**Views**

**Multitable and Calculated field View 1**

**Name: drivers\_information**

Description: This view provides information about cab drivers, their cabs, their shifts, and their routes. As the same driver can work in multiple shifts, they are grouped by the foreign key in the drivers\_shifts table – driver\_id\_shift. This view can be used by drivers and the taxi service organization to keep track of each driver and their associated shift timings, also to understand their route preferences.

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| --- | --- | --- |
| **Field** | **Description** | **Parent table** |
| Driver\_name | This is the first and last name of the driver | Drivers |
| Number of Drivers in each shift | This counts the number of drivers in each shift by counting the unique id of each driver | Drivers |
| Rating | This is the average rating given to the driver by their customers. | Drivers |
| license\_number | This is the driver’s license number. | Drivers |
| license\_expiry\_date | This is the driver’s license expiration date. | Drivers |
| work\_status | This is a Boolean value that indicates whether the driver is currently working or not. | Drivers |
| shift\_start\_time | This is the time and date that the driver’s shift starts. | driver\_shifts |
| shift\_end\_time | This is the time and date that the driver’s shift ends. | driver\_shifts |
| login\_time | This is the time and date of the driver’s login at the start of their shift. | driver\_shifts |
| logout\_time | This is the time and date of the driver’s logout at the end of their shift. | driver\_shifts |
| car\_model\_id | This is a unique id associated with the driver’s car model. | car\_model |
| license\_plate | This is the license plate number of the driver’s cab. | Cabs |
| model\_name | This is the name of the driver’s car model. | car\_model |
| Driver\_preference\_route | This is an alias for driver’s preferred route address | driver\_routeaddress |

**Multitable view 2**

**Name: customer\_ride\_information**

Description: This view provides information about customers, their cab rides and the drivers associated with each of these rides. This view can be used by the organization to keep track of the rides taken by each customer and to maintain records of which driver has served one or more customers.

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| **Field** | **Description** | **Parent table** |
| customer\_name | This is the first and last names of the customer. | Customers |
| phone\_number | This is the customer’s phone number. | Customers |
| customer\_rating | This is the average rating given to the customer by their drivers. | Customers |
| email\_address | This is the customer’s email address. | Customers |
| address\_starting\_point | This is the address where the customer was picked up. | cab\_rides |
| address\_destination | This is the address where the customer was dropped off. | cab\_rides |
| ride\_cancelled | This indicates if a customer’s ride was cancelled. | cab\_rides |
| ride\_start\_time | This is the time that a customer’s cab ride began. | cab\_rides |
| ride\_end\_time | This is the time that a customer’s cab ride ended. | cab\_rides |
| driver\_id\_shift | This provides information about the driver’s shift by driver ID. | drivers\_shifts |
| Drivers\_Name | This is the first and last names of the driver for each cab taken by the Customer. | Drivers |
| status\_details | This provides additional details about the status of a specific cab ride. | cab\_ride\_status |

**Multitable view 3**

**Name: knowing\_customer\_preferences**

Description: This view provides information about customers and their preferences (address, payment type) to help the organization understand their client’s needs better and take appropriate measures to improve customer experience.

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| **Field** | **Description** | **Parent table** |
| customer\_names | This is the first and last names of the customer | Customers |
| email\_address | This is the customer’s email address | Customers |
| phone\_number | This is the customer’s phone number | Customers |
| customer\_preferred\_address | This is the customer’s preferred address | customer\_address |
| customer\_payment\_type | This is the payment type used by the customer | customer\_payment\_type |

**Calculated Field View 1**

**Name: knowing\_customer\_rides\_totalcost**

**Description:** This view provides all necessary information to calculate the total fare of a cab ride to be paid by a customer, and associates this with key customer, and cab ride information. Multiple rides can be booked from a single customer account identified by the same email address for different customers. Therefore, grouping by customers email address is used to find the number of rides and the total fare of all the rides taken from a single customer account. This view will help the organization keep track of their star customers (who have taken a lot of rides), the finance associated with each ride and help develop customer ratings accordingly.

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| **Field** | **Description** | **Parent Table** |
| CustomerNames | This field is the first and last name of the customer | Customers |
| Phone\_number | This field is the phone number of the customer | Customers |
| Customer\_rating | This field is the rating given by drivers/company assigned to a customer | Customers |
| Email\_address | This field is the email address associated with the customer | customers |
| Number of Rides | This field calculates the number of rides taken by each customer on a single account | cab\_rides |
| Shift\_id | This field is the Id associated with a driver’s shift | cab\_rides |
| Address\_starting\_point | This field is the pickup location for a ride | cab\_rides |
| Address\_destination | This field is the drop-off location for a ride | cab\_rides |
| Ride\_start\_time | This field is the time and date that the ride started | cab\_rides |
| Ride\_end\_time | This field is the time and date that the ride ended | cab\_rides |
| Transaction\_type | This field is the type of payment used to pay for a ride | cab\_ride\_payments |
| total\_ride\_cost | This field is used to calculate the total cost of all the cab rides by all the customers booking rides from a single account | cab\_ride\_payments |

**Calculated Field View 2**

**Name: knowing\_drivers\_shift\_earnings**

**Description:** This view provides the amount of money earned by a cab driver in a shift and associates this amount with key information about the driver, the shift and the cab. Each driver has a unique license\_number and therefore can this field is used to group the same drivers. This view further creates “total\_ride\_cost” which is a calculated field that provides the total cost of all the cabs driven by a single driver. This view will help determine how much has a single driver gained by aggregating the total amount of cab ride cost across multiple shifts.

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| **Field** | **Description** | **Parent Table** |
| Driver\_Names | This field is the first name and last name of the driver | Drivers |
| License\_number | This field is the ID number or alphanumeric code for a government-issued license of each driver | drivers |
| Work\_status | This field is the status of driver, currently working or not. | Drivers |
| Shift\_id | This field is the Id associated with a driver’s shift of a specific ride | cab\_rides |
| Address\_starting\_point | This field is the pickup location for a ride | cab\_rides |
| Address\_destination | This field is the drop-off location for a ride | cab\_rides |
| Ride\_start\_time | This field is the time and date that the ride started | cab\_rides |
| Ride\_end\_time | This field is the time and date that the ride ended | cab\_rides |
| Transaction\_type | This field is the type of payment used to pay for a ride | cab\_ride\_payments |
| total\_ride\_cost | This field is the total cost of all the cab rides taken by a driver | cab\_ride\_payments |