**Assignment 3**

**Travel Agency Logical Model**

1. Business Rules:

* Packages are listed with location of visit,hotel, transport and cost
* Packages history be maintained regarding expiry or ongoing
* Customer can book the packages
* Payment can be done through application
* Customer History be maintained
* Employee can modify packages, locations, hotel, transport info
* Admin has overall access

2. Identifying attributes and domains for entities and relationships:

|  |  |  |
| --- | --- | --- |
| **Entity** | **Description** | **Domain** |
| **package** | packages containing information about travel |  |
| Attributes:  package\_id  name  start\_date  end\_date  description  cost  status  hotel  destination  transport | Identifier for user entity, SK, PK  Name of package  Date of start  Date of end  Info About package  Price for the package plan  active/inactive status  Hotel Code(FK)  Destination Code(FK)  Transport Code(FK) | Auto Generated  Text  Date  Date  Text  Number  Boolean Value  Valid id from hotel table  Valid id from destination table  Valid id from transport table |
| **hotel** | Hotel information |  |
| Attributes:  hotel\_id  name  description  location  cost | Identifier for user entity, SK, PK  Name of Hotel  About Hotel  Hotel Location  Cost for hotel | Auto Generated  Text  Text  Valid id from city table  Number |
| **package\_hotel** | Relationship between packages and hotels |  |
| Attributes:  package\_id  hotel\_id | Package Code(PK,FK)  Hotel Code (PK,FK) | Valid id from package table  Valid id from hotel table |
| **destination** | Location information |  |
| Attributes:  destination\_id  location\_name  description | Identifier for user entity, SK, PK  Location Name  About Location | Auto Generated  Text  Text |
| **package\_destination** | Relation Between packages and destinations |  |
| Attributes:  package\_id  destination\_id | Package Code(PK,FK)  Destination Code (PK,FK) | Valid id from package table  Valid id from destination table |
| **transport** | Transport information |  |
| Attributes:  transport\_id  type  cost | Identifier for user entity, SK, PK  Transport ways(from air, from road)  Cost for transport | Auto Generated  Text  Number |
| **package\_transport** | Relation between packages and transports |  |
| Attributes:  package\_id  transport \_id | Package Code(PK,FK)  Transport Code (PK,FK) | Valid id from package table  Valid id from transport table |
| **customer** | Users of application |  |
| Attributes:  customer\_id  name  dob  phone  email  location | Identifier for user entity, SK, PK  First name, Last name  Date of Birth  Can have one phone no.  Can have one email  Address | Auto Generated  Text  Date  Unique  Unique  Valid id from city table |
| **booking** | Booking info about customer and packages they book |  |
| Attributes:  customer\_id  package\_id  booking\_date  package\_status | Customer Code (PK,FK)  Package Code(PK,FK)  Date of booking  Can have active and expired package for history | Valid id from customer table  Valid id from package table  Valid Date  Boolean Value |
| **payment** | Payment details |  |
| Attributes:  payment\_id  customer\_id  package\_id  type  date  amount | Identifier for user entity, SK, PK  Customer Code(FK)  Package Code (FK)  Different Payment options  Date of Payment  Amount of pay | Auto Generated  Valid id from customer table  Valid id from package table  Text  Date  Valid Number |

3. Logical Model :

<https://drive.google.com/drive/folders/1BQbZpGRJ17VY9wNK3QT1x-xRBJT3DLnp?usp=sharing>

**Health Care Logical Model**

1. Business Rules:

* Hospitals , Clinics, Pharmacies,Doctor, Patients can be registered
* Services are provided by Hospitals, Clinics, Doctors
* Patient can appoint to Hospitals, Clinics, Doctors
* Patient can consult to specific Doctor
* Patient can give feedback to doctor
* Patient can open conversation in Discussion section
* Esewa or other payments be done by patients to hospital, pharmacies, doctors
* History is maintained for users
* Admin verifies Hospital, Clinic, Doctor and Pharmacy registration
* Admin can modify registered user details, payments and other features

2. Identifying attributes and domains for entities and relationships:

|  |  |  |
| --- | --- | --- |
| **Entity** | **Description** | **Domain** |
| **hospital** | Hospital information |  |
| Attributes:  hospital\_id  name  location | Identifier for user entity, SK, PK  Name of hospital  Location of hospital | Auto Generated  Text  Text |
| **clinic** | Clinic information |  |
| Attributes:  clinic\_id  name  location | Identifier for user entity, SK, PK  Name of clinic  Location of clinic | Auto Generated  Text  Text |
| **pharmacy** | Pharmacy information |  |
| Attributes:  pharmacy\_id  name  location | Identifier for user entity, SK, PK  Name of pharmacy  Location of pharmacy | Auto Generated  Text  Text |
| **doctor** | Doctor information |  |
| Attributes:  doctor\_id  name  phone\_no  qualification  specialization  service\_id | Identifier for user entity, SK, PK  Name of doctor  Valid phone no. of doctor  Qualification of doctor  Specialization info  Service Code (FK) | Auto Generated  Text  Number  Text  Text  Valid id from service table |
| **services** | Services provided for health care |  |
| Attributes:  service\_id  name  cost  patient\_id | Identifier for user entity, SK, PK  Name of service  Price of service  Patient Code | Auto Generated  Text  Valid Number  Valid Code from patient table |
| **appointment** | Relation for patient appointments |  |
| Attributes:  patient\_id  hospital\_id  clinic\_id  doctor\_id  date | Patient Code (PK, FK)  Hospital Code (PK, FK)  Clinic Code(PK,FK)  Doctor Code(PK,FK)  Date of appointment | Valid patient id from patient table  Valid id from hospital table  Valid id from clinic table  Valid id from doctor table  Date |
| **patient** | Patient Details |  |
| Attributes:  patient\_id  name  dob  phone\_no  location  blood\_group | Identifier for user entity, SK, PK  Name of patient  Date of Birth  Valid Phone number  Address  Blood Group | Auto Generated  Text  Date  Number  Text  Text |
| **consultation** | Relation for consulting doctor |  |
| Attributes:  patient\_id  doctor\_id | Patient Code (PK,FK)  Doctor Code (PK,FK) | Valid id from patient table  Valid id from doctor table |
| feedback | Feedback give by patient to doctor |  |
| Attributes:  patient\_id  doctor \_id  description | Patient Code(PK,FK)  Doctor Code (PK,FK)  Description given by patient | Valid id from patient table  Valid id from doctor table  Text |
| **discussion** | Discussion about patient problems |  |
| Attributes:  patient\_id  description | Patient Code(PK,FK)  Discussion opened by patient | Valid id from patient table  Text |
| **billing** | Payment Details |  |
| Attributes:  billing\_id  type  amount | Identifier for user entity, SK, PK  Type of pay  Valid amount | Auto Generated  Text  Number |
| **medicine** | Medicine Details |  |
| Attributes:  medicine\_id  name  brand  cost | Identifier for user entity, SK, PK  Name of medicine  Brand of medicine  Price of medicine |  |

3. Logical Mode:

<https://drive.google.com/drive/folders/1BQbZpGRJ17VY9wNK3QT1x-xRBJT3DLnp?usp=sharing>