**Entities** (Strong, Weak) with description.

Strong Entities :

* Users – The most important entity in our database. Everything revolves around user’s actions. The user interacts with other entities to use the airline booking system effectively.
* Flights – The entity on which every other entity would be dependent on. It contains major information regarding flights, their details and all the general information.
* Payments – Once a user and flight interaction are done, everything comes down to payment. Payment is the entity that books the ticket and gives the confirmation to the user that his/ her booking is done.
* Aircrafts – These contain the details about the aircrafts and the total number of economy or first-class seats that are available.
* Admin – Admin is the entity that has control over everything and can change any data.
* News – Independent entity that is more about the background display news in the website.
* Contact Us – Independent entity which has details about whom to contact.

Weak Entities :

* Bookings – A bridging entity between Users and Flights. Generates a unique id for each booking which helps when any further intervention is needed.
* Airports – These are the details about the airport which are dependent on the from and to location of Flights.
* Schedule – Schedule is dependent on the dates provided as it can relate each date with a single day.

**Relationships** ( provide at least one  direction)

Users have booking on Flights.

Flights get information from Aircrafts, Schedule and Airports.

Users pay for the flight using Payment option.

**Attributes**. Only names will do if they match what has been described in Data Attributes. Inside the Box simply list PK and FK and defer other attributes in textual information before the diagram.  If an entity has been described once that is good enough.

UserID (PK)(FK), Title, FirstName, MiddleName, LastName, Preferred Name, Sex, DOB, Street, City, ZipCode, State, Country, Phone, Email, Username, Password, Security Question, Security Answer, HawkAdvantage, Miles, BookingID, Seat Number, Class, FlightID (PK)(FK), Aircraft ID (PK)(FK), From(FK), To(FK), Depart Time, Duration, FlightStatus, PriceEconomy, PriceFirstClass, BookedEconomySeats, BookedFirstClassSeats, Code(PK), Name, City, State, Country, TotalEconomySeats, TotalFirstClassSeats, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, CardNumber(PK), CardType, ExpirationDateMonth, ExpirationDateYear, CVV, Name, Username(PK), Password, Headline, Date, Picture, Content, Phone, Email.

**Cardinality** use 0:N range notation.

Users have 1…N cardinality with Bookings

Flights have 1…N cardinality with Bookings

Schedules have 1…..1 cardinality with Flights

Airports have 1….N cardinality with Flights

Aircrafts have 1….N cardinality with Flights

Users have 1…N cardinality with Payments

**Modality (Must be, May be )**

**Primary Key, Foreign Key**

Primary Key – UserID, FlightID, Code, AircraftID, CardNumber, Username

Foreign Key – UserID, FlightID, AircraftID, From, To