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Introduction

Travel agency is identified by t\_id, and its name, age, address, contact, email, salary must be recorded. And a travel agency has at least one client. Travel agency has many contact and email.

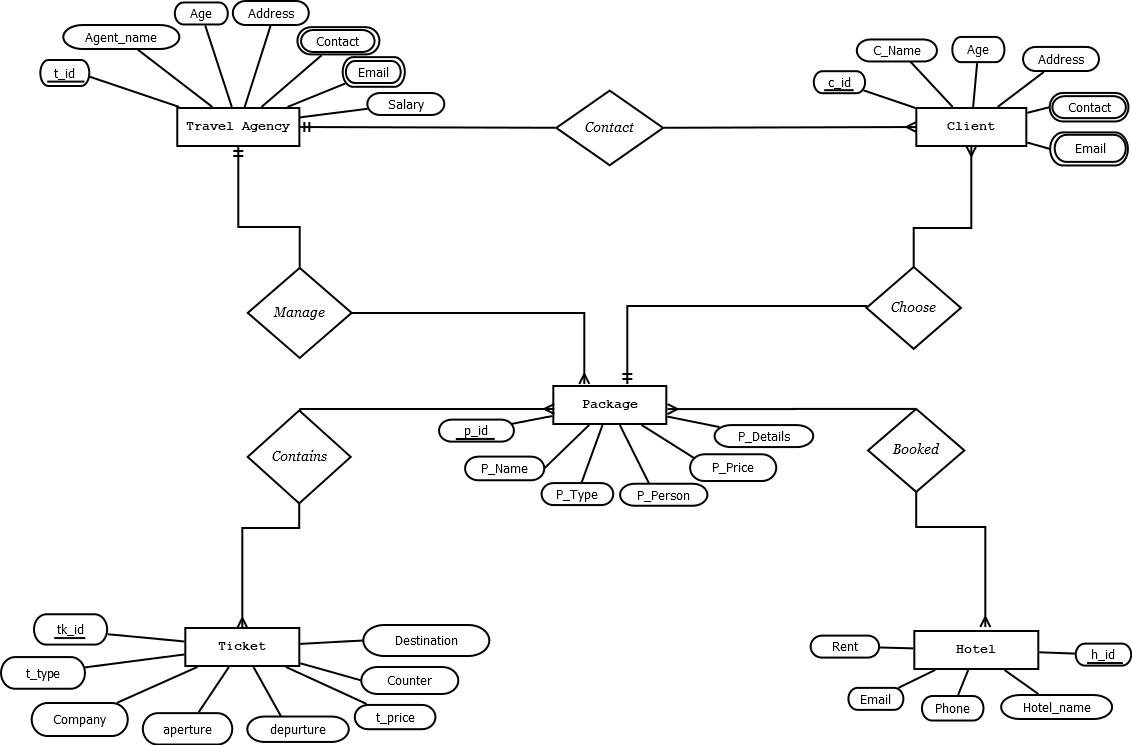
Clients are identified by c\_id. For each client, the name, age, address, contact and email must be recorded. Client has many contact and email.

package is identified by p\_id and name, type, person, price, details must be recorded. Travel agency manages several packages and several clients choose one package for them.

Each Hotel has a h\_id, name, phone, Email, rent. Package is including Hotel.

For ticket tk\_id, type, company, aperture, departure, price, counter and destination must be recorded. And package contains several types of tickets.

ER Diagram



Normalization

Contact: (T\_id, agent\_name, age, address, contact, email, job, salary, C\_id, c\_name, age, address, contact, email)

1NF → TRAVEL\_AGENCY

CLIENT

2NF → T\_id, agent\_name, age, address, contact, email, job, salary

C\_id, c\_name,age, address, contact, email

3NF → No transitive dependency.

Table list for contact:

1. T\_id, agent\_name, age, address, salary

2. T\_id, contact→ composite primary key

3. T\_id, email→ composite primary key

4. C\_id, c\_name, age, address, T\_id, P\_id

5. C\_id, contact→ composite primary key

6. C\_id, email→ composite primary key

Manage: (T\_id, agent\_name, age, address, contact, email, job , salary, P\_id, p\_name, p\_type, p\_person, p\_price, p\_details)

1NF→ Contact is a multivalued attribute

Email is a multivalued attribute

2NF→ T\_id, agent\_name, age, address, contact, email, job, salary

P\_id, p\_name, p\_type, p\_person, p\_price, p\_details

3NF→ T\_id, agent\_name, age, address, contact, email

P\_id, p\_name

P2\_id, p\_type, p\_person, p\_price, p\_details

Table list from manage:

7. T\_id, agent\_name, age, address, job, salary

8. T\_id, contact→ composite primary key

9. T\_id, email→ composite primary key

10. P\_id, p\_name, P2\_id, T-id

11. P2\_id, p\_type, p\_person, p\_price, p\_details

Choose: (C\_id, c\_name, age, address, contact, email, P\_id, p\_name, p\_type, p\_person, p\_price, p\_details)

1NF→ Contact is a multivalued attribute.

Email is a multivalued attribute.

2NF→ C\_id, c\_name, age, address, contact, email

P\_id, p\_name, p\_type, p\_person, p\_price, p\_details

3NF→ C\_id, C\_name, age, address, contact, email

P\_id, p\_name

Ps\_id, p\_type, p\_person, p\_price, p\_details

Table list from choose:

12. C\_id, C\_name, age, address, P\_id

13. C\_id, contact→ composite primary key

14. C\_id, email→ composite primary key

15. P\_id, p\_name, P2-id

16. P2\_id, p\_type, p\_person, p\_price, p\_details

Contains: (P\_id, p\_name, p\_type, p\_person, p\_price, p\_details, TK\_id, t\_type, company, aperture, departure, t\_price,counter,destination)

1NF→ No multivalued attribute

2NF→ P\_id, p\_name, p\_type, p\_person, p\_price, p\_details

TK\_id, t\_type, company, aperture, departure, t\_price, counter, destination

3NF→ P\_id, p\_name

p2\_id, p\_type, p\_person, p\_price, p\_details

TK\_id, company, aperture, departure, t\_type, t\_price, counter, destination

Table list from contains:

17. P\_id, p\_name, p\_details, P2\_id

18. P2\_id, p\_type, p\_person, p\_price, p\_details

19. TK\_id, company, aperture, departure, t\_type, t\_price, counter, destination

20. N1\_id, P\_id, tk\_id

Booked: (P\_id, p\_name, p\_person, p\_price, p\_details, H\_id, hotel\_name, phone, email,rent)

1NF→ No multivalued attribute.

2NF→ P\_id, p\_name, p\_type, p\_person, p\_price, p\_details

H\_id, hotel\_name, phone, email, rent

3NF→ P\_id, p\_name

P2\_id, P\_type, p\_person, p\_price, p\_details

H\_id, hotel\_name, phone, email,rent

Table list from booked:

21. P\_id, p\_name, P2\_id

22. P2\_id, p\_type, p\_person, p\_price, p\_details

23. H\_id, hotel\_name, phone, email, rent

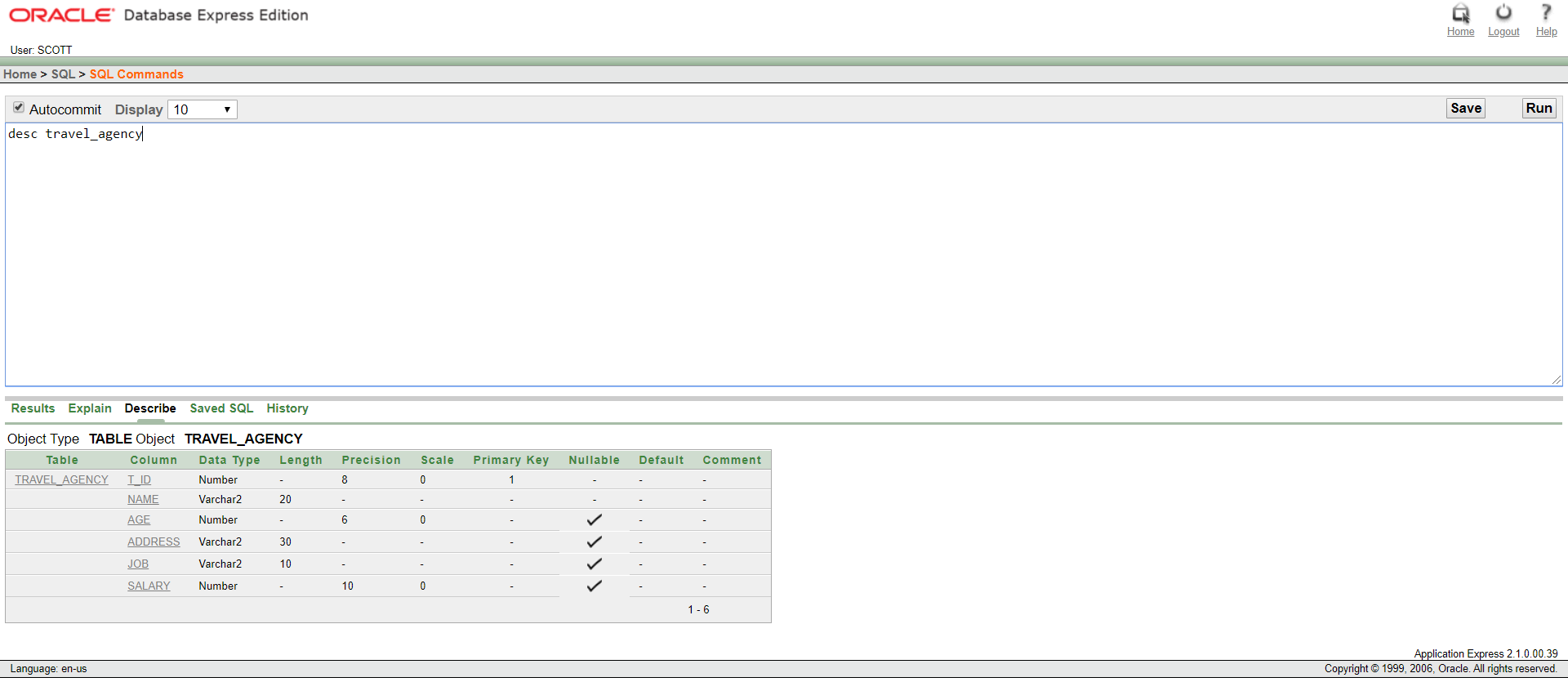
24. N2\_id, P\_id, H\_id

|  |  |  |
| --- | --- | --- |
| Table number | Table name | Column |
| 01 | TRAVEL\_ANGENCY | T-id, agent\_name, age, address, job, salary |
| 02 | TA\_CONTACT | T\_id, contact→ composite primary key |
| 03 | TA\_EMAIL | T\_id, email→ composite primary key |
| 04 | CLIENT | C\_id, c\_name, age, address, T\_id, P\_id |
| 05 | C\_CONTACT | C\_id, contact→ composite primary key |
| 06 | C\_EMAIL | C\_id, email→ composite primary key |
| 07 | PACKAGE | P\_id, p\_name, P2\_id, T\_id |
| 08 | PACKAGE \_2 | P2\_id, P\_type, p\_person, p\_price, p\_details |
| 09 | TICKET | TK\_id,company,aperture,departure,t\_type,t\_price,counter,destination |
| 10 | NEW\_TABLE\_1 | N1\_id, P\_id, TK\_id |
| 11 | HOTEL | H\_id, hotel\_name, phone, email, rent |
| 12 | NEW\_TABLE\_2 | N2\_id, P\_id, H\_id |

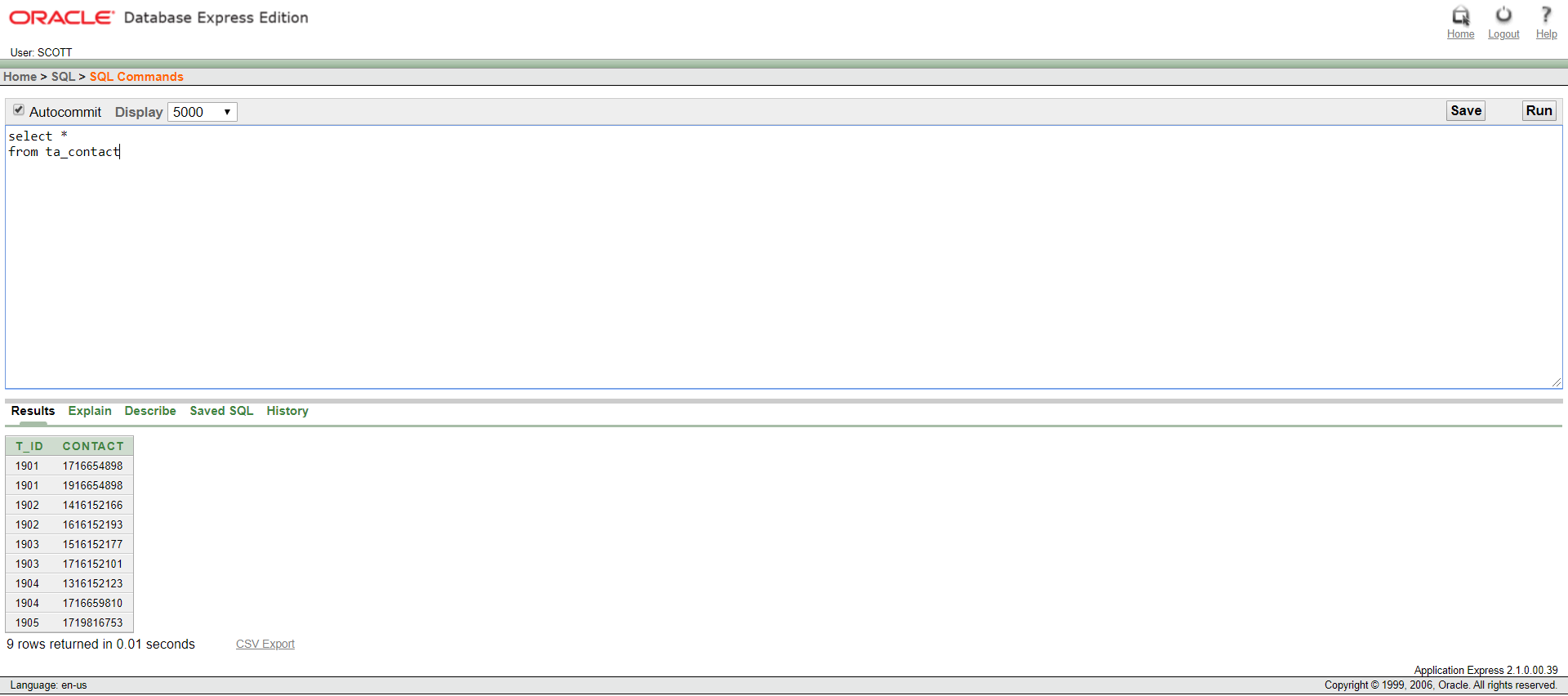
Final table list:

DDL & DML

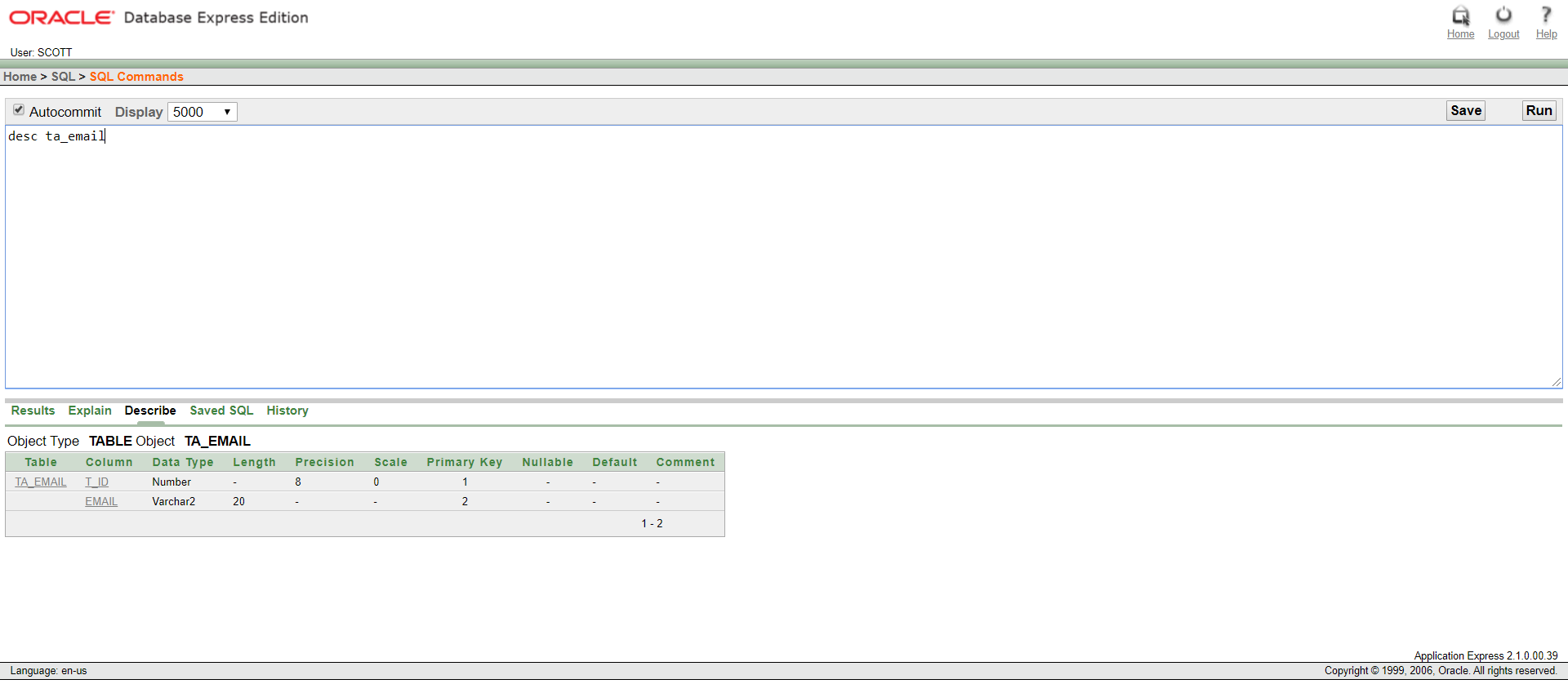
TRAVEL\_AGENCY:



Description of TRAVEL\_AGENCY



Description of TA\_CONTACT



Description of TA\_EMAIL

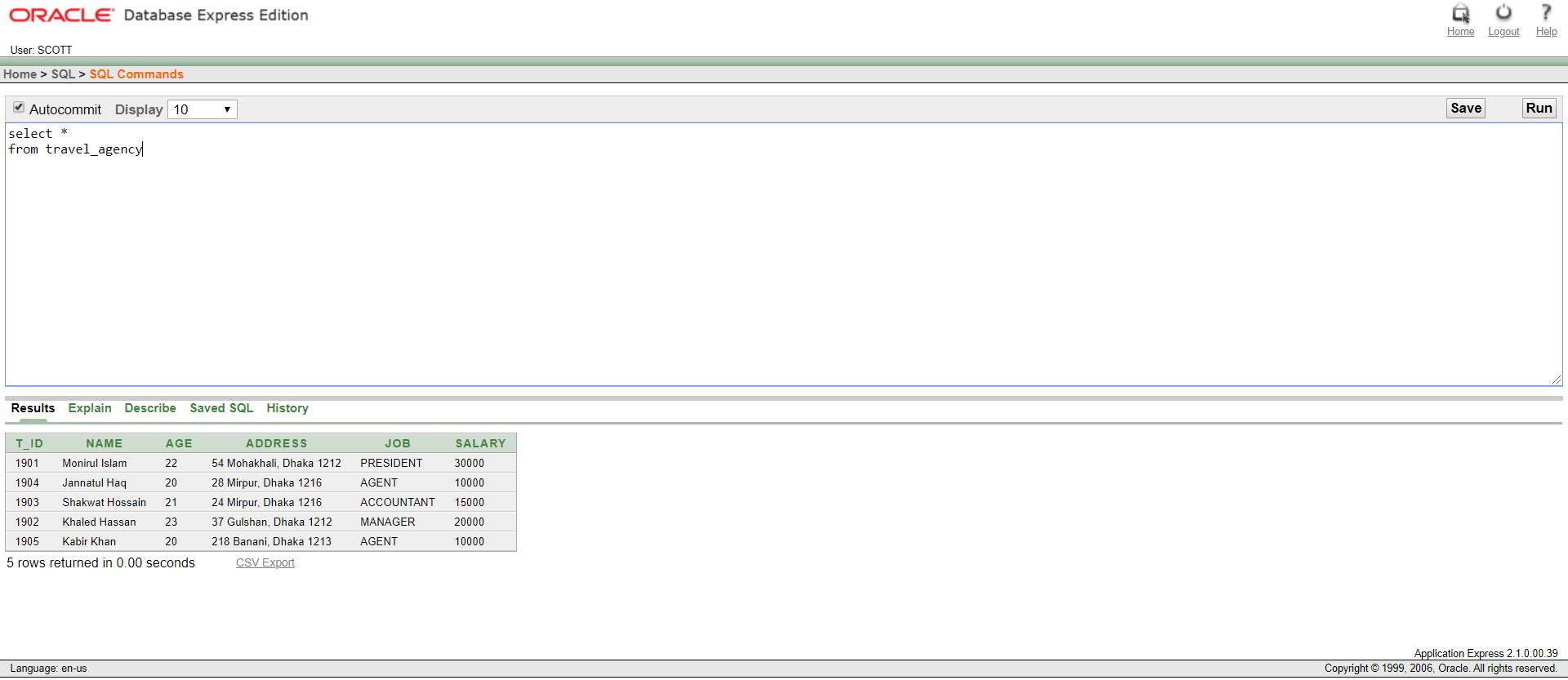


Table: TRAVEL\_AGENCY

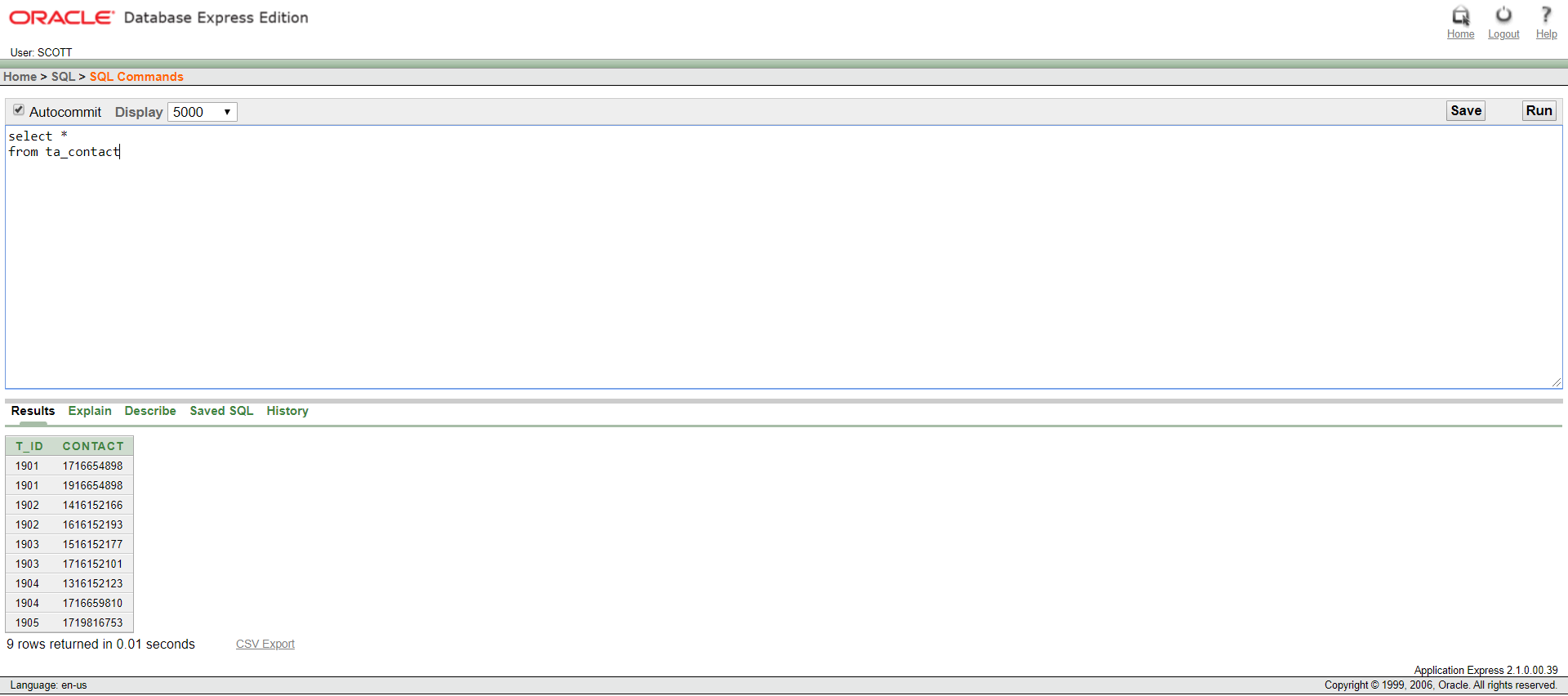


Table: TA\_CONTACT

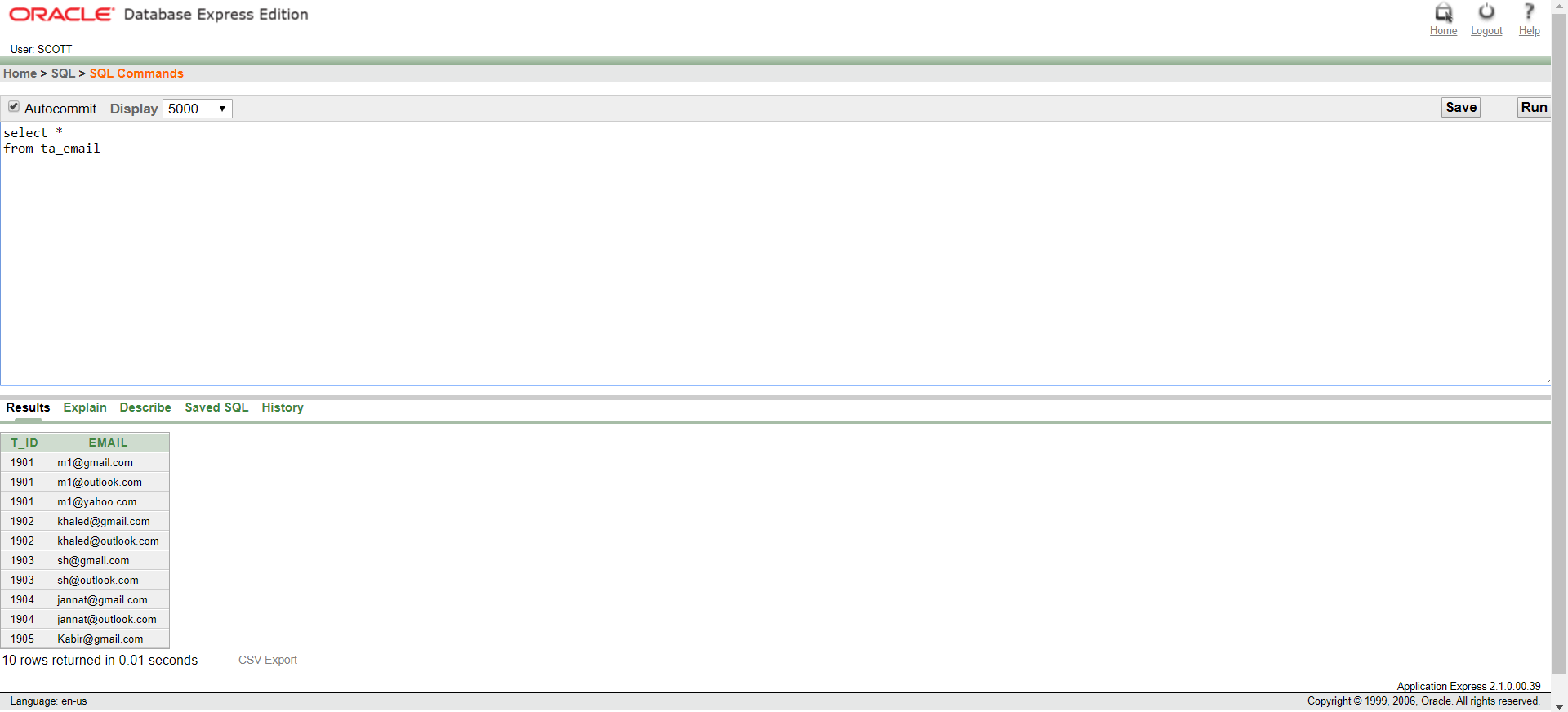
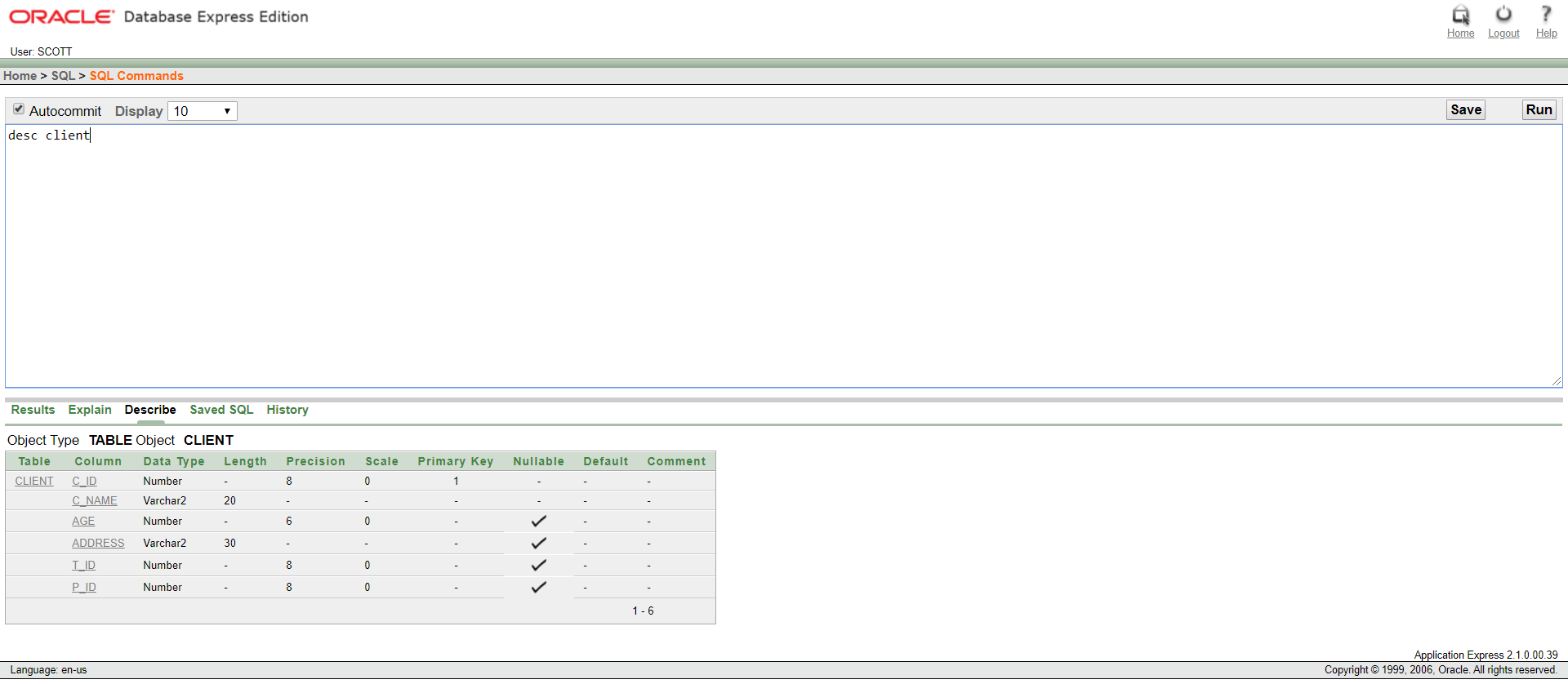
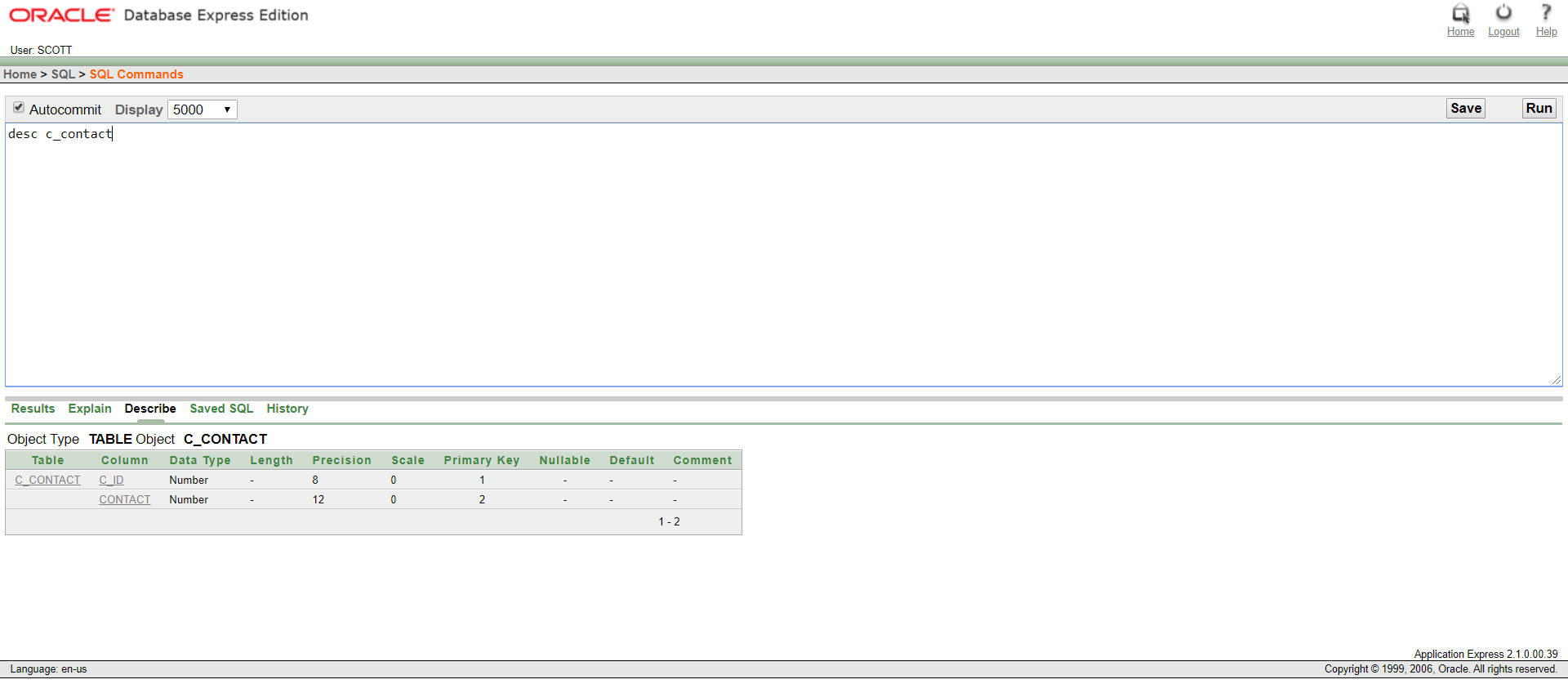


Table: TA\_EMAIL

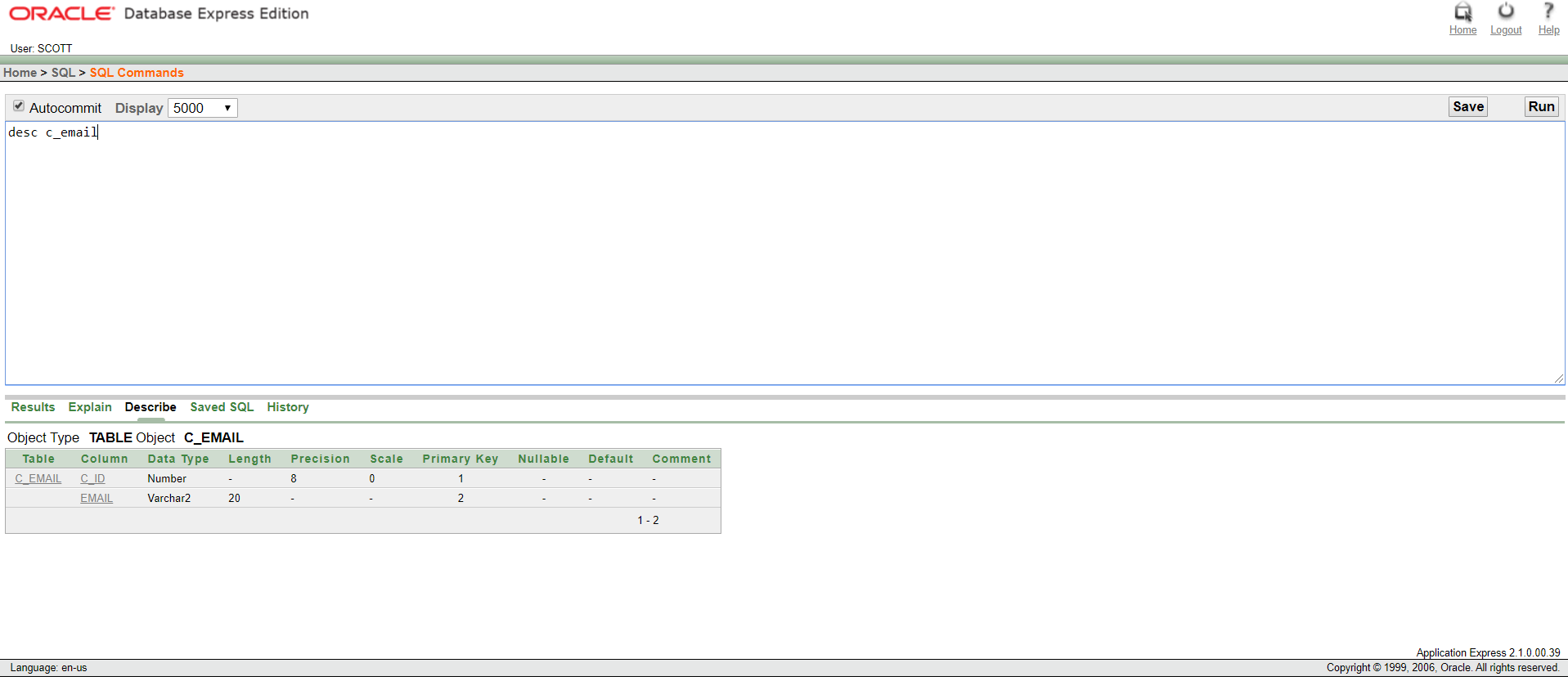
CLIENT:



Description of CLIENT



Description of C\_CONTACT



Description of C\_EMAIL

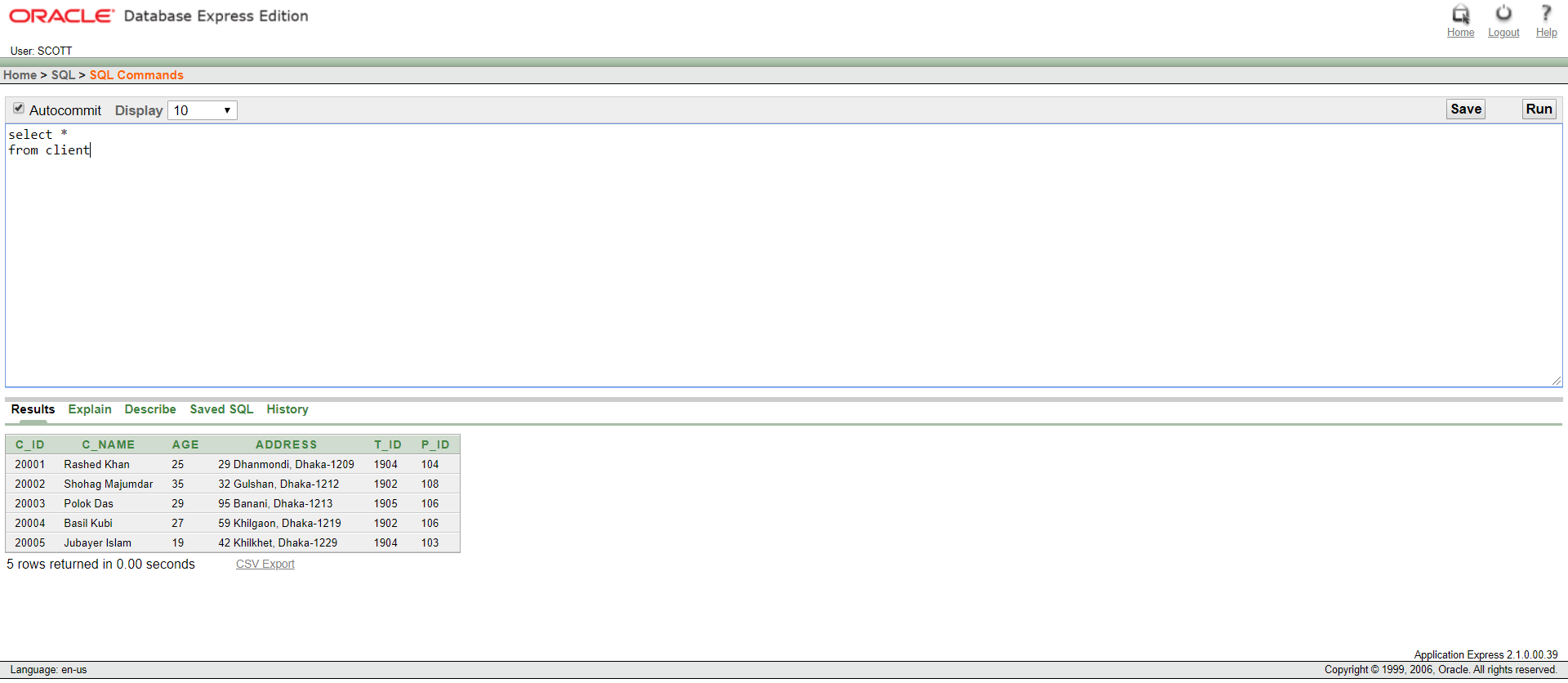


Table: CLIENT

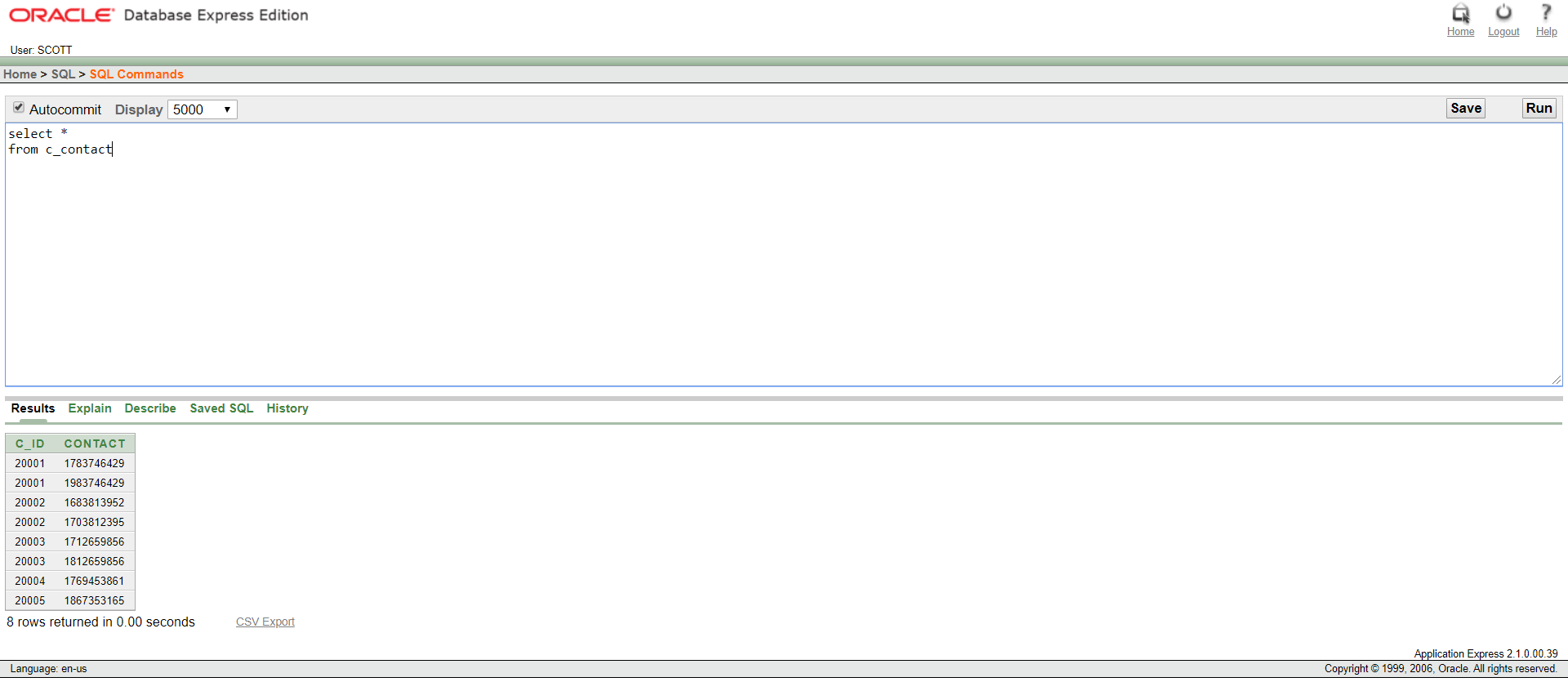


Table: C\_CONTACT

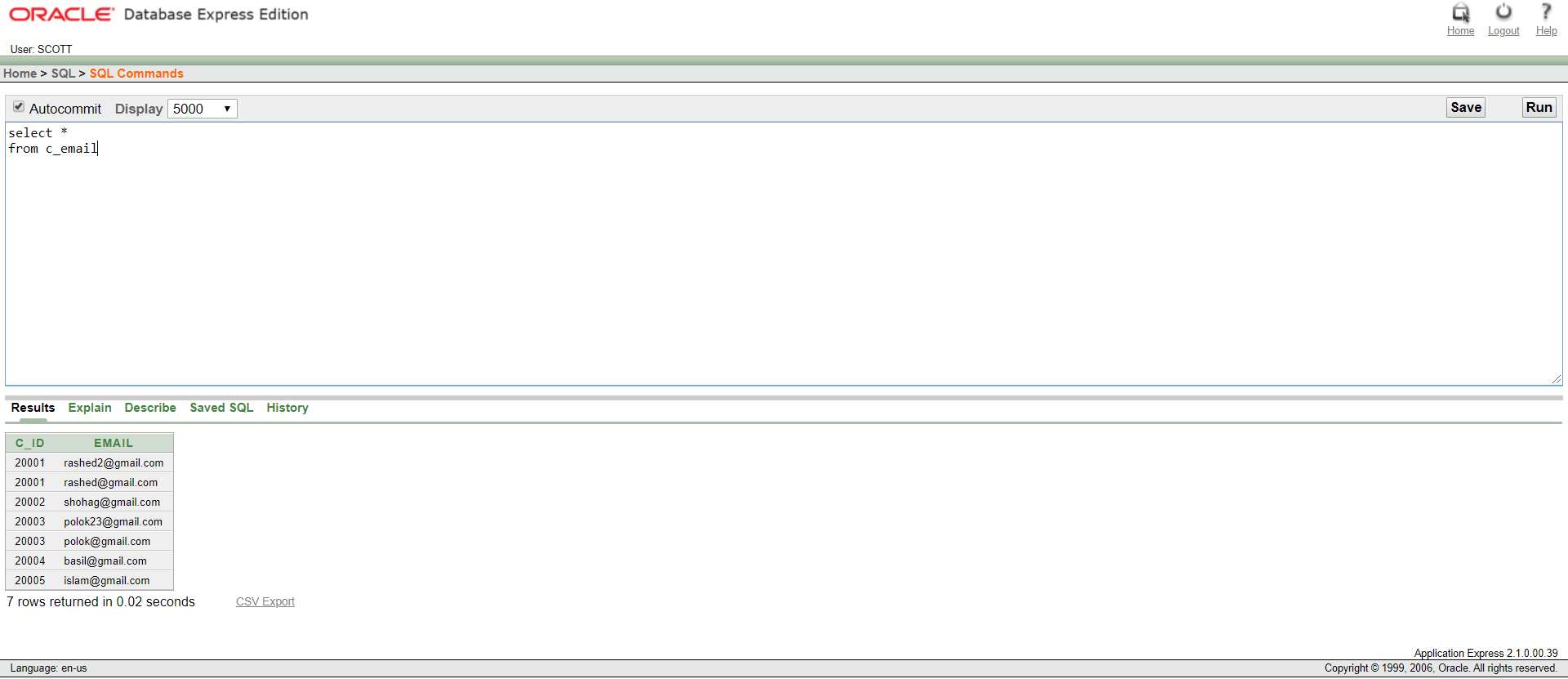
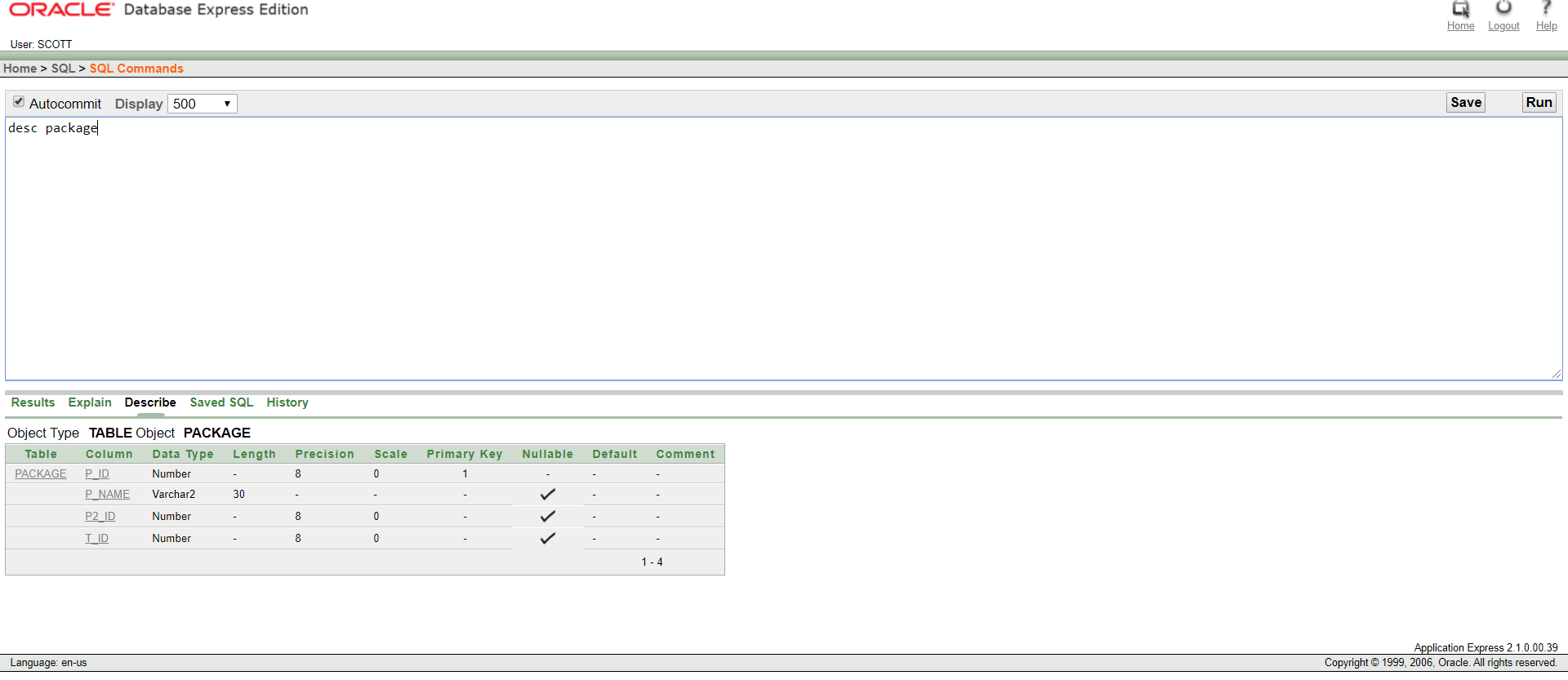


Table: C\_EMAIL

PACKAGE:



Description of PACKAGE

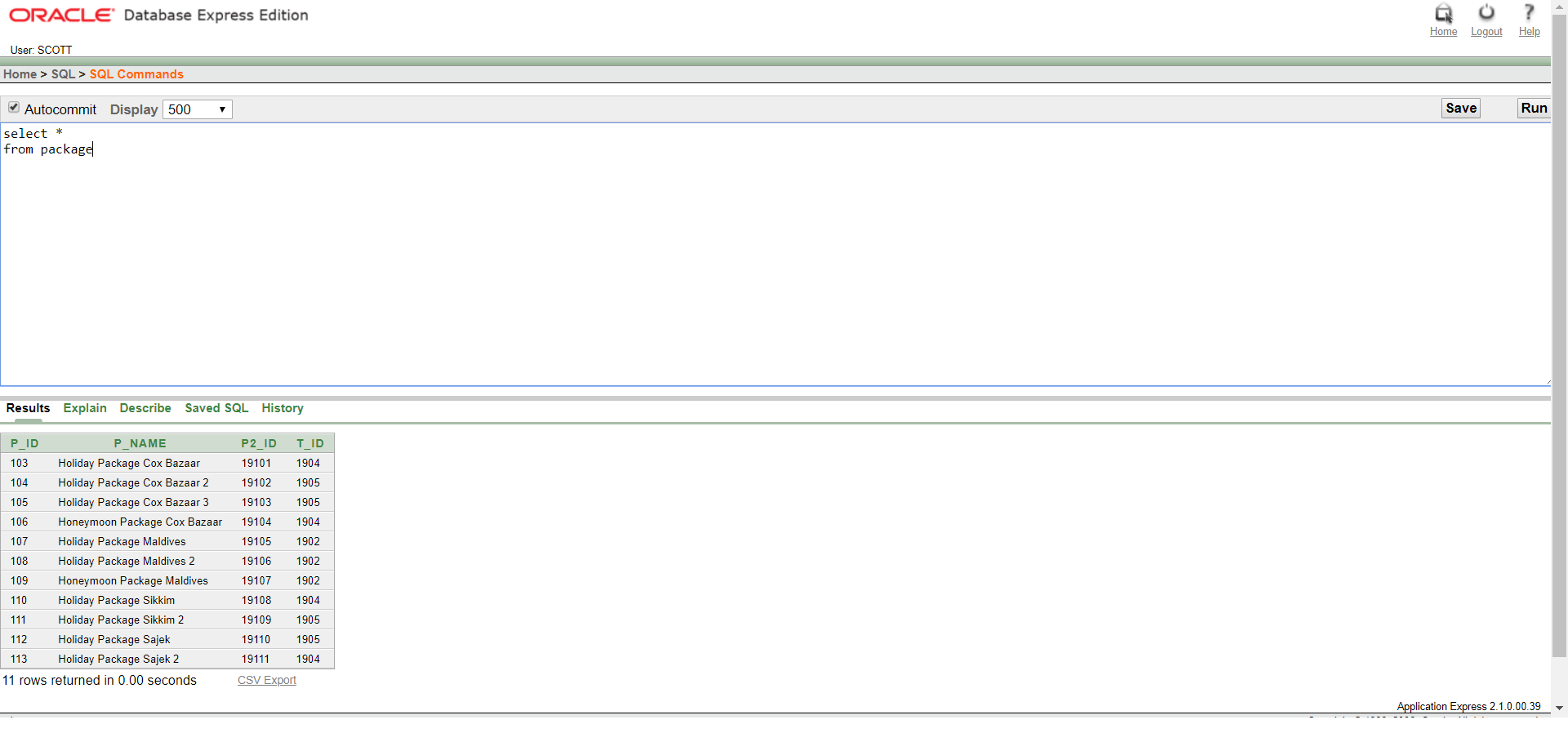
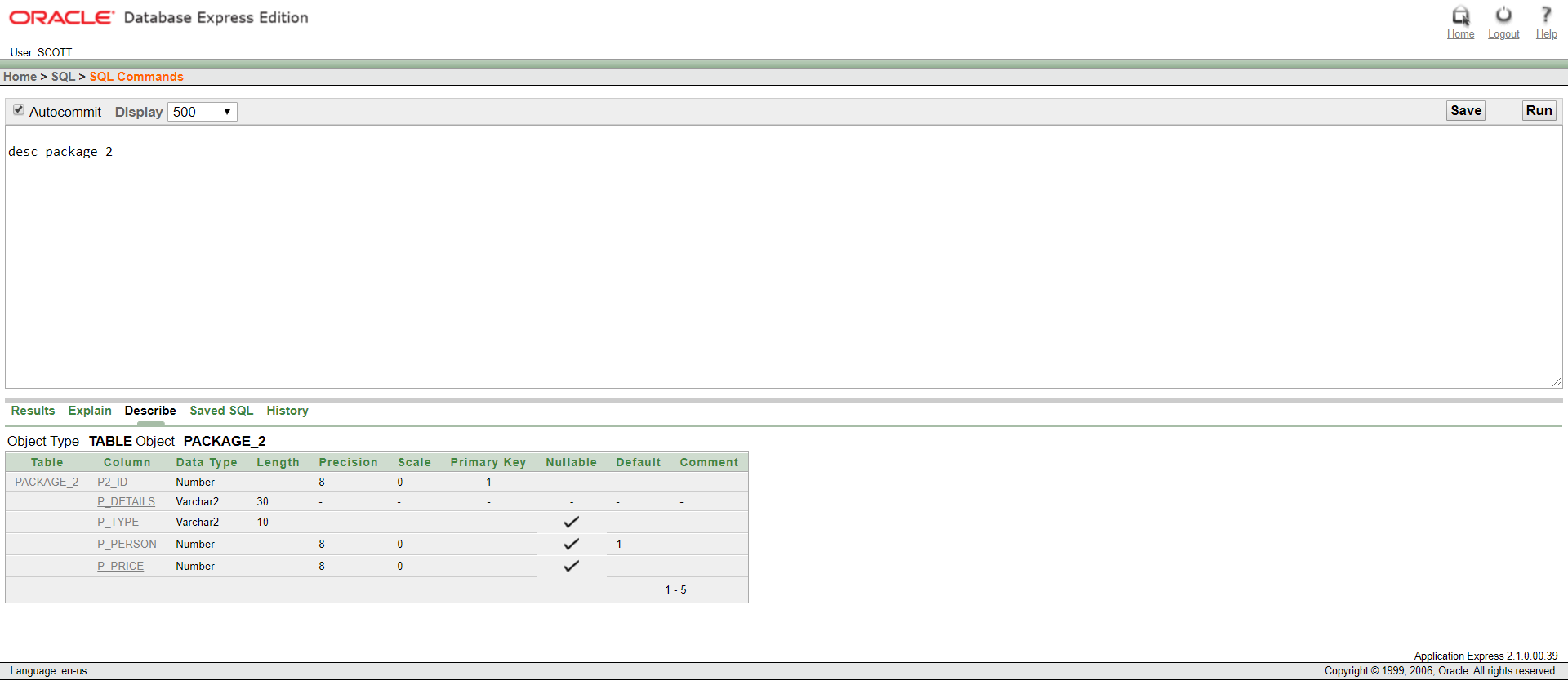


Table: PACKAGE

PACKAGE\_2:



Description of PACKAGE\_2

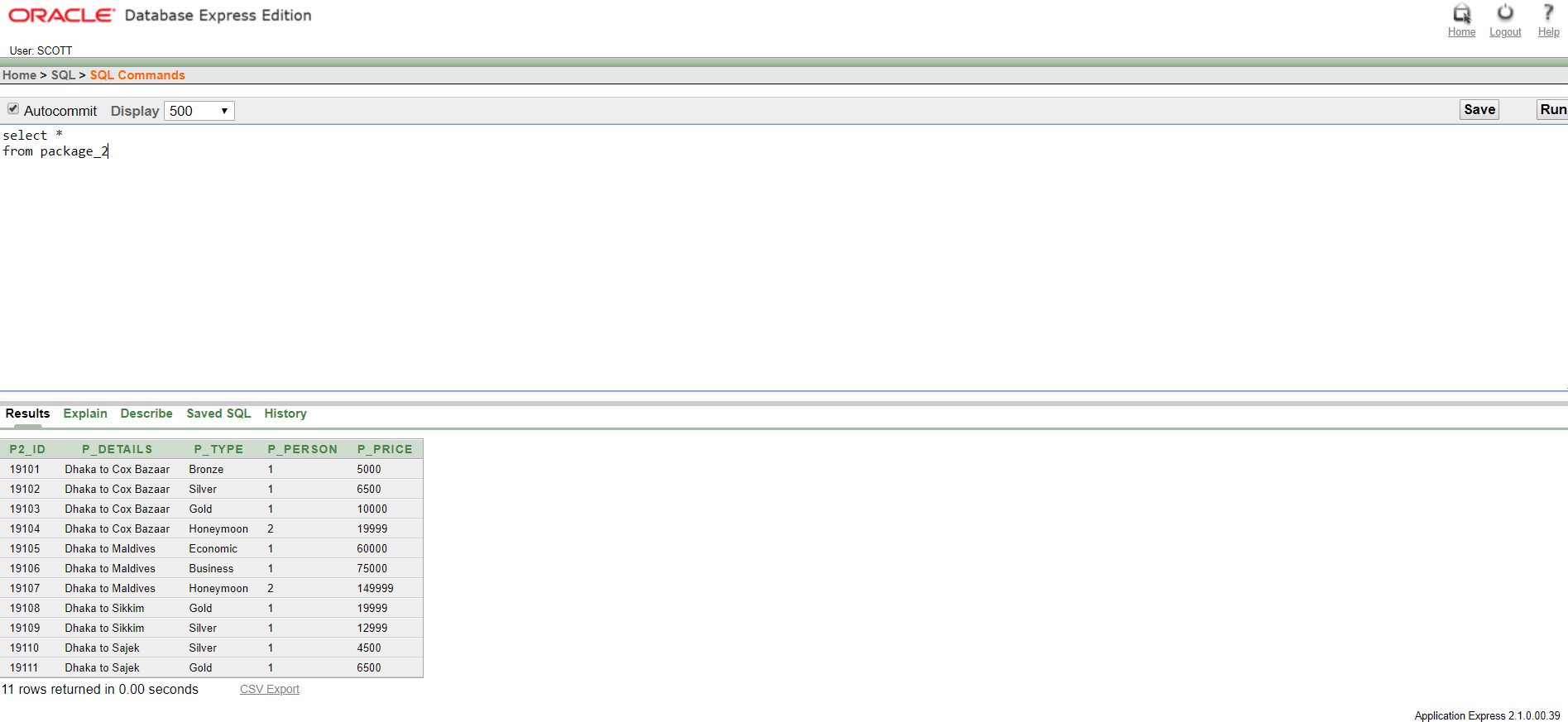
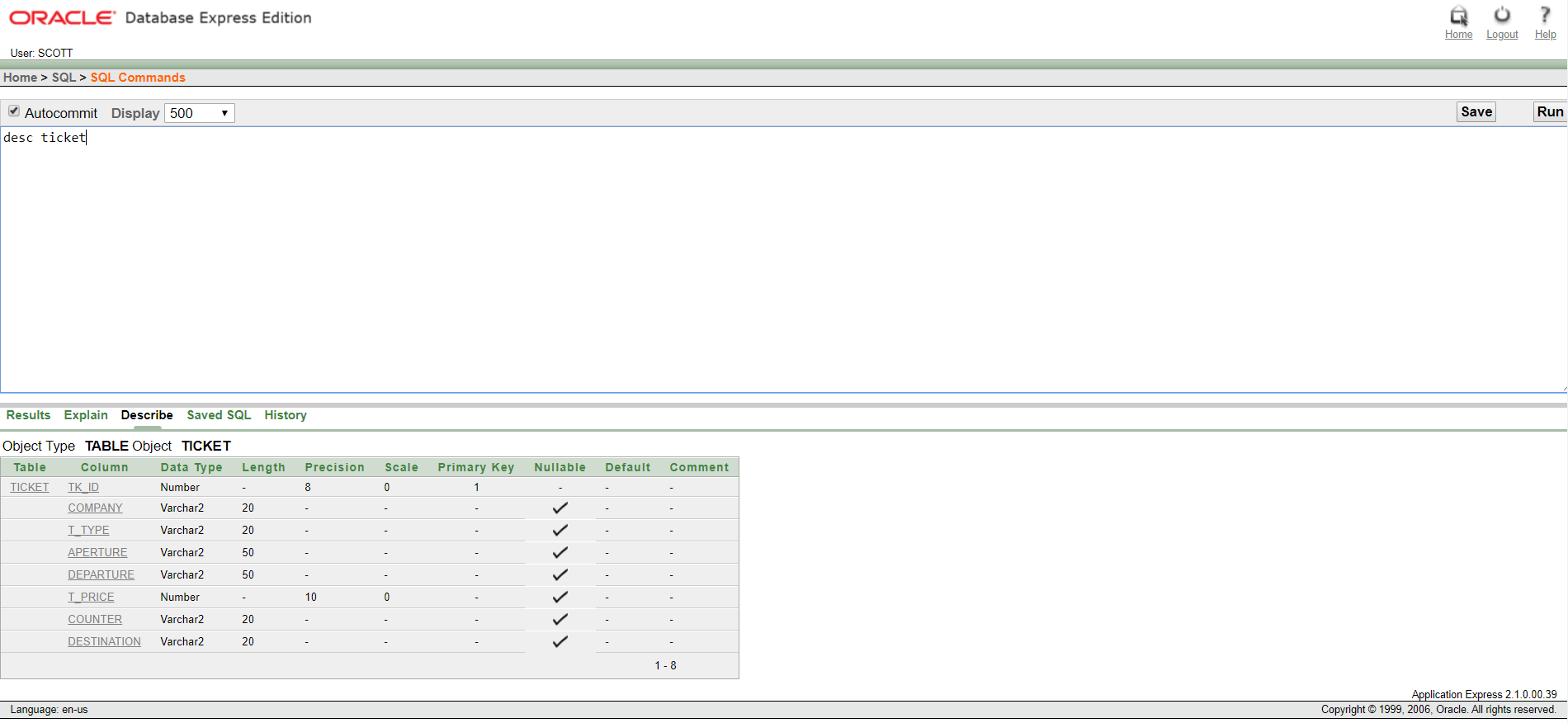


Table: PACKAGE\_2

TICKET:



Description of TICKET

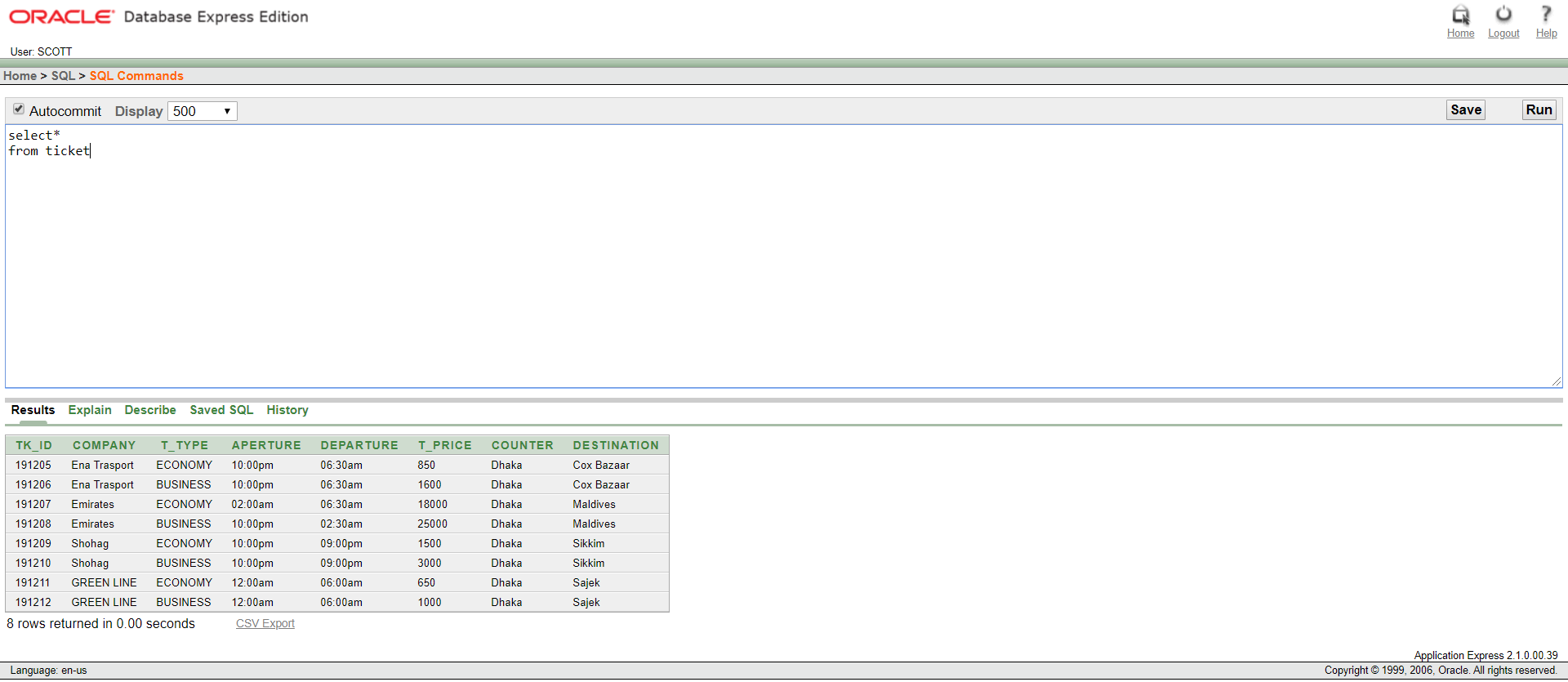
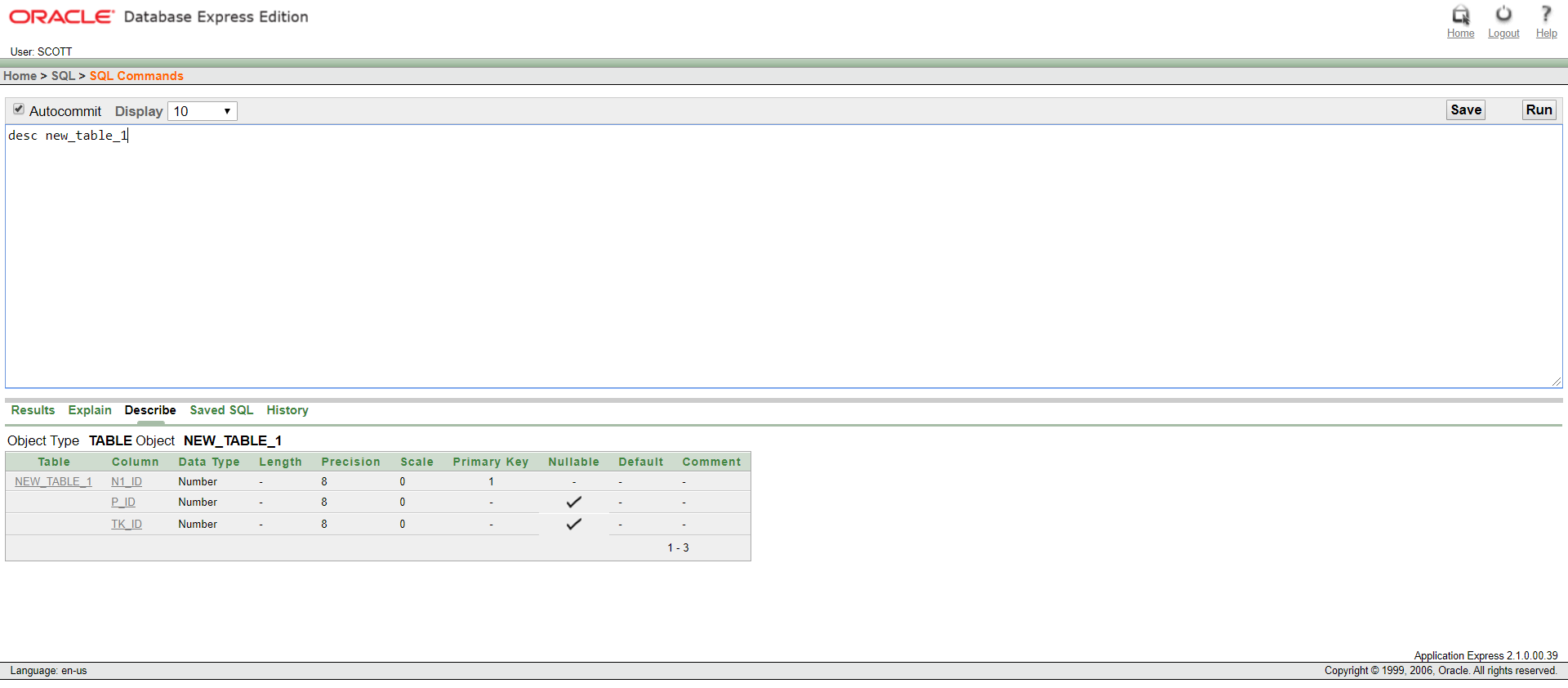


Table: TICKET

NEW\_TABLE\_1:



Description of NEW\_TABLE\_1

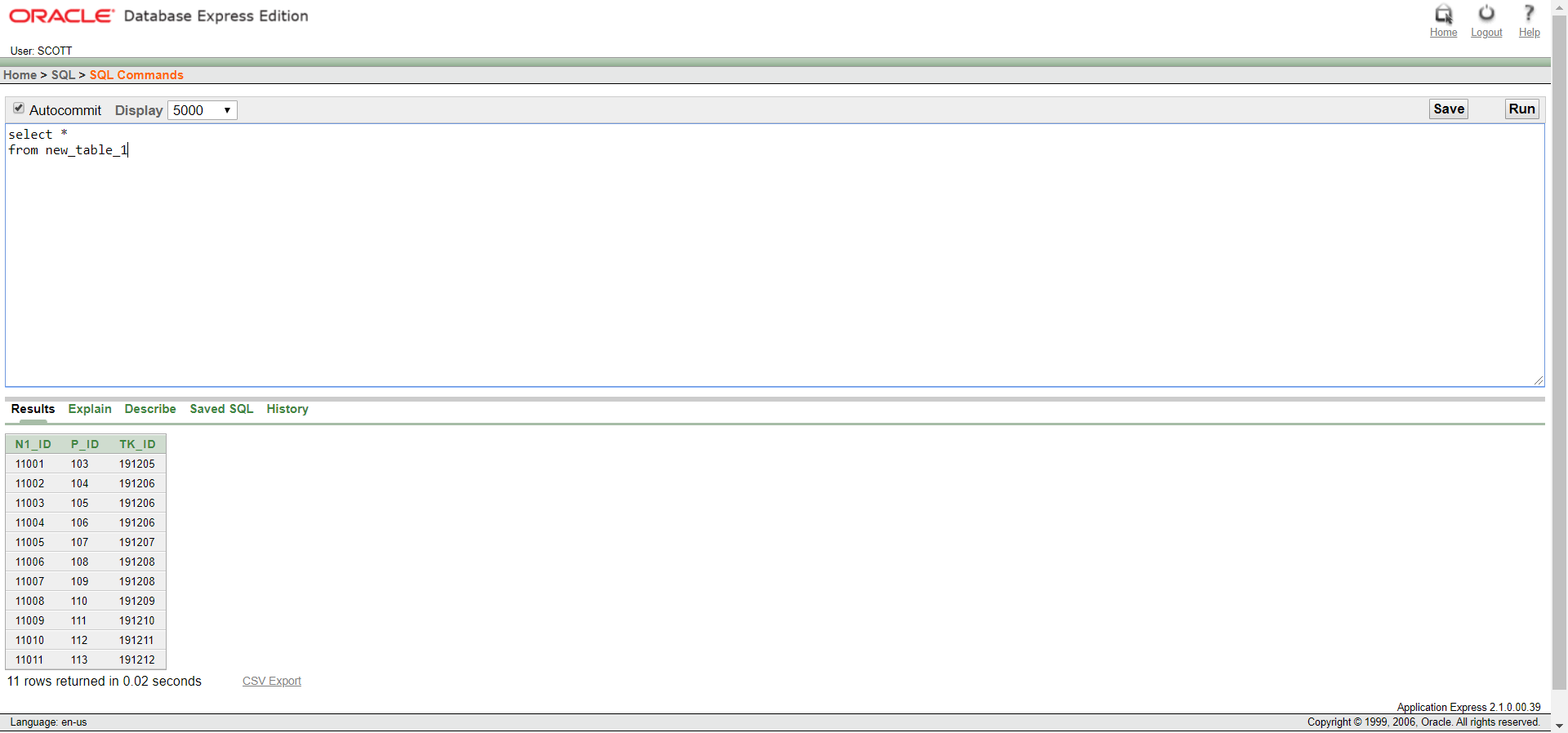
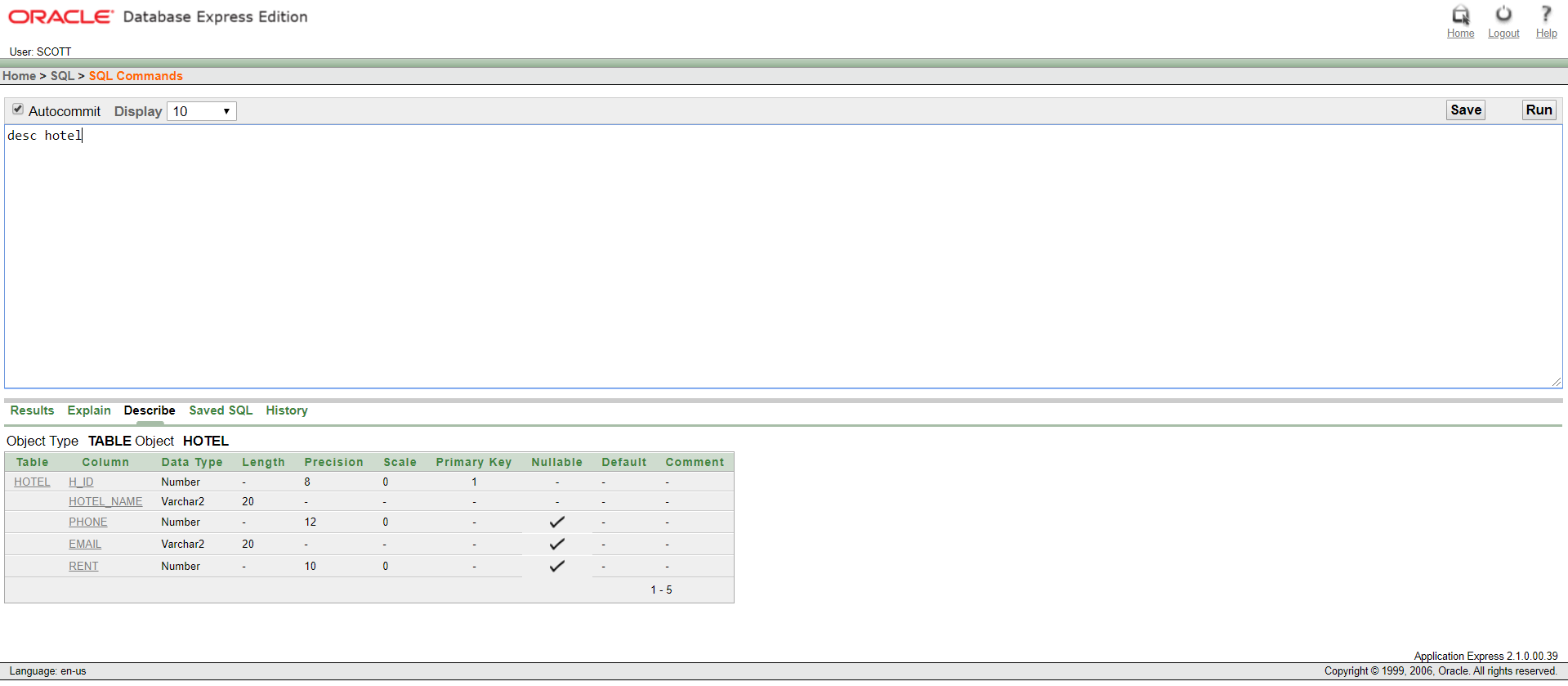


Table: NEW\_TABLE\_1

HOTEL:



Description of HOTEL

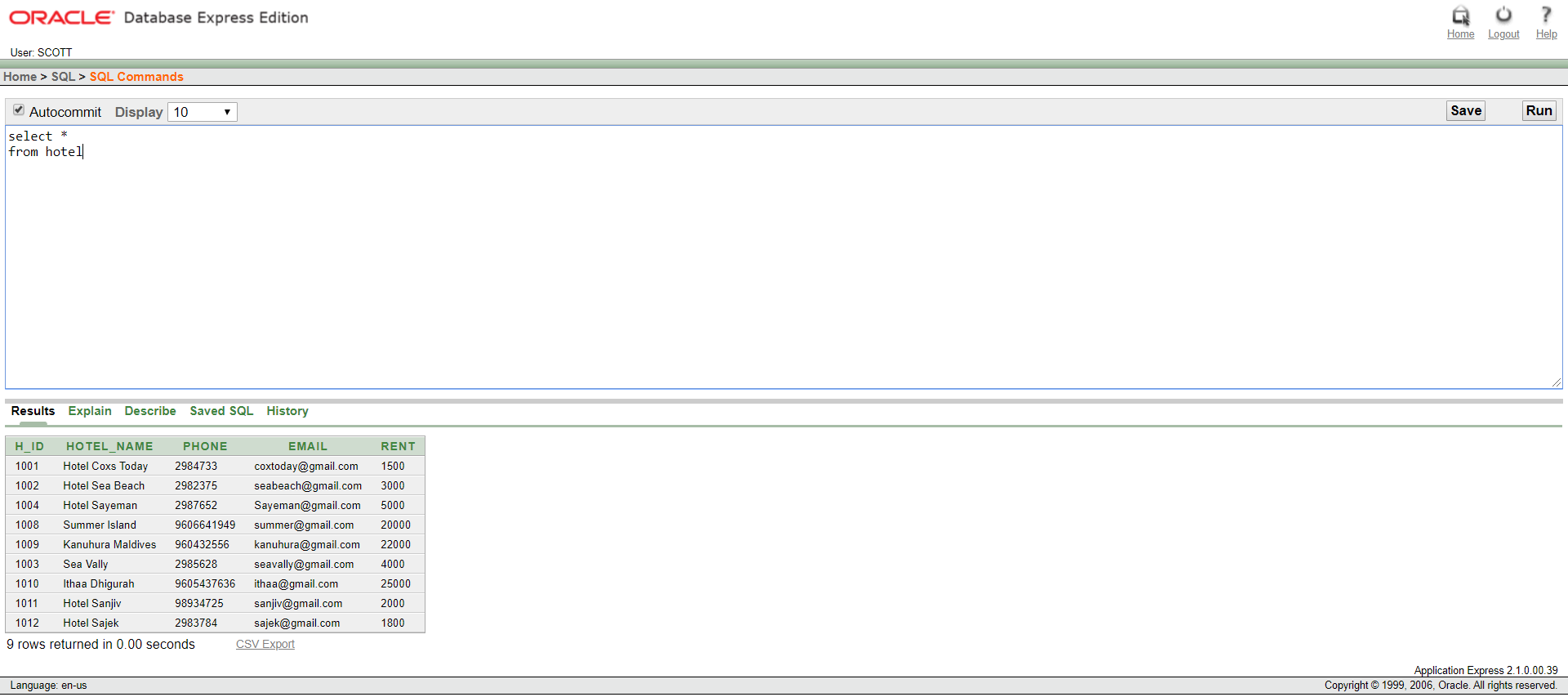
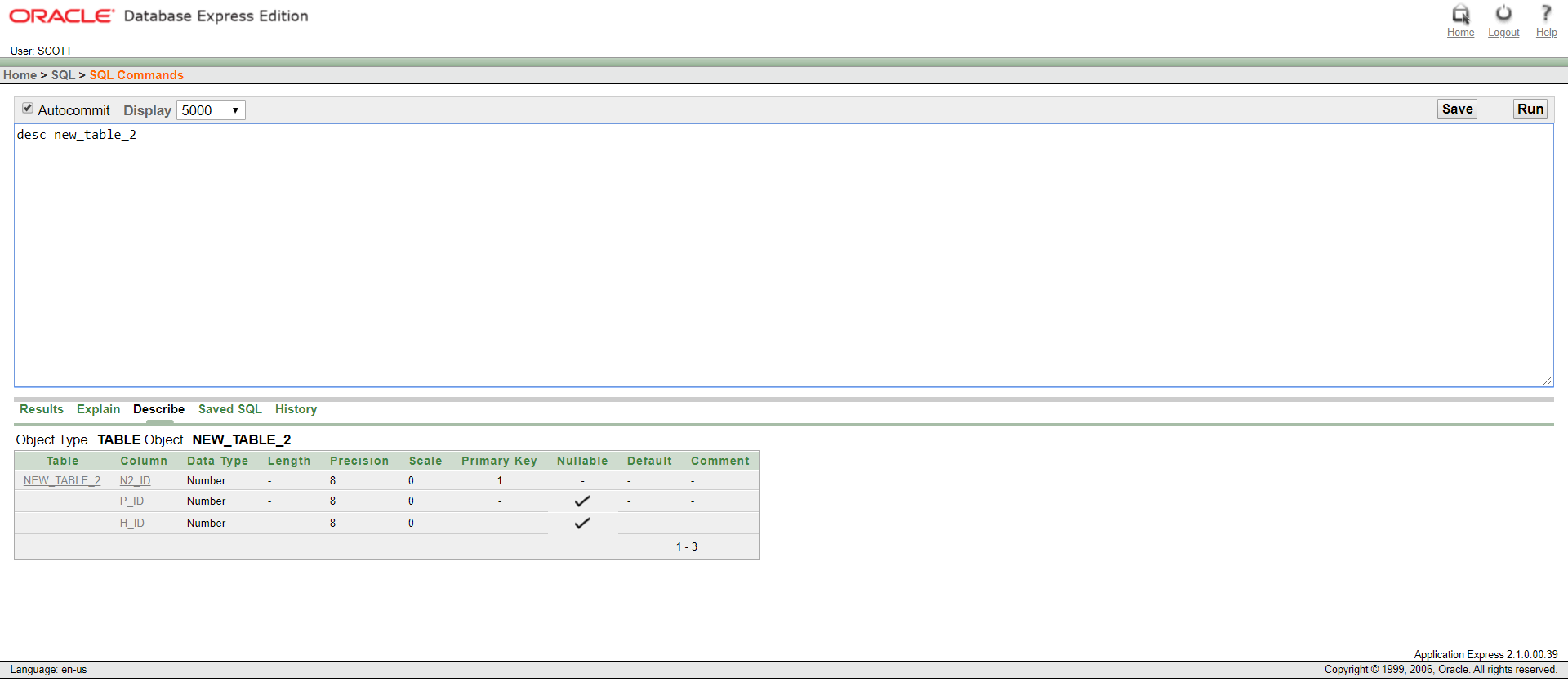


Table: HOTEL

NEW\_TABLE\_2:



Description of NEW\_TABLE\_2

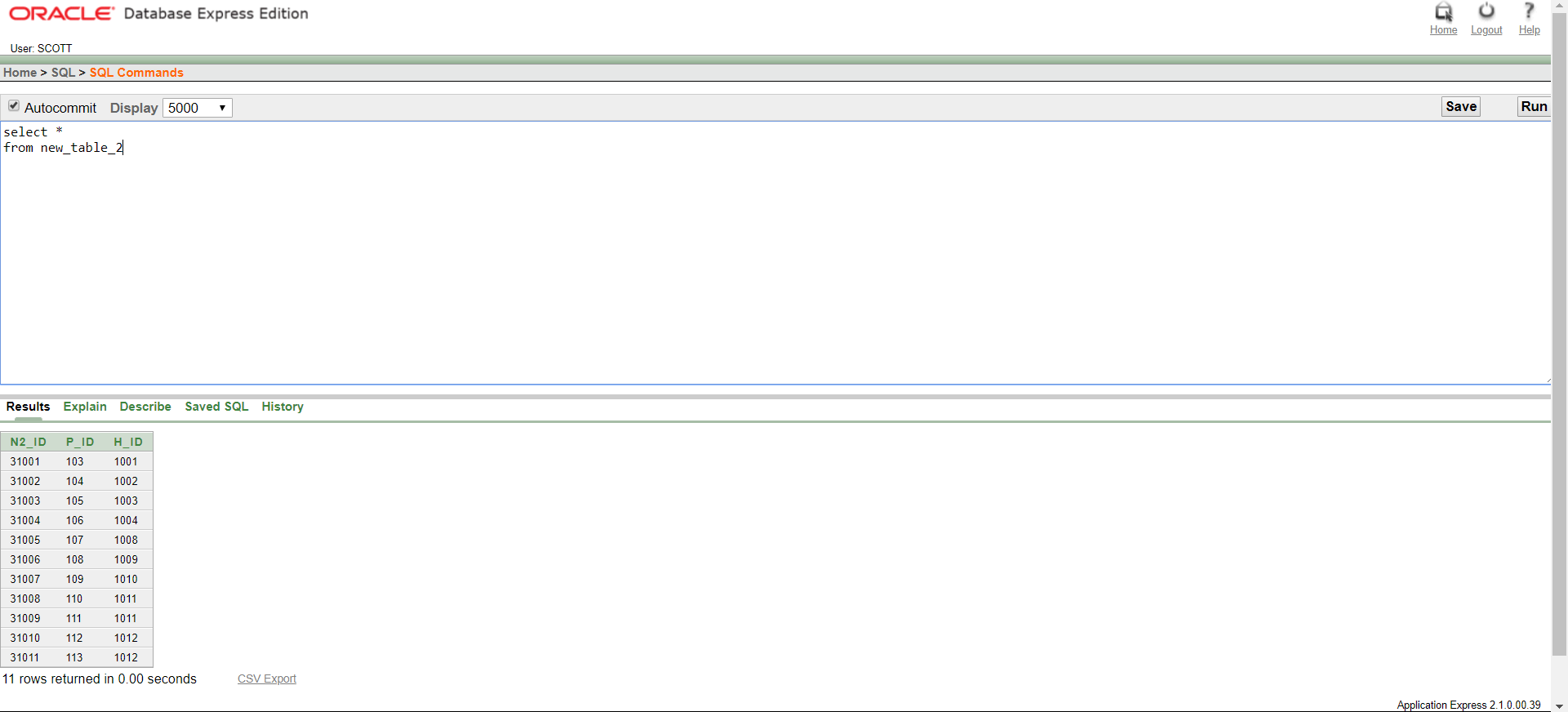
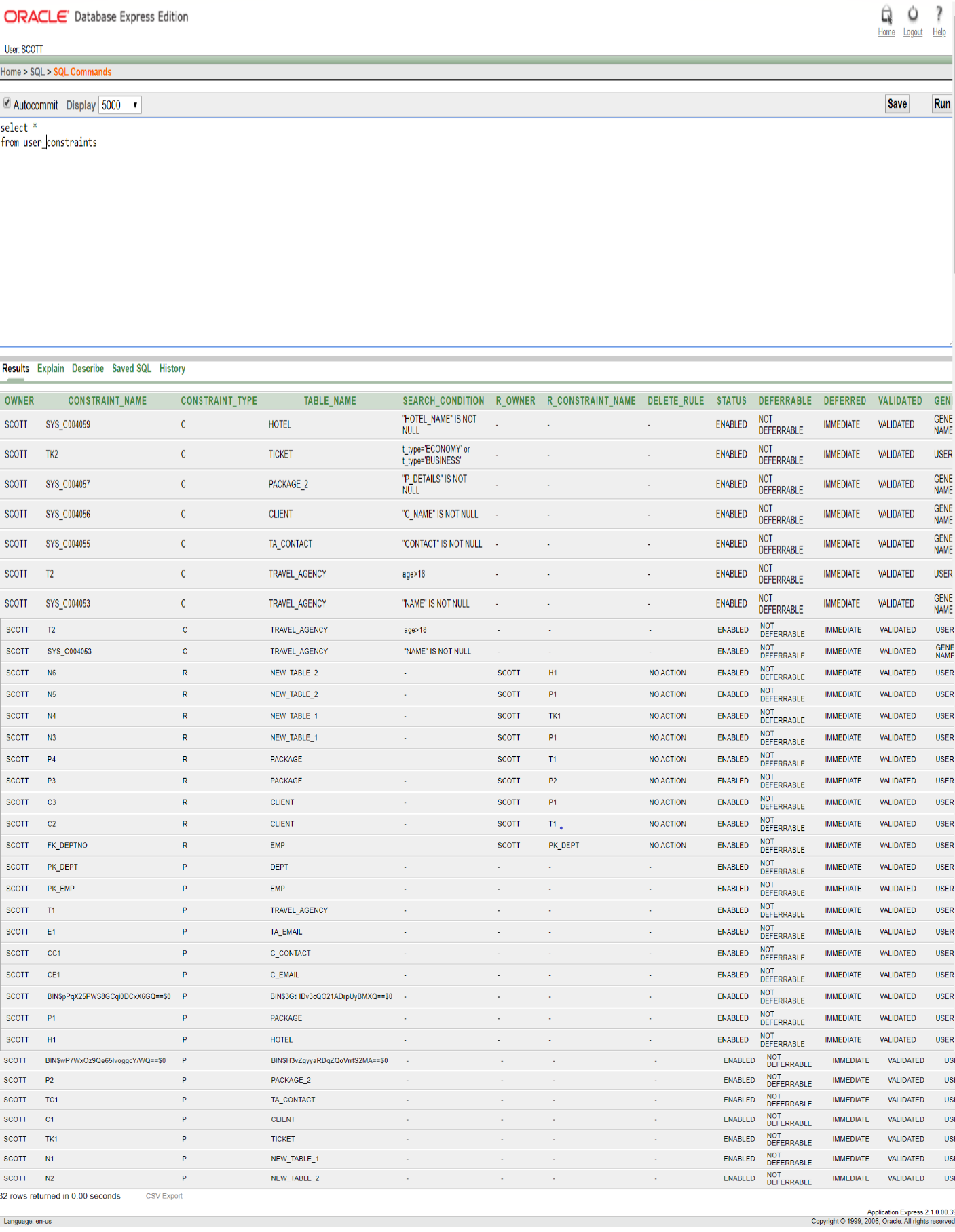
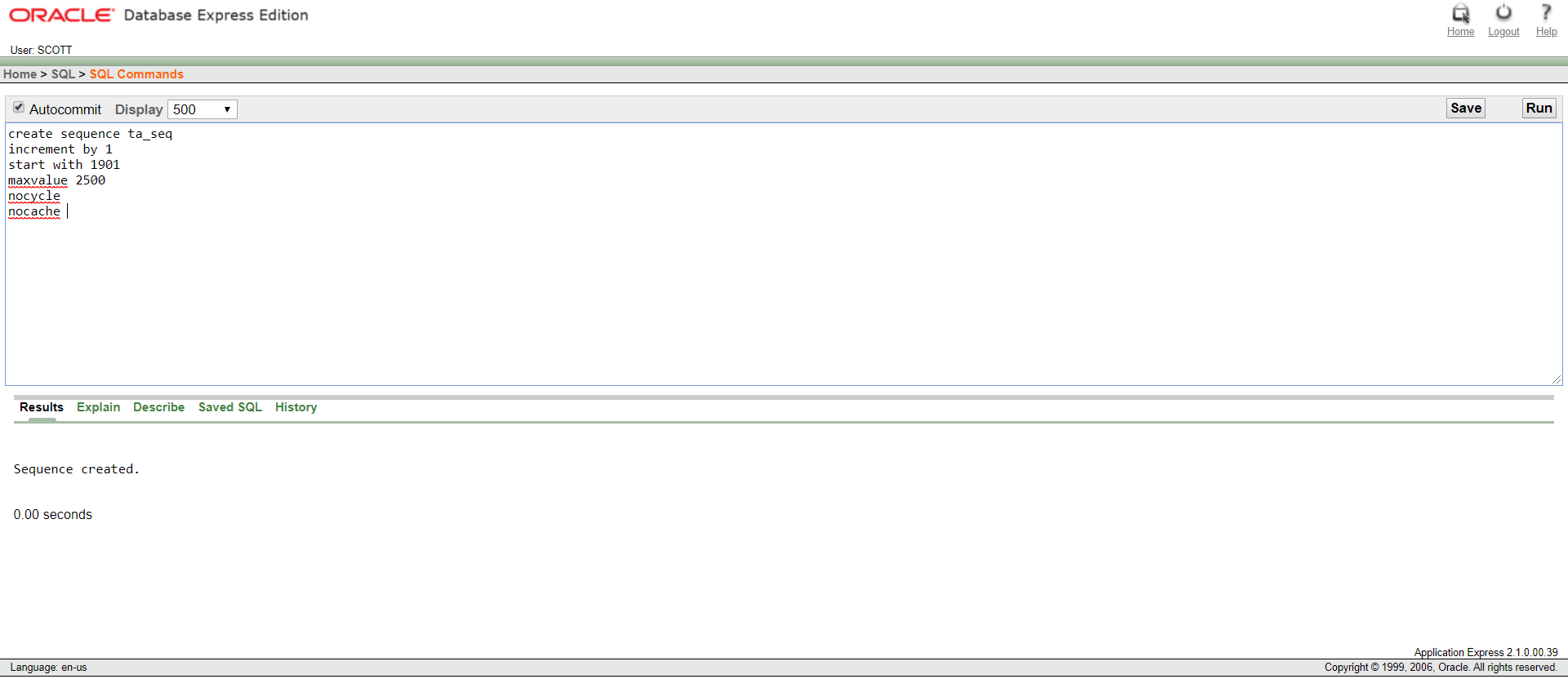


Table: NEW\_TABLE 2

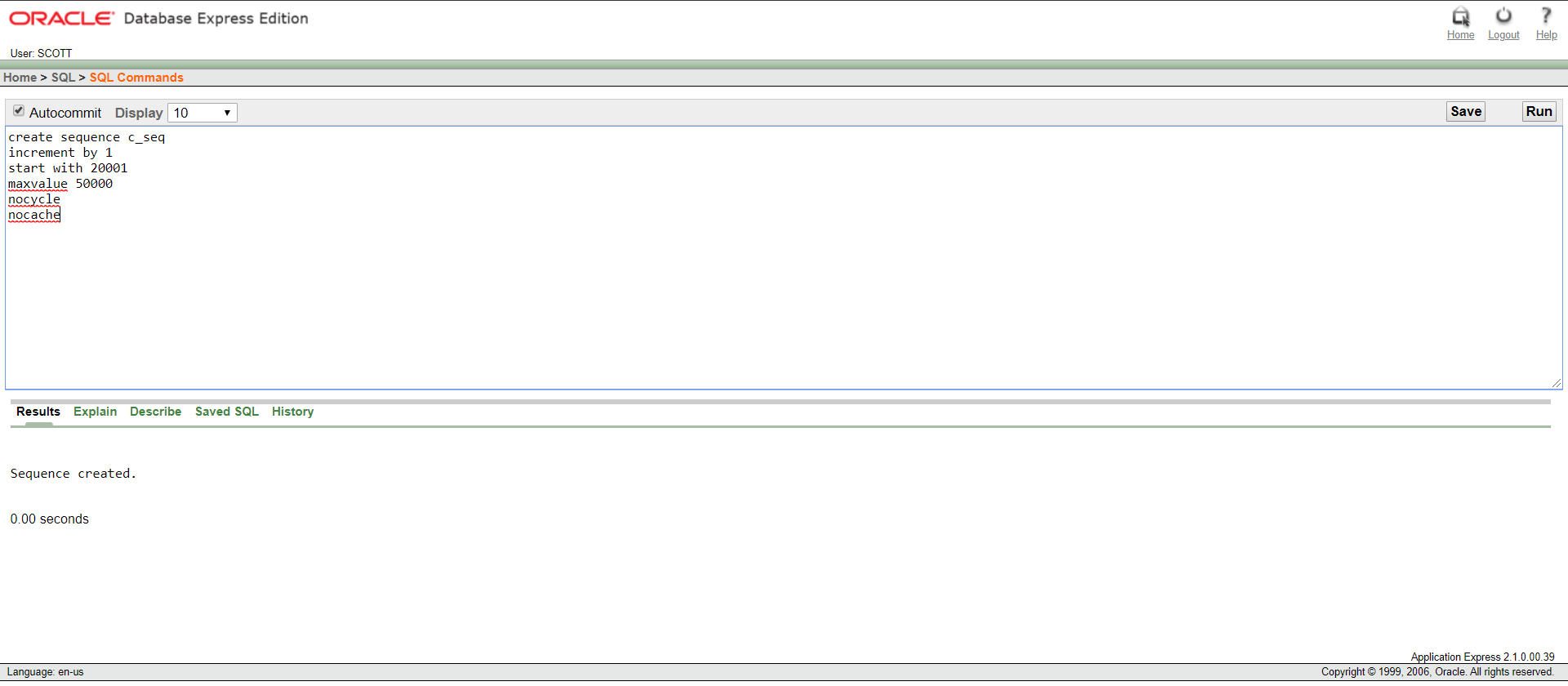
Constraints



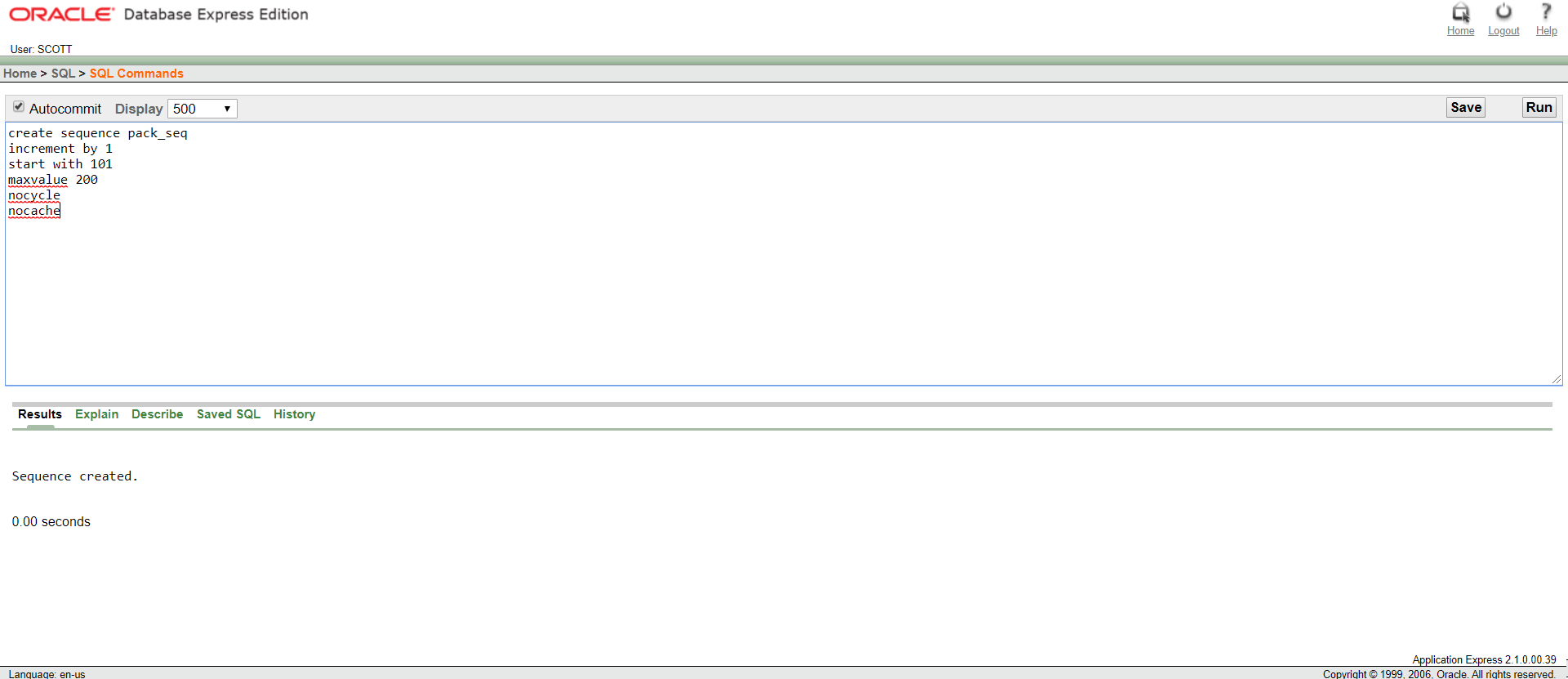
SEQUENECE



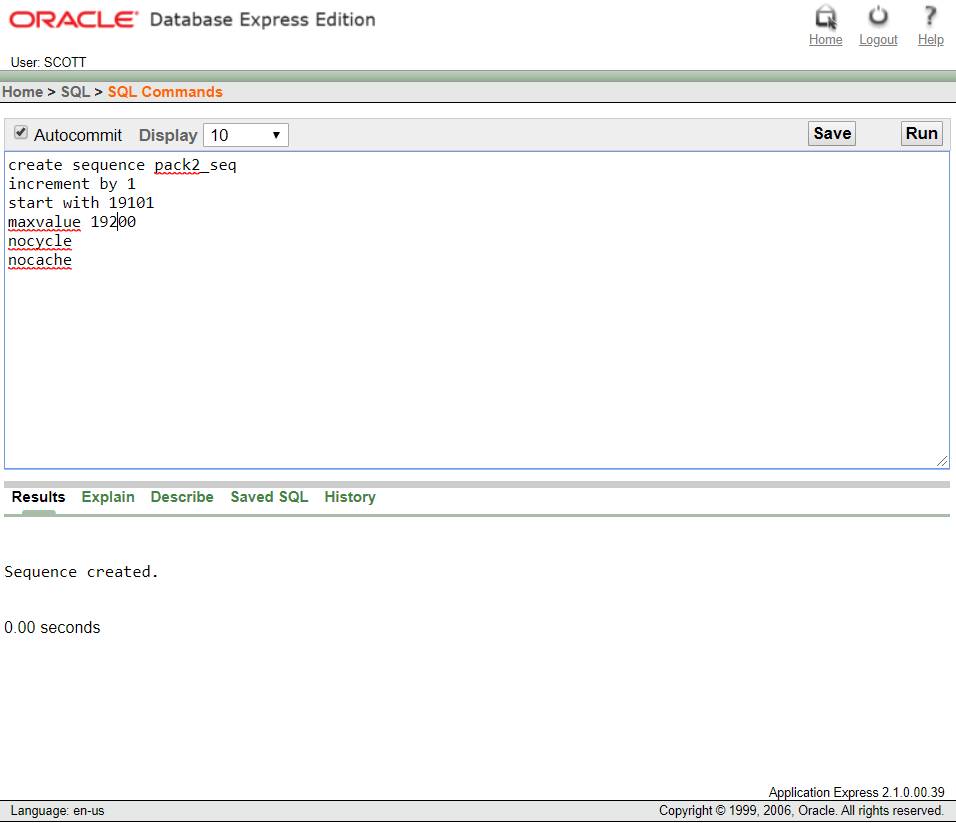
Sequence for TRAVEL\_AGENCY



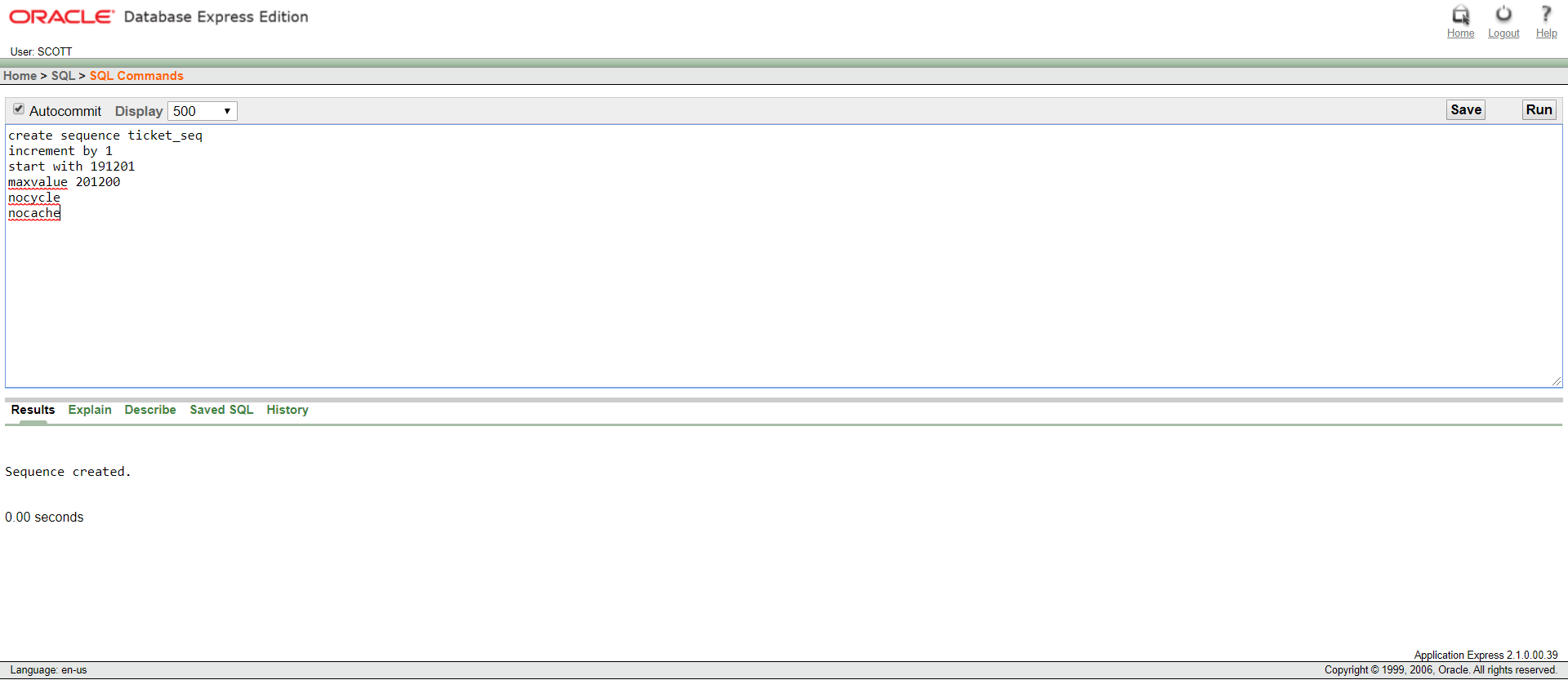
Sequence for CLIENT



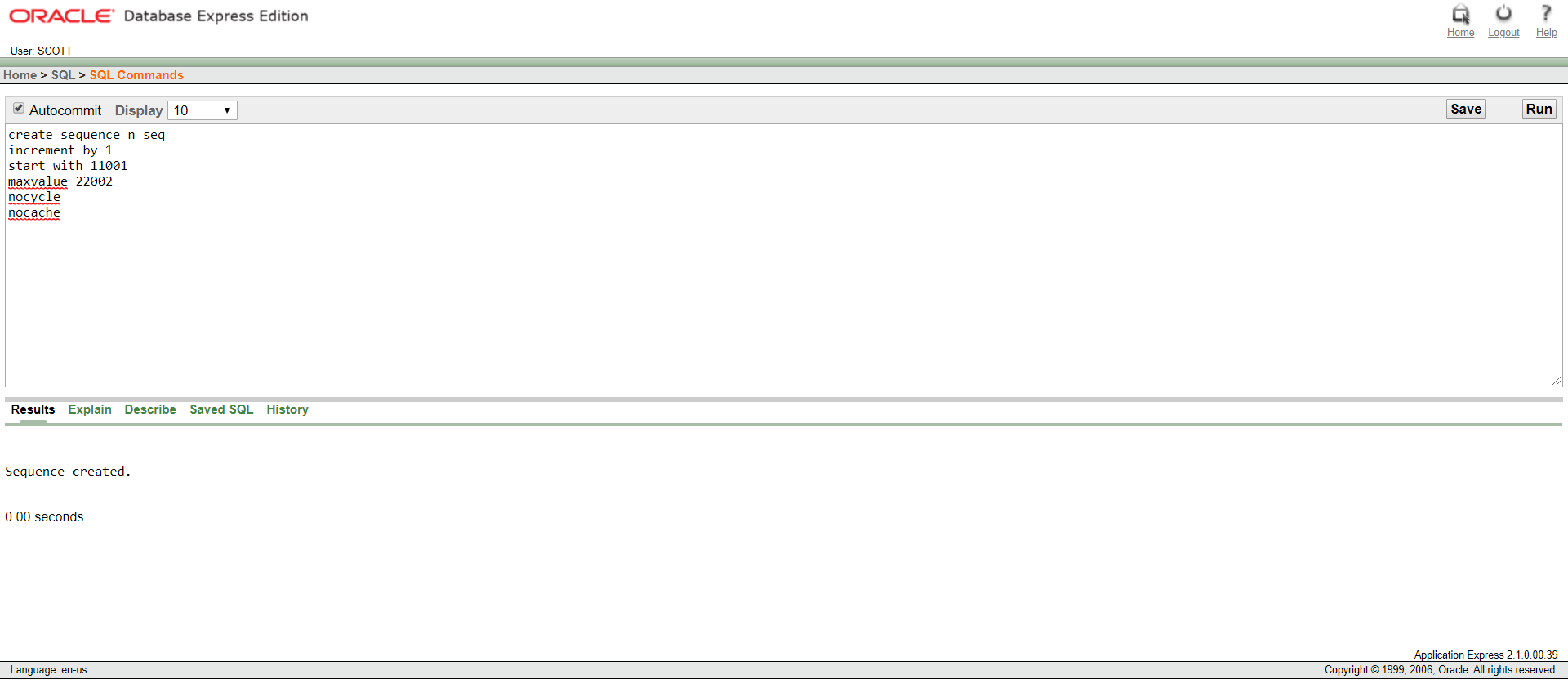
Sequence for PACKAGE



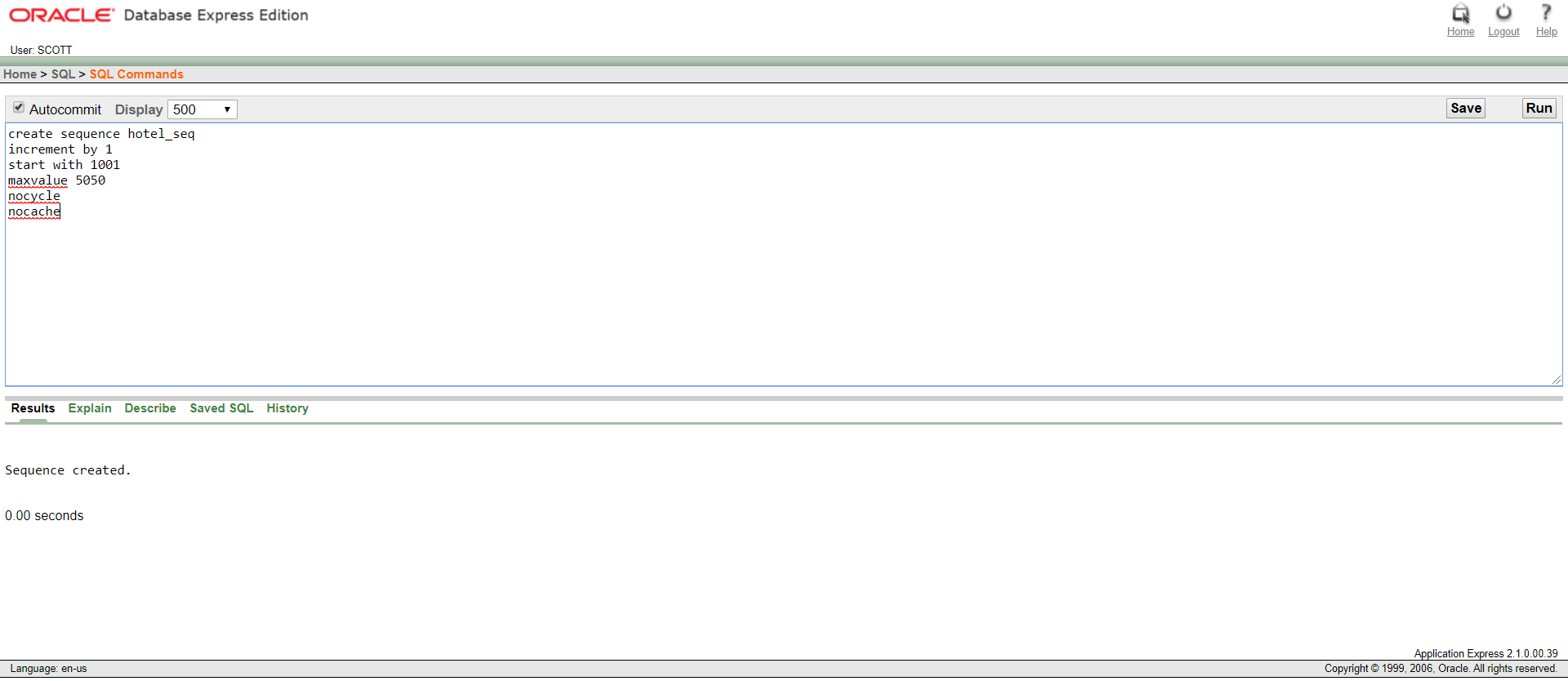
Sequence for PACKAGE\_2



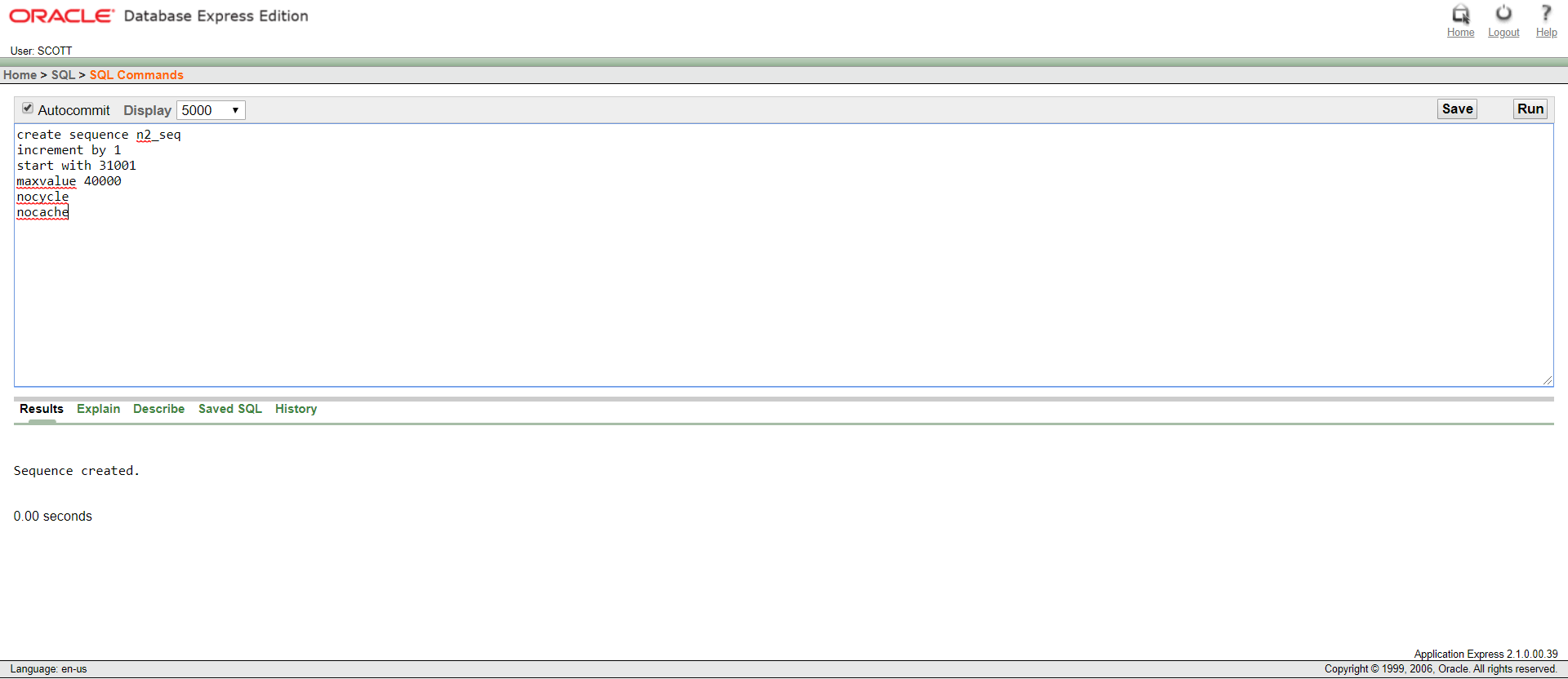
Sequence for TICKET



Sequence for NEW\_TABLE\_1



Sequence for HOTEL



Sequence for NEW\_TABLE\_2