Design Considerations

- **4 dimensions**
  - **rider_dim -** to analyse how much trips the rider take, to analyze riders age for the trip etc.
  - **date_dim -** provides date (at year, month, quarter etc) context to the trip fact & payment fact.
  - **time_dim -** provides time (at hour, minute, second) contex to the trip fact only .
  - **station_dim -** provides station details along with latitude & longitude context to trip fact
- **2 facts**
  - **trip_fact**
    - The grain of the trip fact is trip_id from the trip_staging table.
    - Measures include trip_duration in interval format & rider_age at the start of the trip.
  - **payment_fact**
    - The grain of the payment_fact is payment_id from the payment_staging table.
    - Payment fact doesn't include association with time dimension, as teh data at payment is at date level

trip_fact

PK	trip_id VARCHAR(50) PK NOT NULL
FK	rider_id INT NOT NULL
FK	start_station_id VARHCAR(50)
FK	end_station_id VARCHAR(50)
FK	trip_start_date DATE
FK	trip_end_date DATE
FK	trip_start_time TIME
FK	trip_end_time TIME
	trip_duration
	rider_age

time_dim

PK	time TIME PK NOT NULL
	hour INT
	minute INT
	second INT

station_dim

PK	station_id VARCHAR(50) PK NOT NUI
	station_name VARCHAR(75)
	latitude FLOAT
	longitude FLOAT

rider_dim

PK	rider_id PK NOT NULL
	address VARCHAR(75)
	first VARCHAR(50)
	last VARCHAR(50)
	birthday DATE
	account_start_date DATE
	account_end_date DATE
	rider_type VARCHAR(10)

payment_fact

PK	payment_id INT PK NOT NULL
FK	rider_id INT NOT NULL
FK	payment_date DATE
	amount MONEY

date_dim

PK	date DATE PK NOT NULL
	year INT
	month INT
	quarter INT
	day INT
	dow INT