> |
|--------------------|--------------------|

The table **Provide_Services** does not have any functional dependencies. It does not have any non key attributes. It is an intersection table that represents the many to many relation between Airline and Airport table.

Airline_Contact_No

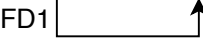
| | |
|--------------------|------------------|
| <u>AirlineCode</u> | <u>ContactNo</u> |
|--------------------|------------------|



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> |
|-----------------|--------------------|



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

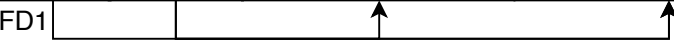
| | |
|-----------------|--------------------|
| <u>FlightNo</u> | <u>AirportName</u> |
|-----------------|--------------------|



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

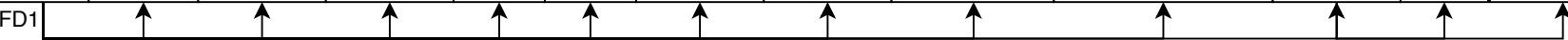
| | | | |
|-----------------|-------------------|----------------------|------------------------|
| <u>FlightNo</u> | <u>FlightDate</u> | EstimatedArrivalTime | EstimatedDepartureTime |
|-----------------|-------------------|----------------------|------------------------|



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 |
|----------------|-----------|----------|------------|--------|--------|-------------|------------|----------------------------|------------------------------|----------------------|-------|-------------|



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.