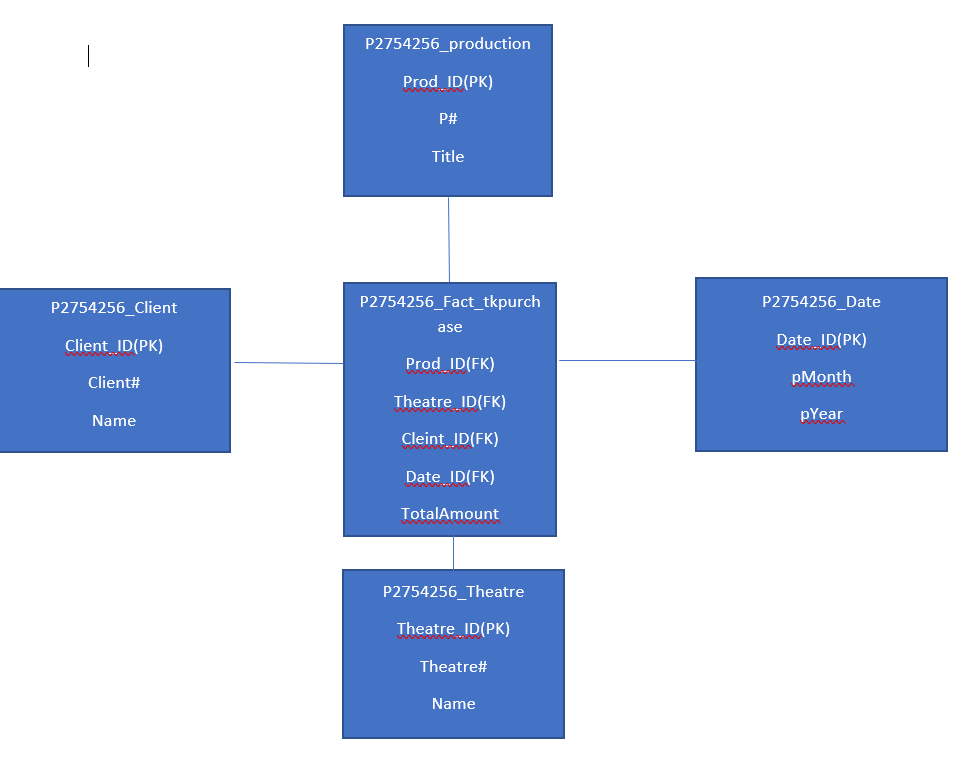
# 1.Star Schema

1.1 Star Schema



1.2 Explanation on Star Schema.

The Fact table consists of Prod\_ID, Theatre\_ID, Client\_ID, Date\_ID as the foreign keys from the dimensions that are taken into consideration as per the requirements of the data mart. Then there is TotalAmount for the aggregation, which is being used to find the requirements in respect to the total amount. While the dimensions are P2754256\_Theatre from which we can get the theatre id and their names. P2754256\_client from which we can get the client id their client number in the relational database and their name. P2754256\_production from which the production number and is taken. Which also provides the name of the corresponding productions. Lastly there is P2754256\_Date from which the monthly combined with yearly outcomes can be driven.

**Granularity: For each row in fact table the granularity is defined as the month wise spendings by the client on one production in particular theatre.**

## 2. Logical Relationship

P2754256\_Production (Prod\_ID,P#,Title)

P2754256\_Theatre (Theatre\_ID,Theatre#,Name)

P2754256\_Client (Client\_ID,Client#,Name)

P2754256\_Date (Date\_ID,pDate)

P2754256\_Fact\_tkpurchase (Prod\_ID,Theatre\_ID,Client\_ID,Date\_ID,Total Amount)

Theatre\_Id is a foreign key referring to Theatre, Client ID is the foreign key referring to Client, while Prod\_ID is the foreign key referring to the production. Lastly Date\_ID is the foreign key referring to the Date in the fact table.

However, Prod\_id is the Primary Key (PK) for P2754256\_Production. Client\_ID is the PK for P2754256\_Client. Theatre\_ID is the PK for P2754256\_Theatre. Lastly Date\_ID is the pk for P2754256\_Date.

### 3.Creation of Tables

CREATE TABLE P2754256\_date (

date\_id number(5) PRIMARY KEY,

pYear number(4) NOT NULL,

pMonth number(2) NOT NULL);

CREATE TABLE P2754256\_theatre (

theatre\_id number(5) PRIMARY KEY,

Theatre# number(5) NOT NULL,

Name VARCHAR2(20) NOT NULL);

CREATE TABLE P2754256\_client (

client\_id number(5) PRIMARY KEY,

Client# number(5) NOT NULL,

Name VARCHAR2(30) NOT NULL);

CREATE TABLE p2754256\_fact\_tkpurchase(

Prod\_ID number(5) CONSTRAINT fkprod REFERENCES p2754256\_production,

Theatre\_ID number(5) CONSTRAINT fktheatre REFERENCES p2754256\_Theatre,

Client\_ID number(5) CONSTRAINT fkclient REFERENCES p2754256\_Client,

Date\_ID number(5) CONSTRAINT fkdate REFERENCES p2754256\_Date,

Totalamount number(\*,22),

constraint pk\_fact\_tkpurchase primary key (Prod\_ID,Theatre\_ID,Client\_ID,Date\_ID));

CREATE TABLE p2754256\_production(

prod\_id number(5) primary key,

P# number(5) not null,

title varchar(20) not null);

#### 4. Data Source Identification, Data Extraction, Transformation, and loading

insert into P2754256\_client select client.nextval, Client#, Name from

(select distinct c.Client#, upper(trim(c.Name)) Name from ops$yyang00.client c, ops$yyang00.ticketpurchase tp

Where c.Client#=tp.Client#)



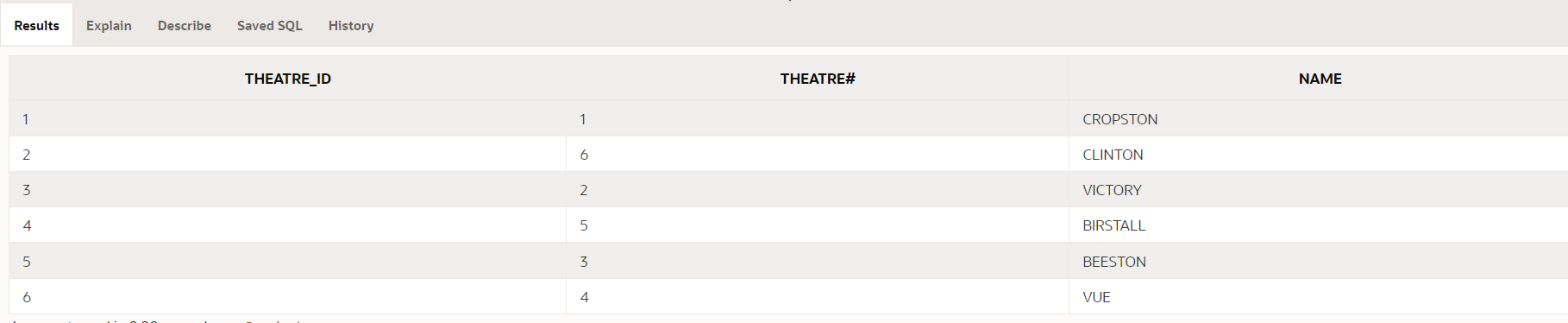
insert into P2754256\_theatre select theatre.nextval, Theatre#, Name from

(select distinct Theatre#, upper(trim(Name)) Name from

(select t.Theatre#, t.Name

From ops$yyang00.Theatre t, ops$yyang00.Performance pr , ops$yyang00.ticketpurchase tp

Where t.Theatre#=pr.Theatre# and pr.Per#=tp.Per#));



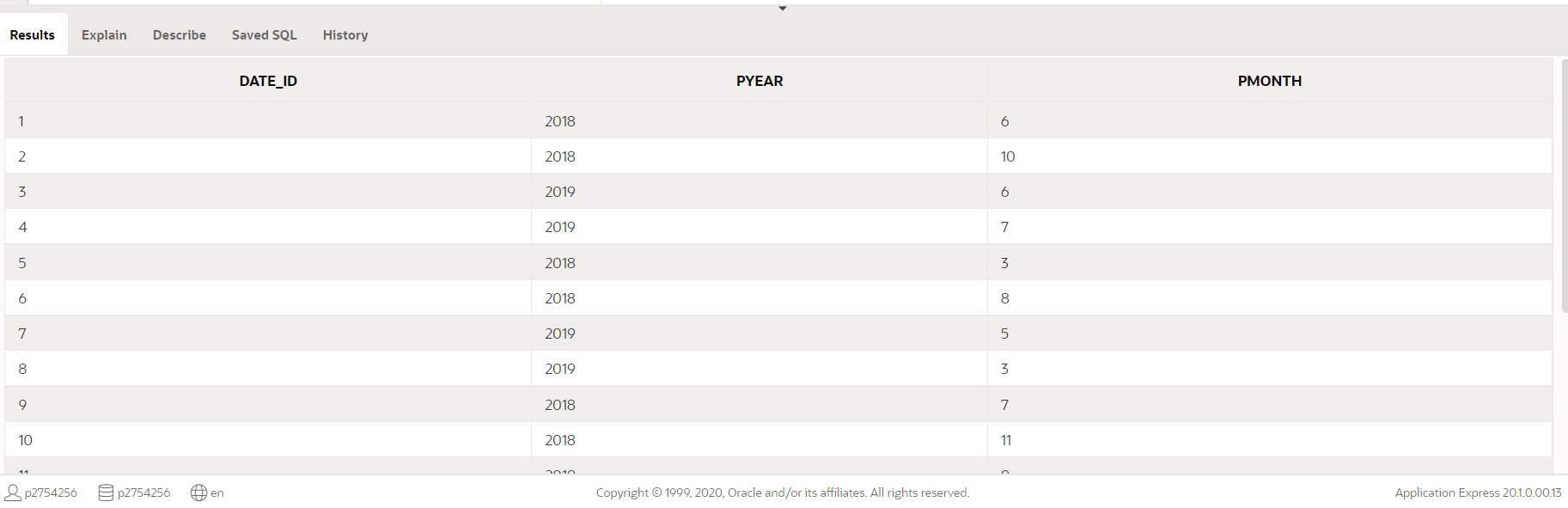
insert into P2754256\_date select date\_seq.nextval, year, month from

(select distinct extract(year from pDate) year, extract(month from

pDate) month

From ops$yyang00.Performance pr , ops$yyang00.ticketpurchase tp

Where pr.Per#=tp.Per#);



insert into p2754256\_fact\_tkpurchase select Prod\_ID, Theatre\_ID, Client\_ID, Date\_ID, Totalamount from

(select dp.Prod\_ID, dt.Theatre\_ID, dc.Client\_ID, dd.Date\_ID, sum(tp.Totalamount) Totalamount

from ops$yyang00.TicketPurchase tp, ops$yyang00.Client c, ops$yyang00.Theatre t,ops$yyang00.Performance p, p2754256\_production dp, p2754256\_Theatre dt, p2754256\_Client dc, p2754256\_Date dd

Where tp.Client#=c.Client# and tp.Per#=p.Per# and p.P#=dp.P# and p.Theatre#=dt.Theatre# and extract(year from p.pDate)=dd.pYear and extract(month from p.pDate)=dd.pMonth

Group by dp.Prod\_ID, dt.Theatre\_ID, dc.Client\_ID, dd.Date\_ID);

insert into P2754256\_production select production.nextval, p#, title from

(select distinct p#, upper(trim(title)) title from

(select p.p#, p.title

From ops$yyang00.production p, ops$yyang00.performance pr, ops$yyang00.ticketpurchase tp

Where p.p#=pr.p# and pr.per#=tp.per#));

