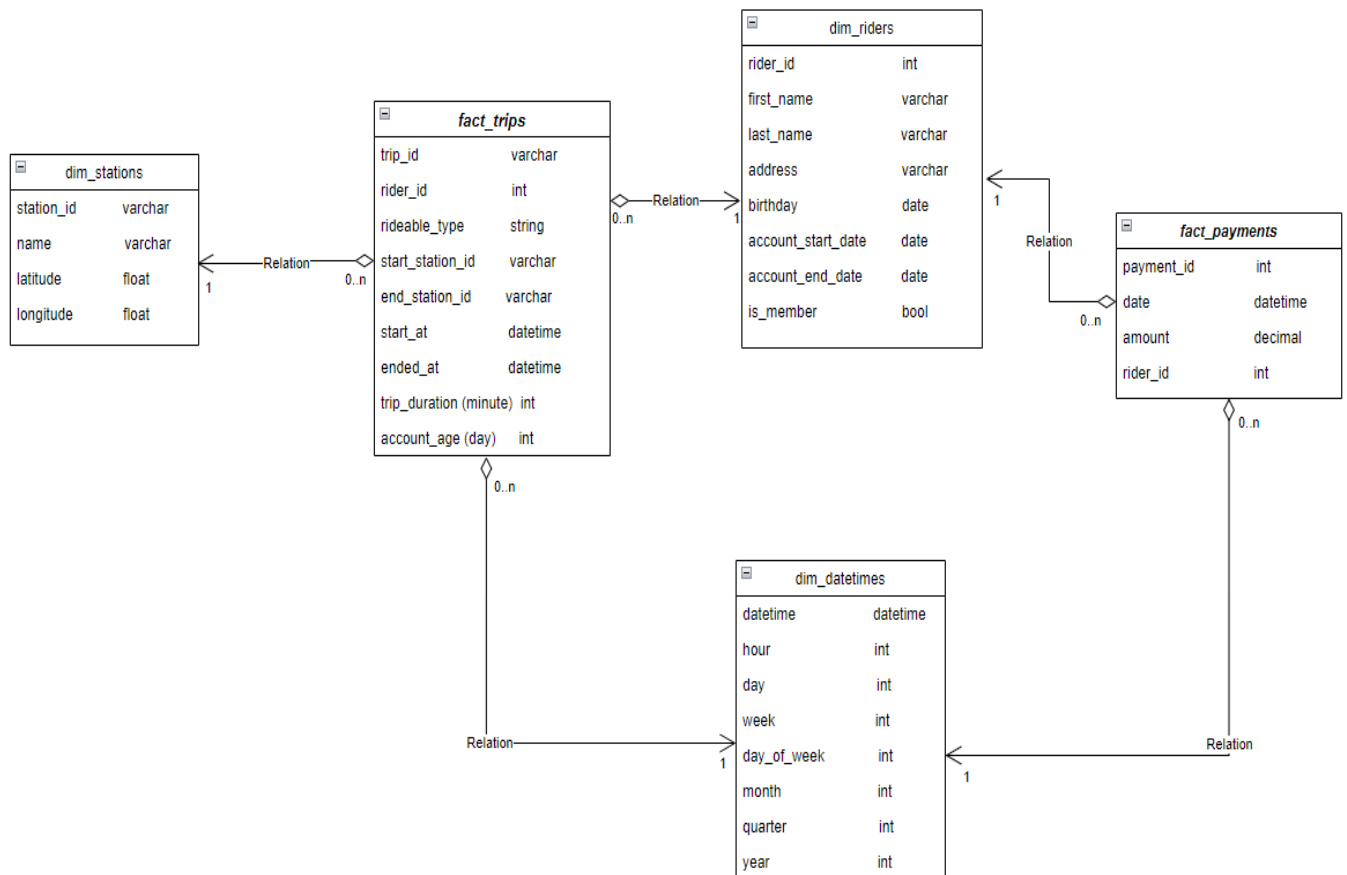This is the Star Schema that I defined for this project:

I had 5 tables: 2 fact tables and 3 dimension tables (below is fields and data sample informations for these tables):

(See each page)

1. fact_trips: trip_id, rider_id, rideable_type, start_station_id, end_station_id, start_at, ended_at, trip_duration (minute), account_age (day).

2. fact_payments: payment_id, date, amount, rider_id.

SQL script 1 •

▷ Run ↶ Undo ∨ ⬆ Publish ⊟ Query plan | Connect to ✓ duongnt ∨ Use database duongnt ∨ ↻

1 SELECT TOP (100) * FROM [dbo].[fact_payments]

Results   Messages

View   [Table   Chart]   ↦ Export results ∨

🔍 Search

payment_id	date	amount	rider_id
41890	2020-02-01T00:00:00.0000000	9	2647
1487943	2019-07-01T00:00:00.0000000	7.45	58467
1100290	2021-10-01T00:00:00.0000000	13.61	43428
725490	2022-02-01T00:00:00.0000000	9	29042
1213436	2019-07-01T00:00:00.0000000	9	47836
1047901	2020-05-01T00:00:00.0000000	21.2	41478
740592	2021-07-01T00:00:00.0000000	9	29650
1103451	2019-03-01T00:00:00.0000000	9	43562
1175834	2021-09-01T00:00:00.0000000	9	46416
1323858	2021-12-01T00:00:00.0000000	9	52130
538833	2021-02-01T00:00:00.0000000	9	21812
1088619	2021-09-01T00:00:00.0000000	6.47	42992
1385624	2018-03-01T00:00:00.0000000	9	54483
595382	2022-01-01T00:00:00.0000000	8.03	24015
606729	2021-10-01T00:00:00.0000000	9	24457
419696	2020-12-01T00:00:00.0000000	9	17199

✓ 00:00:02 Query executed successfully.

3. dim_riders: rider_id, first_name, last_name, address, birthday, account_start_date, account_end_date, is_member.

SQL script 1 ●

▷ Run ↶ Undo ∨   ⬆ Publish   🖧 Query plan   Connect to ● duongnt ∨   Use database duongnt ∨   ↻

```
1    SELECT TOP (100) * FROM [dbo].[dim_riders]
```

Results   Messages   ∧

View [Table Chart]   ↦ Export results ∨

🔍 Search

rider_id	first_name	last_name	address	birthday	account_start_...	account_end_d...	is_member
22466	"Aaron"	"Johnson"	"704 Nunez Loc...	1999-11-22T00:...	2021-05-20T00:...	2021-11-01T00:...	True
22330	"Holly"	"Young"	"0484 Young S...	1971-10-03T00:...	2021-10-08T00:...	(NULL)	True
22620	"Andrea"	"Roach"	"77446 Mora C...	1991-12-22T00:...	2021-12-12T00:...	(NULL)	True
23758	"Laura"	"Ward"	"24338 Dawson...	1971-05-13T00:...	2020-05-24T00:...	2021-10-01T00:...	True
23905	"Jose"	"Collins"	"356 Joseph M...	1991-03-21T00:...	2021-11-07T00:...	(NULL)	True
22625	"Tammy"	"Gutierrez"	"66532 Carroll ...	1987-12-05T00:...	2021-09-29T00:...	(NULL)	True
23922	"Edward"	"Logan"	"68450 Miguel ...	1996-04-20T00:...	2019-01-21T00:...	2019-04-01T00:...	True
23772	"Emily"	"Brown"	"287 Pamela Fl...	1976-11-22T00:...	2019-07-12T00:...	(NULL)	True
24062	"Linda"	"Lindsey"	"1925 Holt Row"	1974-11-26T00:...	2020-11-21T00:...	(NULL)	True
24074	"Jason"	"Snyder"	"0896 Buckley ...	1995-05-20T00:...	2014-06-17T00:...	(NULL)	False
33334	"Ronald"	"Stewart"	"01692 Charles ...	1981-02-24T00:...	2016-08-04T00:...	(NULL)	True
33346	"Brianna"	"Baker"	"999 Michael C...	1987-07-06T00:...	2021-04-25T00:...	(NULL)	True
33483	"Taylor"	"Johnson"	"78429 Amber ...	1984-05-15T00:...	2021-10-08T00:...	(NULL)	True
33492	"Caleb"	"Reese"	"1906 Cordova ...	2003-12-06T00:...	2014-02-28T00:...	2016-12-01T00:...	True
27253	"Mary"	"Freeman"	"1195 Galloway...	1986-10-23T00:...	2020-04-03T00:...	2021-09-01T00:...	True
33497	"Michelle"	"Frederick"	"461 Dawson P...	1969-01-19T00:...	2015-08-26T00:...	(NULL)	True

✓ 00:00:02 Query executed successfully.

4. dim_stations: station_id, name, latitude, longitude.

SQL script 1 ●

▷ Run ↶ Undo ∨   ⬆ Publish 🔧 Query plan   Connect to ✅ duongnt ∨   Use database duongnt ∨ ↻

```
1    SELECT TOP (100) * FROM [dbo].[dim_stations]
```

Results   Messages   ∧

View (Table   Chart)   ↦ Export results ∨

🔍 Search

station_id	name	latitude	longitude
"13102"	"Calumet Ave & 18th St"	41.857611	-87.619407
"TA1307000111"	"Franklin St & Lake St"	41.885837	-87.6355
"13165"	"Racine Ave & 13th St"	41.865054	-87.656959
"13409"	"Sangamon St & Washington Blv...	41.883165	-87.6511
"TA1307000130"	"Morgan St & Polk St"	41.871737	-87.65103
"18016"	"Bernard St & Elston Ave"	41.949923	-87.713949
"20102"	"Loomis St & 89th St"	41.7324781666667	-87.6580595
"460"	"Francisco Ave & Hollywood Ave"	41.98	-87.7
"Lincoln Ave & Roscoe St - Charg...	"Lincoln Ave & Roscoe St - Charg...	41.943063378	-87.670833826
"427"	"Whipple St & Roosevelt Rd"	41.87	-87.7
"TA1307000139"	"MLK Jr Dr & 29th St"	41.842052	-87.617
"TA1305000009"	"Clark St & Ida B Wells Dr"	41.8759326655	-87.6305845355
"13206"	"Loomis St & Jackson Blvd"	41.877945	-87.662007
"13156"	"Aberdeen St & Monroe St"	41.880419	-87.655519
"TA1307000061"	"State St & Pearson St"	41.897448	-87.628722

✅ 00:00:03 Query executed successfully.

5. dim_datetimes: datetime, hour, day, week, weekday (day_of_week), month, quarter, year.

SQL script 1 ●

▷ Run ↺ Undo ∨ ⬆ Publish ⛁ Query plan | Connect to ✅ duongnt ∨ Use database duongnt ∨ ↻

```
1   SELECT TOP (100) * FROM [dbo].[dim_datetimes]
```

Results Messages   ∧

View (Table | Chart)   ↦ Export results ∨

🔍 Search

datetime	hour	day	week	weekday	month	quarter	year
2021-08-27T11:28:46.0000000	11	27	35	6	8	3	2021
2021-07-18T19:01:46.0000000	19	18	30	1	7	3	2021
2021-12-04T16:42:34.0000000	16	4	49	7	12	4	2021
2021-06-18T15:36:28.0000000	15	18	25	6	6	2	2021
2021-10-27T06:00:09.0000000	6	27	44	4	10	4	2021
2021-05-16T09:37:11.0000000	9	16	21	1	5	2	2021
2021-07-10T15:50:48.0000000	15	10	28	7	7	3	2021
2021-08-01T03:08:35.0000000	3	1	32	1	8	3	2021
2021-07-08T15:28:02.0000000	15	8	28	5	7	3	2021
2021-09-03T14:24:16.0000000	14	3	36	6	9	3	2021
2021-08-10T17:56:22.0000000	17	10	33	3	8	3	2021
2021-08-04T16:51:22.0000000	16	4	32	4	8	3	2021
2021-07-14T13:28:45.0000000	13	14	29	4	7	3	2021
2021-10-09T15:10:18.0000000	15	9	41	7	10	4	2021
2021-08-07T11:58:11.0000000	11	7	32	7	8	3	2021
2021-08-15T12:42:46.0000000	12	15	34	1	8	3	2021

✅ 00:00:01 Query executed successfully.