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# DBMS LABORATORY WITH MINI PROJECT

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2017-2018)

## SEMESTER – V

Subject Code: **17CSL58**

IA Marks: **40**

Exam Marks: **60**

Exam Hours: **03**

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### Program - 1

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Consider the schema for Movie Database:

**ACTOR(Act\_id, Act\_Name, Act\_Gender)**

**DIRECTOR(Dir\_id, Dir\_Name, Dir\_Phone)**

**MOVIES(Mov\_id, Mov\_Title, Mov\_Year, Mov\_Lang, Dir\_id)**

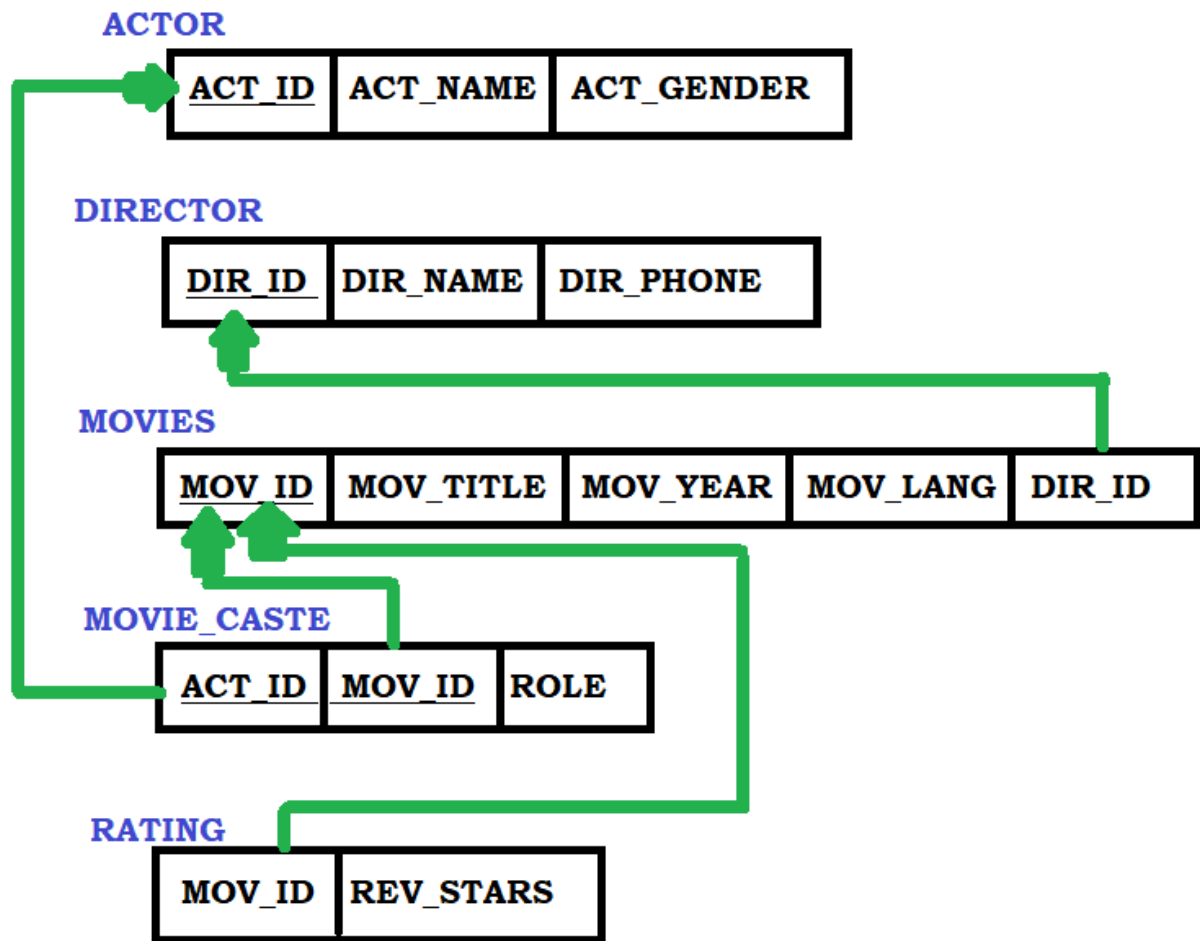
**MOVIE\_CAST(Act\_id, Mov\_id, Role)**

**RATING(Mov\_id, Rev\_Stars)**

Write SQL queries to

- 1. List the titles of all movies directed by 'Hitchcock'.**
- 2. Find the movie names where one or more actors acted in two or more movies.**
- 3. List all actors who acted in a movie before 2000 and also in a movie after 2015  
(use JOIN operation).**
- 4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result  
by movie title.**
- 5. Update rating of all movies directed by 'Steven Spielberg' to 5.**

SCHEMA DIAGRAM:



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## STEPS TO OPEN THE ORACLE DATABASE – 10G EXPRESS EDITION

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Step 1: Open the Browser (Preferred Chrome).

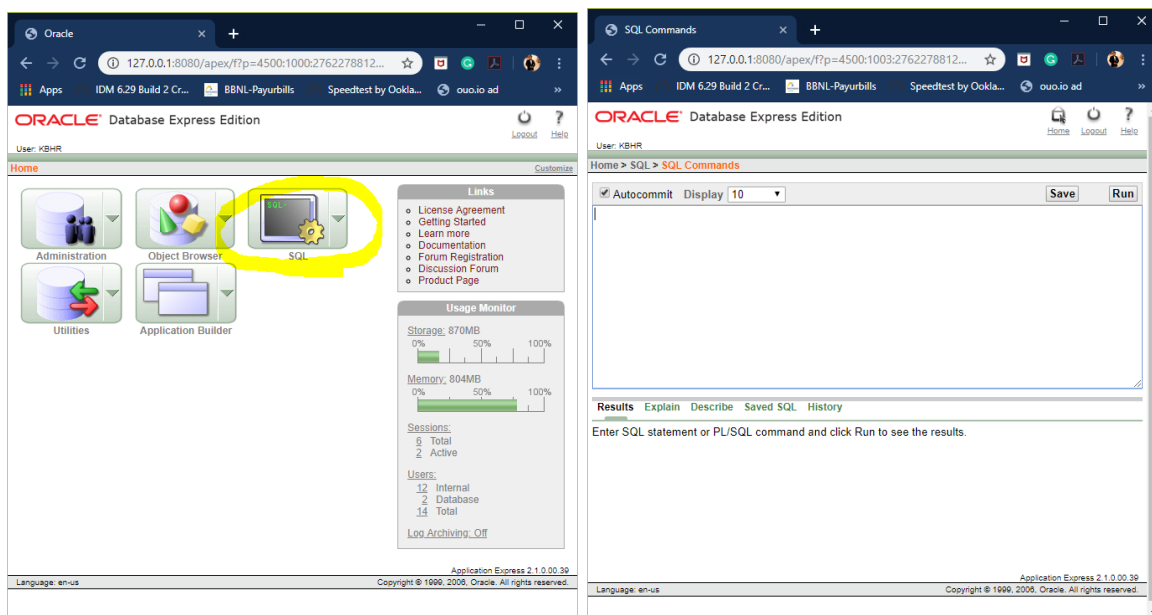
Step 2: <http://127.0.0.1:8080/> Enter the link on the browser.

Step 3: login with your id and password (finding difficulty in login in go to the link to know in-depth details

[https://hemanthrajhemu.github.io/FutureVisionBIE/WP/5CSE/DBMS\\_LAB\\_INFO.html](https://hemanthrajhemu.github.io/FutureVisionBIE/WP/5CSE/DBMS_LAB_INFO.html)

(Note Username is the system by default & Password is the passkey you entered in the installation)

Step 4: Now click on SQL->SQL Commands. This is the place where we execute the SQL Commands.



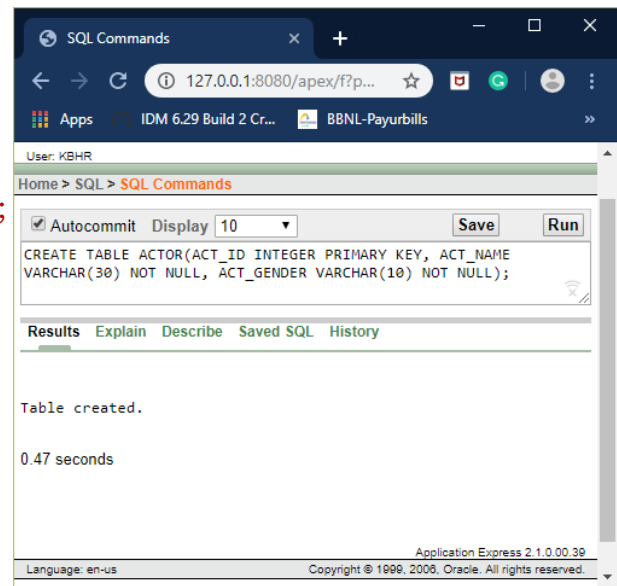
Step 5: you are in SQL Command Now you can Create table, create view, Run Queries here & lot more.

## Create Table: (Follow the Schema Diagram in Creating the Data Base)

### 1. Create Table for ACTOR

```
CREATE TABLE ACTOR(
ACT_ID INTEGER PRIMARY KEY,
ACT_NAME VARCHAR(30) NOT NULL,
ACT_GENDER VARCHAR(10) NOT NULL);
```

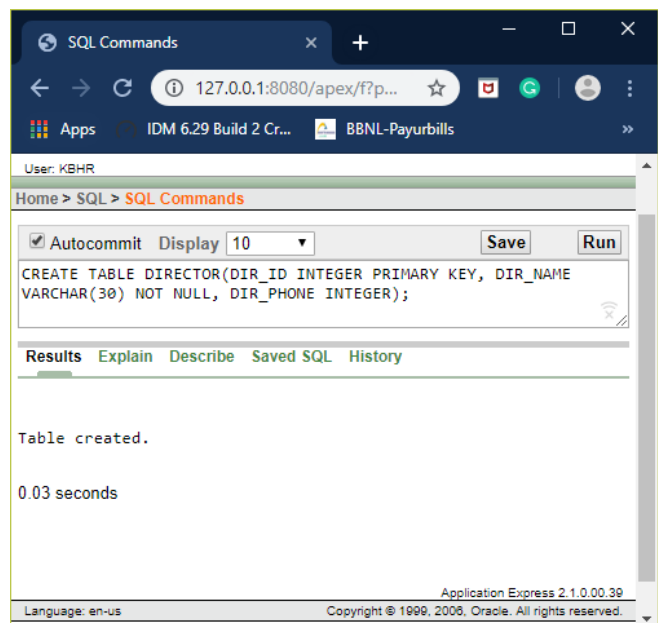
NOW RUN.



### 2. Create Table for DIRECTOR

```
CREATE TABLE DIRECTOR(
DIR_ID INTEGER PRIMARY KEY,
DIR_NAME VARCHAR(30) NOT NULL,
DIR_PHONE INTEGER);
```

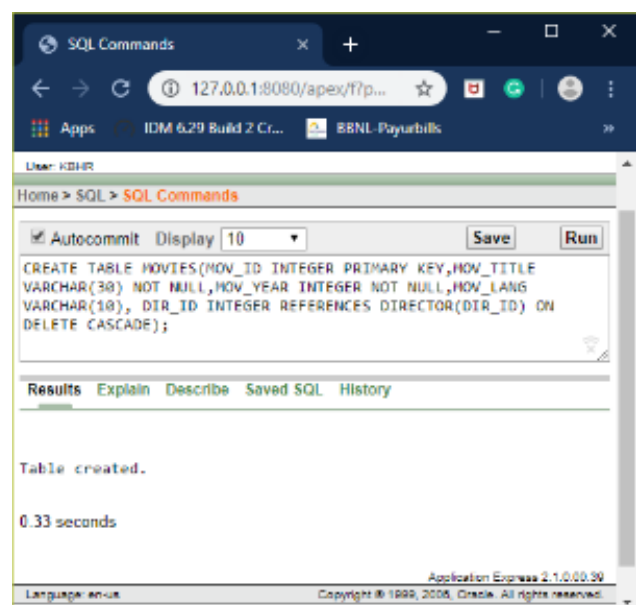
NOW RUN.



### 3. Create Table for MOVIES

```
CREATE TABLE MOVIES(
MOV_ID INTEGER PRIMARY KEY,
MOV_TITLE VARCHAR(30) NOT NULL,
MOV_YEAR INTEGER NOT NULL,
MOV_LANG VARCHAR(10),
DIR_ID INTEGER REFERENCES DIRECTOR(DIR_ID)
ON DELETE CASCADE);
```

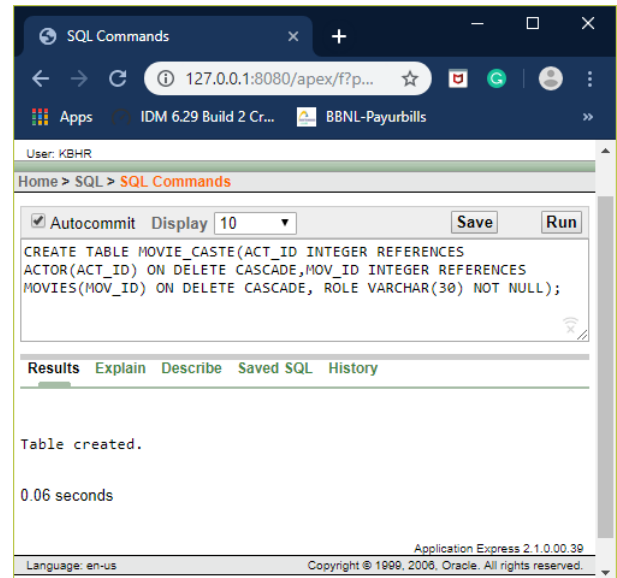
NOW RUN.



#### 4. Create Table for MOVIE\_CASTE

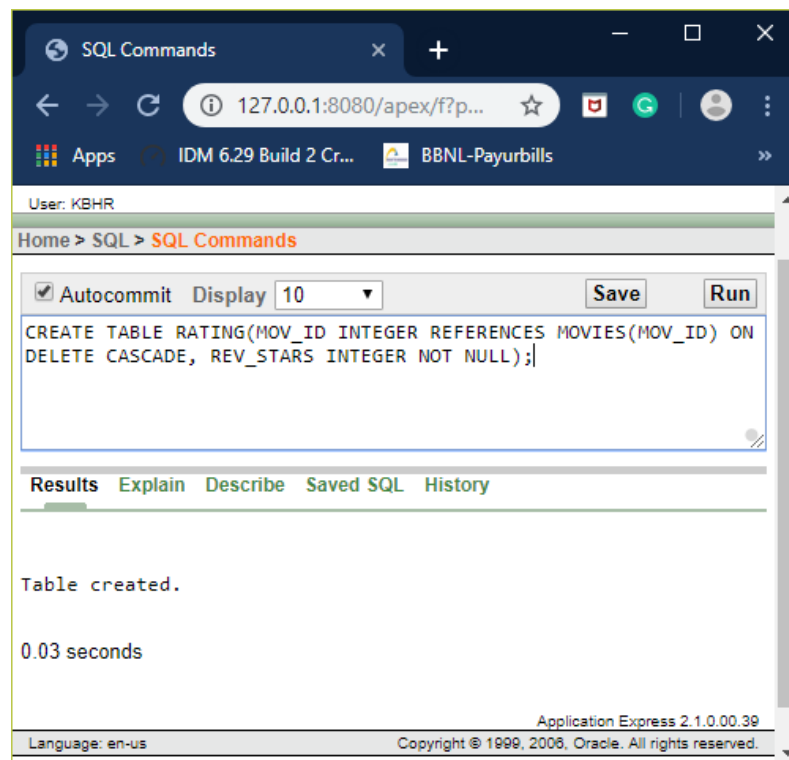
```
CREATE TABLE MOVIE_CASTE(  
ACT_ID INTEGER REFERENCES  
ACTOR(ACT_ID)  
ON DELETE CASCADE,  
MOV_ID INTEGER REFERENCES  
MOVIES(MOV_ID)  
ON DELETE CASCADE,  
ROLE VARCHAR(30) NOT NULL);
```

NOW RUN.



#### 5. Create Table for RATING

```
CREATE TABLE RATING(  
MOV_ID INTEGER REFERENCES MOVIES(MOV_ID) ON DELETE CASCADE,  
REV_STARS INTEGER NOT NULL);
```



---

## TABLE DESCRIPTION

---

### 1. DESC ACTOR;

The screenshot shows the SQL Developer interface with the command 'DESC ACTOR;' entered in the SQL Commands window. The 'Describe' tab is selected, displaying the following table description:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ACTOR	ACT_ID	Number	-	-	0	1	-	-	-
	ACT_NAME	Varchar2	30	-	-	-	-	-	-
	ACT_GENDER	Varchar2	10	-	-	-	-	-	-
									1 - 3

Application Express 2.1.0.00.39  
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### 2. DESC DIRECTOR;

The screenshot shows the SQL Developer interface with the command 'DESC DIRECTOR;' entered in the SQL Commands window. The 'Describe' tab is selected, displaying the following table description:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DIRECTOR	DIR_ID	Number	-	-	0	1	-	-	-
	DIR_NAME	Varchar2	30	-	-	-	-	-	-
	DIR_PHONE	Number	-	-	0	-	✓	-	-
									1 - 3

Application Express 2.1.0.00.39  
Copyright © 1999, 2008, Oracle. All rights reserved.

### 3. DESC MOVIES;

The screenshot shows a web browser window with the URL `127.0.0.1:8080/apex/f?p=4500:1003:2094894013792311::NO::`. The user is logged in as KBHR. The SQL command `DESC MOVIES;` has been executed, and the results are displayed in a table format.

Object Type TABLE Object MOVIES

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MOVIES	MOV_ID	Number	-	-	0	1	-	-	-
	MOV_TITLE	Varchar2	30	-	-	-	-	-	-
	MOV_YEAR	Number	-	-	0	-	-	-	-
	MOV_LANG	Varchar2	10	-	-	-	✓	-	-
	DIR_ID	Number	-	-	0	-	✓	-	-

Application Express 2.1.0.0.39

### 4. DESC MOVIE\_CASTE;

The screenshot shows a web browser window with the URL `127.0.0.1:8080/apex/f?p=4500:1003:2094894013792311::NO::`. The user is logged in as KBHR. The SQL command `DESC MOVIE_CASTE;` has been executed, and the results are displayed in a table format.

Object Type TABLE Object MOVIE\_CASTE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MOVIE_CASTE	ACT_ID	Number	-	-	0	-	✓	-	-
	MOV_ID	Number	-	-	0	-	✓	-	-
	ROLE	Varchar2	30	-	-	-	-	-	-

Application Express 2.1.0.0.39  
Language: en-us  
Copyright © 1999, 2006, Oracle. All rights reserved.



### 5. DESC RATING;

The screenshot shows the Oracle SQL Developer interface. The SQL Command window contains the text 'DESC RATING;'. The Results pane displays the following table structure:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
RATING	MOV_ID	Number	-	-	0	-	✓	-	-
	REV_STARS	Number	-	-	0	-	-	-	-

At the bottom right of the interface, it says 'Application Express 2.1.0.00.39' and 'Copyright © 1999, 2006, Oracle. All rights reserved.'

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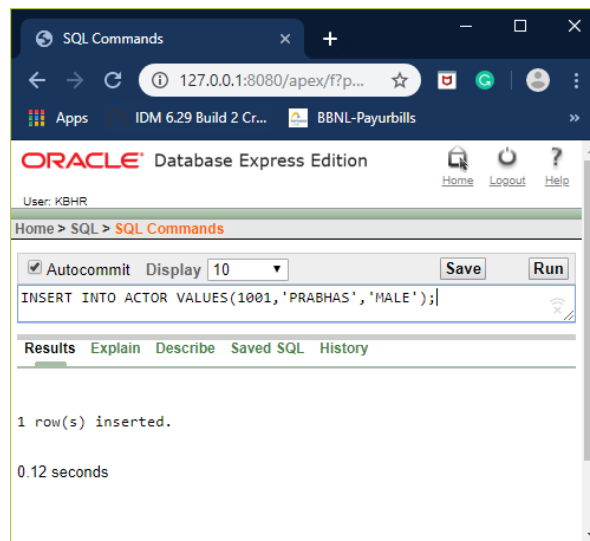
## INSERTION OF VALUES TO TABLE

---

### 1. VALUES INTO ACTOR

**INSERT INTO ACTOR VALUES(<ACT\_ID> , <ACT\_NAME>, <ACT\_GENDER> );**

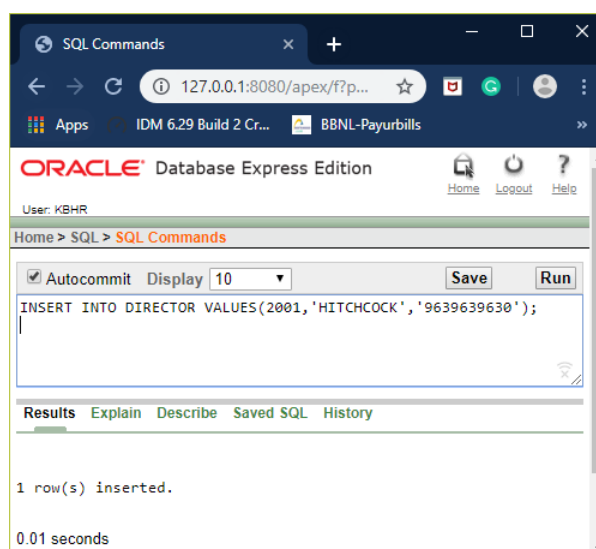
```
INSERT INTO ACTOR VALUES(1001,'PRABHAS','MALE');  
INSERT INTO ACTOR VALUES(1002,'RAJKUMAR','MALE');  
INSERT INTO ACTOR VALUES(1003,'SNEHA','FEMALE');  
INSERT INTO ACTOR VALUES(1004,'AISHWARAYA','FEMALE');  
INSERT INTO ACTOR VALUES(1005,'RITHIK','MALE');
```



### 2. VALUES INTO DIRECTOR

**INSERT INTO DIRECTOR VALUES(<DIR\_ID>,<DIR\_NAME>,<DIR\_PHONE>);**

```
INSERT INTO DIRECTOR VALUES(2001,'HITCHCOCK','9639639630');  
INSERT INTO DIRECTOR VALUES(2002,'STEVEN SPIELBERG','8887779991');  
INSERT INTO DIRECTOR VALUES(2003,'RAJMOULI','9995556662');  
INSERT INTO DIRECTOR VALUES(2004,'ATLEE','9874569874');  
INSERT INTO DIRECTOR VALUES(2005,'HEMANTH','9874555780');
```

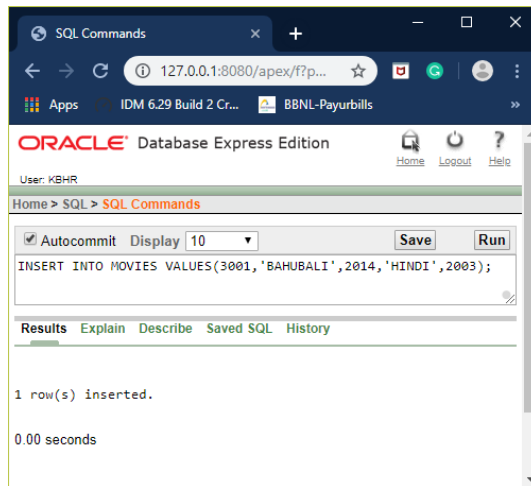


### 3. VALUES INTO MOVIES

#### INSERT INTO MOVIES

**VALUES(<MOV\_ID>,<MOV\_TITLE>,<MOV\_YEAR>,<MOV\_LANG>,<DIR\_ID>);**

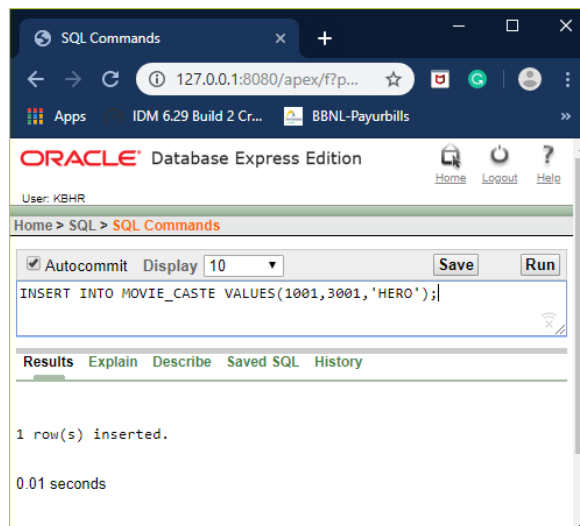
```
INSERT INTO MOVIES VALUES(3001,'BAHUBALI',2014,'HINDI',2003);
INSERT INTO MOVIES VALUES(3002,'BAHUBALI',2014,'TELUGU',2003);
INSERT INTO MOVIES VALUES(3003,'BAHUBALI 2',2016,'HINDI',2003);
INSERT INTO MOVIES VALUES(3004,'BAHUBALI 2',2016,'TELUGU',2003);
INSERT INTO MOVIES VALUES(3005,'BABY DRIVER ',1999,'ENGLISH',2001);
INSERT INTO MOVIES VALUES(3006,'TERMINATOR',2000,'ENGLISH',2002);
```



### 4. VALUES INTO MOVIE\_CASTE

**INSERT INTO MOVIE\_CASTE VALUES(<ACT\_ID>,<MOV\_ID>,<ROLE>);**

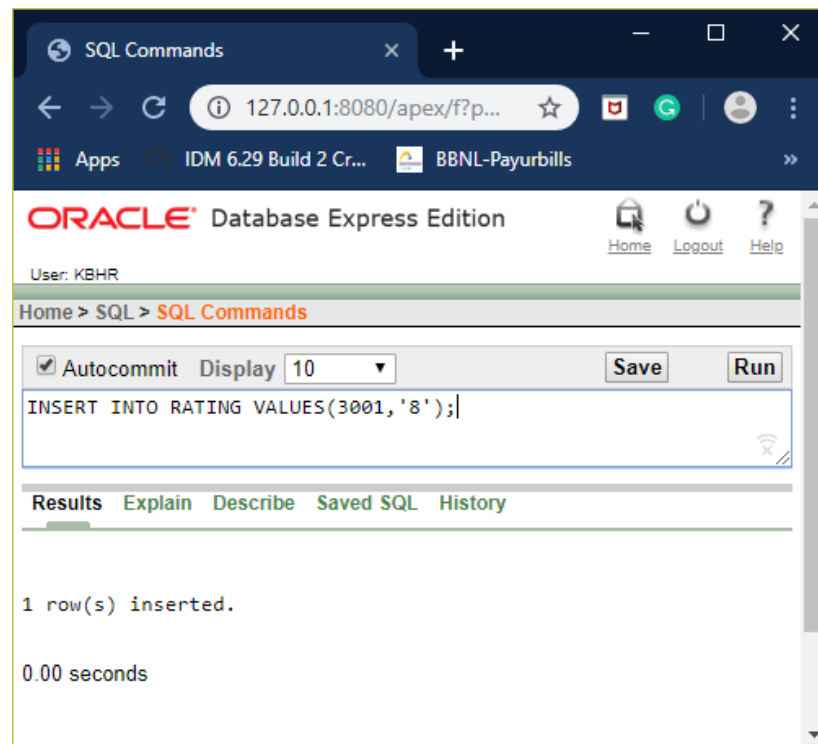
```
INSERT INTO MOVIE_CASTE VALUES(1001,3001,'HERO');
INSERT INTO MOVIE_CASTE VALUES(1001,3002,'HERO');
INSERT INTO MOVIE_CASTE VALUES(1001,3003,'HERO');
INSERT INTO MOVIE_CASTE VALUES(1001,3004,'HERO');
INSERT INTO MOVIE_CASTE VALUES(1003,3001,'HEROINE');
INSERT INTO MOVIE_CASTE VALUES(1003,3002,'HEROINE');
INSERT INTO MOVIE_CASTE VALUES(1004,3001,'HEROINE');
INSERT INTO MOVIE_CASTE VALUES(1004,3002,'HEROINE');
INSERT INTO MOVIE_CASTE VALUES(1001,3005,'HERO');
INSERT INTO MOVIE_CASTE VALUES(1001,3006,'HERO');
```



## 5. VALUES INTO RATING

**INSERT INTO RATING VALUES(<MOV\_ID>,<REV\_STARS>);**

```
INSERT INTO RATING VALUES(3001,'8');  
INSERT INTO RATING VALUES(3002,'7');  
INSERT INTO RATING VALUES(3003,'6');  
INSERT INTO RATING VALUES(3004,'7');  
INSERT INTO RATING VALUES(3005,'4');  
INSERT INTO RATING VALUES(3006,'2');
```



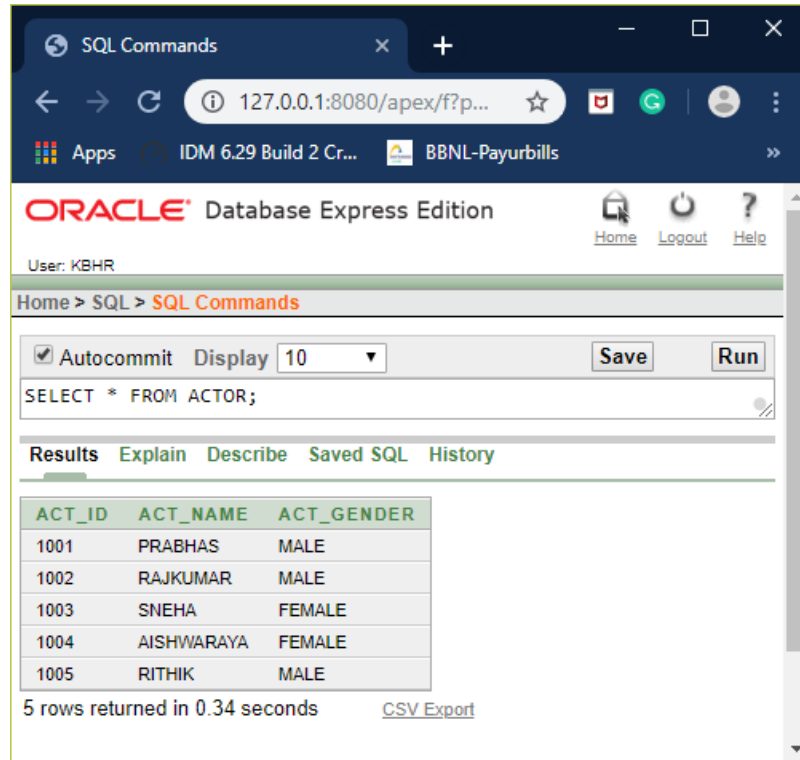
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## RETRIEVAL OF INSERTED VALUES

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### 1. ACTORS:

**SELECT \* FROM ACTOR;**



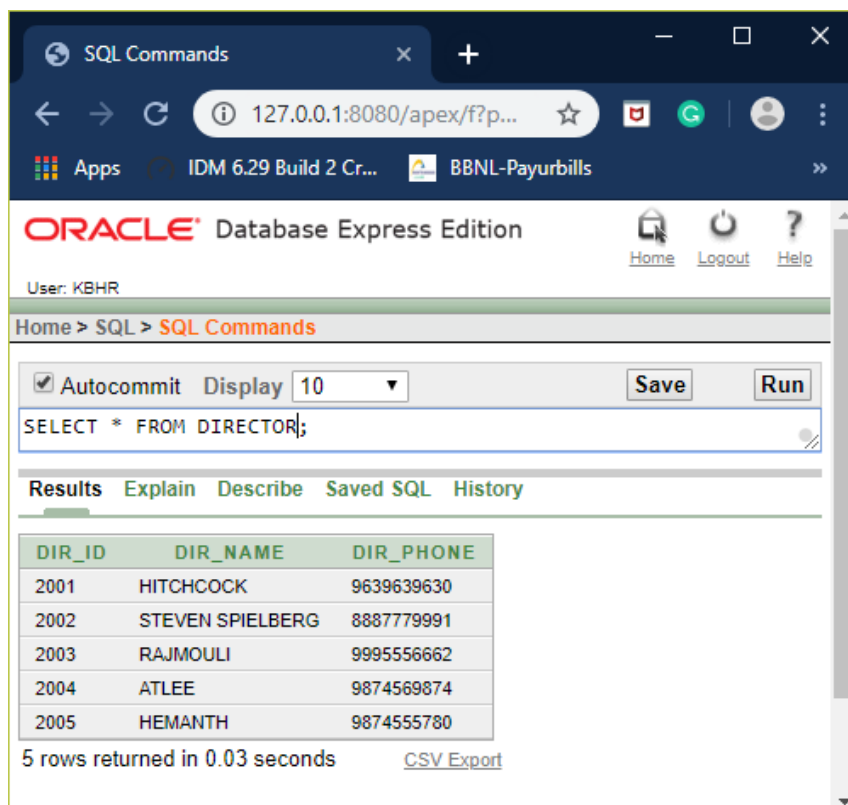
The screenshot shows the Oracle Database Express Edition interface. The SQL command 'SELECT \* FROM ACTOR;' has been entered and executed. The results are displayed in a table with 5 rows and 3 columns: ACT\_ID, ACT\_NAME, and ACT\_GENDER.

ACT_ID	ACT_NAME	ACT_GENDER
1001	PRABHAS	MALE
1002	RAJKUMAR	MALE
1003	SNEHA	FEMALE
1004	AISHWARAYA	FEMALE
1005	RITHIK	MALE

5 rows returned in 0.34 seconds [CSV Export](#)

### 2. DIRECTOR:

**SELECT \* FROM DIRECTOR;**



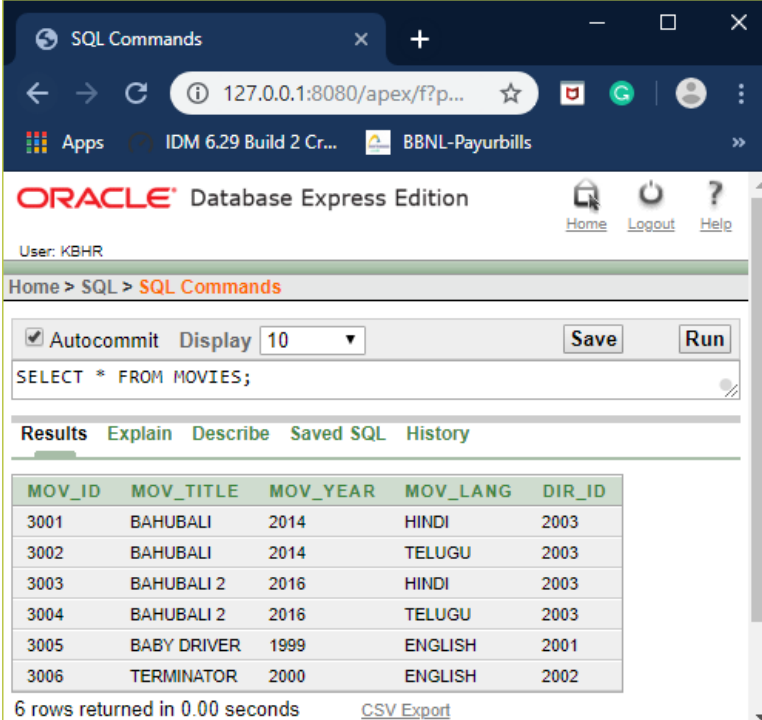
The screenshot shows the Oracle Database Express Edition interface. The SQL command 'SELECT \* FROM DIRECTOR;' has been entered and executed. The results are displayed in a table with 5 rows and 3 columns: DIR\_ID, DIR\_NAME, and DIR\_PHONE.

DIR_ID	DIR_NAME	DIR_PHONE
2001	HITCHCOCK	9639639630
2002	STEVEN SPIELBERG	8887779991
2003	RAJMOULI	9995556662
2004	ATLEE	9874569874
2005	HEMANTH	9874555780

5 rows returned in 0.03 seconds [CSV Export](#)

### 3. MOVIES:

`SELECT * FROM MOVIES;`



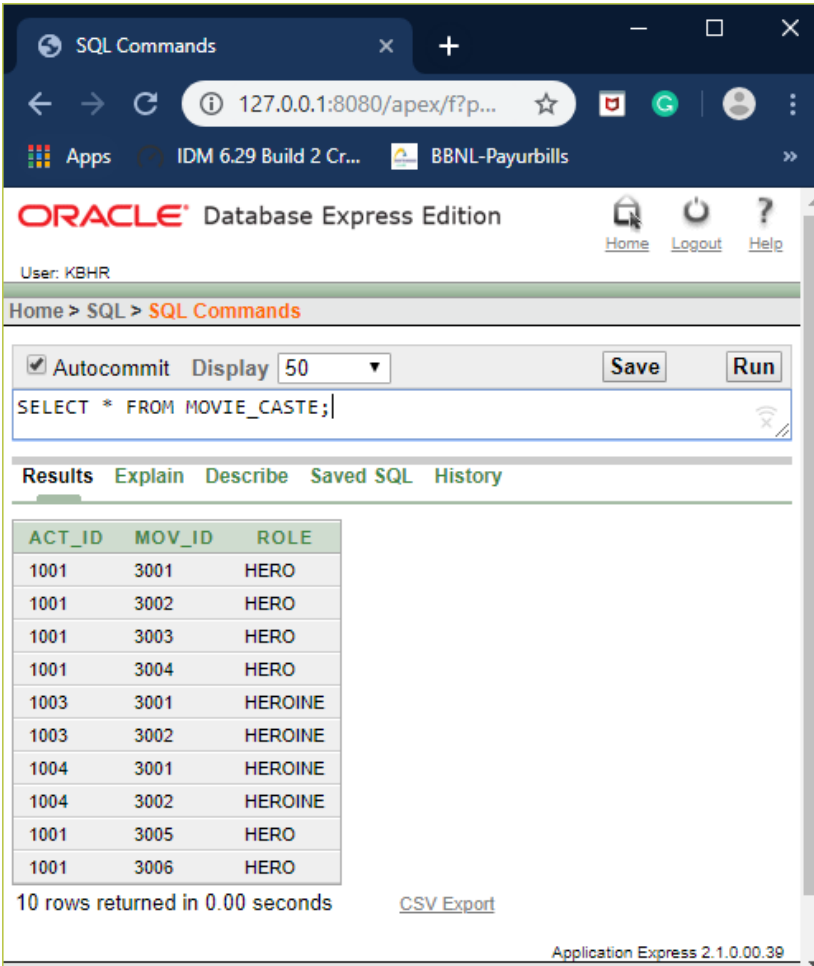
The screenshot shows the Oracle Database Express Edition interface. The SQL command `SELECT * FROM MOVIES;` has been entered and executed. The results are displayed in a table with 6 rows. The columns are MOV\_ID, MOV\_TITLE, MOV\_YEAR, MOV\_LANG, and DIR\_ID.

MOV_ID	MOV_TITLE	MOV_YEAR	MOV_LANG	DIR_ID
3001	BAHUBALI	2014	HINDI	2003
3002	BAHUBALI	2014	TELUGU	2003
3003	BAHUBALI 2	2016	HINDI	2003
3004	BAHUBALI 2	2016	TELUGU	2003
3005	BABY DRIVER	1999	ENGLISH	2001
3006	TERMINATOR	2000	ENGLISH	2002

6 rows returned in 0.00 seconds [CSV Export](#)

### 4. MOVIE\_CASTE:

`SELECT * FROM MOVIE_CASTE;`



The screenshot shows the Oracle Database Express Edition interface. The SQL command `SELECT * FROM MOVIE_CASTE;` has been entered and executed. The results are displayed in a table with 10 rows. The columns are ACT\_ID, MOV\_ID, and ROLE.

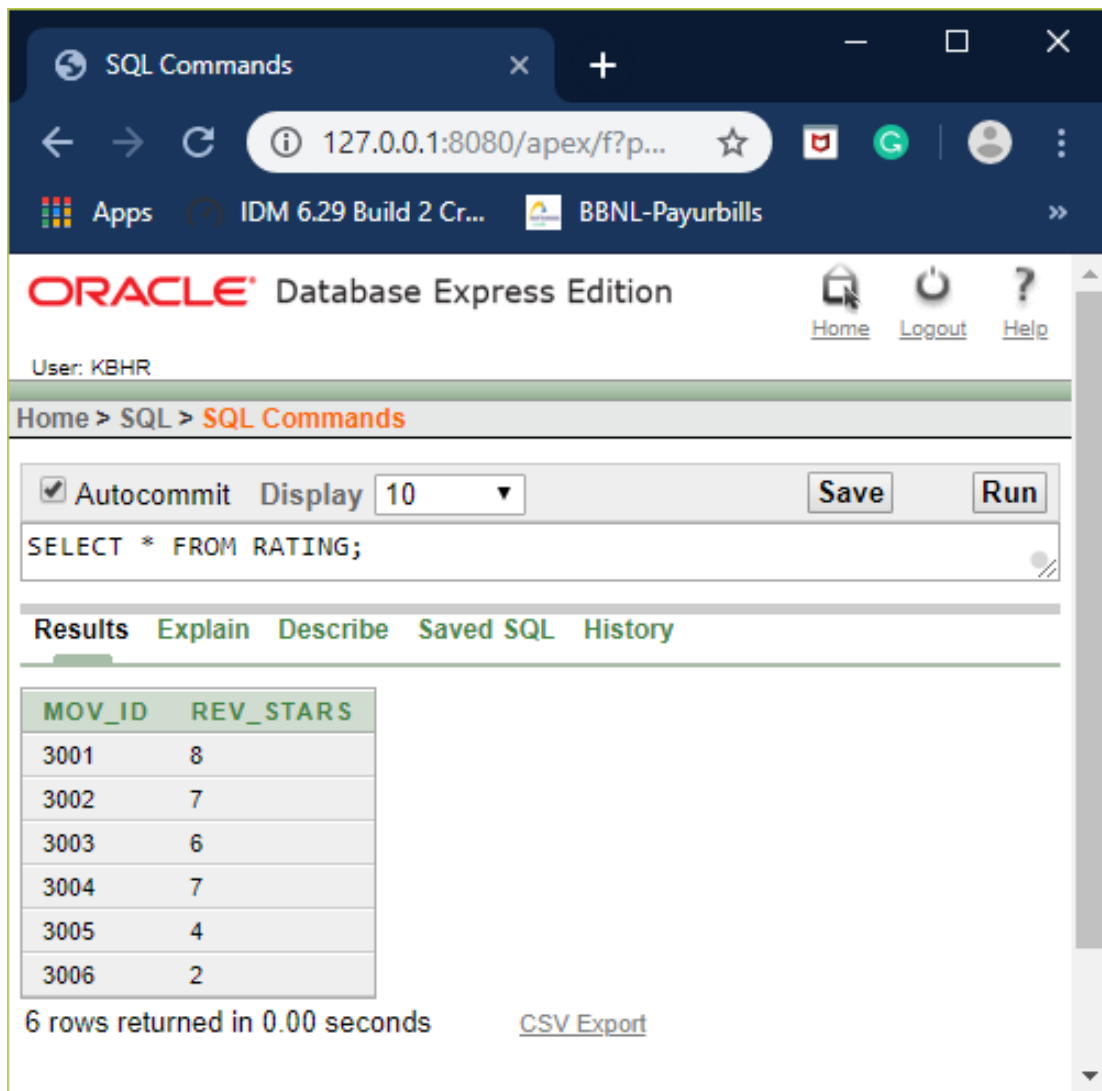
ACT_ID	MOV_ID	ROLE
1001	3001	HERO
1001	3002	HERO
1001	3003	HERO
1001	3004	HERO
1003	3001	HEROINE
1003	3002	HEROINE
1004	3001	HEROINE
1004	3002	HEROINE
1001	3005	HERO
1001	3006	HERO

10 rows returned in 0.00 seconds [CSV Export](#)

Application Express 2.1.0.00.39  
Language: en-us Copyright © 1999, 2006, Oracle. All rights reserved.

## 5. RATING:

SELECT \* FROM RATING;



The screenshot shows the Oracle Database Express Edition interface. The browser address bar displays the URL `127.0.0.1:8080/apex/f?p...`. The user is logged in as `KBHR`. The breadcrumb navigation shows `Home > SQL > SQL Commands`. The SQL command `SELECT * FROM RATING;` is entered in the command area. The results are displayed in a table with two columns: `MOV_ID` and `REV_STARS`. The results show 6 rows of data. Below the table, it indicates `6 rows returned in 0.00 seconds` and provides a `CSV Export` link.

MOV_ID	REV_STARS
3001	8
3002	7
3003	6
3004	7
3005	4
3006	2

## QUERIES

### 1. List the titles of all movies directed by 'Hitchcock'.

```
SELECT M.MOV_TITLE FROM MOVIES M,DIRECTOR D WHERE
D.DIR_NAME='HITCHCOCK' AND D.DIR_ID=M.DIR_ID;
```

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is: `SELECT M.MOV_TITLE FROM MOVIES M,DIRECTOR D WHERE D.DIR_NAME='HITCHCOCK' AND D.DIR_ID=M.DIR_ID;`. The result shows one row: `MOV_TITLE` with the value `BABY DRIVER`. The interface includes a navigation bar with 'Home', 'Logout', and 'Help' buttons, and a status bar at the bottom indicating 'Application Express 2.1.0.00.39' and 'Copyright © 1999, 2008, Oracle. All rights reserved.'

### 2. Find the movie names where one or more actors acted in two or more movies.

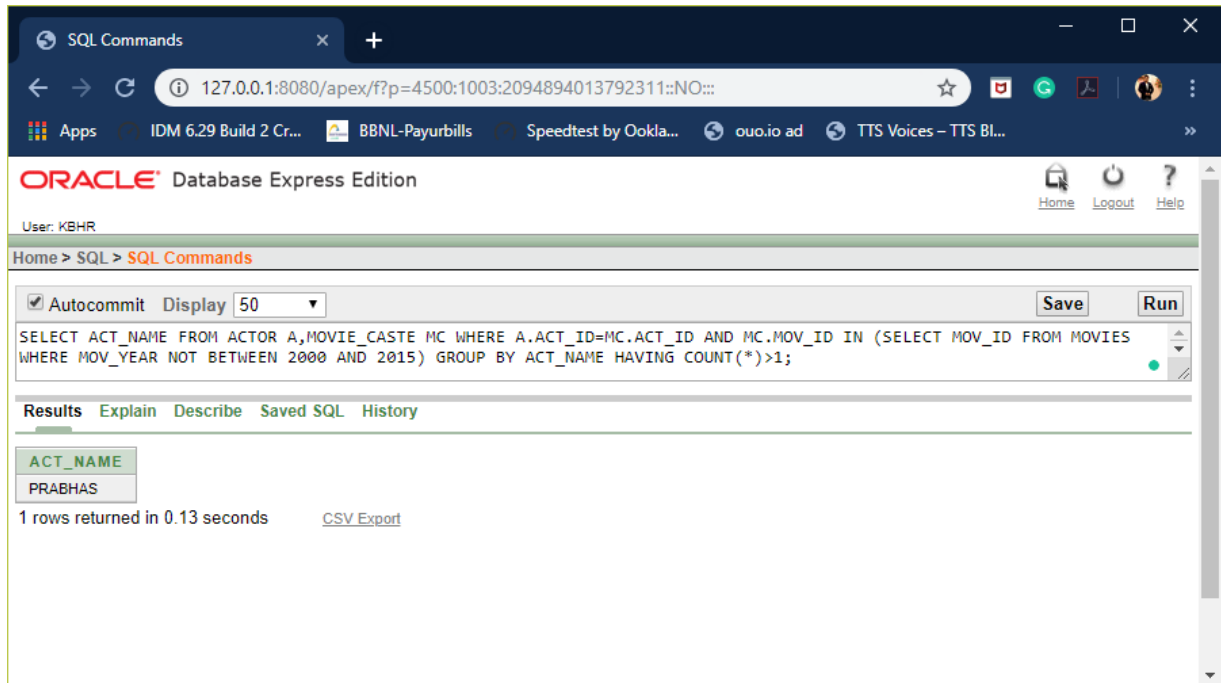
```
SELECT MOV_TITLE FROM MOVIES M,MOVIE_CASTE MC
WHERE M.MOV_ID=MC.MOV_ID AND ACT_ID IN
(SELECT ACT_ID FROM MOVIE_CASTE
GROUP BY ACT_ID HAVING COUNT(ACT_ID)>1)
GROUP BY MOV_TITLE HAVING COUNT(MOV_TITLE)>1;
```

The screenshot shows the Oracle Database Express Edition interface with a more complex SQL query: `SELECT MOV_TITLE FROM MOVIES M,MOVIE_CASTE MC WHERE M.MOV_ID=MC.MOV_ID AND ACT_ID IN (SELECT ACT_ID FROM MOVIE_CASTE GROUP BY ACT_ID HAVING COUNT(ACT_ID)>1) GROUP BY MOV_TITLE HAVING COUNT(MOV_TITLE)>1;`. The result shows two rows: `MOV_TITLE` with values `BAHUBALI` and `BAHUBALI 2`. The interface includes a navigation bar with 'Home', 'Logout', and 'Help' buttons, and a status bar at the bottom indicating 'Application Express 2.1.0.00.39' and 'Copyright © 1999, 2008, Oracle. All rights reserved.'



### 3. List all actors who acted in a movie before 2000 and also in a movie after 2015.

```
SELECT ACT_NAME FROM ACTOR A, MOVIE_CASTE MC WHERE
A.ACT_ID=MC.ACT_ID AND MC.MOV_ID IN (SELECT MOV_ID FROM MOVIES
WHERE MOV_YEAR NOT BETWEEN 2000 AND 2015) GROUP BY ACT_NAME
HAVING COUNT(*)>1;
```



The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
SELECT ACT_NAME FROM ACTOR A,MOVIE_CASTE MC WHERE A.ACT_ID=MC.ACT_ID AND MC.MOV_ID IN (SELECT MOV_ID FROM MOVIES
WHERE MOV_YEAR NOT BETWEEN 2000 AND 2015) GROUP BY ACT_NAME HAVING COUNT(*)>1;
```

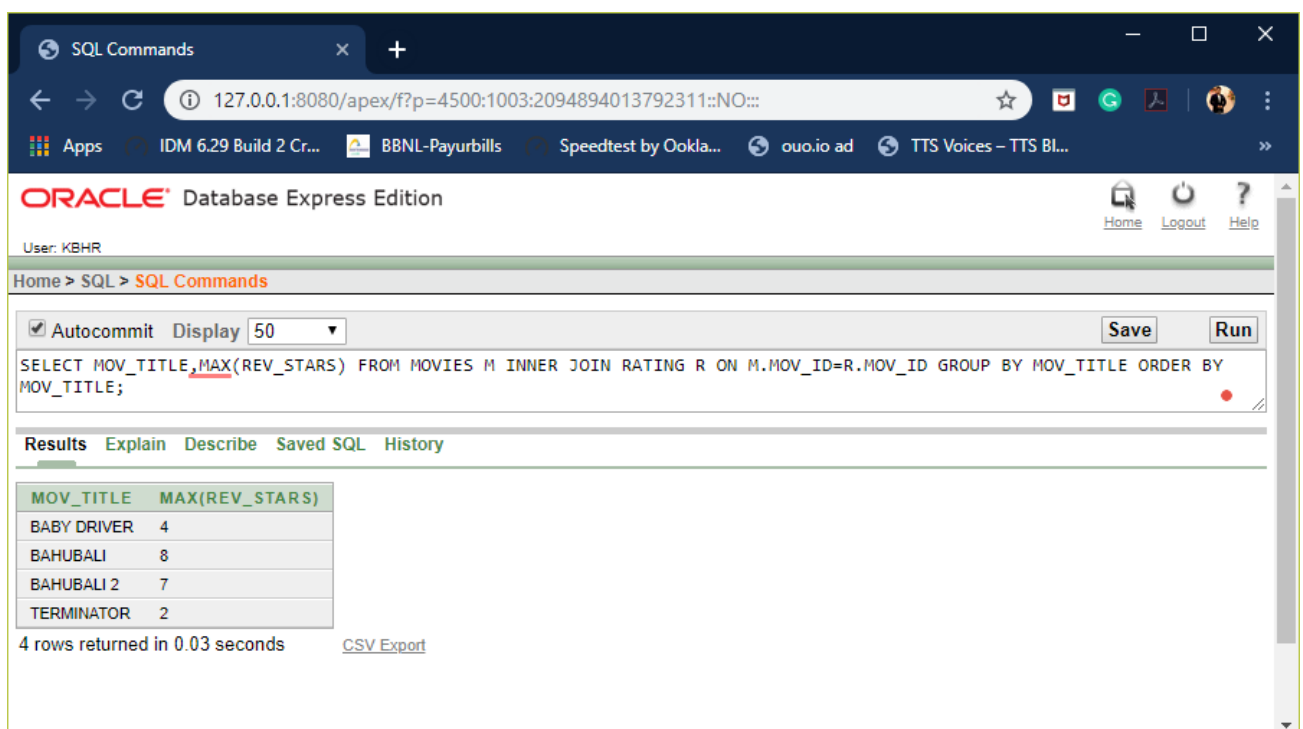
The results table shows one row:

ACT_NAME
PRABHAS

1 rows returned in 0.13 seconds

### 4. Find the title of movies and number of stars for each movie that has at least one rating and find the highest number of stars that movie received. Sort the result by movie title.

```
SELECT MOV_TITLE,MAX(REV_STARS) FROM MOVIES M INNER JOIN RATING R ON M.MOV_ID=R.MOV_ID GROUP BY MOV_TITLE ORDER BY MOV_TITLE;
```



The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
SELECT MOV_TITLE,MAX(REV_STARS) FROM MOVIES M INNER JOIN RATING R ON M.MOV_ID=R.MOV_ID GROUP BY MOV_TITLE ORDER BY MOV_TITLE;
```

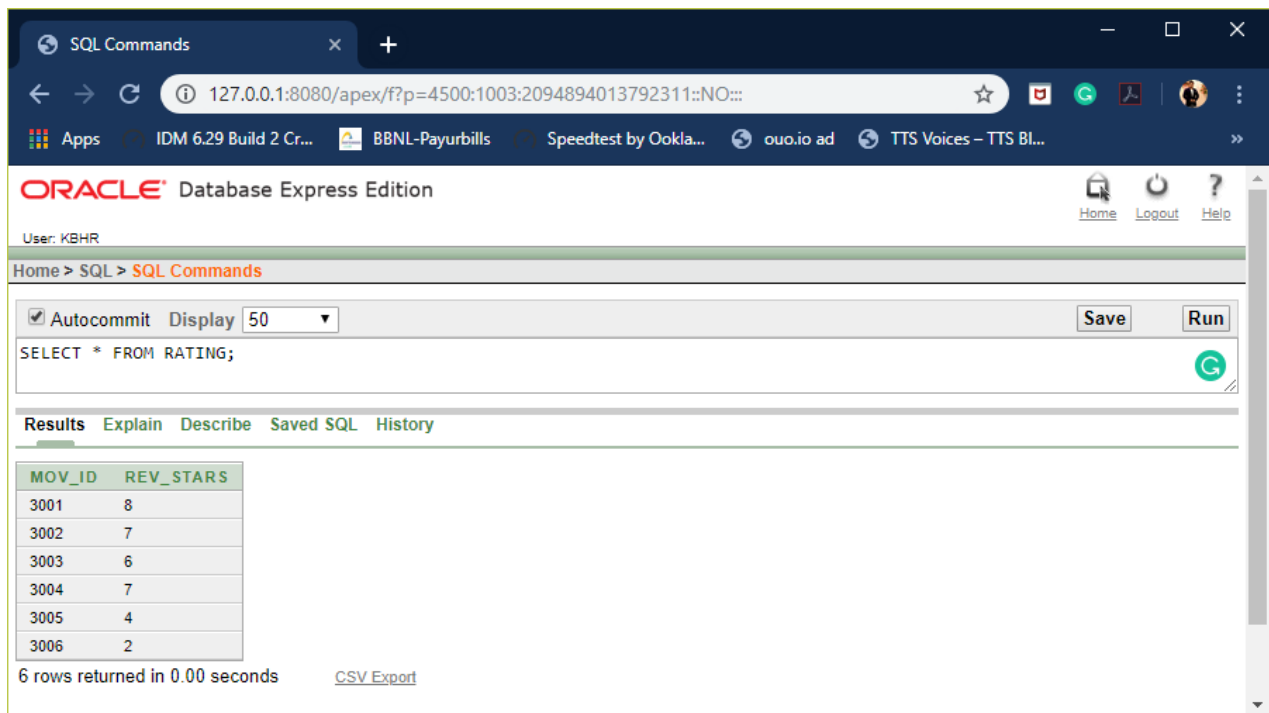
The results table shows four rows:

MOV_TITLE	MAX(REV_STARS)
BABY DRIVER	4
BAHUBALI	8
BAHUBALI 2	7
TERMINATOR	2

4 rows returned in 0.03 seconds

## 5. Update rating of all movies directed by 'Steven Spielberg' to 5.

```
SELECT * FROM RATING;
```

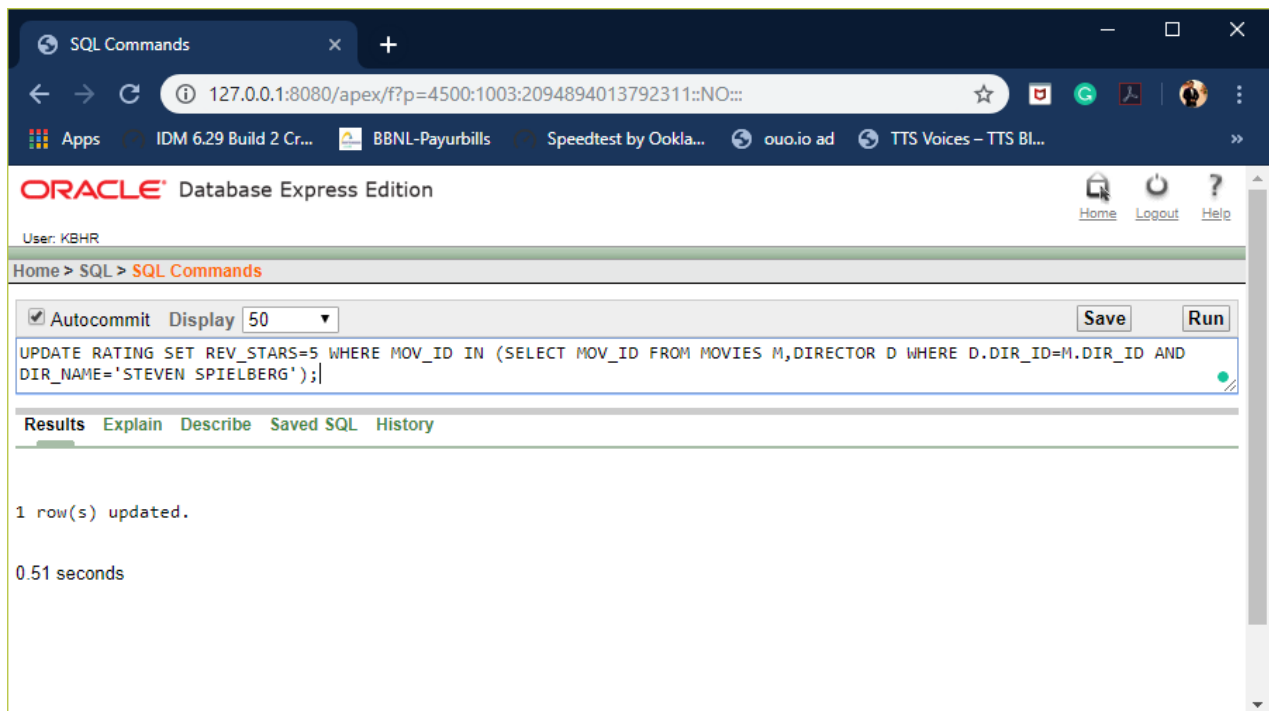


The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is `SELECT * FROM RATING;`. The results are displayed in a table with two columns: `MOV_ID` and `REV_STARS`. The results are as follows:

MOV_ID	REV_STARS
3001	8
3002	7
3003	6
3004	7
3005	4
3006	2

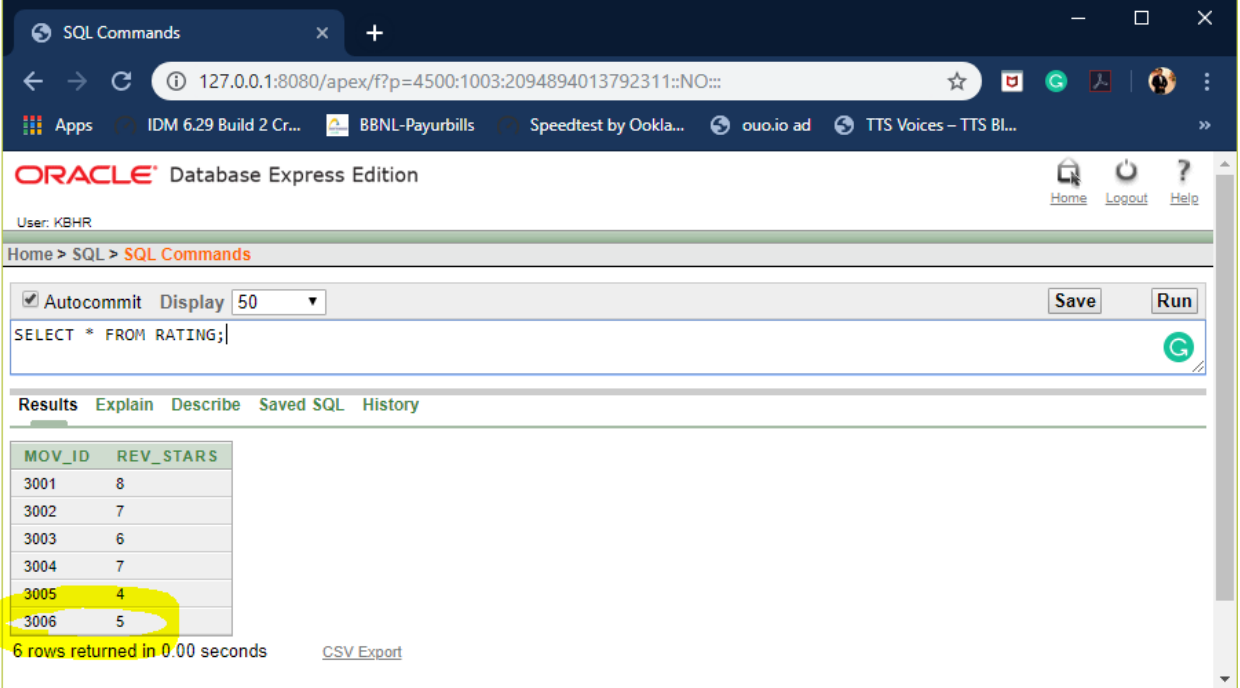
6 rows returned in 0.00 seconds

```
UPDATE RATING SET REV_STARS=5 WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES M,DIRECTOR D WHERE D.DIR_ID=M.DIR_ID AND DIR_NAME='STEVEN SPIELBERG');
```



The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is `UPDATE RATING SET REV_STARS=5 WHERE MOV_ID IN (SELECT MOV_ID FROM MOVIES M,DIRECTOR D WHERE D.DIR_ID=M.DIR_ID AND DIR_NAME='STEVEN SPIELBERG');`. The results are displayed as `1 row(s) updated.` and the execution time is `0.51 seconds`.

**SELECT \* FROM RATING;**



The screenshot shows the Oracle Database Express Edition interface. The SQL command 'SELECT \* FROM RATING;' has been entered and executed. The results are displayed in a table with two columns: MOV\_ID and REV\_STARS. The table contains 6 rows of data. The row with MOV\_ID 3005 and REV\_STARS 4 is highlighted with a yellow circle. Below the table, it indicates '6 rows returned in 0.00 seconds' and provides a 'CSV Export' link.

MOV_ID	REV_STARS
3001	8
3002	7
3003	6
3004	7
3005	4
3006	5

6 rows returned in 0.00 seconds [CSV Export](#)

-----  
**THE END**  
-----