**GROUP-8**

**POPULAR DIAGONSITC MANAGEMENT SYSTEMS**

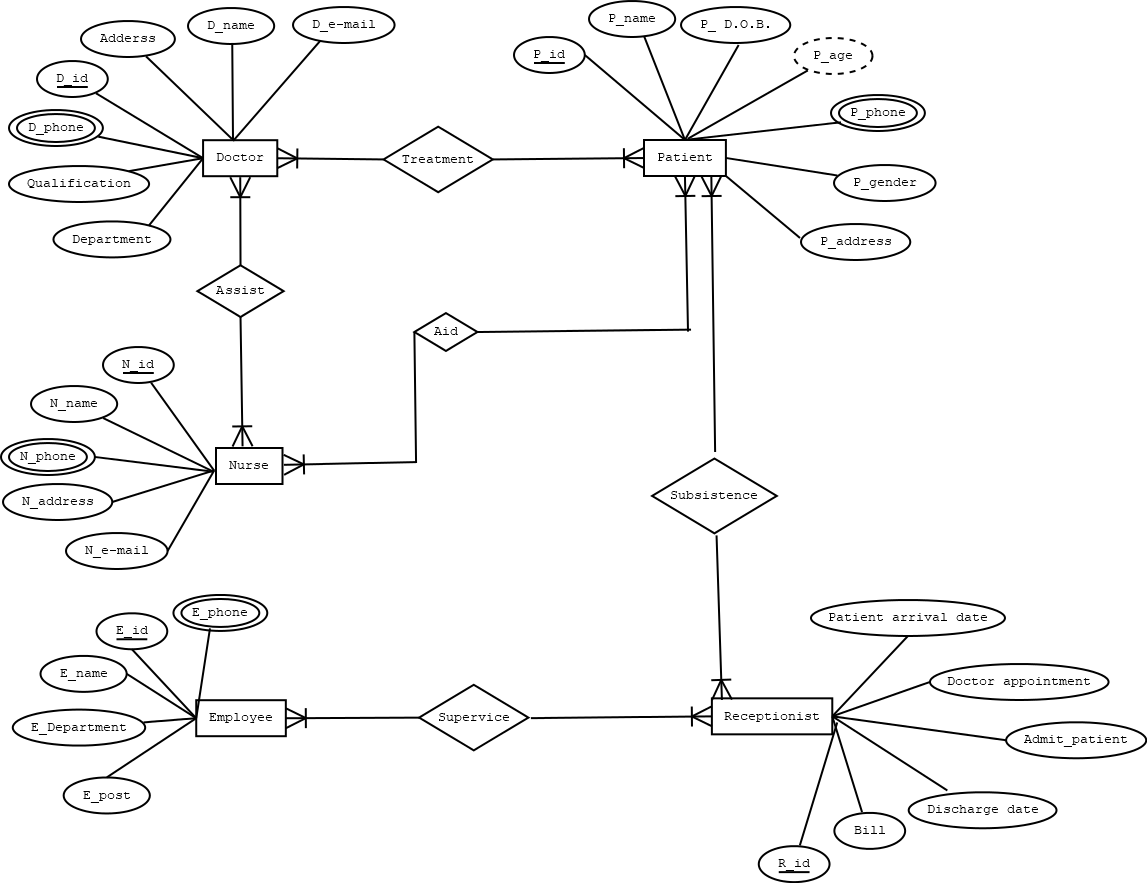
**MEMBERS INFROMATION:**

* UL ASIF, MD FARHAN ID: 20-43522-1
* ROY, MRIDUL KUMAR ID: 20-43517-1
* CHAKRABORTY, SUMIT ID: 20-43472-1
* RAFSAN, GAZI SAYDUZZAMAN ID: 20-42066-1

**CASE STUDY**

0ur Popular Diagnostic Management System helps in registering information about Doctors, Patients, Nurse, Employees, Receptionist and others. A unique id is generated for each patient after registration. Their name, age, phone, address, gender and Date of birth are also registered for implementing customer relationship management and maintains medical history of patient. Patients and doctor’s relation are connected through treatment. For this system, we generate a unique id for each doctor. For making the system well managed, we store Doctors id, Doctors name, phone, mail, qualification, department and address. Our nurses assist our doctors. For our nurse, we separately store their name, mail, phone, id, address and for our employees we store their name, post, phone, id, department. It also deals with Receptionist which store Receptionists id, patient arrival date, admit patients, generate doctor’s appointment, patients discharging date and billing the patient. Receptions are connected with patients through the relation subsistence. Receptions are also supervised by Employee section.

**ER-DIAGRAM**



**NORMALIGATION**

**Treatment** (D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department, P\_id, P\_name, P\_D.O.B, P\_age, P\_phone, P\_gender, P\_address)

**1 NF:**

Phone multivalued attribute.

**2 NF:**

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

P\_id, P\_name, P\_D.O.B, P\_age, P\_phone, P\_gender, P\_address

DP\_id, D\_id, P\_id

**3 NF:**

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

P\_id, P\_name, P\_phone, P\_gender, P\_address , IDA

DP\_id, D\_id, P\_id

IDA, P\_D.O.B, P\_age

**Table:**

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

P\_id, P\_name, P\_phone, P\_gender, P\_address , IDA

DP\_id, D\_id, P\_id

IDA, P\_DOB, P\_age

**Assist** (D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department, N\_id, N\_name, N\_phone, N\_address, N\_e-mail)

**1 NF:**

Phone multivalued attribute.

**2 NF:**

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

DN\_id, D\_id, N\_id

**3 NF:**

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

DN\_id, D\_id, N\_id

No transitive dependency.

**Table:**

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

DN\_id, D\_id, N\_id

**Aid** (N\_id, N\_name, N\_phone, N\_address, N\_e-mail, P\_id, P\_name, P\_D.O.B, P\_age, P\_phone, P\_gender, P\_address )

**1 NF:**

Phone multivalued attribute.

**2 NF:**

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

P\_id, P\_name, P\_D.O.B, P\_age, P\_phone, P\_gender, P\_address

NP\_id, N\_id, P\_id

**3 NF:**

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

P\_id, P\_name, P\_phone, P\_gender, P\_address, IDA

NP\_id, N\_id, P\_id

IDA, P\_D.O.B, P\_age

**Table:**

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

P\_id, P\_name, P\_phone, P\_gender, P\_address, IDA

NP\_id, N\_id, P\_id

IDA, P\_D.O.B, P\_age

**Subsistence** (P\_id, P\_name, P\_D.O.B, P\_age, P\_phone, P\_gender, P\_address, R\_id, Bill, Discharge date, Admit\_patient, Doctor appointment, Patient arrival date)

**1 NF:**

Phone multivalued attribute.

**2 NF:**

P\_id, P\_name, P\_D.O.B, P\_age, P\_phone, P\_gender, P\_address

R\_id, Bill, Discharge date, Admit\_patient, Doctor appointment, Patient arrival date

PR\_id, P\_id, R\_id

**3 NF**:

P\_id, P\_name, P\_phone, P\_gender, P\_address, IDA

R\_id, Bill, Discharge date, Admit\_patient, Doctor appointment, Patient arrival date

PR\_id, P\_id, R\_id

IDA, P\_D.O.B, P\_age

**Table:**

P\_id, P\_name, , P\_phone, P\_gender, P\_address, IDA

R\_id, Bill, Discharge date, Admit\_patient, Doctor appointment, Patient arrival date

PR\_id, P\_id, R\_id

IDA, P\_D.O.B, P\_age

**Supervice** (E\_id, E\_name, E\_phone, E\_department, E\_post, R\_id, Patient arrival date, Doctor appointment, Admit\_patient, Discharge\_date, Bill)

**1 NF:**

Phone multivalued attribute.

**2 NF:**

E\_id, E\_name, E\_phone, E\_department, E\_post

R\_id, Patient arrival date, Doctor appointment, Admit\_patient, Discharge\_date, Bill

ER\_id, E\_id, R\_id

**3 NF**:

E\_id, E\_name, E\_phone, E\_department, E\_post

R\_id, Patient arrival date, Doctor appointment, Admit\_patient, Discharge\_date, Bill

ER\_id, E\_id, R\_id

No transitive dependency.

**Table:**

E\_id, E\_name, E\_phone, E\_department, E\_post

R\_id, Patient arrival date, Doctor appointment, Admit\_patient, Discharge\_date, Bill

ER\_id, E\_id, R\_id

**Total table:**

~~D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department~~

~~P\_id, P\_name, P\_phone, P\_gender, P\_address , IDA~~

DP\_id, D\_id, P\_id

~~IDA, P\_DOB, P\_age~~

D\_id, address, D\_name, D\_e-mail, qualification, D\_phone, Department

~~N\_id, N\_name, N\_phone, N\_address, N\_e-mail~~

DN\_id, D\_id, N\_id

N\_id, N\_name, N\_phone, N\_address, N\_e-mail

~~P\_id, P\_name, P\_phone, P\_gender, P\_address, IDA~~

NP\_id, N\_id, P\_id

~~IDA, P\_D.O.B, P\_age~~

P\_id, P\_name, , P\_phone, P\_gender, P\_address, IDA

~~R\_id, Bill, Discharge date, Admit\_patient, Doctor appointment, Patient arrival date~~

PR\_id, P\_id, R\_id

IDA, P\_D.O.B, P\_age

E\_id, E\_name, E\_phone, E\_department, E\_post

R\_id, Patient arrival date, Doctor appointment, Admit\_patient, Discharge\_date, Bill

ER\_id, E\_id, R\_id

**Final table:**

DP\_id, D\_id, P\_id : DOCTOR\_PATIENT\_ID\_INFO

D\_id, Address, D\_name, D\_e-mail, qualification, D\_phone, Department: DOCTOR \_INFO

DN\_id, D\_id, N\_id : ASSIST\_ID\_INFO

N\_id, N\_name, N\_phone, N\_address, N\_e-mail : NURSE\_INFO

NP\_id, N\_id, P\_id : AID\_ID\_INFO

P\_id, P\_name, P\_phone, P\_gender, P\_address, IDA : NURSE\_INFO

PR\_id, P\_id, R\_id : SUBSISTENCE\_ID\_INFO

IDA, P\_D.O.B, P\_age : PATIENT\_ADDITAONAL\_INFO

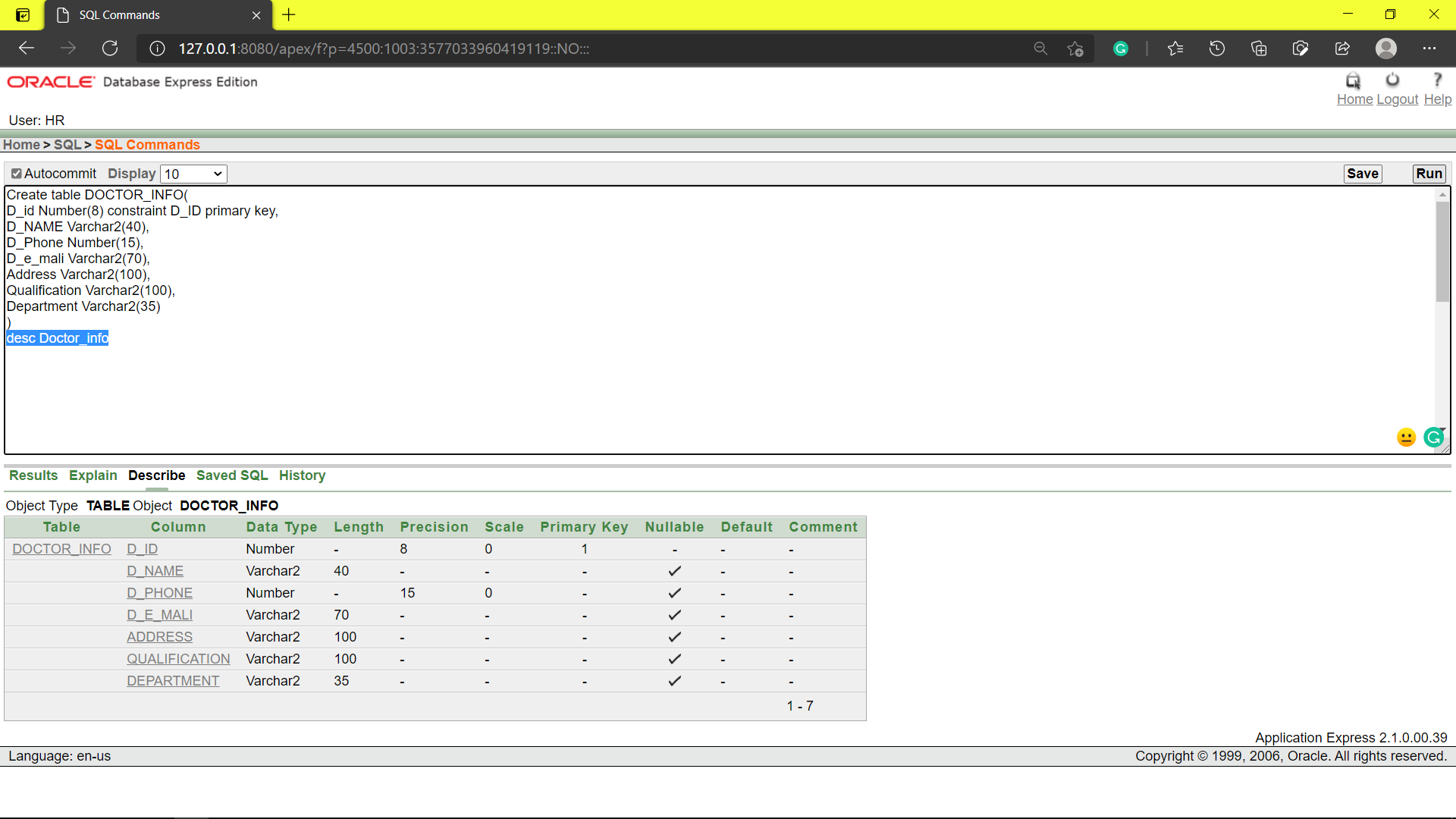
E\_id, E\_name, E\_phone, E\_department, E\_post : EMPLOYEE\_INFO

R\_id, Patient arrival date, Doctor appointment, Admit\_patient, Discharge\_date, Bill: RECEPTIONIST\_INFO

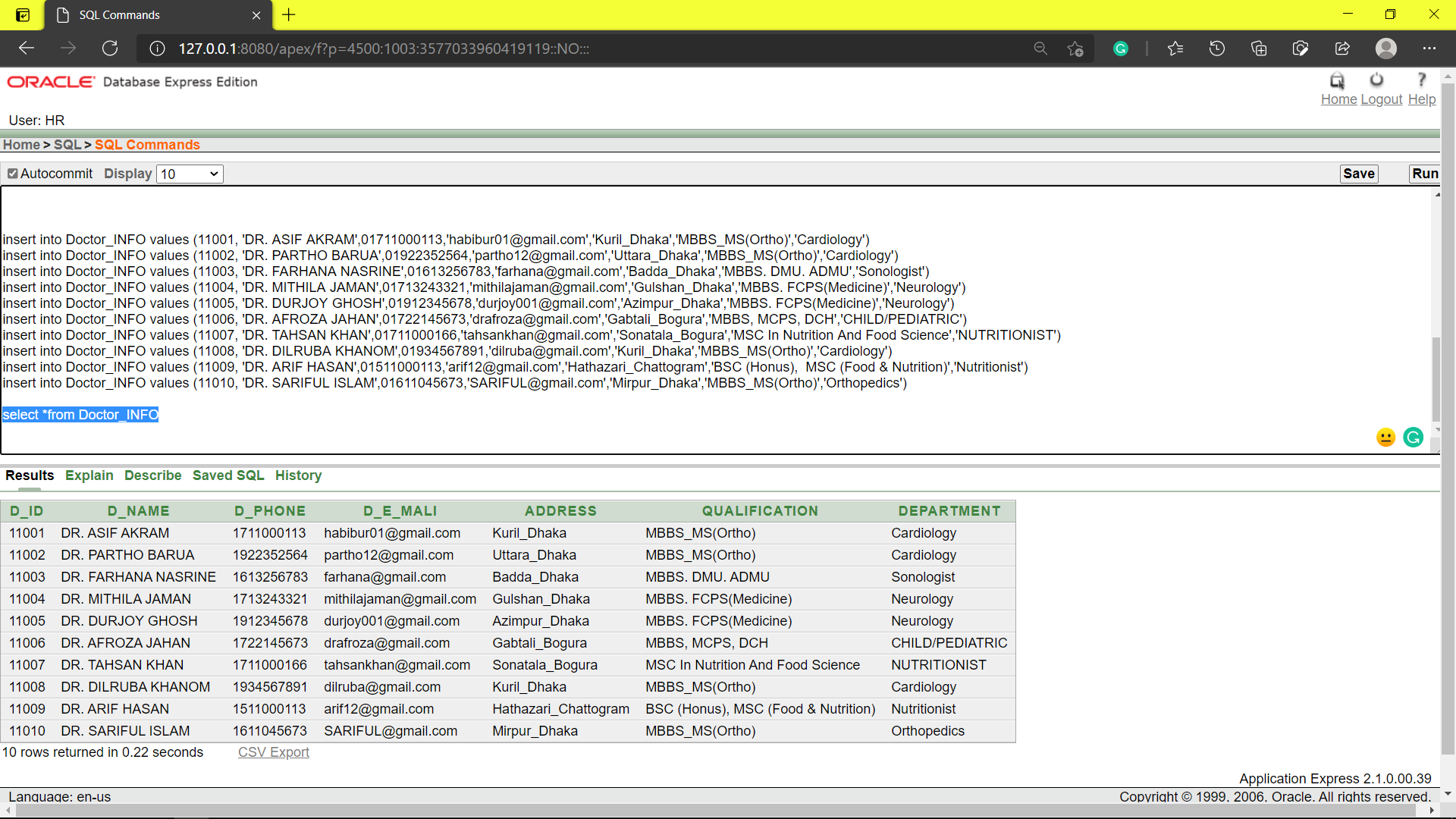
ER\_id, E\_id, R\_id: SUPERVICE\_ID\_INFO

**TABLE CREATION AND DATA INSERTATION**

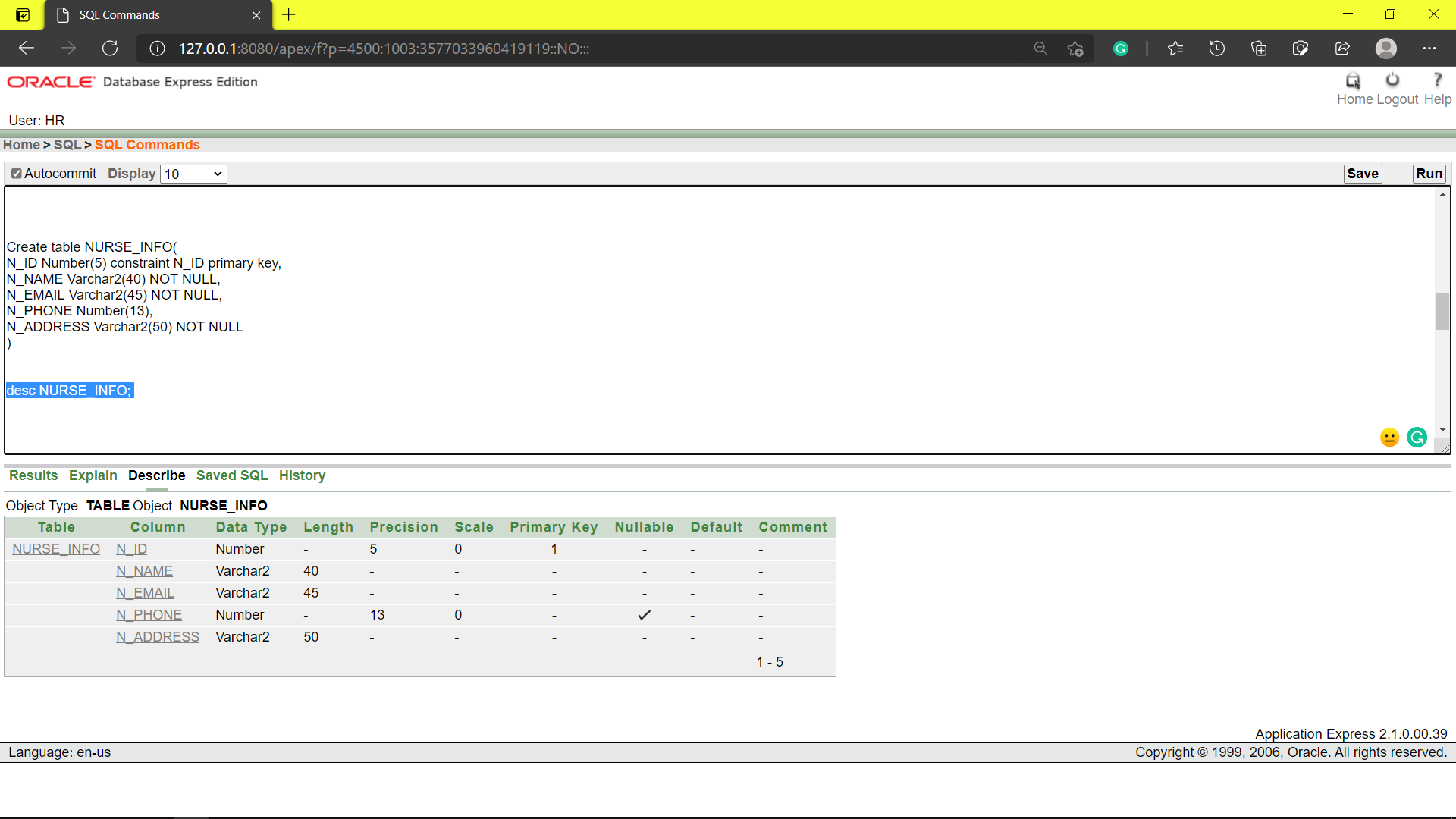
**TABLE CREATION:** DOCTOR\_INFO



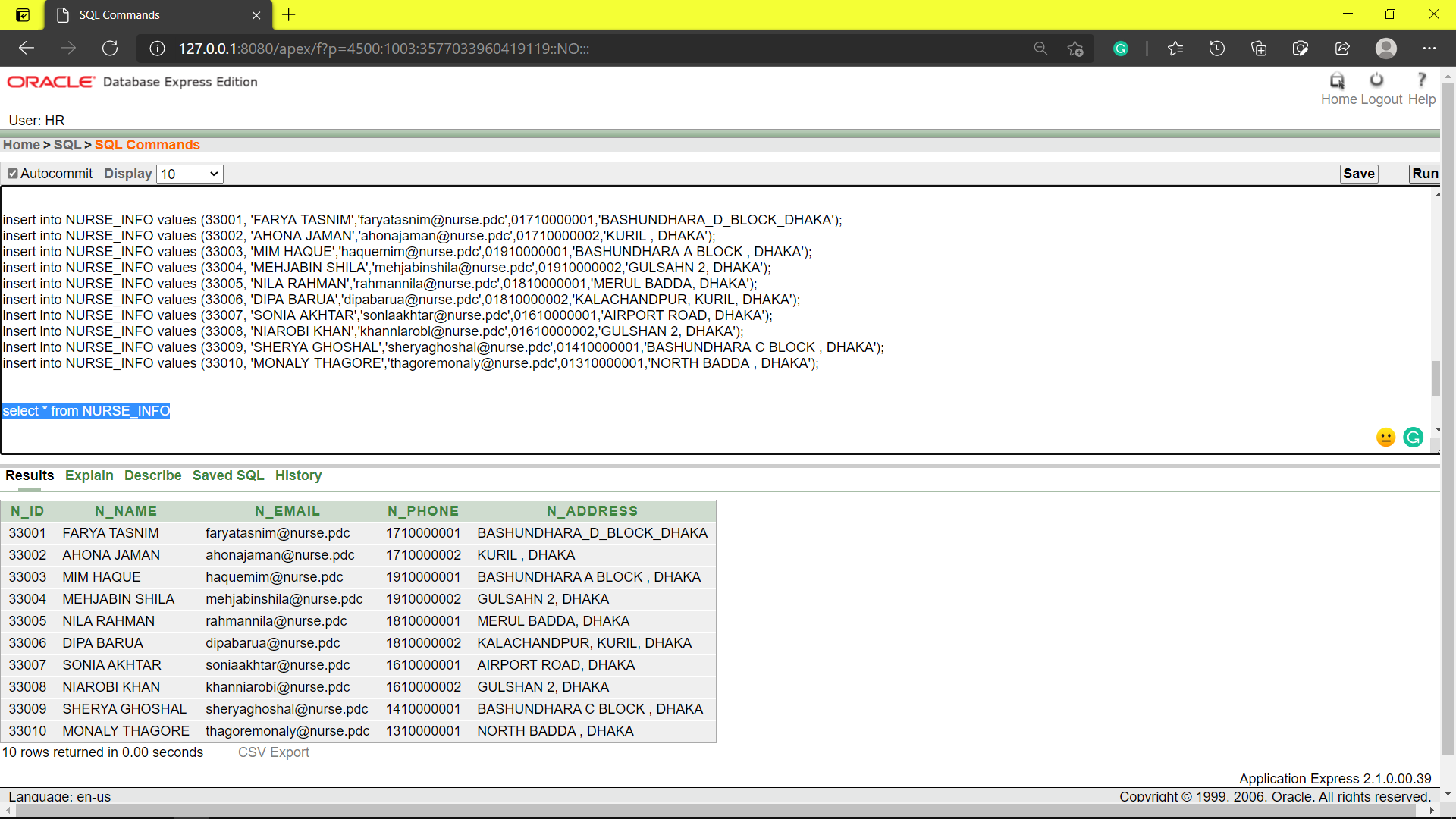
**TABLE INSERTATION:** DOCTOR\_INFO



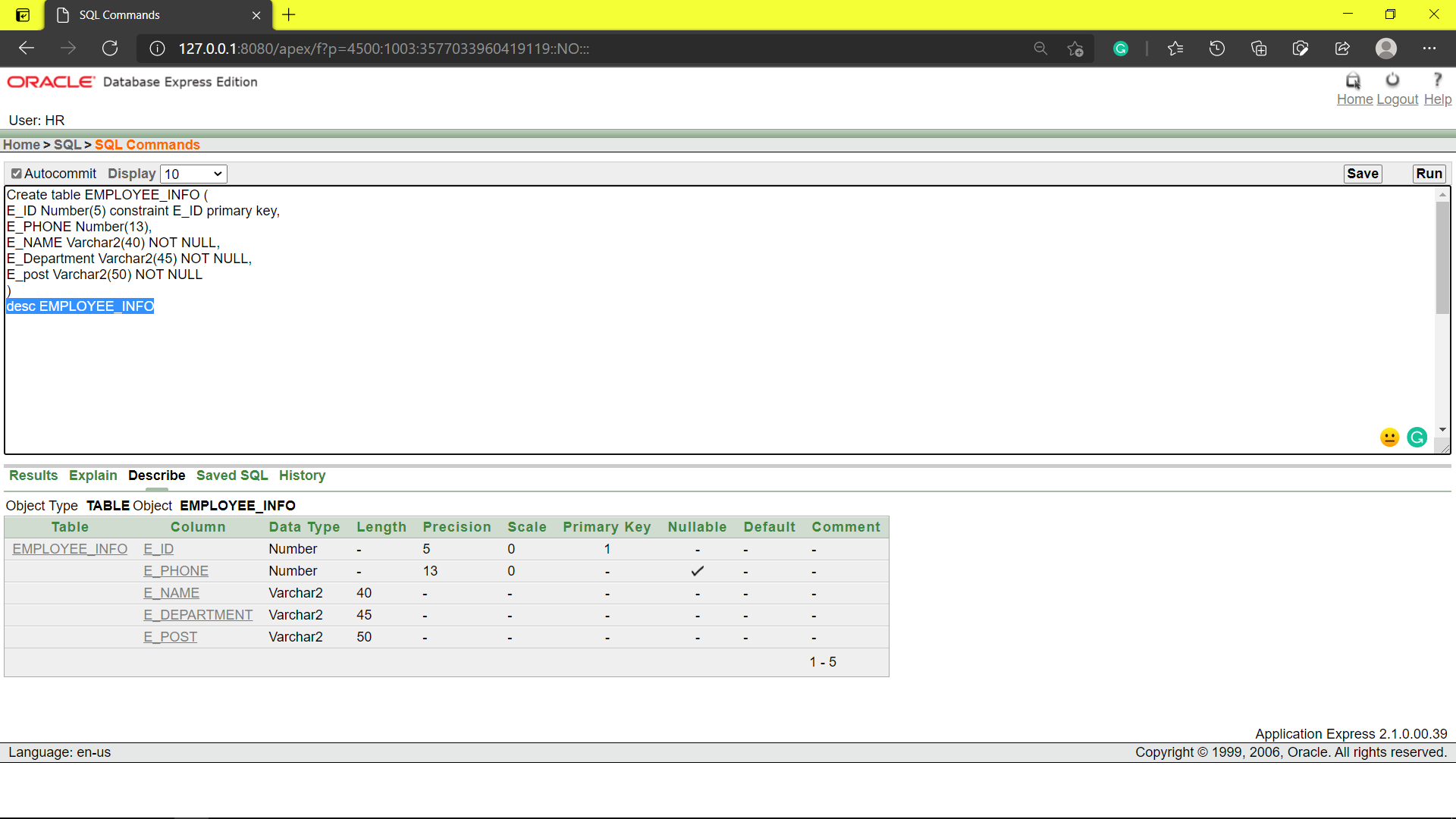
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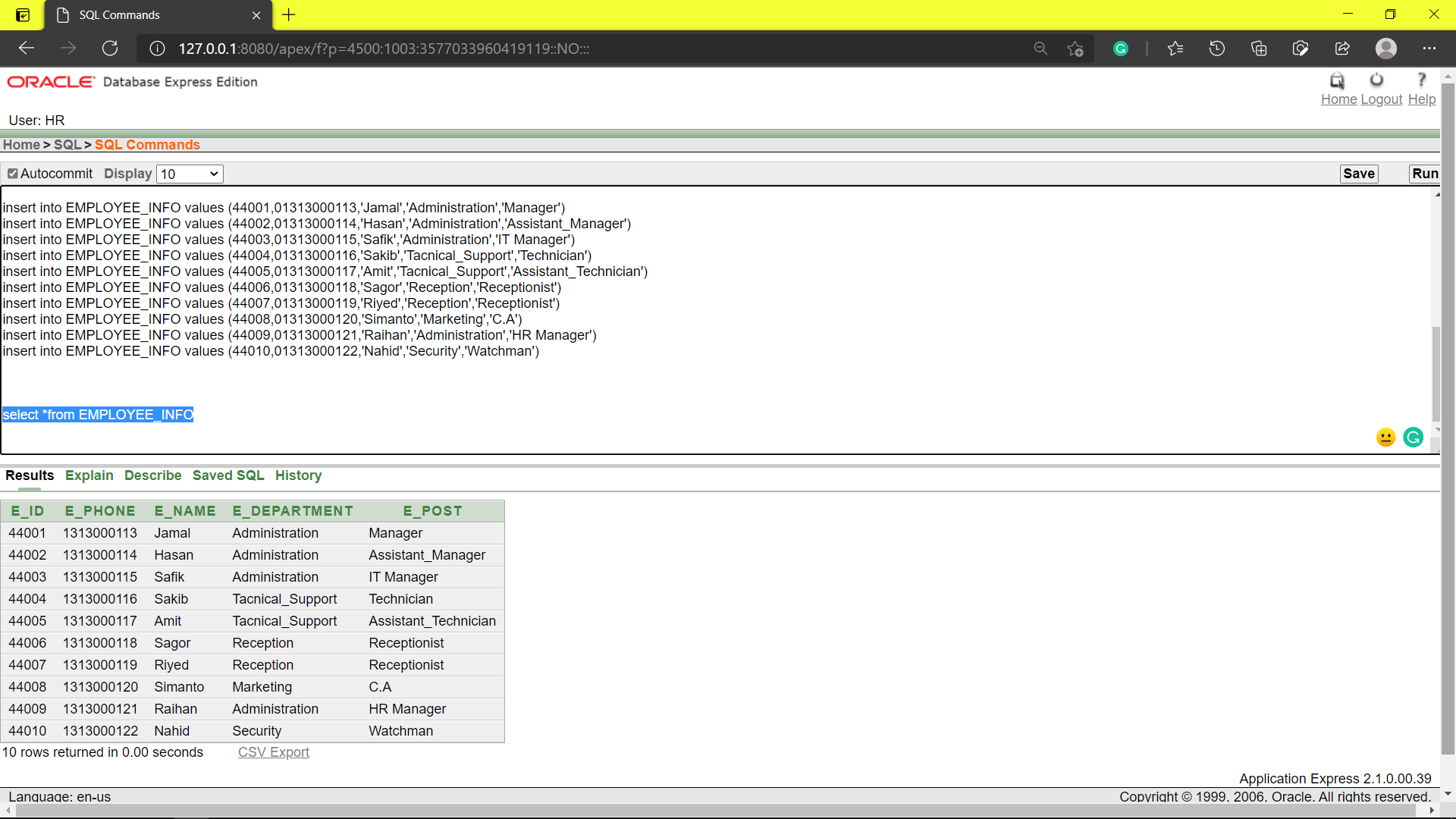
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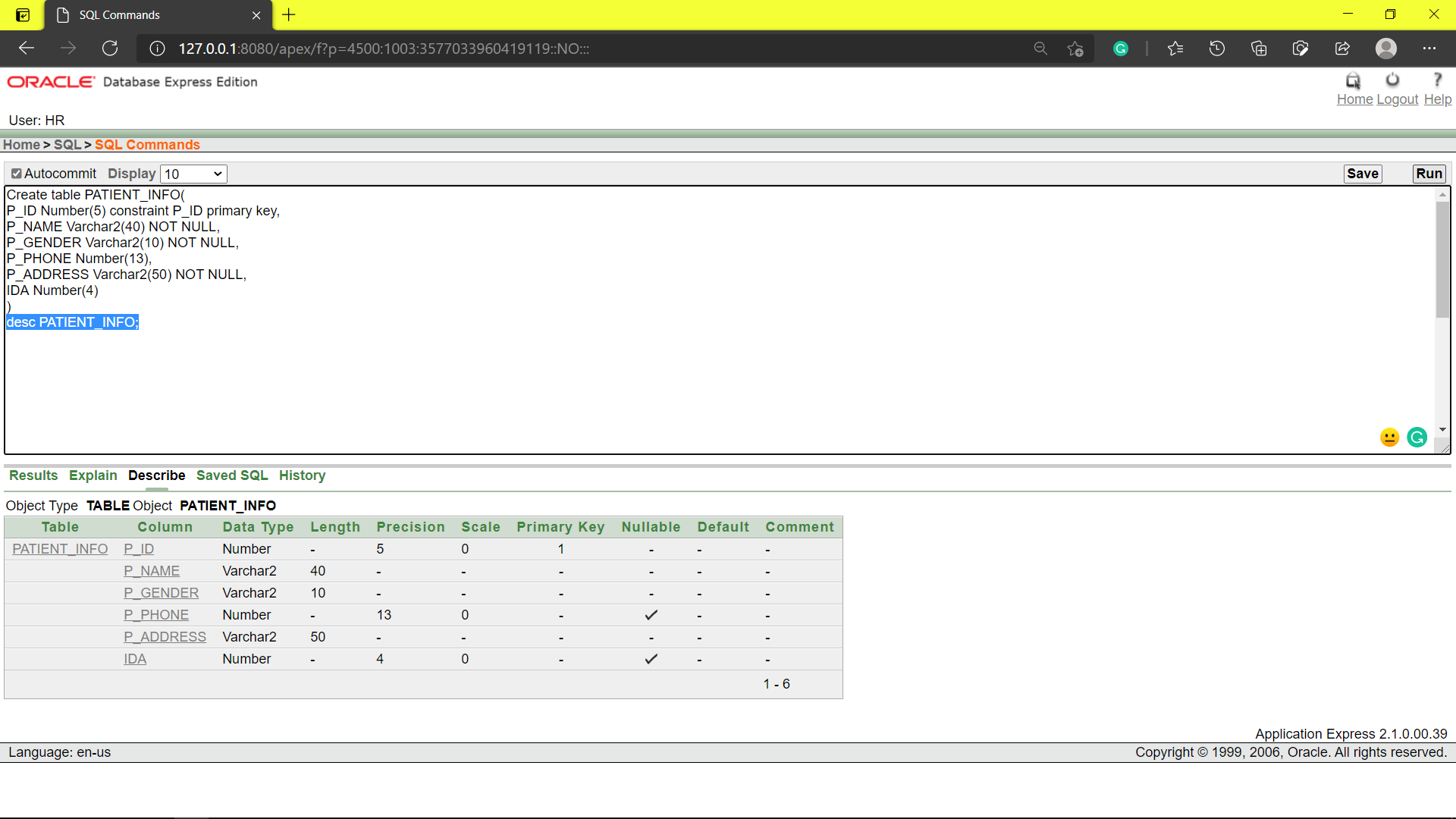
**TABLE CREATION:** EMPLOYEE\_INFO



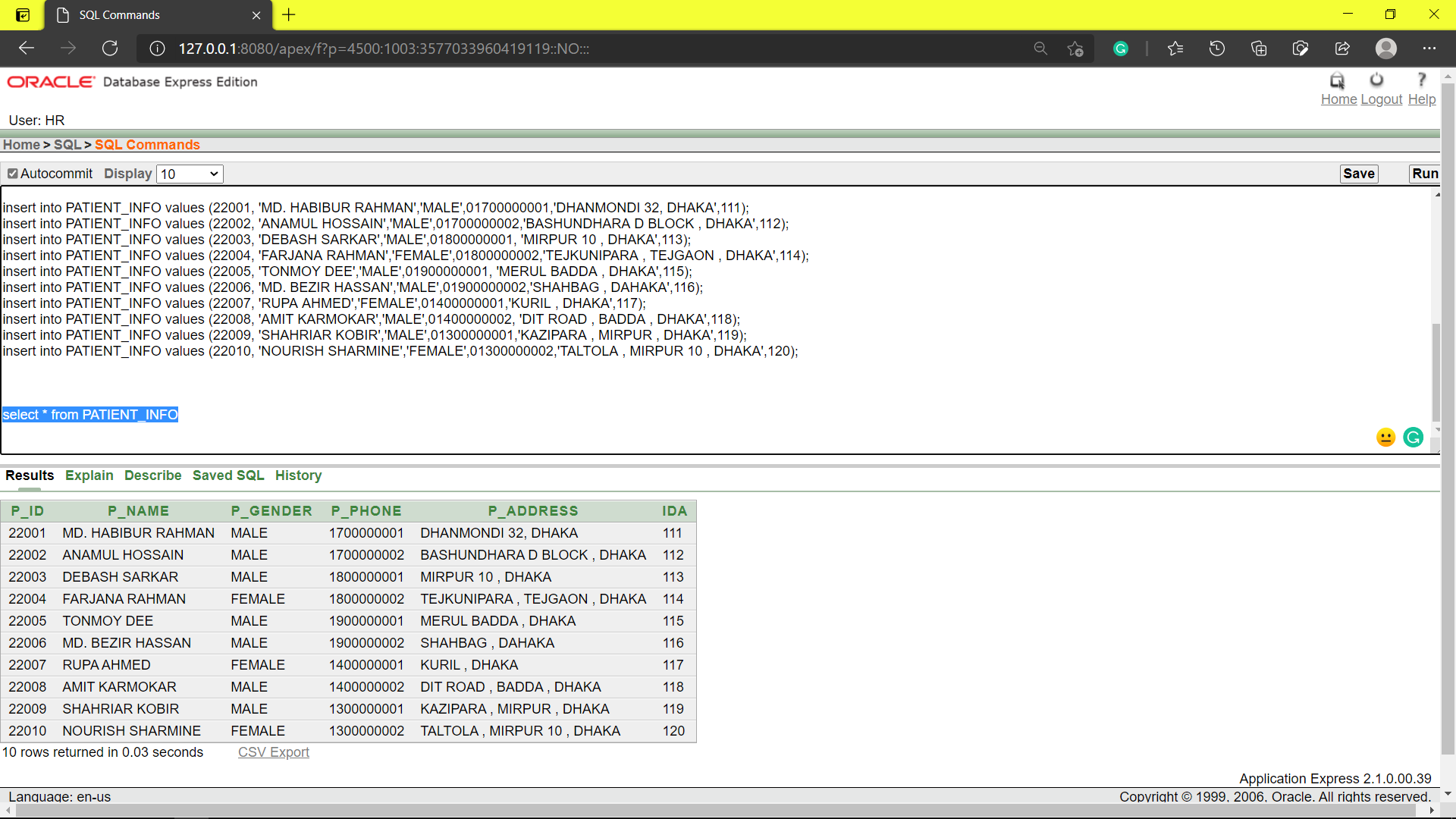
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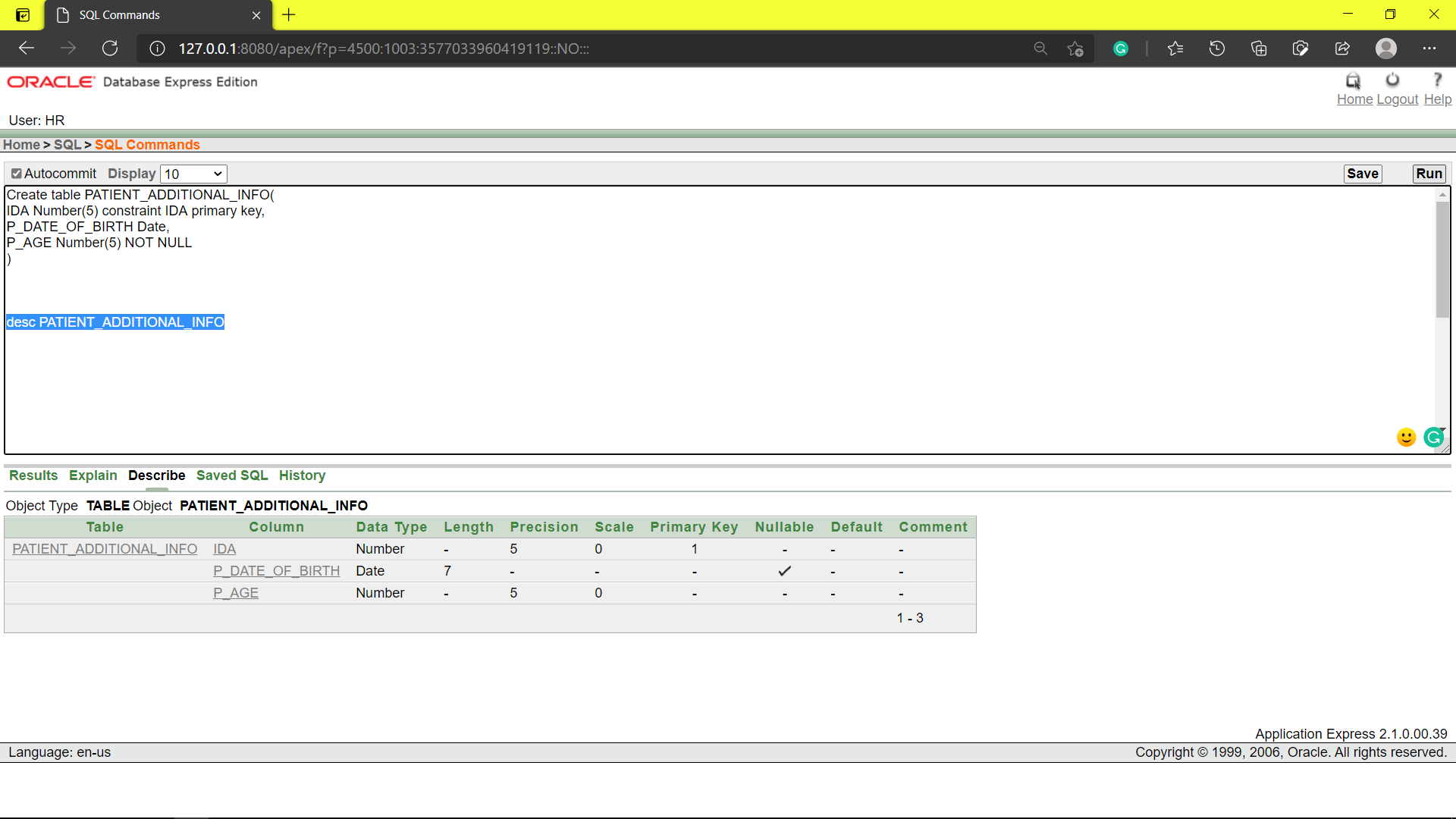
**TABLE CREATION:** PATIENT\_INFO



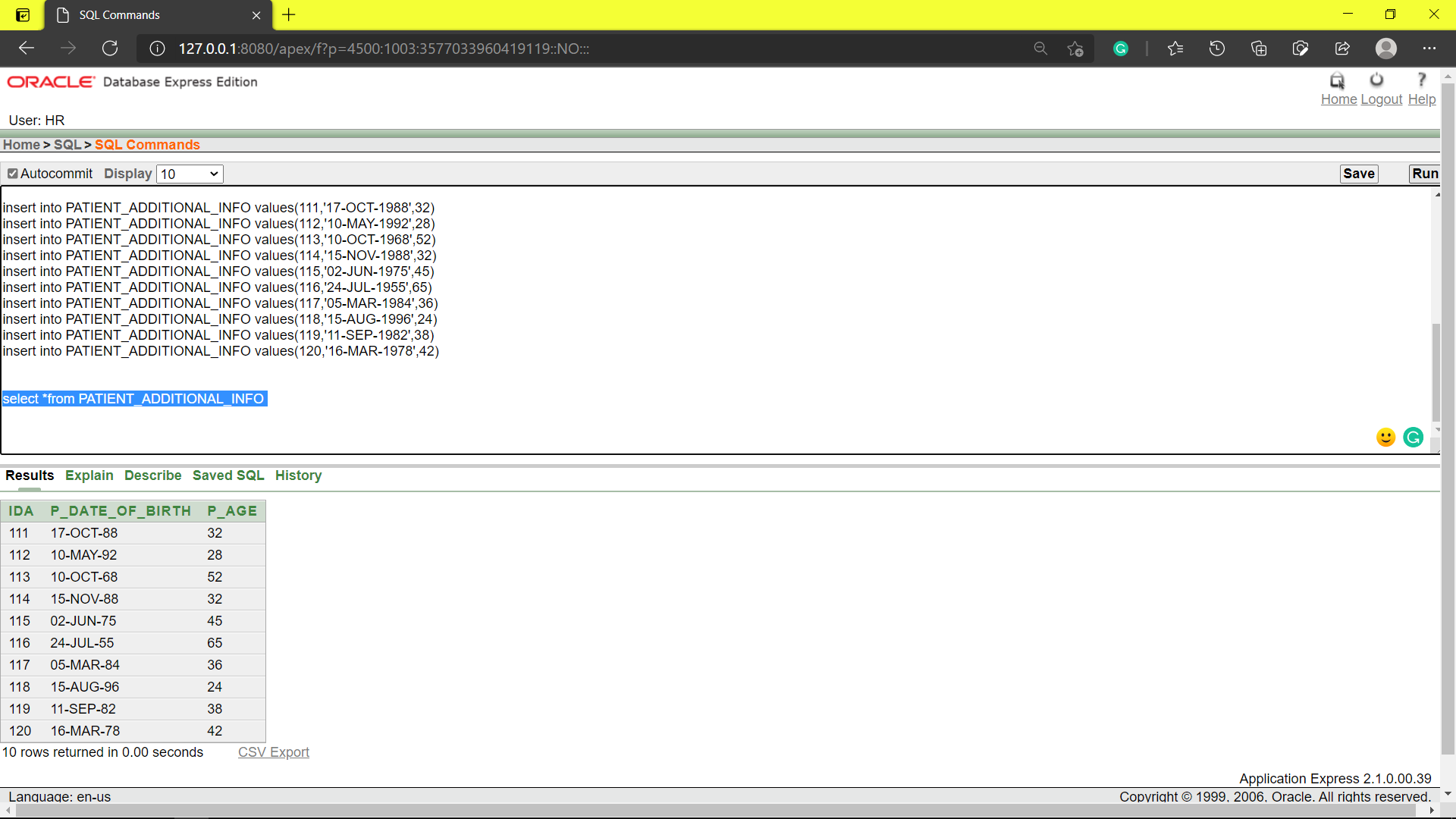
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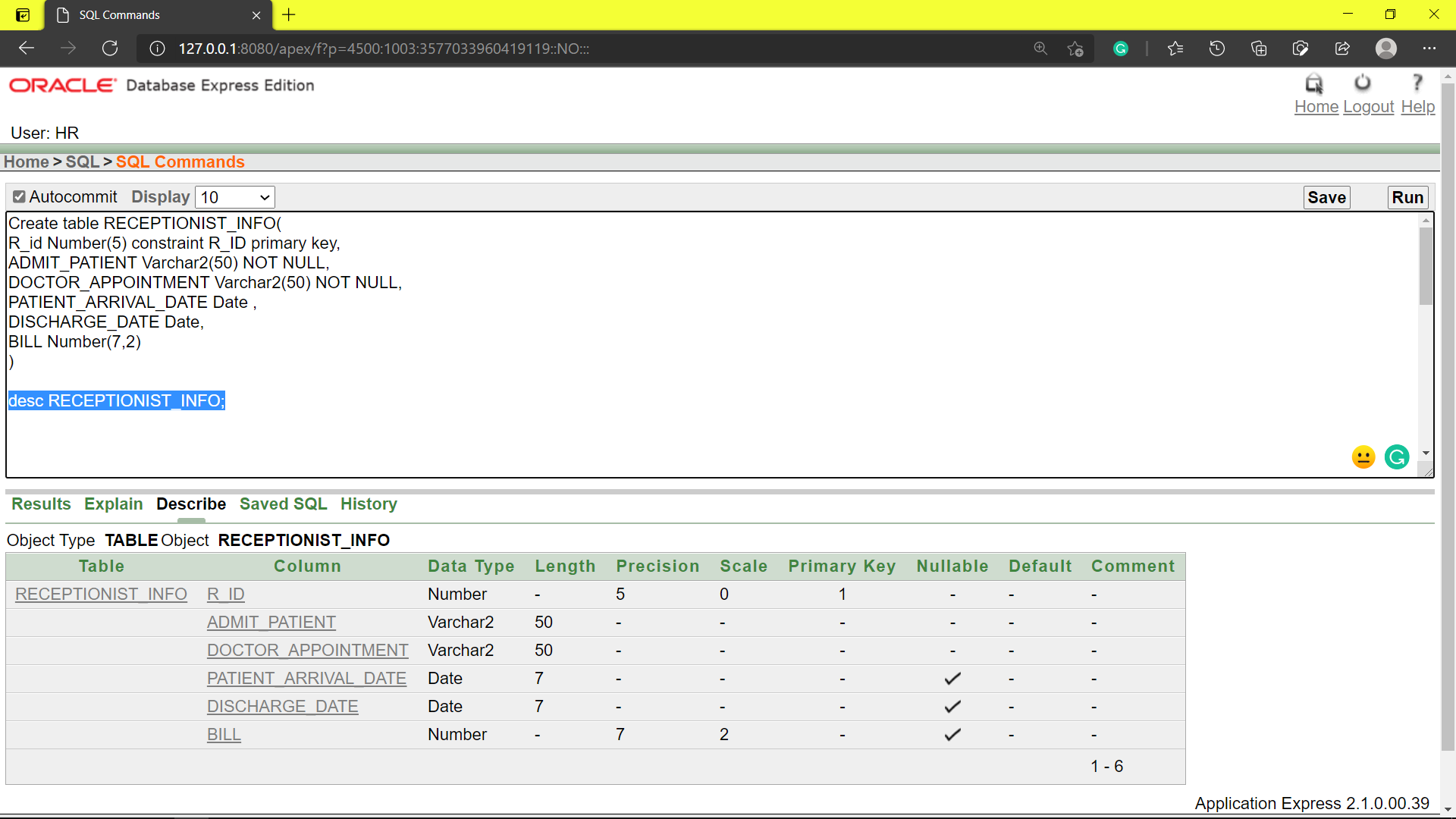
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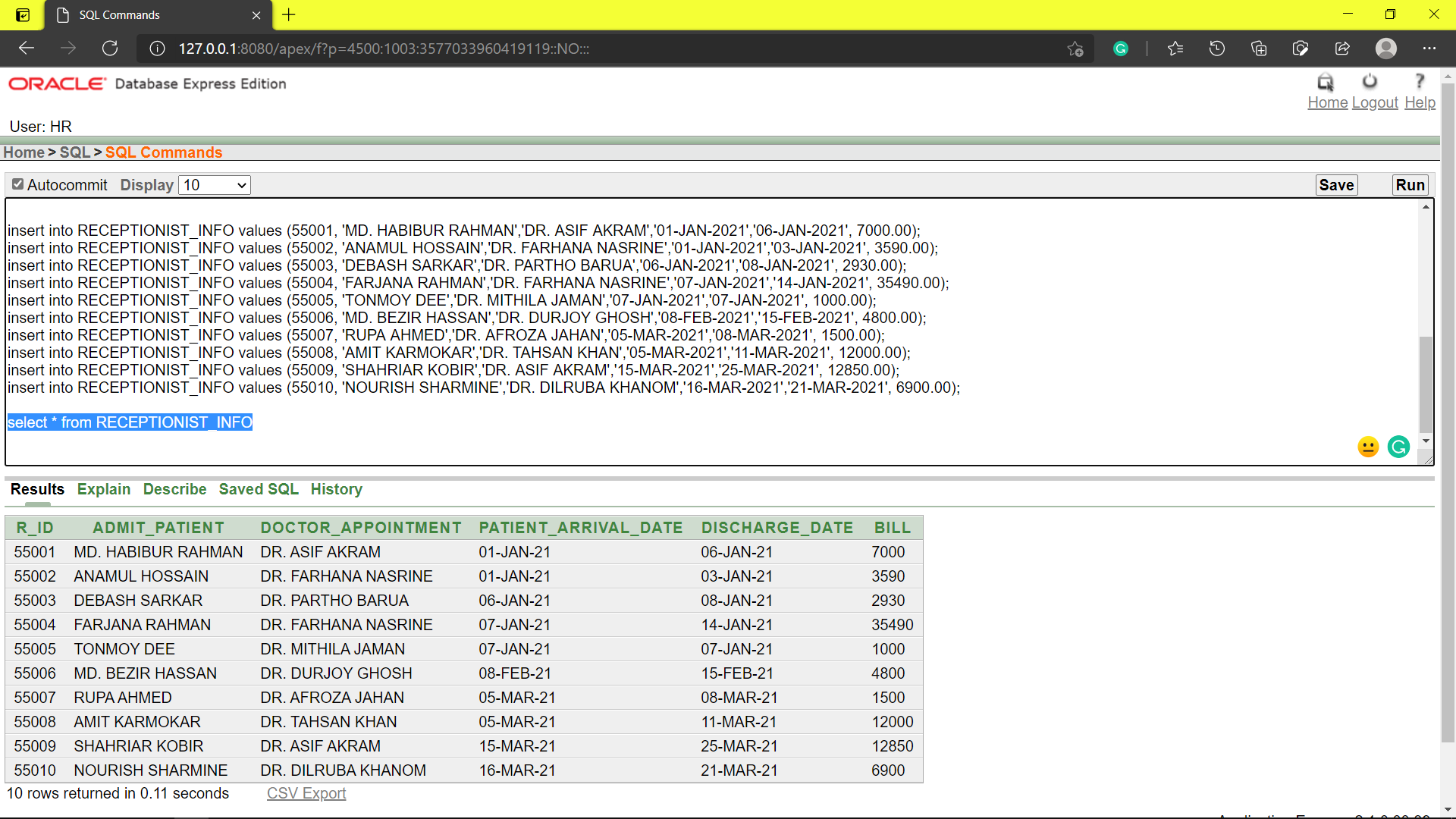
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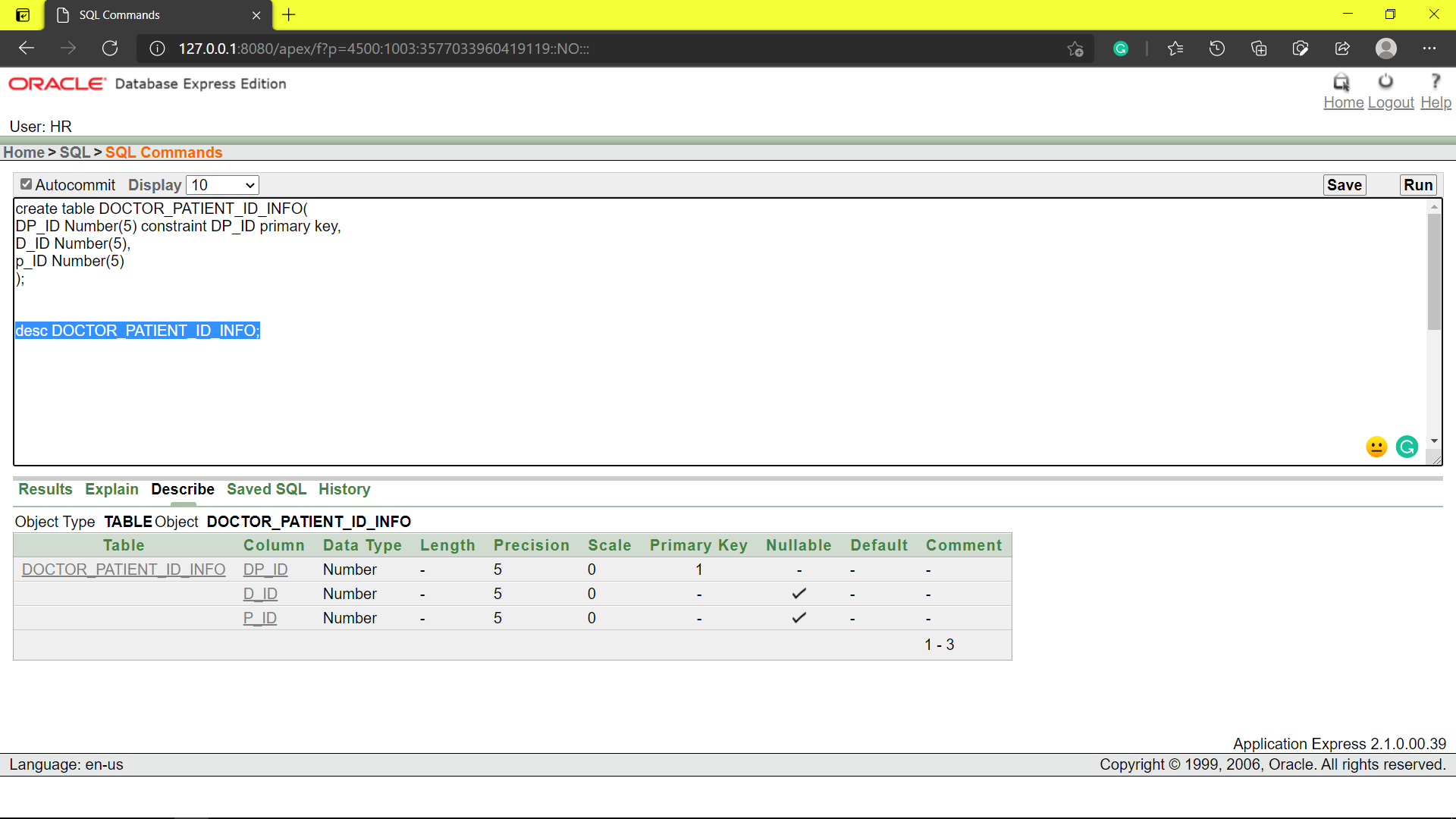
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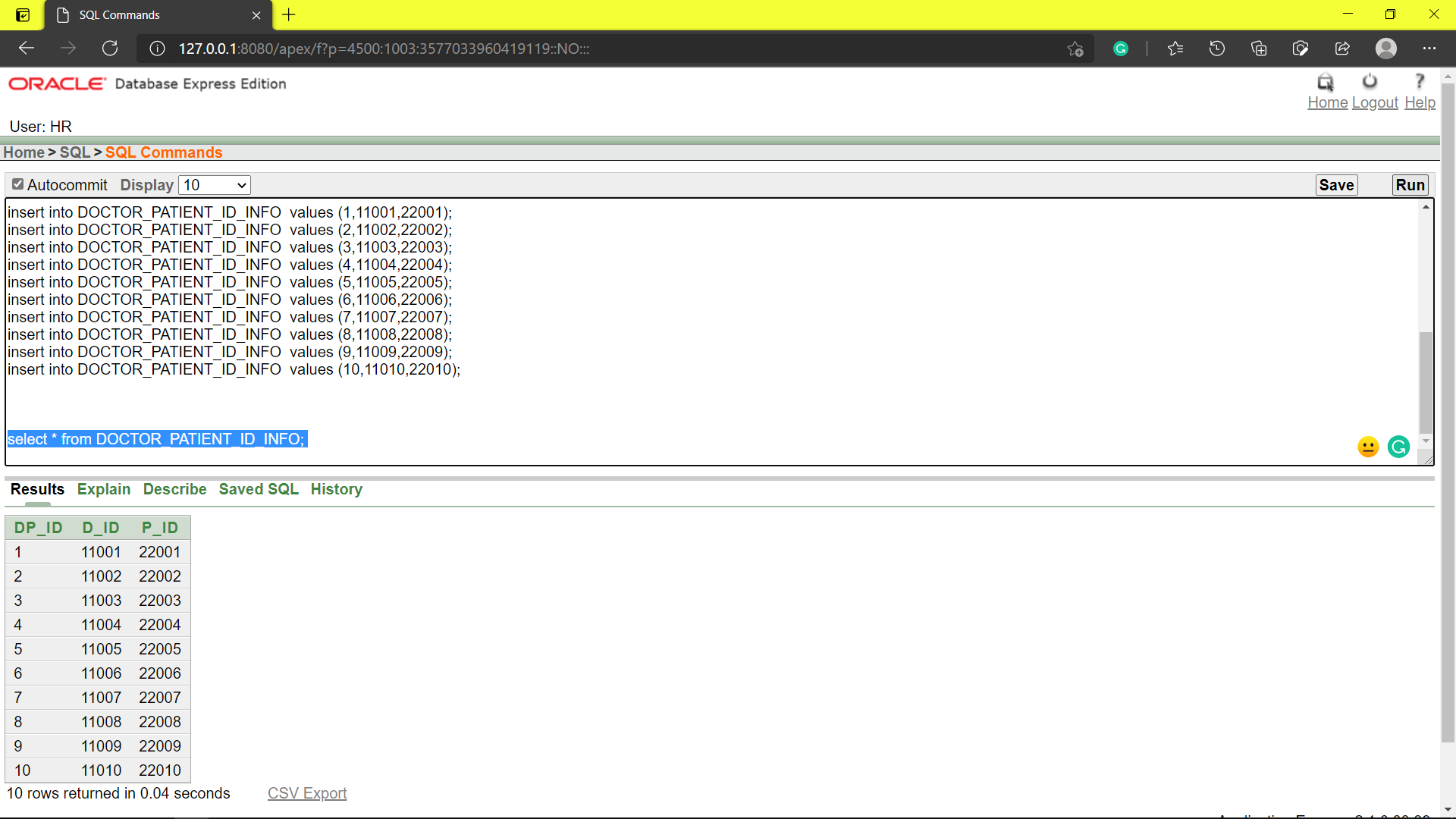
**TABLE INSERTATION:** RECEPTIONST\_INFO



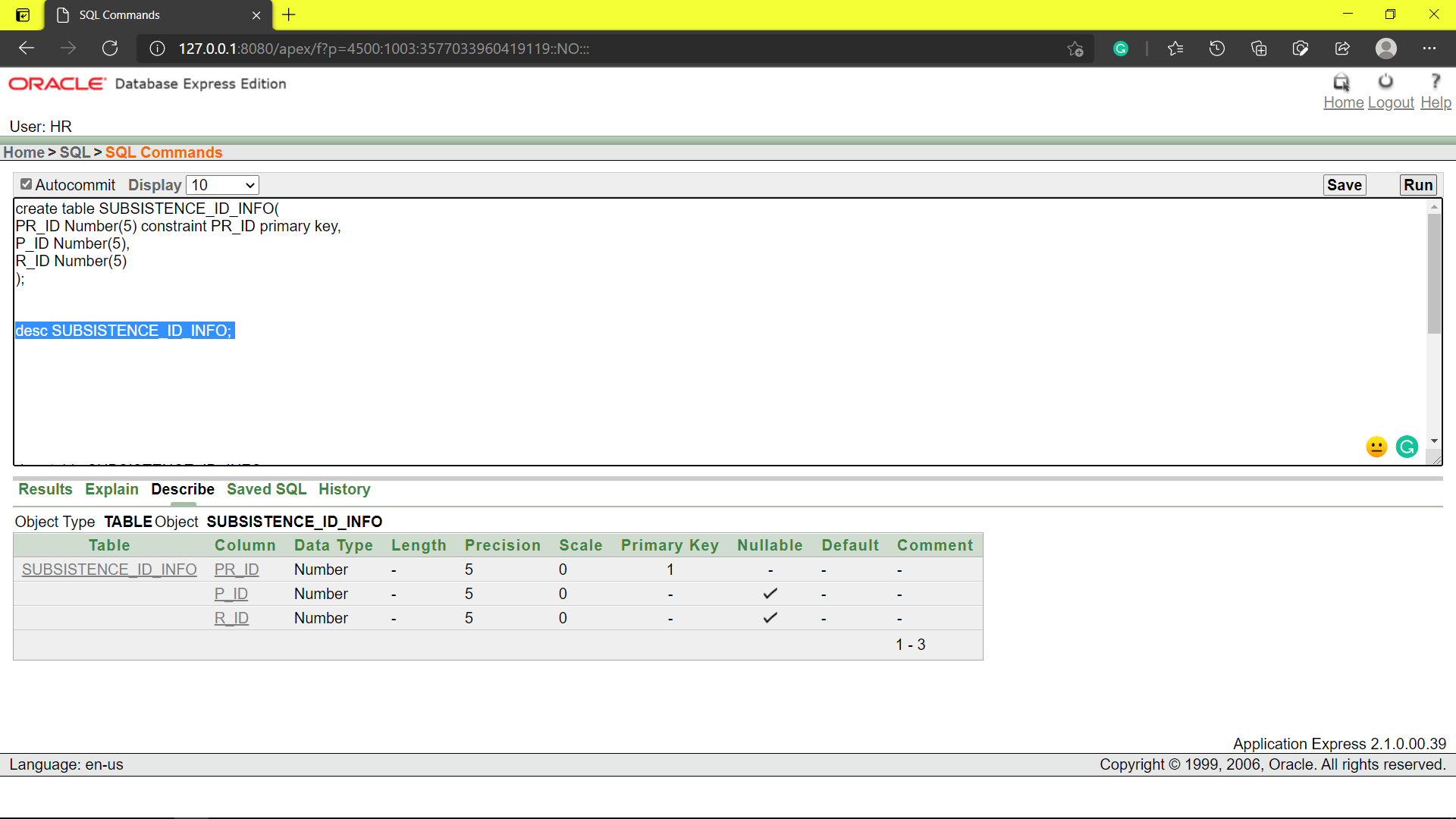
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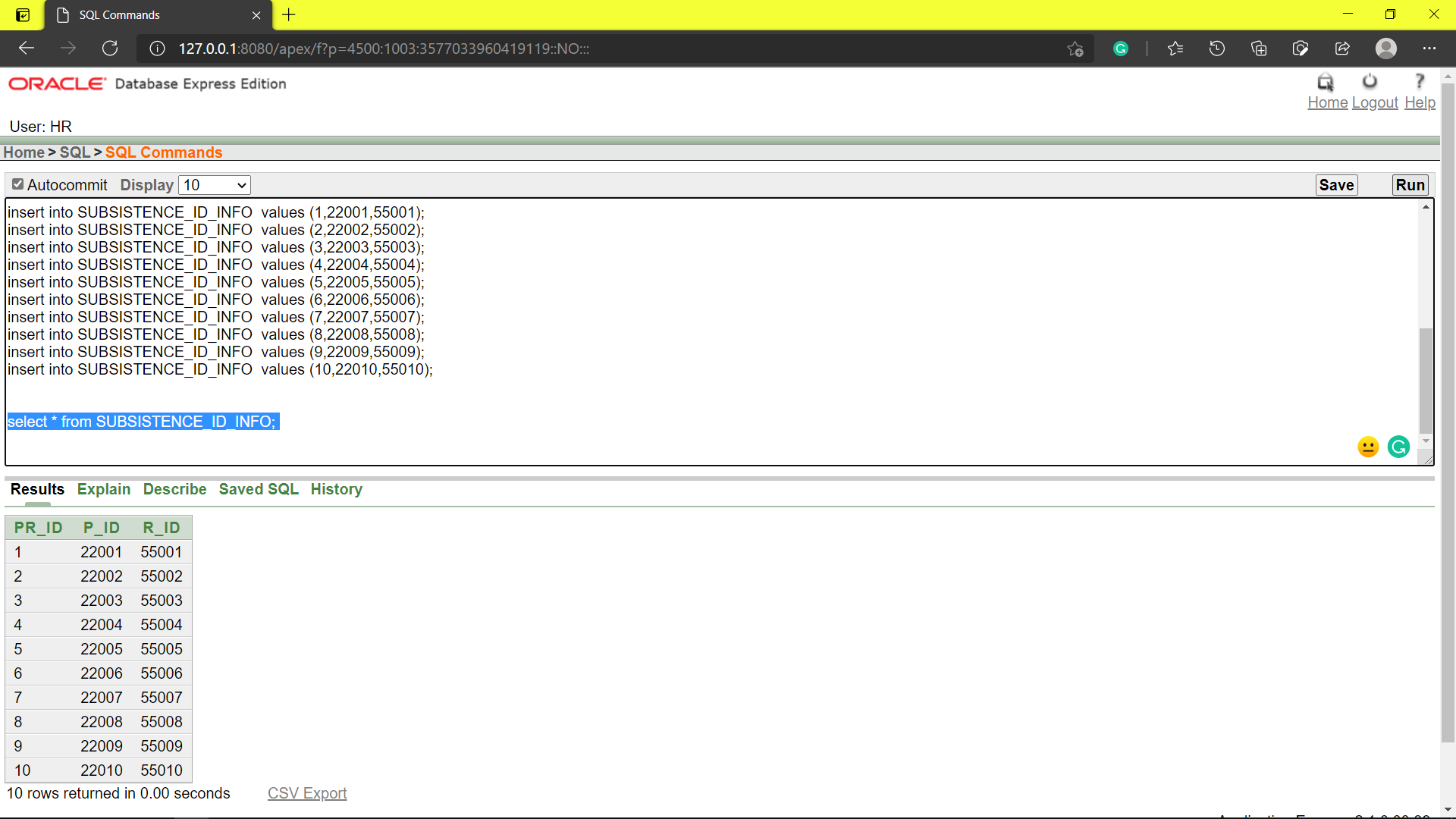
**TABLE INSERTATION:** DOCTOR\_PATIENT\_ID\_INFO



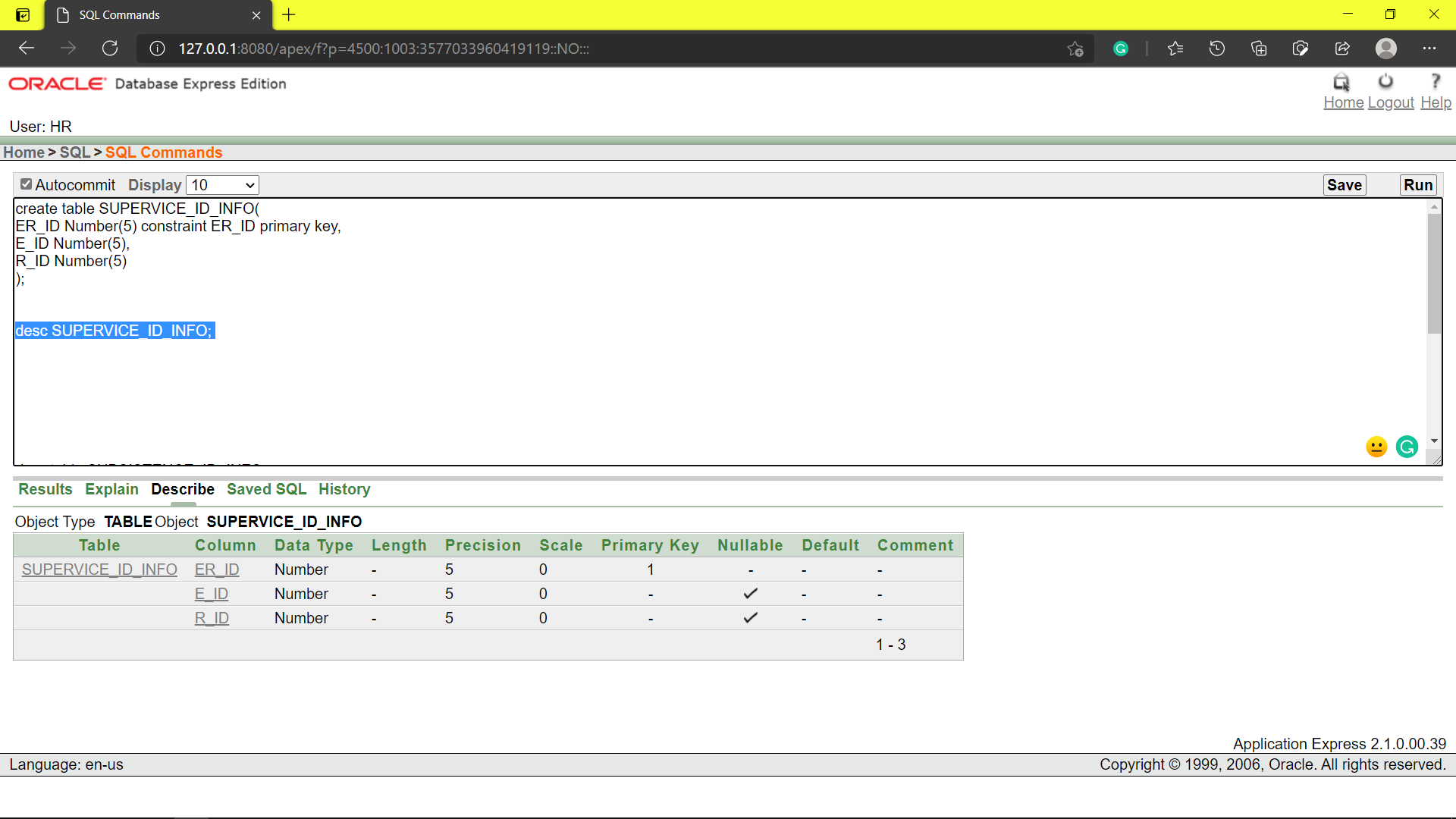
**TABLE CREATION:** SUBSISTENCE\_ID\_INFO



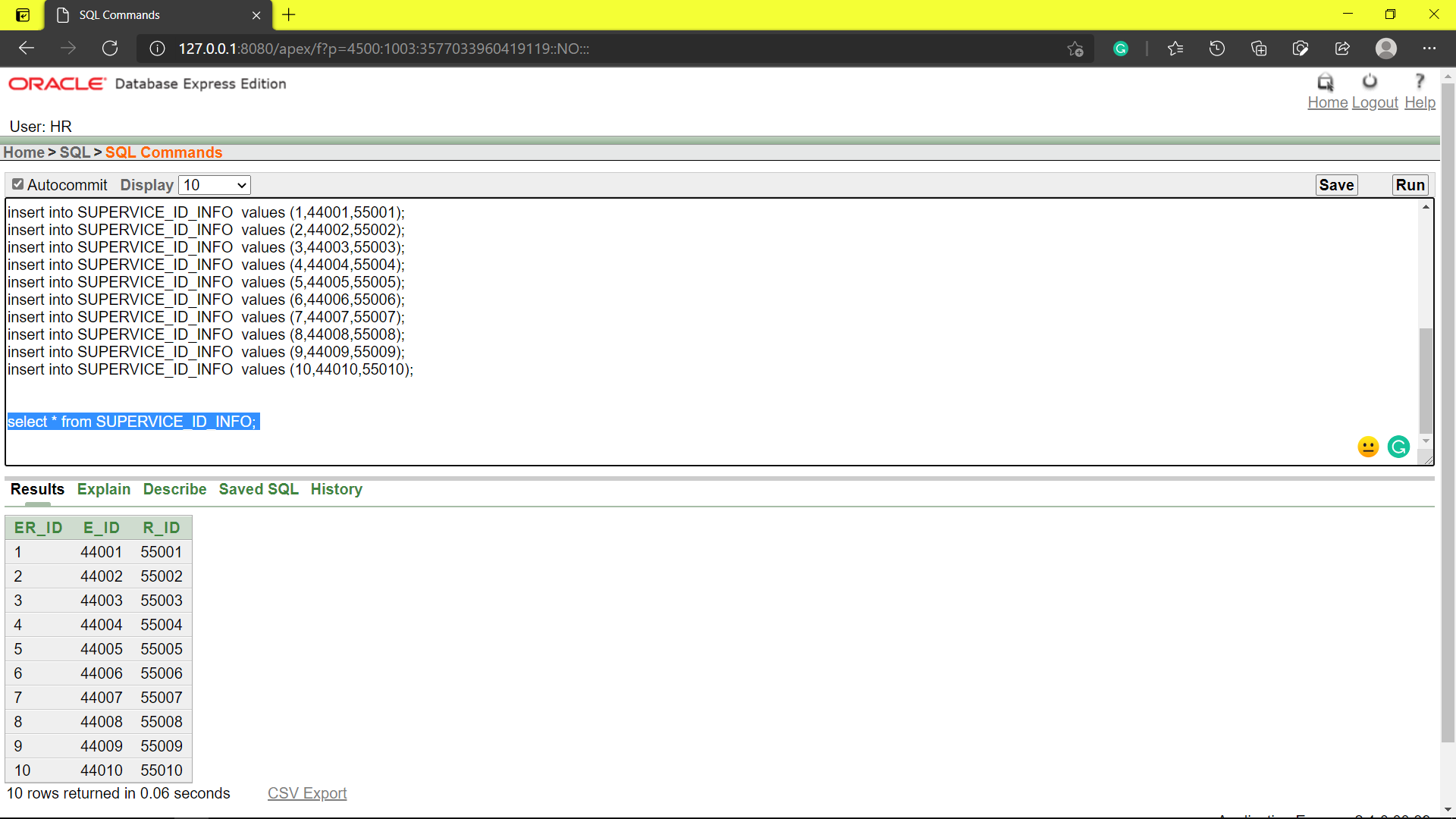
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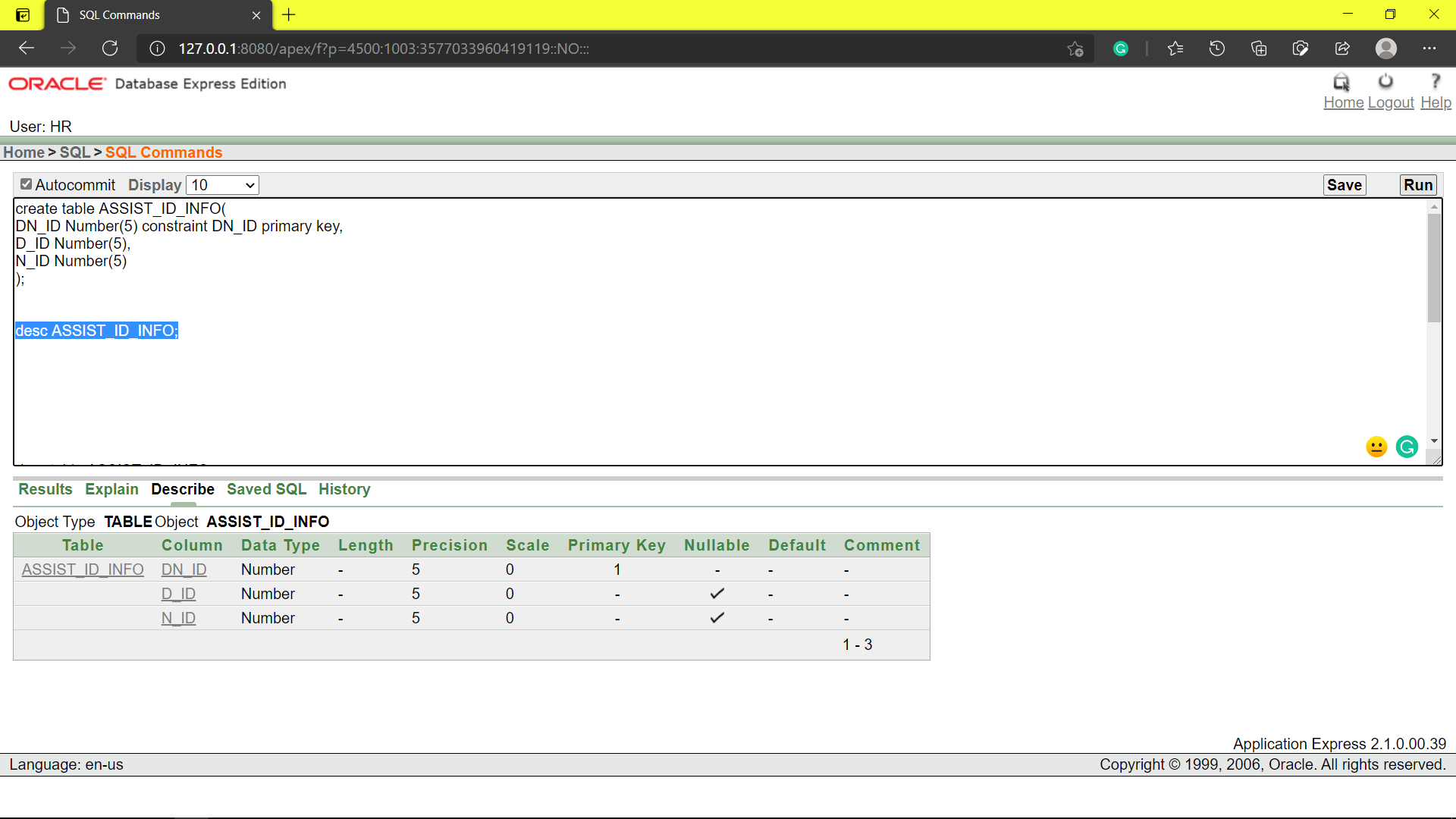
**TABLE CREATION**: SUPERVICE\_ID\_INFO



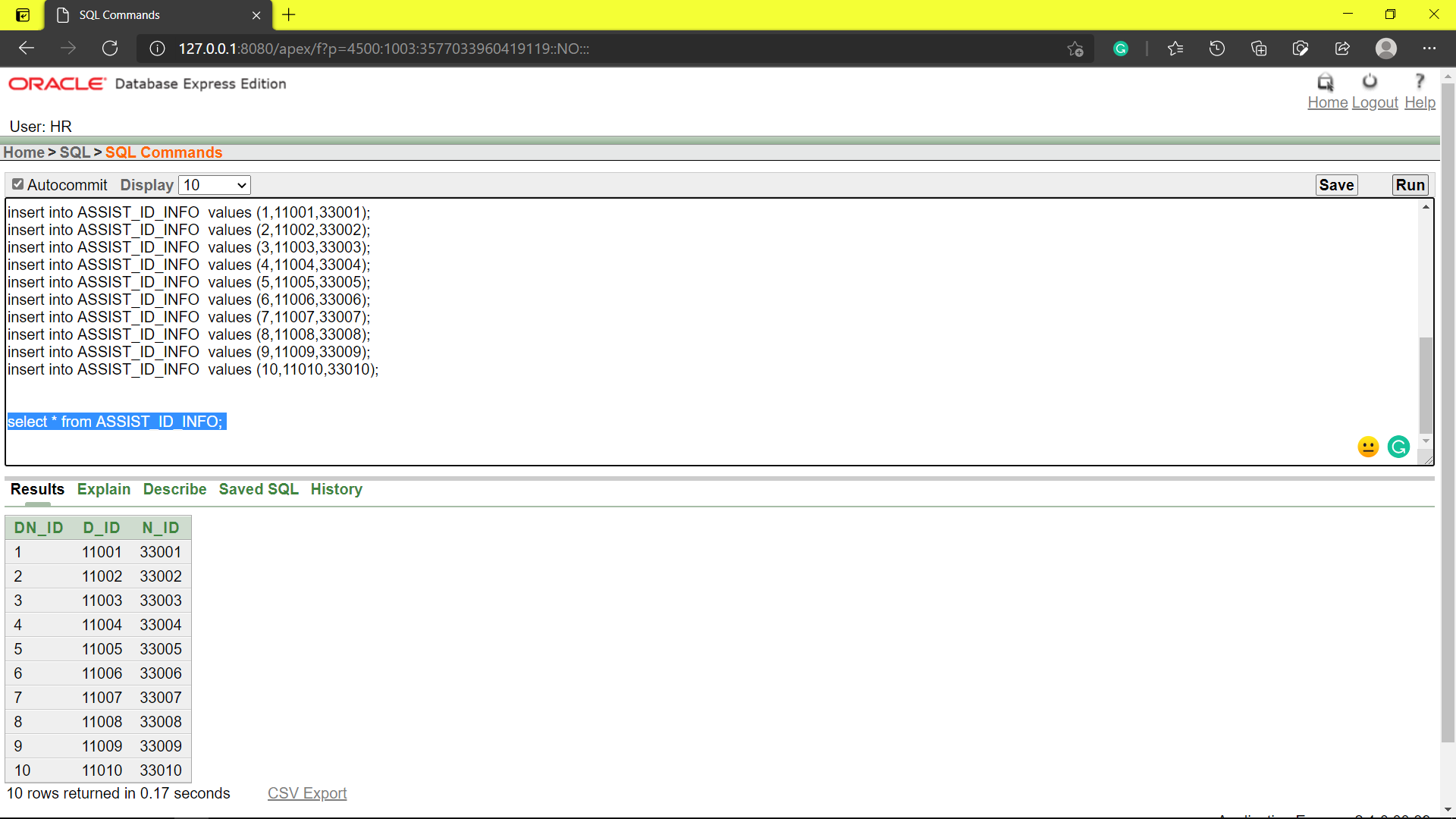
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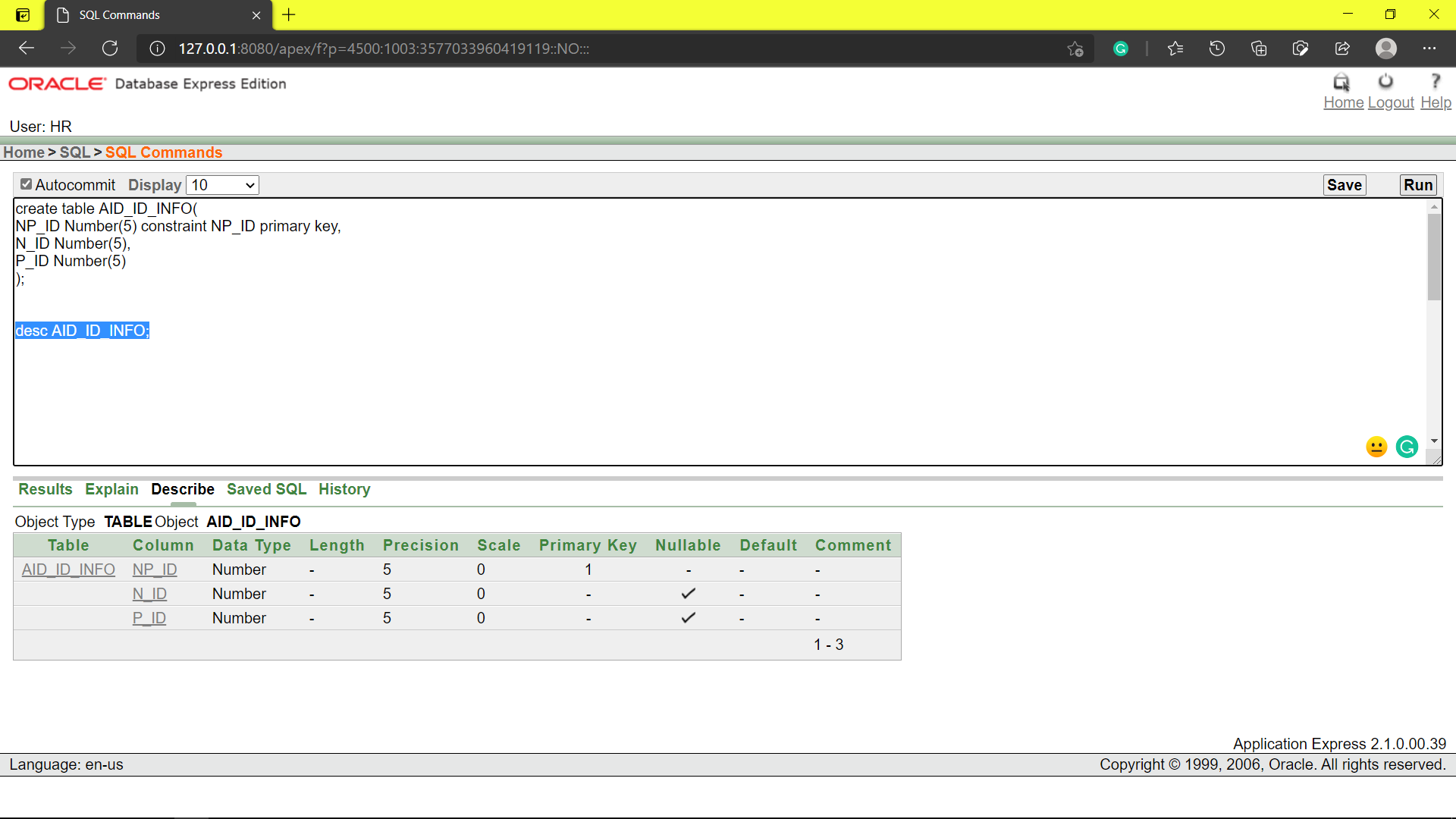
**TABLE CREATION**: ASSIST\_ID\_INFO



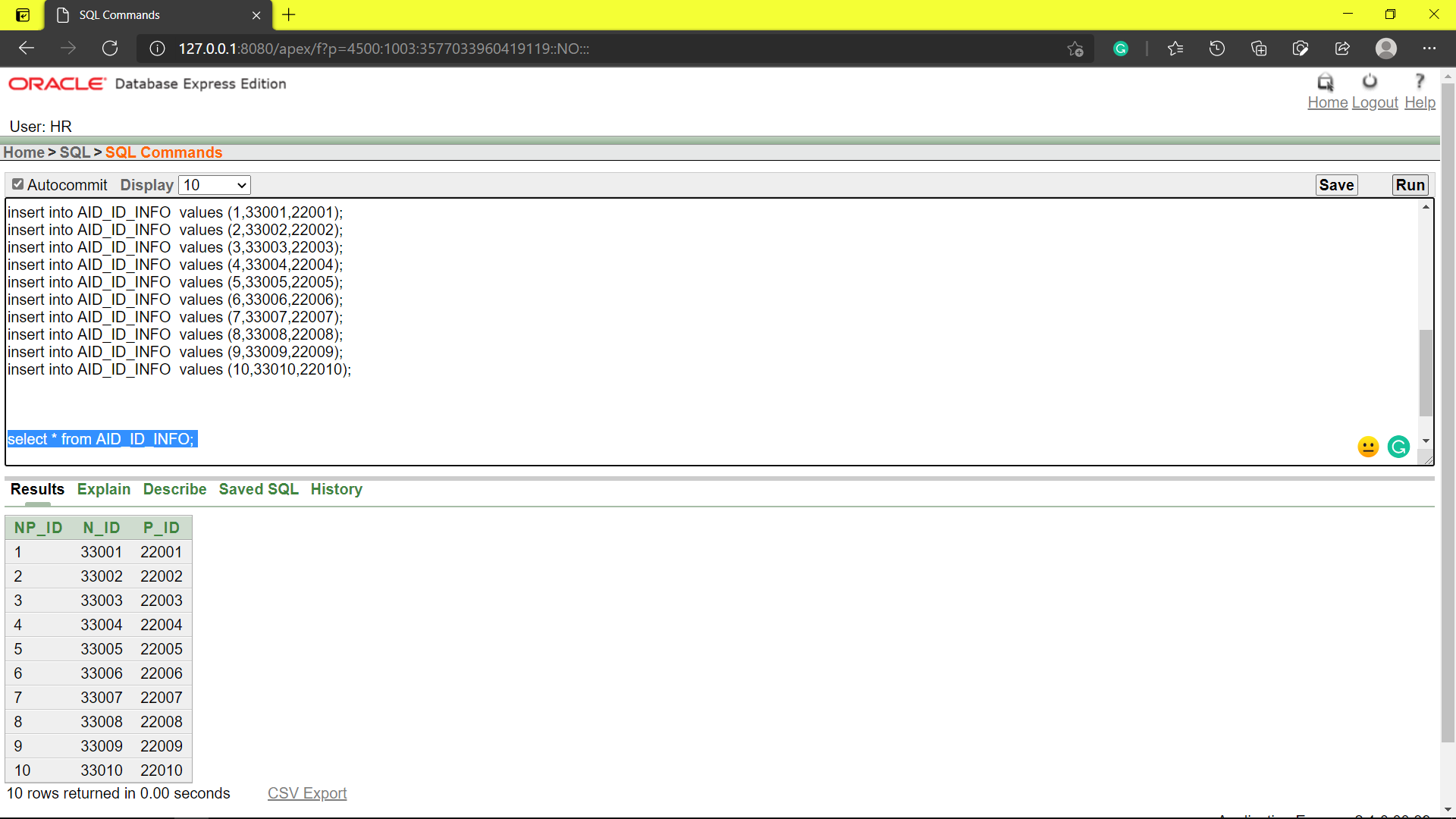
**TABLE INSERTATION**: ASSIST\_ID\_INFO



**TABLE CREATION**: AID\_ID\_INFO



**TABLE INSERTATION**: AID\_ID\_INFO



**Queries**

**JOINING**

1. Display receptionist Id, admit patient, patient name where patient arrival date is before ‘8-FEB-2021’ and patient gender is male. Use the RECEPTIONIST\_INFO and PATIENT\_INFO table
2. Find out Employee Id, Employee name, Employee post where employee department is administration. Use the EMPLOYEE\_INFO table.
3. Display patient id, patient name, doctor address where patient age is more than 32 and doctor department is ‘Neurology’. Use the PATIENT\_INFO, PATIENT\_ADDITIONAL\_INFO and DOCTOR\_INFO table.

**SUB-QUERY**

1. Display any doctor\_name from DOCTOR\_INFO whose department is same as Dr.Partho Barua
2. List all the PATIENT P\_Name and P\_PHONE whose age is more than Anamul Hossain or less than Debash Sarkar . Also arrange age from high to low.
3. Find all the PATIENT\_INFO(P\_ID) and P\_GENDER who are senior than TONMOY DEE

**VIEW**

1. Create a view that shows branch information P\_NAME, P\_AGE, P\_DATE\_OF\_BIRTH