**Introduction to Database (Mid-term Assignment)**

**Project Name: Cineplex Management System**

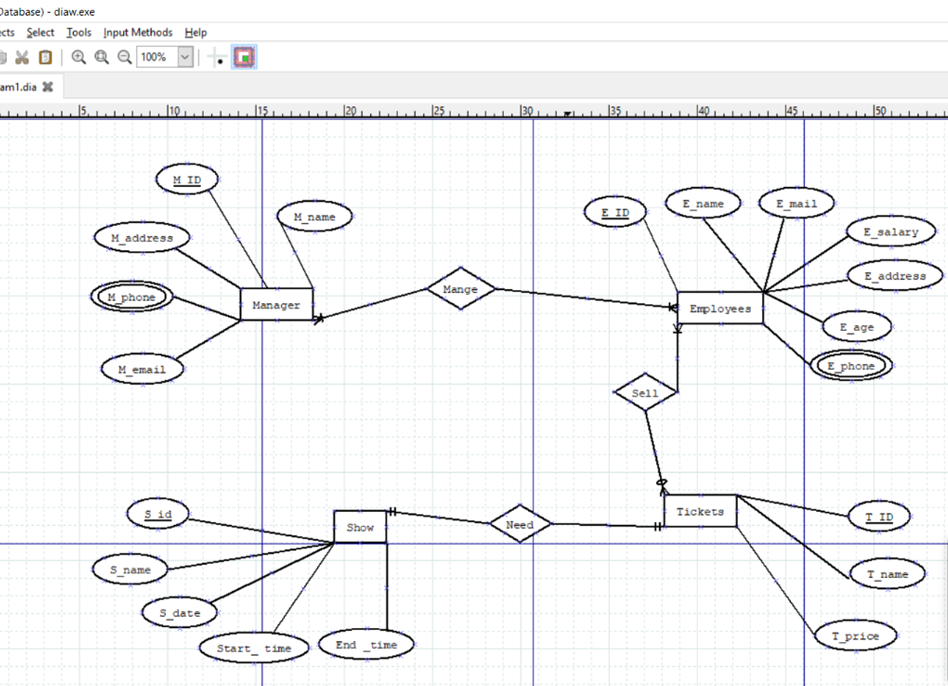
**Group- TEAM TRIO**

**Group Members:**

|  |  |
| --- | --- |
| **Name** | **Id** |
| **KABIR, MD. TAJIMUL** | **19-40419-1** |
| **SAYEM, EASINUL ABEDIN** | **19-40291-1** |
| **RAHMAN ARIAN** | **19-39515-1** |

**Scenario:**

Star Cineplex is the first multiplex cinema theatre in Bangladesh.Star Cineplex has a strong management for maintaining the whole system. A Manager has M\_ID, M\_name, M\_address, M\_phone, M\_email. In Cineplex management system there are many employees who controlled by the manager. The attributes of employees include E\_ID, E\_name, E\_address, E\_phone, E\_mail, E\_salary, E\_age.Manager manages all employees. Tickets is must needed for watching a show in cineplex. Few employees sell ticket in ticket booth or people can buy tickets from online by visiting cineplex official website. A Ticket has T\_ID, T\_name, T\_price. One ticket can be sold from only one show. Show has some attributes include S\_id,S\_name, S\_date, Start\_ time, End \_time. One show will run at a time. One manager can manage many employees.

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NORMALIZATION:

Manage (M\_id,M\_name,M\_address,M\_phone,M\_email,E\_id,E\_name,E\_mail,E\_salary,E\_address,

E \_age ,E\_ phone)

**1NF:**

M\_ phone & E\_ phone -> multivalued attributes

**2NF:**

M\_ID, M\_ name, M\_ address, M\_ phone, M\_ email

E\_ id, E\_ name, E\_ mail, E\_ salary, E\_ address ,E\_ age, E\_ phone

**3NF:**

M\_ID, M\_ name, M\_ address, M\_ phone, M\_ email

E\_ id ,E\_ name, E\_ mail, E\_ salary, E\_ address ,E\_ age, E\_ phone

No transitive dependency.

**Table:**

M\_ ID,M\_ name ,M\_ address ,M\_ phone, M\_ email

E id ,E\_ name, E\_ mail, E\_ salary, E\_ address ,E\_ age, E\_ phone

Sell (E\_id,E\_name,E\_mail,E\_salary,E\_address,E\_age,E\_phone,T\_id,T\_name,T\_price)

**1NF:**

E\_ phone -> multivalued attribute.

**2NF:**

E\_ id, E\_ name, E\_ mail, E\_ salary, E\_ address ,E\_ age, E\_ phone

T\_id, T\_ name,T\_ price

**3NF:**

E\_id,E\_name,E\_mail,E\_salary,E\_address,E\_age,E\_phone

T\_id,T\_name,T\_price

No transitive dependency.

Table:

E\_id,E\_name,E\_mail,E\_salary,E\_address,E\_age,E\_phone

T\_id,T\_name,T\_price

Need (T\_id,T\_name,T\_price,S\_id,S\_name,Start\_time,End\_time)

**1NF:**

No multivalued attributes

**2NF:**

T\_id,T\_name,T\_price,S\_id

S\_id,S\_name,Start\_time,End\_time

**3NF:**

T\_id,T\_name,T\_price,S\_id

S\_id,S\_name,Start\_time,End\_time

No transitive dependency

Table:

T\_id,T\_name,T\_price,S\_id

S\_id,S\_name,Start\_time,End\_time

Total Table:

M\_ID,M\_name,M\_address,M\_phone,M\_email

E\_id,E\_name,E\_mail,E\_salary,E\_address,E\_age,E\_phone

T\_id,T\_name,T\_price

T\_id,T\_name,T\_price,S\_id

S\_id,S\_name,Start\_time,End\_time

Final Table:

1st. M\_ID,M\_name,M\_address,M\_phone,M\_email

2nd. E\_id,E\_name,E\_mail,E\_salary,E\_address,E\_age,E\_phone

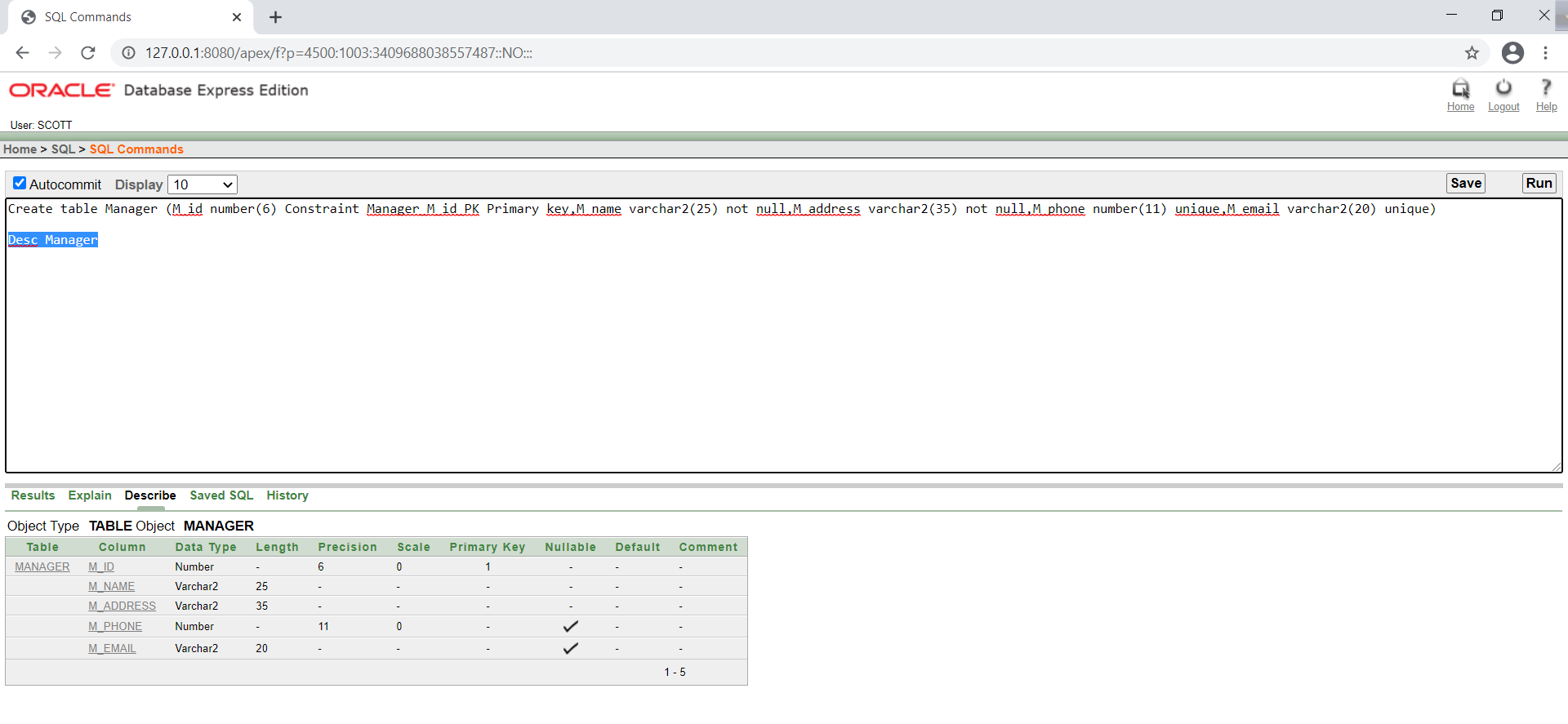
3rd. T\_id,T\_name,T\_price

4th. T\_id,T\_name,T\_price,S\_id

5th. S\_id,S\_name,Start\_time,End\_time

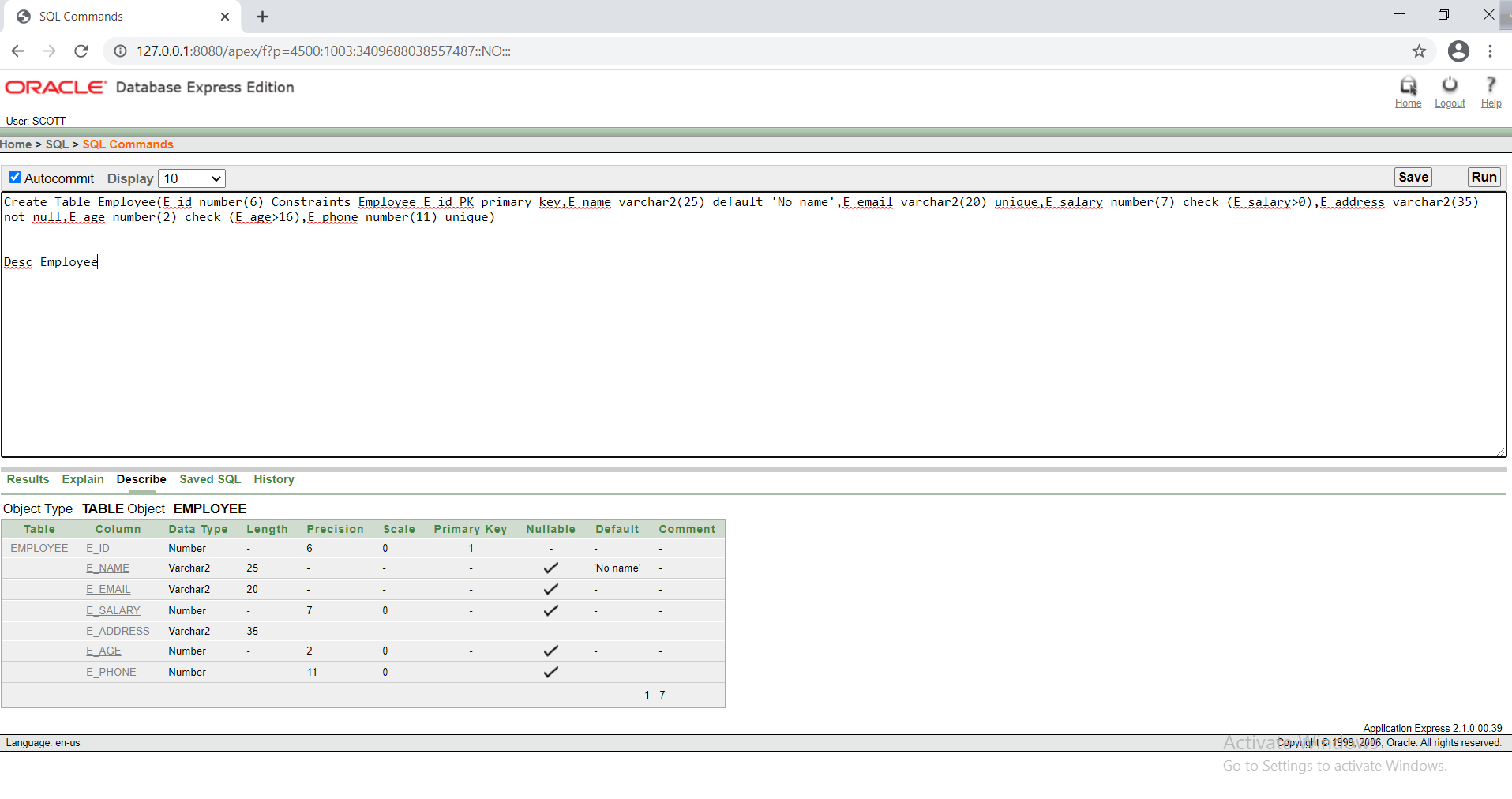
Table with constraint

Create table Manager (M\_id number(6) Constraint Manager\_M\_id\_PK Primary key,M\_name varchar2(25) not null,M\_address varchar2(35) not null,M\_phone number(11) unique,M\_email varchar2(20) unique)

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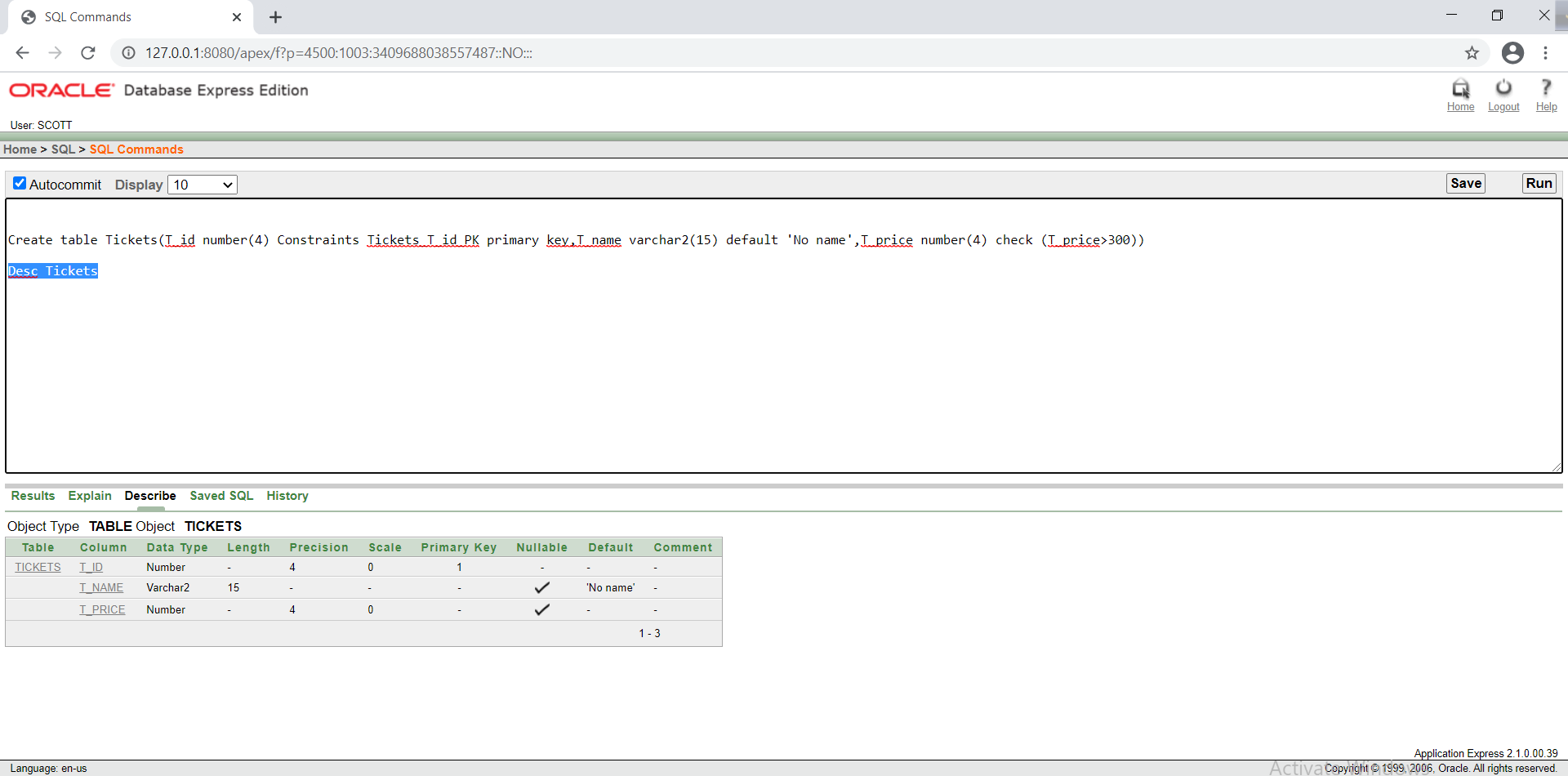
Create Table Employee(E\_id number(6) Constraints Employee\_E\_id\_PK primary key,E\_name varchar2(25) default 'No name',E\_email varchar2(20) unique,E\_salary number(7) check (E\_salary>0),E\_address varchar2(35) not null,E\_age number(2) check (E\_age>16),E\_phone number(11) unique)

Desc Employee



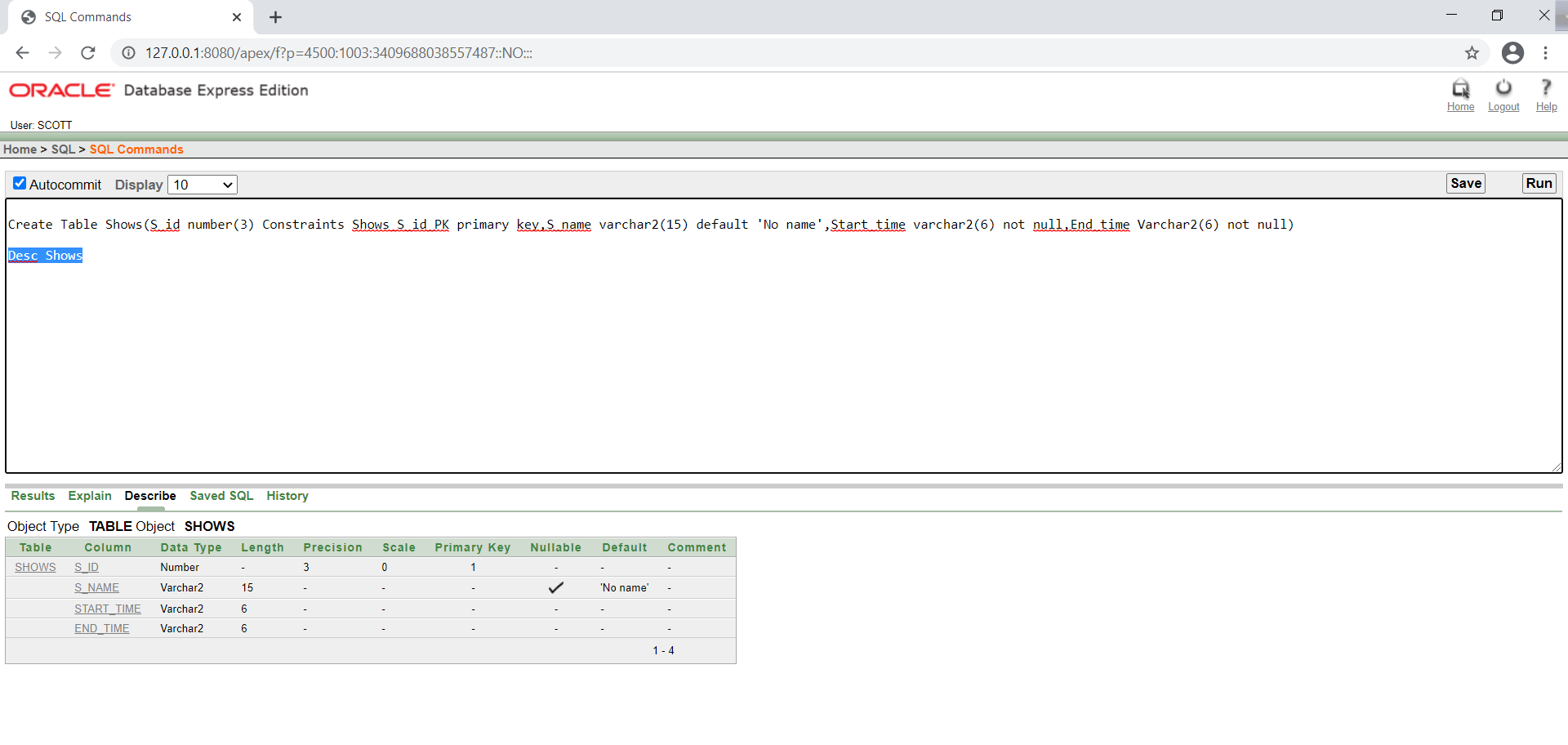
Create table Tickets(T\_id number(4) Constraints Tickets\_T\_id\_PK primary key,T\_name varchar2(15) default 'No name',T\_price number(4) check (T\_price>300))

Desc Tickets



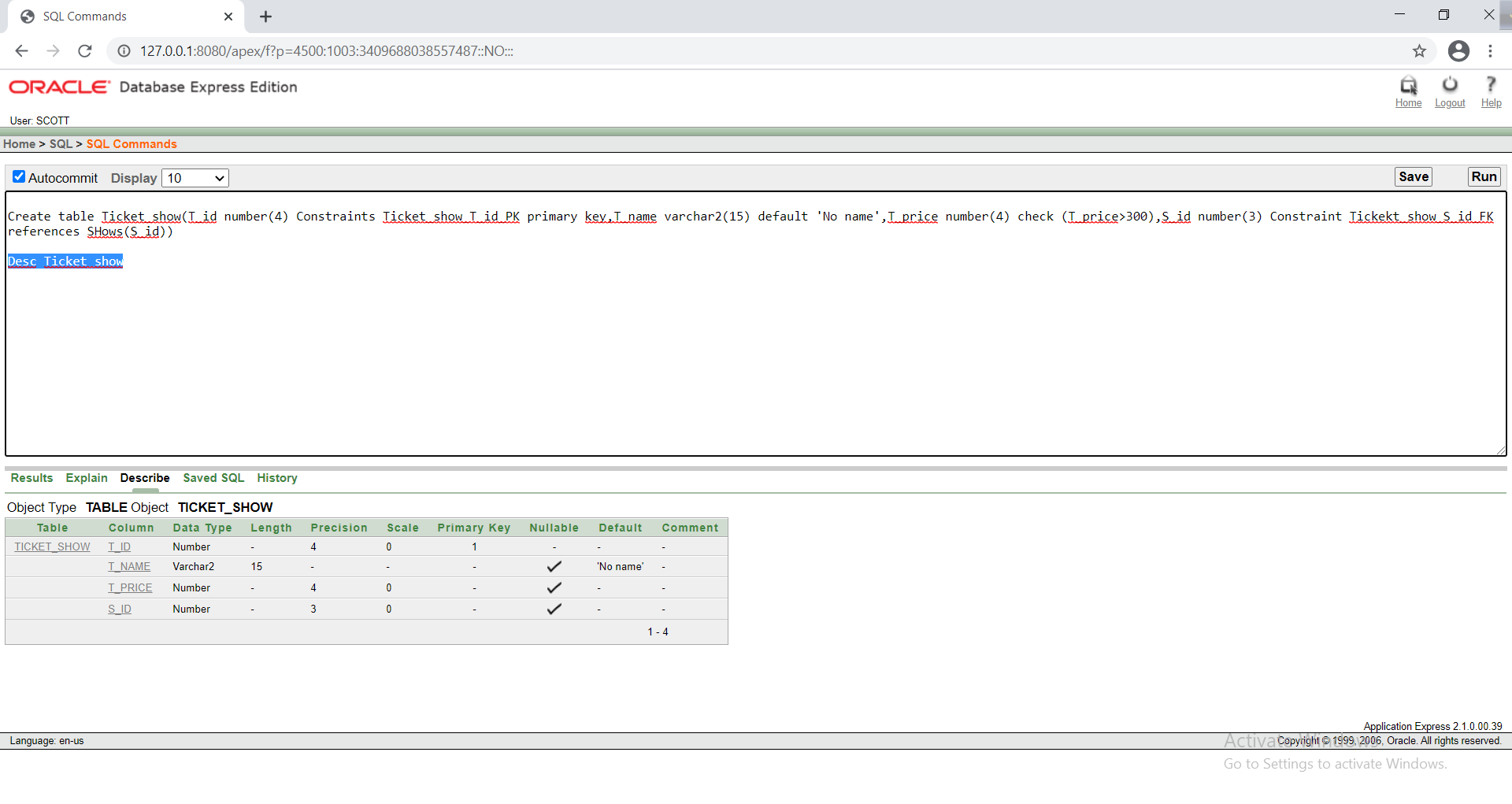
Create Table Shows(S\_id number(3) Constraints Shows\_S\_id\_PK primary key,S\_name varchar2(15) default 'No name',Start\_time varchar2(6) not null,End\_time Varchar2(6) not null)

Desc Shows



Create table Ticket\_show(T\_id number(4) Constraints Ticket\_show\_T\_id\_PK primary key,T\_name varchar2(15) default 'No name',T\_price number(4) check (T\_price>300),S\_id number(3) Constraint Tickekt\_show\_S\_id\_FK references SHows(S\_id))

Desc Ticket\_show



5. Data insert

For Manager Table:

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(1,'SAKIB

Hasan','UTTARA-10,Dhaka',11726425894,'sakibhasan@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(2,'NOWAZ

Hasan','UTTARA-11,Dhaka',11348565894,'nowaz23@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(3,'FOYSAL

ISLAM','MOTIHJIL-2,Dhaka',51700123894,'FS03@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(4,'NIAZ

Rahman','Dhanmondi-10,Dhaka',41935478294,'niaz23@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(5,'RUMMAN

Zaman','CANTONMENT,Dhaka',61621594242,'rumman23@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(6,'NIHAD

UDDIN','KAFRUL,Dhaka',28309817234,'nihad23@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(7,'ABDULLAH

HASAN','BANANI,Dhaka',97999991222,'abdullah04@yahoo.com')

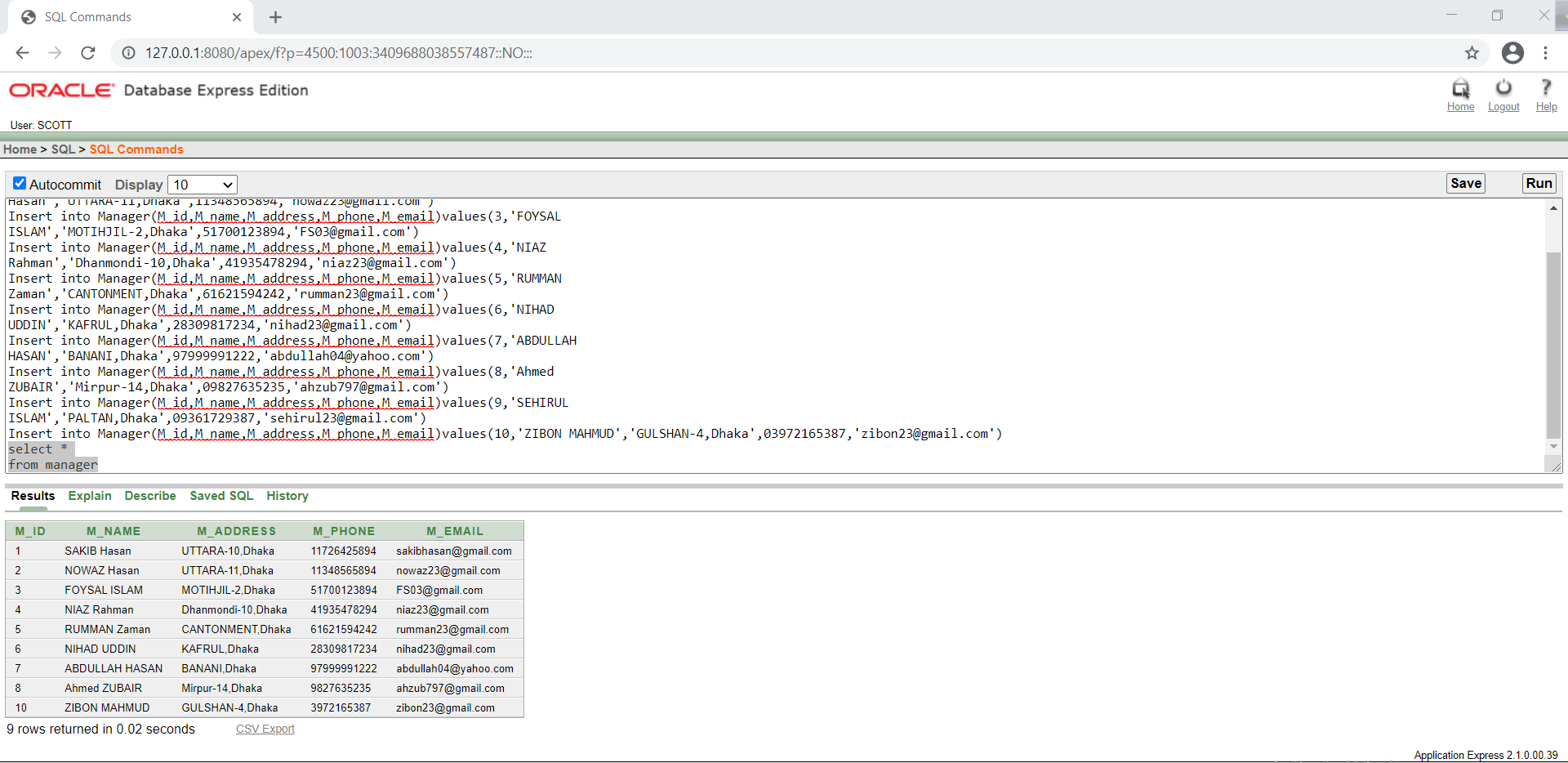
Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(8,'Ahmed

ZUBAIR','Mirpur-14,Dhaka',09827635235,'ahzub797@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(9,'SEHIRUL

ISLAM','PALTAN,Dhaka',09361729387,'sehirul23@gmail.com')

Insert into Manager(M\_id,M\_name,M\_address,M\_phone,M\_email)values(10,'ZIBON MAHMUD','GULSHAN-4,Dhaka',03972165387,'zibon23@gmail.com')



FOR EMP

TABLE

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(101,'Zamil',

'zamil@gmail.com',4500,'Uttara-3,Dhaka',17,092718238121)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(102,'Rakib',

'rakib3452@gmail.com',4500,'Nilkhelt,Dhaka',18,09281673615)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(103,'Sakib',

'sakib66@yahoo.com',4200,'Panthapoth,Dhaka',20,09327125634)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(104,'Jisan',

'jissan33@gmail.com',4000,'Gulsan,Dhaka',22,39123102934)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(105,'Rakin',

'rakin27@gmail.com',5000,'Bananni,Dhaka',17,039182763152)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(106,'Turjo',

'turjo44@gmail.com',4800,'Kuratoli,Dhka',18,05123452013)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(107,'Rouf',

'rouf78@gmail.com',3500,'Mirpur,Dhaka',24,041278310238)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(108,'Tutol',

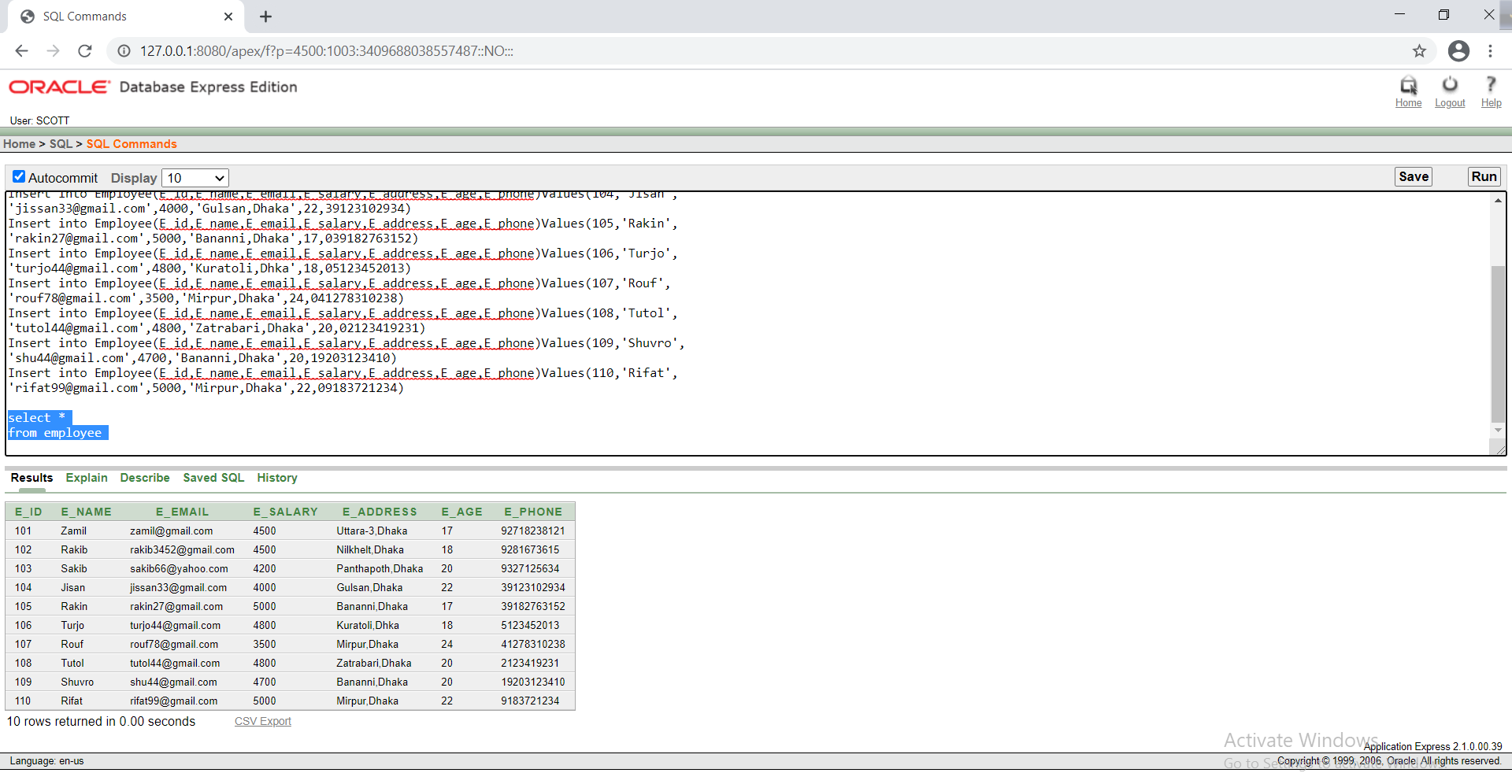
'tutol44@gmail.com',4800,'Zatrabari,Dhaka',20,02123419231)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(109,'Shuvro',

'shu44@gmail.com',4700,'Bananni,Dhaka',20,19203123410)

Insert into Employee(E\_id,E\_name,E\_email,E\_salary,E\_address,E\_age,E\_phone)Values(110,'Rifat',

'rifat99@gmail.com',5000,'Mirpur,Dhaka',22,09183721234)



For Tickets Table:

Insert into Tickets(T\_id,T\_name,T\_price)values(0001,'General',320)

Insert into Tickets(T\_id,T\_name,T\_price)values(0002,'VIP',500)

Insert into Tickets(T\_id,T\_name,T\_price)values(0003,'PREMIUM',400)

Insert into Tickets(T\_id,T\_name,T\_price)values(0004,'General',320)

Insert into Tickets(T\_id,T\_name,T\_price)values(0005,'PREMIUM',400)

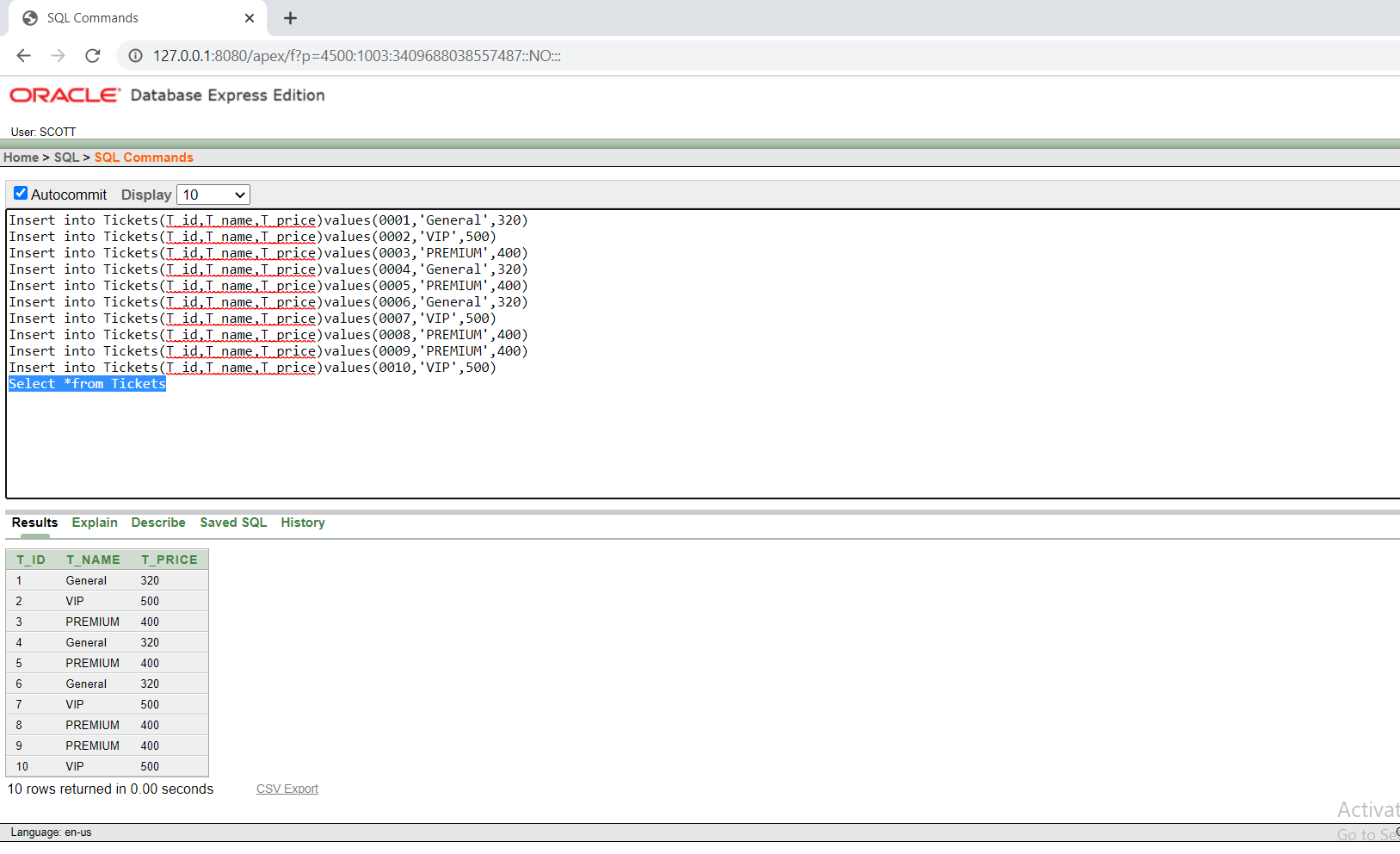
Insert into Tickets(T\_id,T\_name,T\_price)values(0006,'General',320)

Insert into Tickets(T\_id,T\_name,T\_price)values(0007,'VIP',500)

Insert into Tickets(T\_id,T\_name,T\_price)values(0008,'PREMIUM',400)

Insert into Tickets(T\_id,T\_name,T\_price)values(0009,'PREMIUM',400)

Insert into Tickets(T\_id,T\_name,T\_price)values(0010,'VIP',500)



SHOW TABLE

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(01,'Movie 1','9 am','10 am')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(02,'Movie 2','10 am','11 am')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(03,'Movie 3','11 am','12 pm')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(04,'Movie 4','12 pm','1 pm')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(05,'Movie 5','1 pm','2 pm')

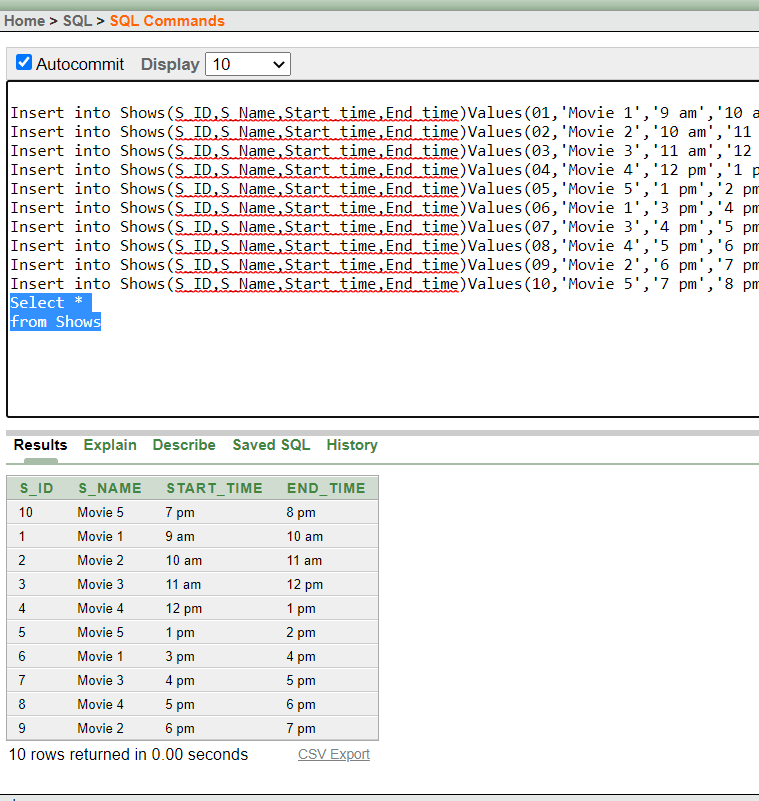
Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(06,'Movie 1','3 pm','4 pm')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(07,'Movie 3','4 pm','5 pm')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(08,'Movie 4','5 pm','6 pm')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(09,'Movie 2','6 pm','7 pm')

Insert into Shows(S\_ID,S\_Name,Start\_time,End\_time)Values(10,'Movie 5','7 pm','8 pm')



Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0001,'General',320,01)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0002,'VIP',500,02)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0003,'PREMIUM',400,03)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0004,'General',320,04)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0005,'PREMIUM',400,05)

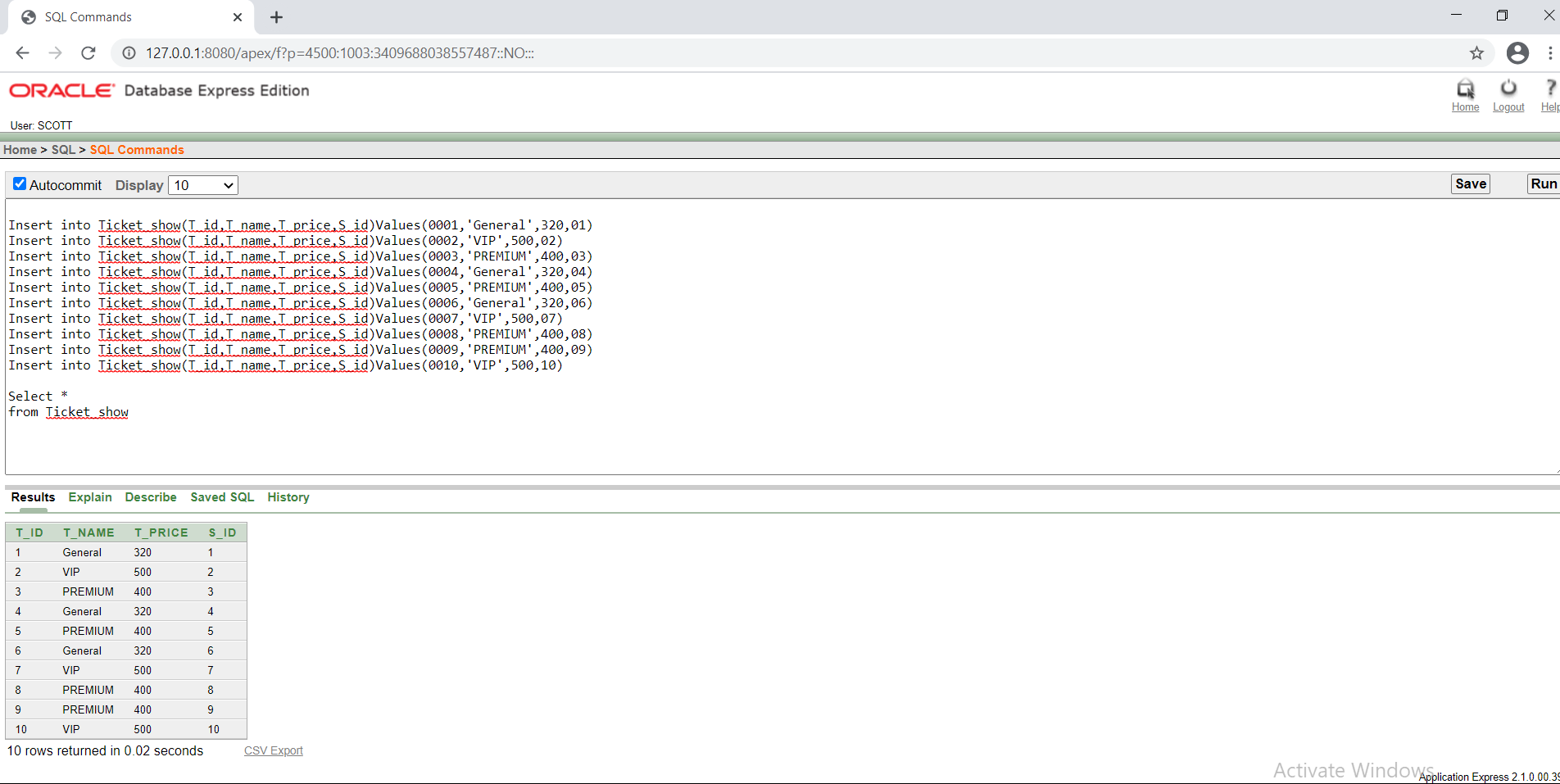
Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0006,'General',320,06)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0007,'VIP',500,07)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0008,'PREMIUM',400,08)

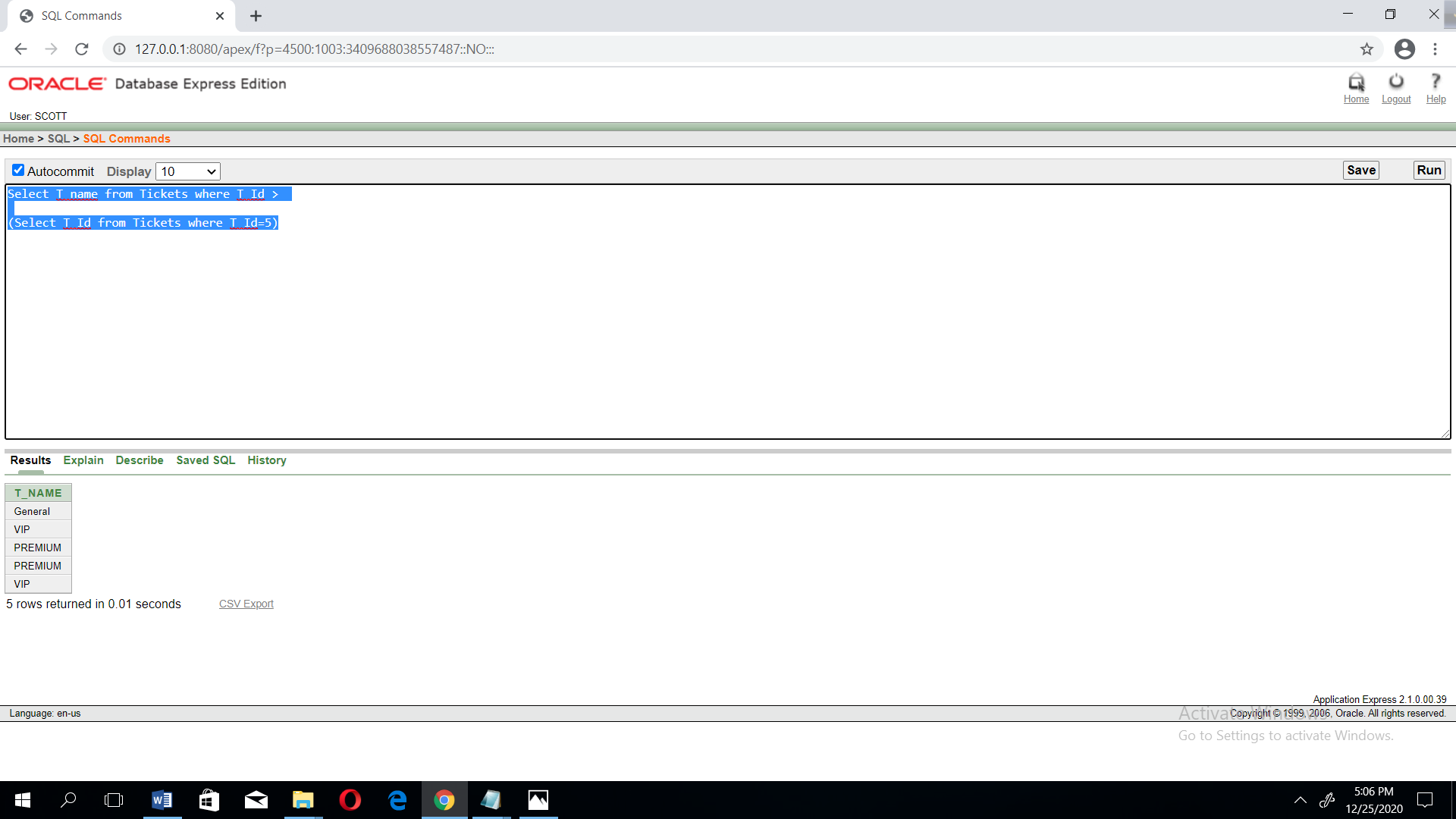
Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0009,'PREMIUM',400,09)

Insert into Ticket\_show(T\_id,T\_name,T\_price,S\_id)Values(0010,'VIP',500,10)



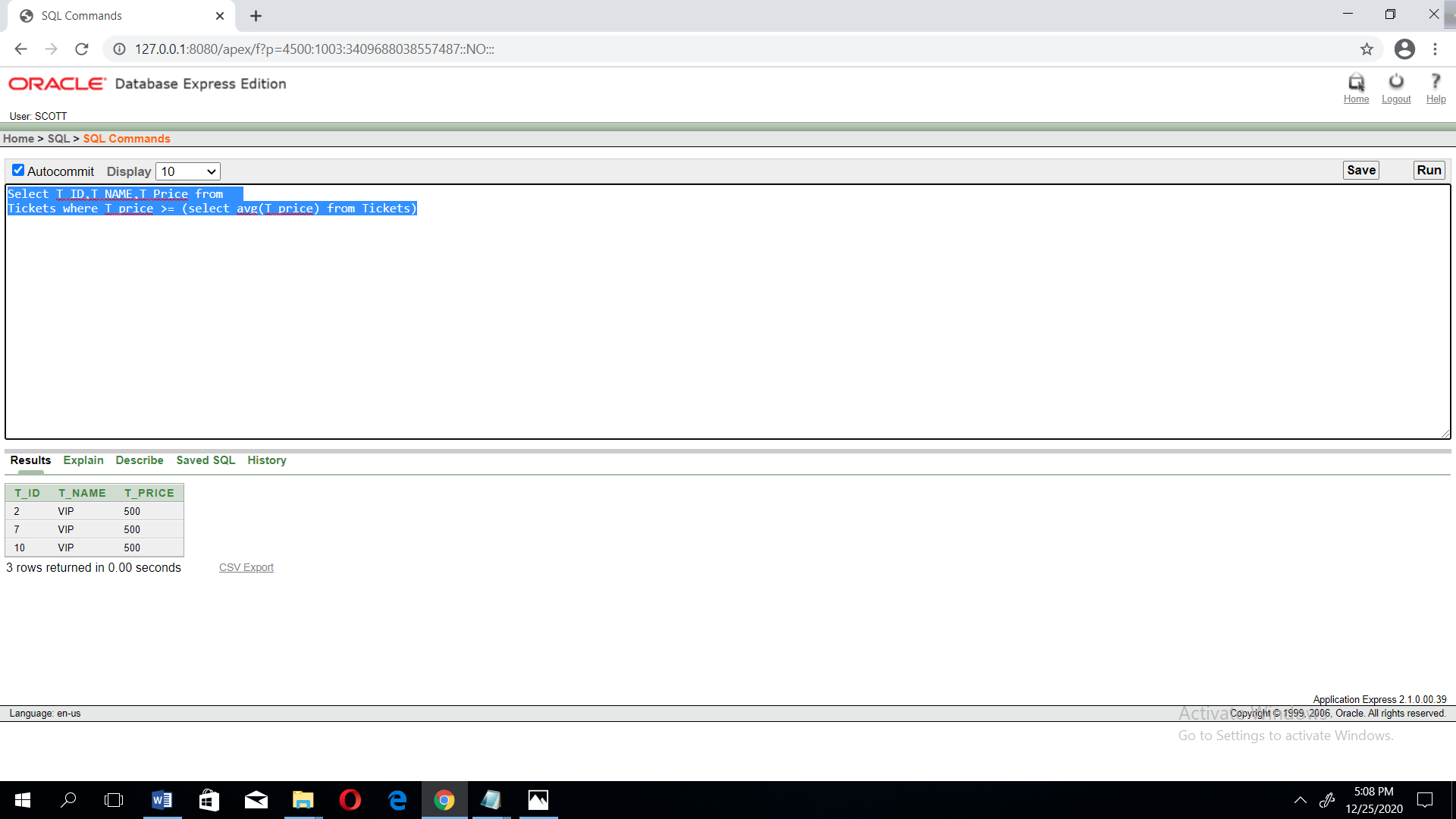
1.Write a query to display Ticket name where ticket id is greater than 5. (Tickets table)

Select T\_name from Tickets where T\_Id > (Select T\_Id from Tickets where T\_Id=5)



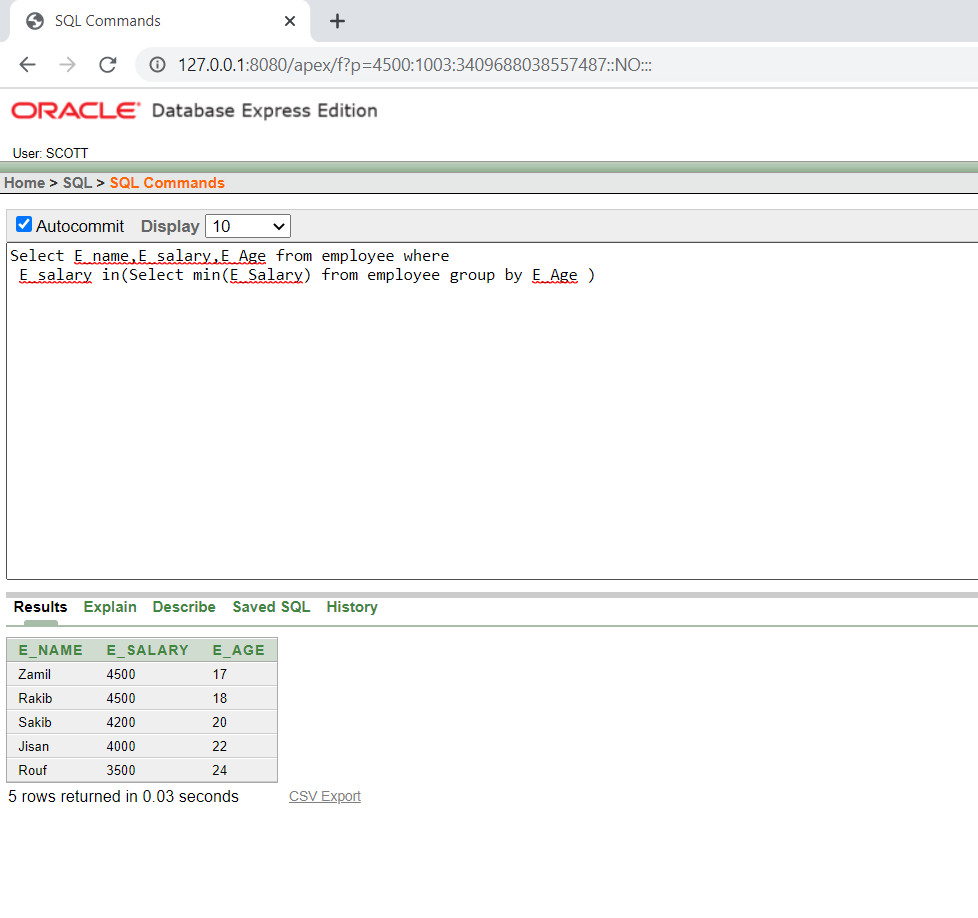
2. Write a query to display the Ticket id, Ticket name and Ticket price for all Tickets whose price more or equal than the average price. (Tickets table)

Select T\_ID,T\_NAME,T\_Price from Tickets where T\_price >= (select avg(T\_price) from Tickets)



3.Write a query to display Employees name,salary and age who get the age wise lowest salary.(Employee Table)

Select E\_name,E\_salary,E\_Age from employee where E\_salary in(Select min(E\_Salary) from employee group by E\_Age )



4.Write a query to display average, maximum, minimum and sum of all employees salary.(employee table

Select avg(E\_salary),max(E\_salary),min(E\_salary),sum(E\_salary) from employee

