## **3.3 Database Modelling**

A database model illustrates to the logical structure, layout of a database which also includes relationships that decides how can the data be stored, managed and accessed within it.

### **3.3.1 Data Dictionary**

Data dictionary is a set of file containing a metadata of database. It holds the records likewise, ownership of data, relationship of data to other objects etc.

The importance of performing data dictionary in my project are as follows:

* It enables every available users to share common opinion of the data resource.
* It provides clear understanding of data elements.
* It helps in understanding the requirement and design of the system of the great extent.

1. Admin Registration Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| Admin\_id | int | 10 | Primary Key | Not Null |
| Admin\_name | Varchar | 255 | - | Null |
| Username | Varchar | 255 | - | Null |
| Password | Varchar | 255 | - | Null |

1. User Registration Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| User\_id | int | 10 | Primary Key | Not Null |
| First\_Name | Varchar | 255 | - | Null |
| Last\_Name | Varchar | 255 | - | Null |
| Address | Varchar | 255 | - | Null |
| Phone Number | Number | 10 | - | Null |
| Username | Varchar | 255 | - | Null |
| Password | Varchar | 255 | - | Null |

1. Add Flight Table (Admin)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| Flight\_id | int | 10 | Primary Key | Not Null |
| Leaving\_From | Varchar | 255 | - | Null |
| Going\_To | Varchar | 255 | - | Null |
| Admin\_id | int | 10 | Foreign key | Not Null |

1. User Booking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| booking\_id | int | 10 | Primary Key | Not Null |
| Leaving\_From | Varchar | 255 | - | Null |
| Going\_To | Varchar | 255 | - | Null |
| Date | Date | - | - | Null |
| User\_id | int | 10 | Foreign key | Not Null |

1. User Registration Table\_User Booking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| User\_id | int | 10 | Foreign Key | Not Null |
| booking\_id | int | 10 | Foreign Key | Not Null |

1. Reservation Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| Reservation\_id | int | 10 | Primary Key | Null |
| First\_Name | Varchar | 225 | - | Null |
| Last\_Name | Varchar | 225 | - | Null |
| Address | Varchar | 225 | - | Null |
| Phone Number | Number | 10 | - | Null |
| Passport Number | Number | 50 | - | Null |
| User\_id | int | 10 | Foreign key | Not Null |

1. Feedback Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| Feedback\_id | int | 10 | Primary Key | Not Null |
| Description | Varchar | 255 | - | Null |
| User\_id | int | 10 | Foreign key | Not Null |
| Admin\_id | int | 10 | Foreign key | Not Null |

1. Subscribe Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| Id | int | 10 | Primary Key | Not Null |
| S\_email | Varchar | 255 | - | Null |
| User\_id | int | 10 | Foreign key | Not Null |

1. Question Table (Forum)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| Q\_id | int | 10 | Primary Key | Not Null |
| Question | Varchar | 255 | - | Null |
| User\_id | int | 10 | Foreign key | Not Null |

1. Answer Table (Forum)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Length** | **Constraint** | **Null** |
| A\_id | int | 10 | Primary Key | Not Null |
| Answer | Varchar | 255 | - | Null |
| User\_id | int | 10 | Foreign key | Not Null |
| Admin\_id | int | 10 | Foreign key | Not Null |

### **3.3.2 ER Diagram**

An entity-relationship diagram (ER diagram) is extremely important to develop a database design and is a visual representation of the system’s database. It shows the entities of the system and the relationship between those entities.

The importance of performing ER diagram in my project are as follows:

* It is helpful for doing documentation of the database design.
* It is easy to understand
* It helps in communicating the logical structure of the database to the users.

