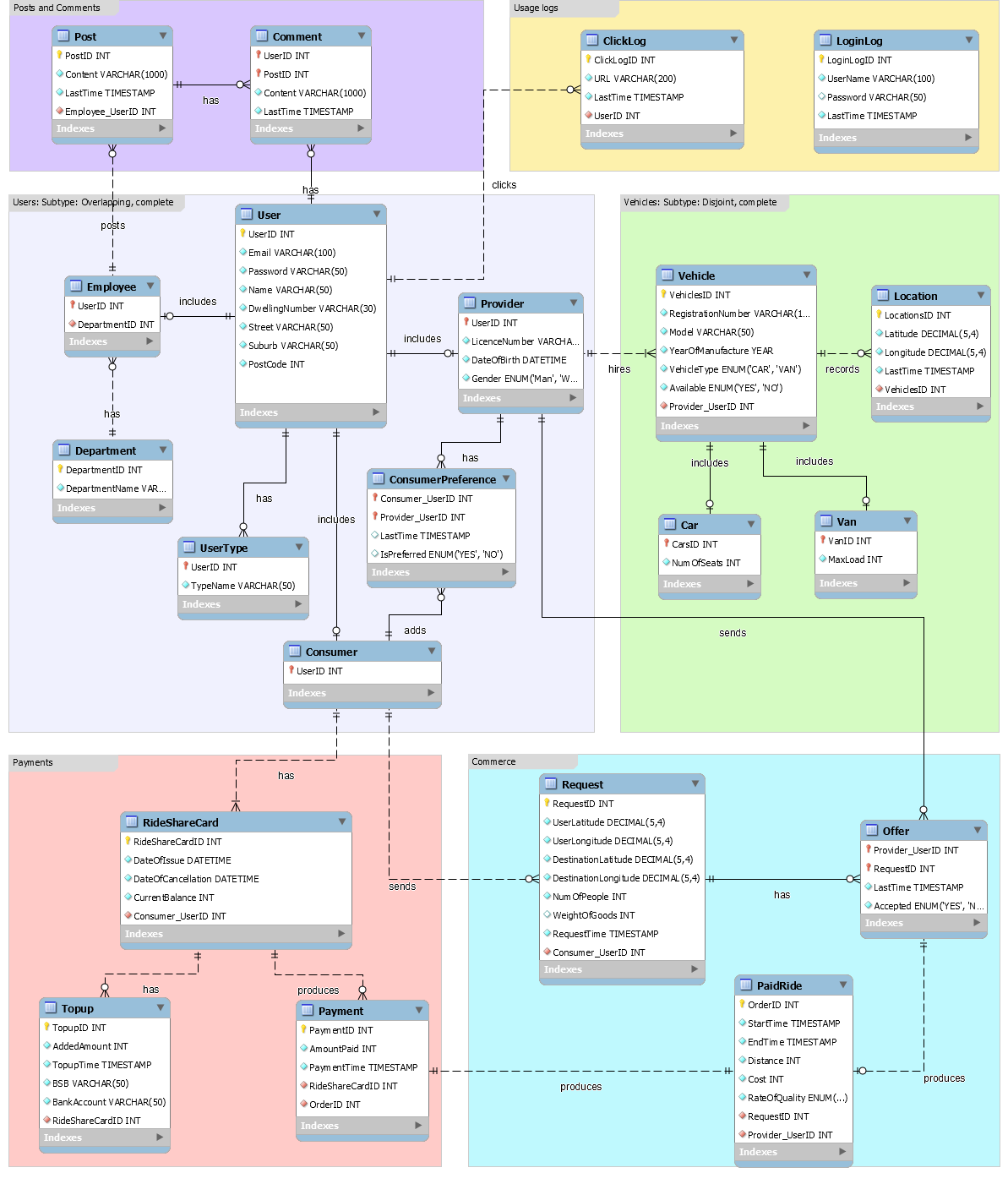
INFO90002 2015 semester 2: Assignment 1

Case study: “RideShare”

**1. Entity Relationship Diagram**



**2. Assumptions**

**1) About Users**

**2) About Vehicles**

**3) About Commerce**

**4) About Payments**

**5) About Blog**

**6) About Usage logs**

**3. Data Dictionary**

**List of entities**

|  |  |  |  |
| --- | --- | --- | --- |
| Entities | Entity Type | Primary Key | # Attributes |
| User | Independent | UserID | 8 |
| UserType | Dependent | UserID | 2 |
| Employee | Dependent | UserID | 2 |
| Provider | Dependent | UserID | 4 |
| Consumer | Dependent | UserID | 1 |
| ConsumerPreference | Dependent | Consumer\_UserID, Provider\_UserID | 4 |
| Department | Independent | DepartmentID | 2 |
| Vehicle | Independent | VehiclesID | 7 |
| Car | Dependent | CarsID | 2 |
| Van | Dependent | VanID | 2 |
| Location | Independent | LocationsID | 5 |
| Request | Independent | RequestID | 9 |
| Offer | Dependent | Provider\_UserID, RequestID | 4 |
| PaidRide | Independent | OrderID | 8 |
| RideShareCard | Independent | RideShareCardID | 5 |
| Topup | Independent | TopupID | 6 |
| Payment | Independent | PaymentID | 5 |
| Post | Independent | PostID | 4 |
| Comment | Dependent | UserID, PostID | 4 |
| ClickLog | Independent | ClickLogID | 4 |
| LoginLog | Independent | LoginLogID | 4 |

**Entity ‘User’**

**Description:**

**Attributes:**

**Entity ‘UserType’**

**Description:**

**Attributes:**

**Entity ‘Employee’**

**Description:**

**Attributes:**

**Entity ‘Provider’**

**Description:**

**Attributes:**

**Entity ‘Consumer’**

**Description:**

**Attributes:**

**Entity ‘ConsumerPreference’**

**Description:**

**Attributes:**

**Entity ‘Department’**

**Description:**

**Attributes:**

**Entity ‘Vehicle’**

**Description:**

**Attributes:**

**Entity ‘Car’**

**Description:**

**Attributes:**

**Entity ‘Van’**

**Description:**

**Attributes:**

**Entity ‘Location’**

**Description:**

**Attributes:**

**Entity ‘Request’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PK | RequestID | INT | YES | YES | NO |  |
|  | UserLatitude | DECIMAL(5,4) | YES | NO | NO |  |
|  | UserLongitude | DECIMAL(5,4) | YES | NO | NO |  |
|  | DestinationLatitude | DECIMAL(5,4) | YES | NO | NO |  |
|  | DestinationLongitude | DECIMAL(5,4) | YES | NO | NO |  |
|  | NumOfPeople | INT | YES | NO | YES | 1 |
|  | WeightOfGoods | INT | NO | NO | YES |  |
|  | RequestTime | TIMESTAMP | YES | NO | NO |  |
| FK | Consumer\_UserID | INT | YES | NO | NO |  |

**Entity ‘Offer’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PFK | Provider\_UserID | INT | YES | YES | NO |  |
| PFK | RequestID | INT | YES | YES | NO |  |
|  | LastTime | TIMESTAMP | YES | NO | NO |  |
|  | Accepted | ENUM('YES', 'NO') | YES | NO | NO |  |

**Entity ‘PaidRide’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PK | OrderID | INT | YES | YES | NO |  |
|  | StartTime | TIMESTAMP | YES | NO | NO |  |
|  | EndTime | TIMESTAMP | YES | NO | NO |  |
|  | Distance | INT | YES | NO | YES |  |
|  | Cost | INT | YES | NO | YES |  |
|  | RateOfQuality | ENUM('1', '2', '3', '4', '5', '6', '7', '8', '9', '10') | YES | NO | NO | 10 |
| FK | RequestID | INT | YES | NO | NO |  |
| FK | Provider\_UserID | INT | YES | NO | NO |  |

**Entity ‘RideShareCard’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PK | RideShareCardID | INT | YES | YES | NO |  |
|  | DateOfIssue | DATETIME | YES | NO | NO |  |
|  | DateOfCancellation | DATETIME | YES | NO | NO |  |
|  | CurrentBalance | INT | YES | NO | NO |  |
| FK | Consumer\_UserID | INT | YES | NO | NO |  |

**Entity ‘Topup’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PK | TopupID | INT | YES | YES | NO | AI |
|  | AddedAmount | INT | YES | NO | YES |  |
|  | TopupTime | TIMESTAMP | YES | NO | NO |  |
|  | BSB | VARCHAR(50) | YES | NO | NO |  |
|  | BankAccount | VARCHAR(50) | YES | NO | NO |  |
| FK | RideShareCardID | INT | YES | NO | NO |  |

**Entity ‘Payment’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PK | PaymentID | INT | YES | YES | NO | AI |
|  | AmountPaid | INT | YES | NO | YES |  |
|  | PaymentTime | TIMESTAMP | YES | NO | NO |  |
| FK | RideShareCardID | INT | YES | NO | NO |  |
| FK | OrderID | INT | YES | NO | NO |  |

**Entity ‘Post’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PK | PostID | INT | YES | YES | NO | AI |
|  | Content | VARCHAR(1000) | YES | NO | NO |  |
|  | LastTime | TIMESTAMP | YES | NO | NO |  |
| FK | Employee\_UserID | INT | YES | NO | NO |  |

**Entity ‘Comment’**

**Description:**

**Attributes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Key | Attribute | Data Type | NN | UQ | UN | Description |
| PFK | UserID | INT | YES | NO | NO |  |
| PFK | PostID | INT | YES | NO | NO |  |
|  | Content | VARCHAR(1000) | YES | NO | NO |  |
|  | LastTime | TIMESTAMP | YES | NO | NO |  |

**Entity ‘ClickLog’**

**Description:**

**Attributes:**

**Entity ‘LoginLog’**

**Description:**

**Attributes:**