

## **GROUP 3.02**

### **RELATIONAL SCHEMA AND FUNCTIONAL DEPENDENCIES**

#### **Minimal Functional Dependencies -**

##### **USER**

user(**LoginID**, UserName, ContactNo, EmailID, Password)

LoginID  $\rightarrow$  {UserName, ContactNo, EmailID, Password}

##### **PROMOCODE**

promocode(**PromoID**, Validity, Discount)

PromoID  $\rightarrow$  {Validity, Discount}

##### **PROMOCODE-AVAILABLE-TO-USER**

promocode-available-to-user(**LoginID**, PromoID)

LoginID  $\rightarrow$  PromoID

##### **CITY**

city(**CityID**, CityName, State, Region)

CityID  $\rightarrow$  {CityName, State, Region}

##### **PLACES**

places(**PName**, **Address**, Rating, Category, BestTimeToVisit, CityID )

{PName, Address}  $\rightarrow$  {Rating, Category, BestTimeToVisit, CityID}

##### **HOTELS**

hotels(**HotelID**, HotelName, Address, CityID, Rating, TransactionAccNo)

HotelID  $\rightarrow$  {HotelName, Address, CityID, Rating, TransactionAccNo}

##### **ROOM-TYPES**

RoomTypes(**Type****Name**, **HotelID**, AvgCostPerDay, NoOfPersonPerRoom)

{Type**Name**, HotelID}  $\rightarrow$  {AvgCostPerDay, NoOfPersonPerRoom}

##### **BOOKING**

booking(**LoginID**, **HotelID**, **Type****Name**, **BookingDate**, **BookingTime**, **PromoID**,

RoomsBooked, CheckInDate, CheckOutDate)

{LoginID, HotelID, Type**Of**Room, BookingDate, BookingTime, PromoID}  $\rightarrow$  { RoomsBooked, CheckInDate, CheckOutDate}

### **RESTAURANT**

restaurant(**ResID**, ResName, Address, CityID, Rating, Cuisines, OpeningHours, ClosingHours, AvgCostPerPerson, VegFood, NonVegFood, JainFood, WiFi-Facility, AC-Facility )

ResID  $\rightarrow$  { ResName, Address, CityID, Rating, Cuisines, OpeningHours, ClosingHours, AvgCostPerPerson, VegFood, NonVegFood, JainFood, WiFi-Facility, AC-Facility }

### **INTERCITY-TRANSPORTATION**

intercity-transportation(**CityID1**, **CityID2**, AvgCostOfTrain, AvgCostOfBus, AvgCostOfFlight, Distance )

{CityID1, CityID2}  $\rightarrow$  {AvgCostOfTrain, AvgCostOfBus, AvgCostOfFlight, Distance }

### **INTRACITY-TRANSPORTATION**

intracity-transportation(**Type**, **CityID**, AvgCostPerKm)

{Type, CityID}  $\rightarrow$  AvgCostPerKm

### **VIEW-HISTORY**

view-history(**LoginID**, **Date**, **Time**, CityID)

{LoginID, Date, Time}  $\rightarrow$  CityID

**Hence all relations are in BCNF.**

## Relational Schema -

