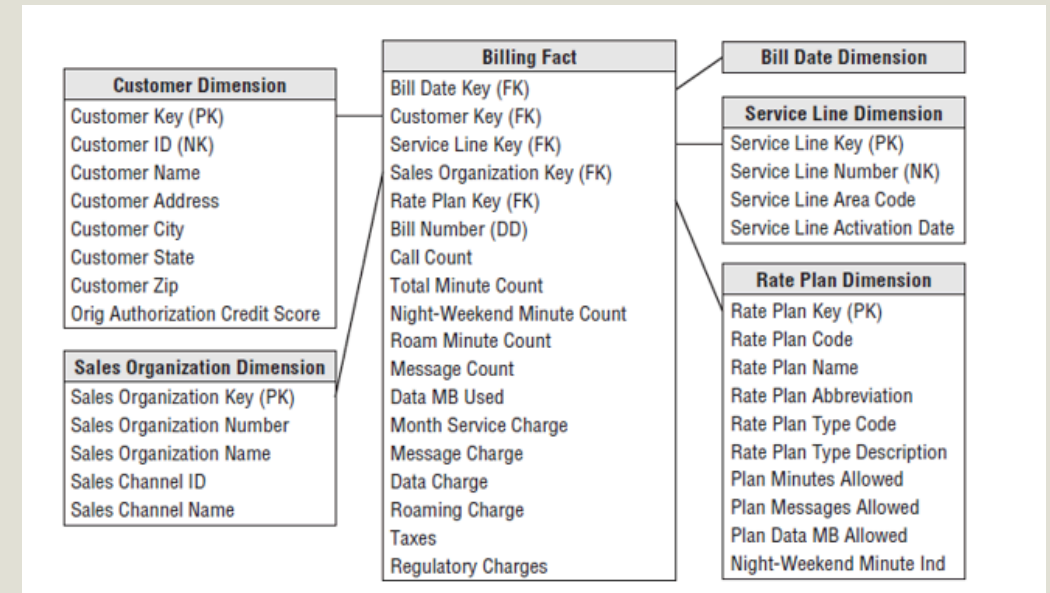# MIS 6309: Telecommunications and Transportation

## Telecommunications

This in-depth report conducts a thorough analysis of the telecommunications sector offering insights into customer segmentation, sales performance, billing analysis, service usage reports, and rate plan efficiency.
It helps telecom companies tailor their offerings, enhance revenue generation strategies, understand customer behavior, and optimize pricing structures for profitability and customer satisfaction.
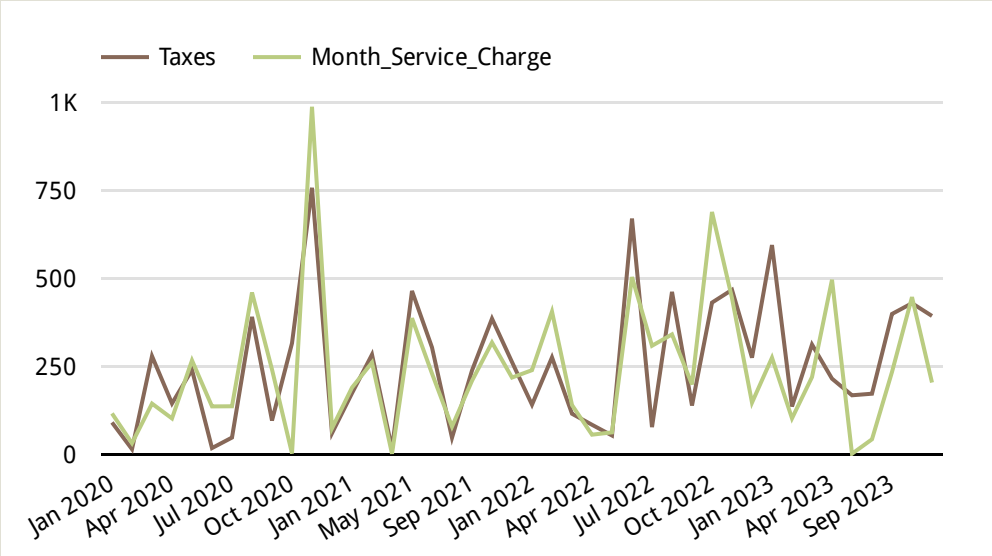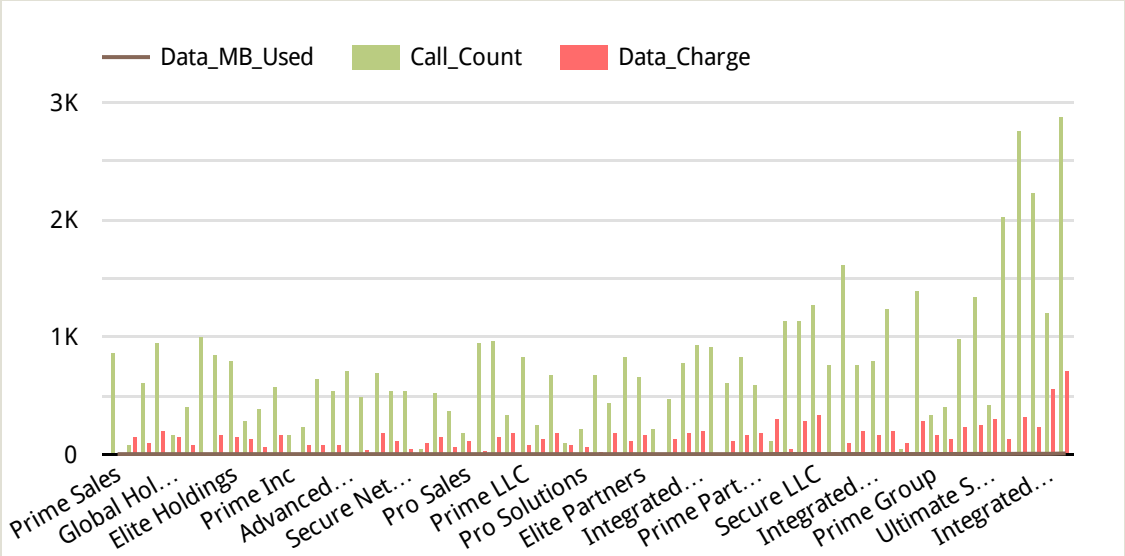
| | Date | Product | Customer | Rate Plan | Sales Organization | Service Line # | Switch | Employee | Support Call Profile |
|---|---|---|---|---|---|---|---|---|---|
| Purchasing | X | X | | | | | | X | |
| Internal Inventory | X | X | | | | | | | |
| Channel Inventory | X | X | | | X | | | | |
| Service Activation | X | X | X | X | X | X | | | |
| Product Sales | X | X | X | X | X | X | | | |
| Promotion Participation | X | X | X | X | X | X | | X | |
| Call Detail Traffic | X | X | X | X | X | X | X | | |
| Customer Billing | X | X | X | X | X | X | | | |
| Customer Support Calls | X | X | X | X | X | X | | X | X |
| Repair Work Orders | X | X | X | | | X | | X | X |

**Bus Matrix**

**Customer Dimension**
Customer Key (PK)
Customer ID (NK)
Customer Name
Customer Address
Customer City
Customer State
Customer Zip
Orig Authorization Credit Score

**Sales Organization Dimension**
Sales Organization Key (PK)
Sales Organization Number
Sales Organization Name
Sales Channel ID
Sales Channel Name

**Billing Fact**
Bill Date Key (FK)
Customer Key (FK)
Service Line Key (FK)
Sales Organization Key (FK)
Rate Plan Key (FK)
Bill Number (DD)
Call Count
Total Minute Count
Night-Weekend Minute Count
Roam Minute Count
Message Count
Data MB Used
Month Service Charge
Message Charge
Data Charge
Roaming Charge
Taxes
Regulatory Charges

**Bill Date Dimension**

**Service Line Dimension**
Service Line Key (PK)
Service Line Number (NK)
Service Line Area Code
Service Line Activation Date

**Rate Plan Dimension**
Rate Plan Key (PK)
Rate Plan Code
Rate Plan Name
Rate Plan Abbreviation
Rate Plan Type Code
Rate Plan Type Description
Plan Minutes Allowed
Plan Messages Allowed
Plan Data MB Allowed
Night-Weekend Minute Ind

**Dimensional Schema**

Atul Inamdar

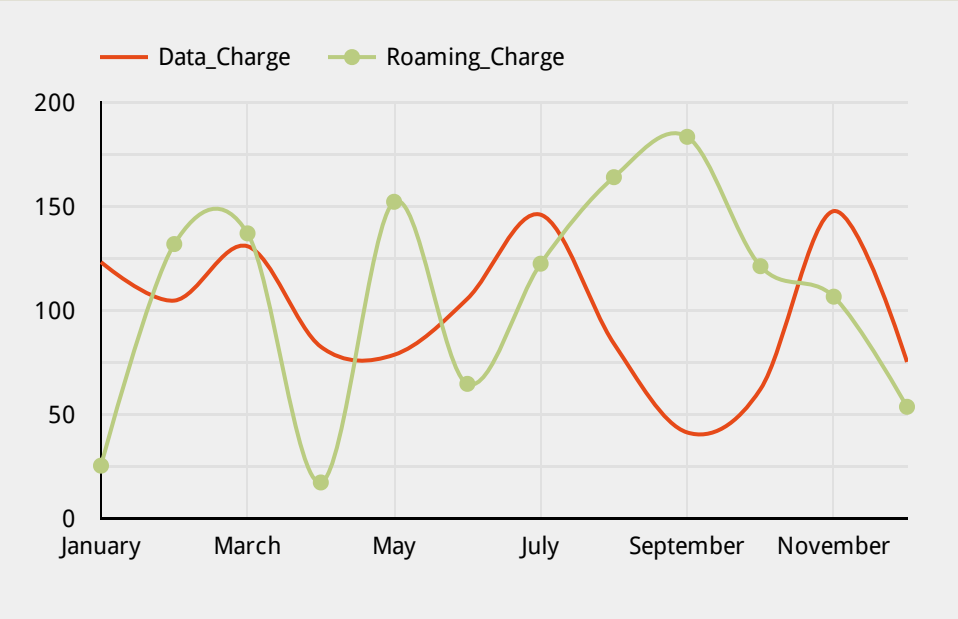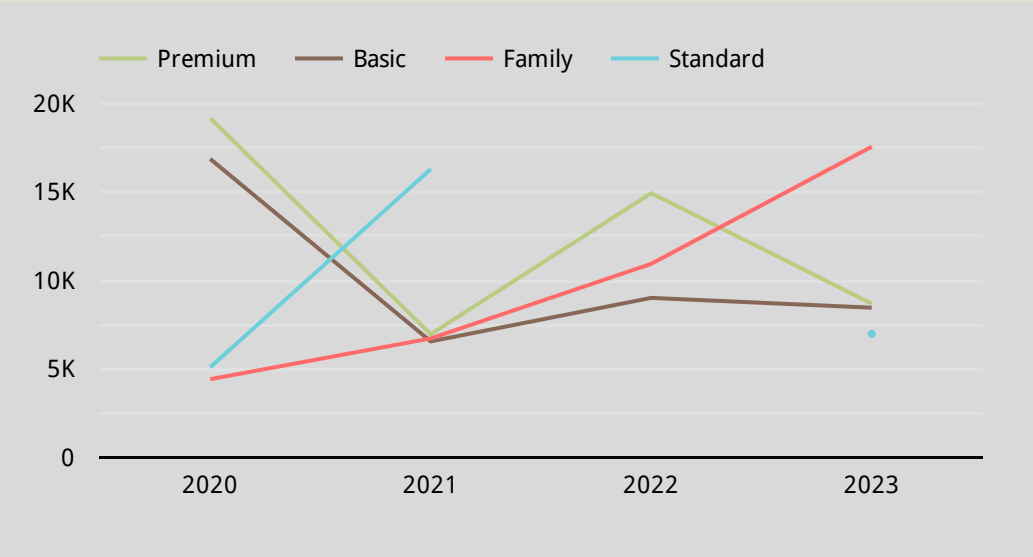# Service Usage Report:



# Customers based on Rate Plan:

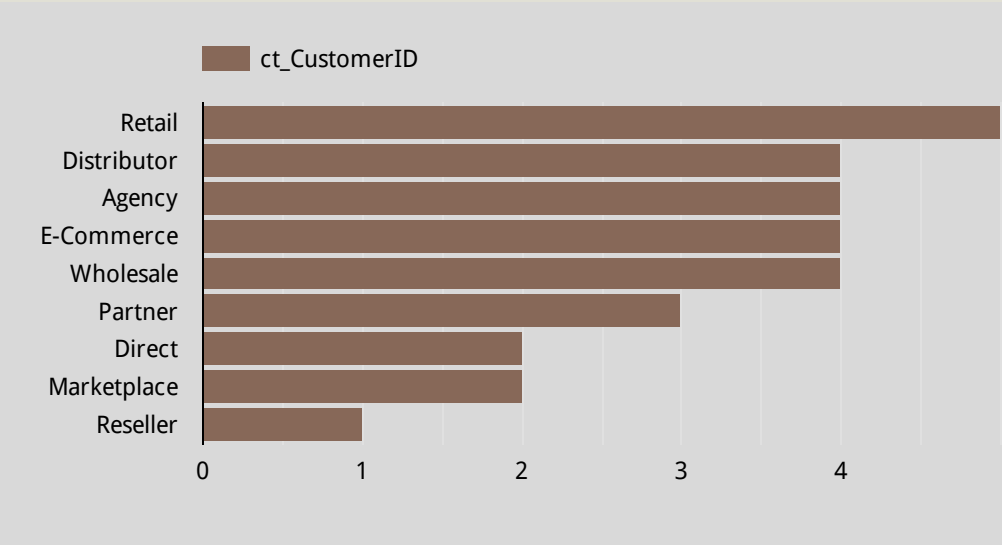Vipul Suresh Sonje
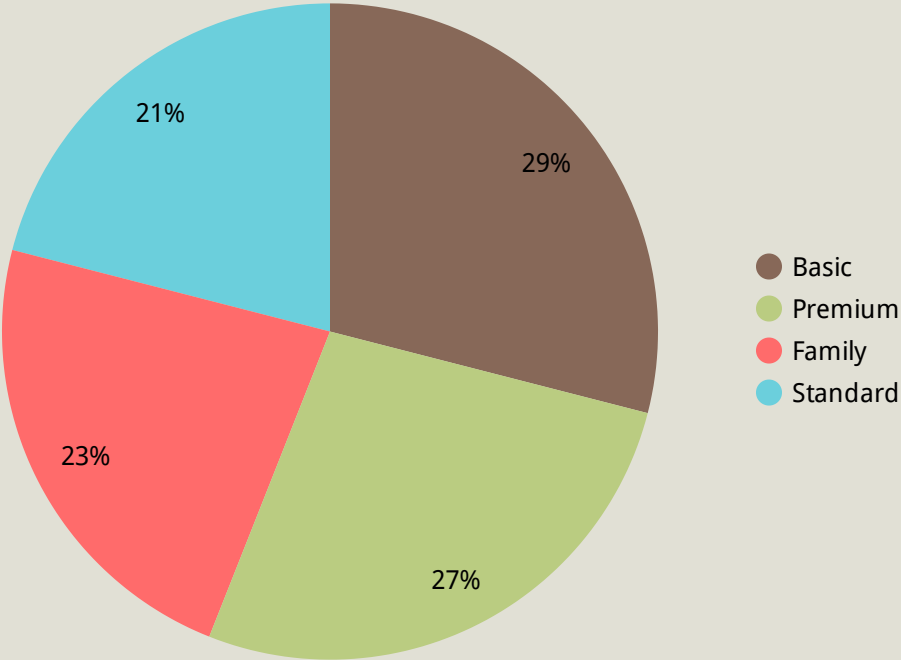
# Data and Roaming charges over a year
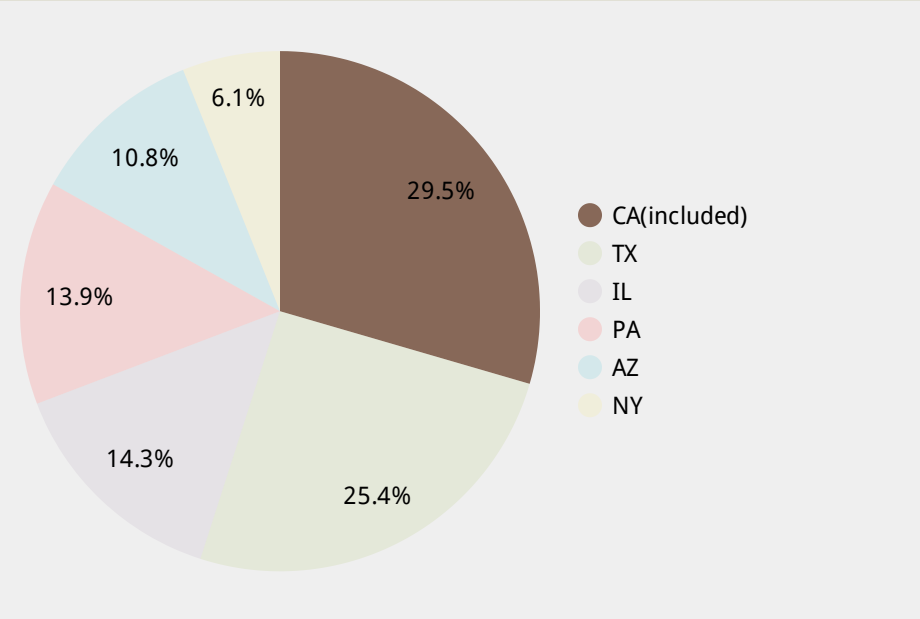


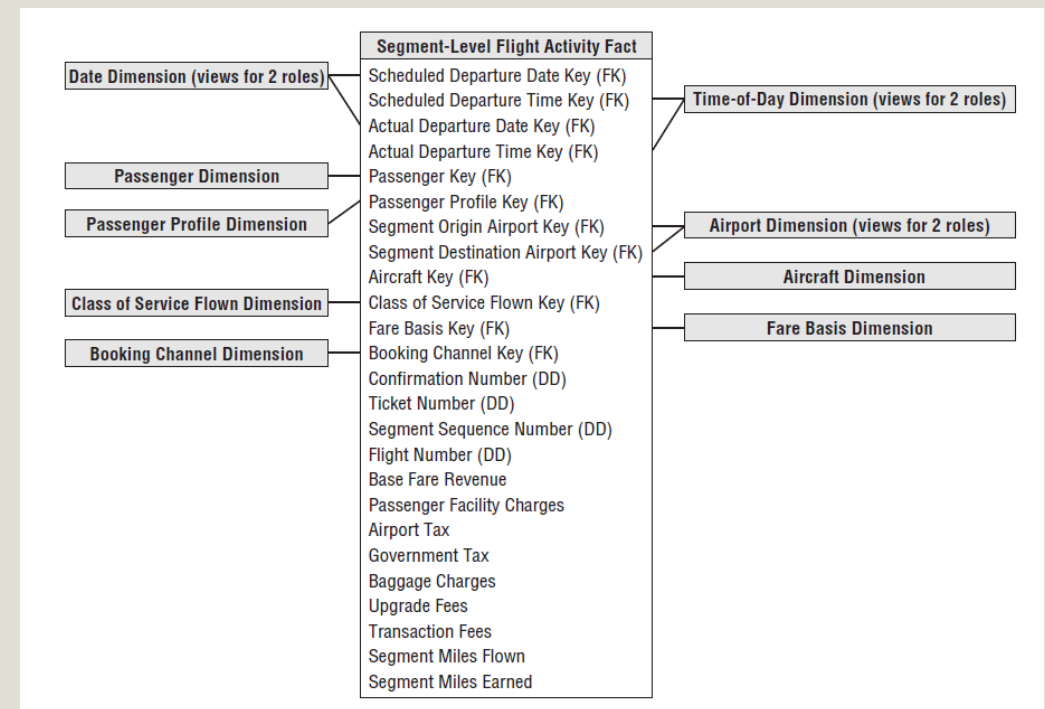# Rate Plan Efficiency and Sales Performance Analysis

# Transportation

This report delves into the intricate dynamics of the airline industry by examining market trends, consumer behavior, and operational efficiencies.  It provides strategic recommendations tailored to the unique challenges and opportunities within the industry, empowering decision-makers to make informed decisions that drive sustainable growth and competitive advantage.
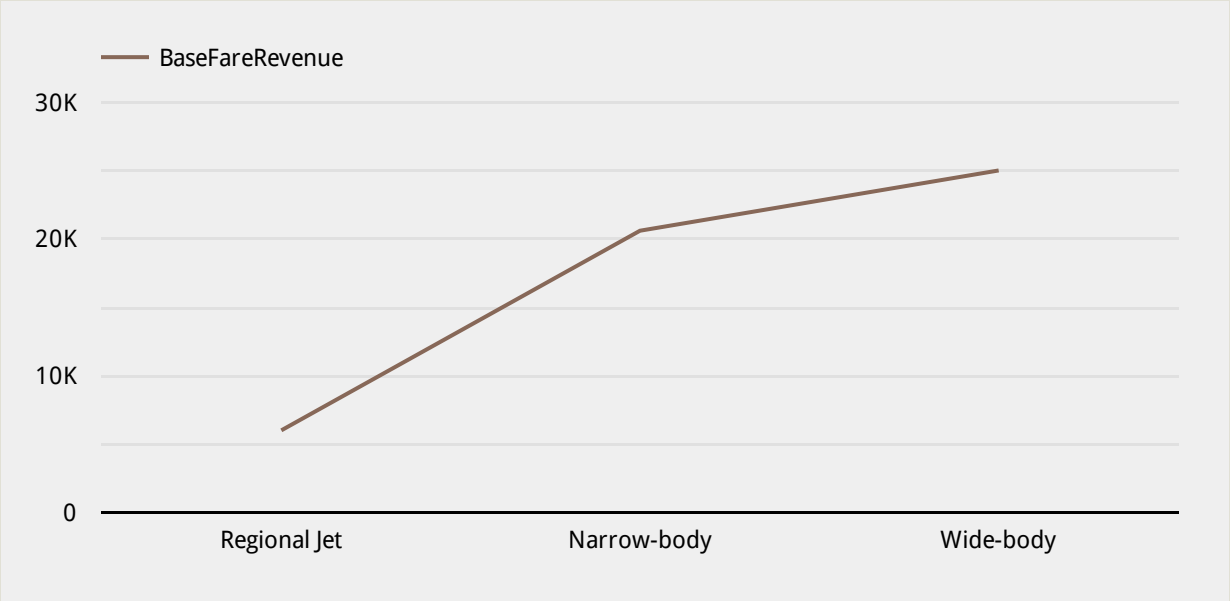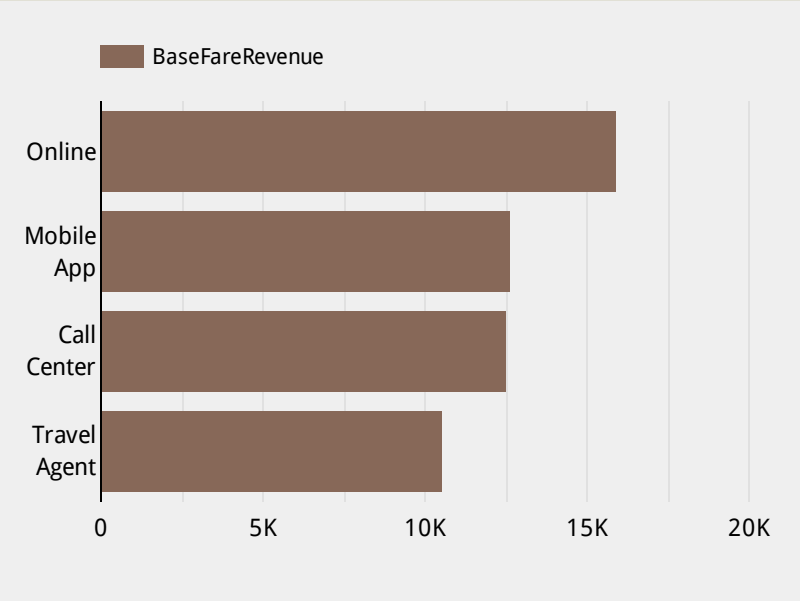


| | Date | Time | Airport | Passenger | Booking Channel | Class of Service | Fare Basis | Aircraft | Communication Profile | Transaction ID # |
|---|---|---|---|---|---|---|---|---|---|---|
| Reservations | X | X | X | X | X | X | X | X | | Conf # |
| Issued Tickets | X | X | X | X | X | X | X | X | | Conf #<br>Ticket # |
| Unearned Revenue & Availability | X | X | X | | | X | | X | | |
| Flight Activity | X | X | X | X | X | X | X | X | | Conf #<br>Ticket # |
| Frequent Flyer Account Credits | X | | X | X | X | X | X | | | Conf #<br>Ticket # |
| Customer Care Interactions | X | X | X | X | | | | | X | Case #<br>Ticket # |
| Frequent Flyer Communications | X | X | X | X | | | | | X | |
| Maintenance Work Orders | X | X | X | | | | | X | | Work<br>Order # |
| Crew Scheduling | X | X | X | | | X | | X | | |

**Bus Matrix**



| Date Dimension (views for 2 roles) | **Segment-Level Flight Activity Fact** | |
|---|---|---|
| | Scheduled Departure Date Key (FK) | |
| | Scheduled Departure Time Key (FK) | Time-of-Day Dimension (views for 2 roles) |
| | Actual Departure Date Key (FK) | |
| | Actual Departure Time Key (FK) | |
| Passenger Dimension | Passenger Key (FK) | |
| | Passenger Profile Key (FK) | |
| Passenger Profile Dimension | Segment Origin Airport Key (FK) | Airport Dimension (views for 2 roles) |
| | Segment Destination Airport Key (FK) | |
| | Aircraft Key (FK) | Aircraft Dimension |
| Class of Service Flown Dimension | Class of Service Flown Key (FK) | |
| | Fare Basis Key (FK) | Fare Basis Dimension |
| Booking Channel Dimension | Booking Channel Key (FK) | |
| | Confirmation Number (DD) | |
| | Ticket Number (DD) | |
| | Segment Sequence Number (DD) | |
| | Flight Number (DD) | |
| | Base Fare Revenue | |
| | Passenger Facility Charges | |
| | Airport Tax | |
| | Government Tax | |
| | Baggage Charges | |
| | Upgrade Fees | |
| | Transaction Fees | |
| | Segment Miles Flown | |
| | Segment Miles Earned | |

**Dimensional Schema**

Sai Ramya Kousalya

# Base Fare Revenue Analysis based on booking channel, Aircraft Type and service class.



## Aircraft capacity