

**EXERCISE-3**

**INCLUDING CONSTRAINTS**

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1. Add a table-level PRIMARY KEY constraint to the EMP table on the ID column. The constraint should be named at creation. Name the constraint my\_emp\_id\_pk.

The screenshot shows a SQL interface with a command editor and a results pane. The command editor contains two lines of SQL code: `1 ALTER TABLE EMP` and `2 ADD CONSTRAINT my_emp_id_pk PRIMARY KEY(ID);`. The results pane shows the message "Table altered." and the execution time "0.06 seconds".

```
1 ALTER TABLE EMP
2 ADD CONSTRAINT my_emp_id_pk PRIMARY KEY(ID);
```

Results Explain Describe Saved SQL History

Table altered.

0.06 seconds

2. Create a PRIMARY KEY constraint to the DEPT table using the ID column. The constraint should be named at creation. Name the constraint my\_dept\_id\_pk.

The screenshot shows a SQL interface with a command editor and a results pane. The command editor contains two lines of SQL code: `1 ALTER TABLE DEPARTMENT_TABLE` and `2 ADD CONSTRAINT my_dept_id_pk PRIMARY KEY(DEPT_ID);`. The results pane shows the message "Table altered." and the execution time "0.06 seconds".

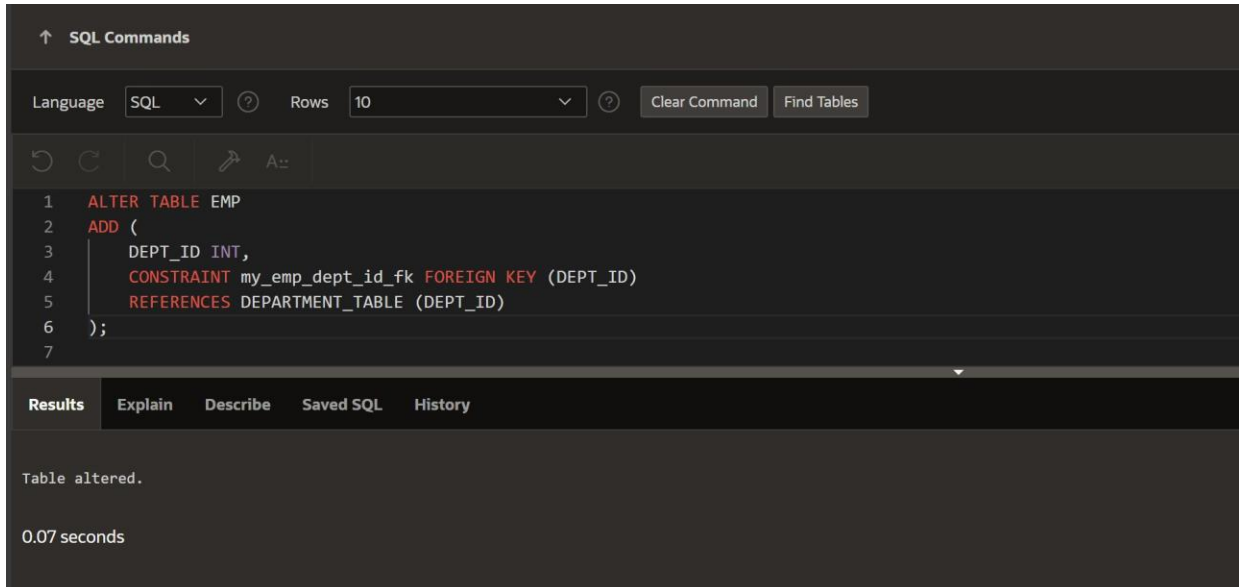
```
1 ALTER TABLE DEPARTMENT_TABLE
2 ADD CONSTRAINT my_dept_id_pk PRIMARY KEY(DEPT_ID);
```

Results Explain Describe Saved SQL History

Table altered.

0.06 seconds

3. Add a column DEPT\_ID to the EMP table. Add a foreign key reference on the EMP table that ensures that the employee is not assigned to nonexistent department. Name the constraint my\_emp\_dept\_id\_fk.

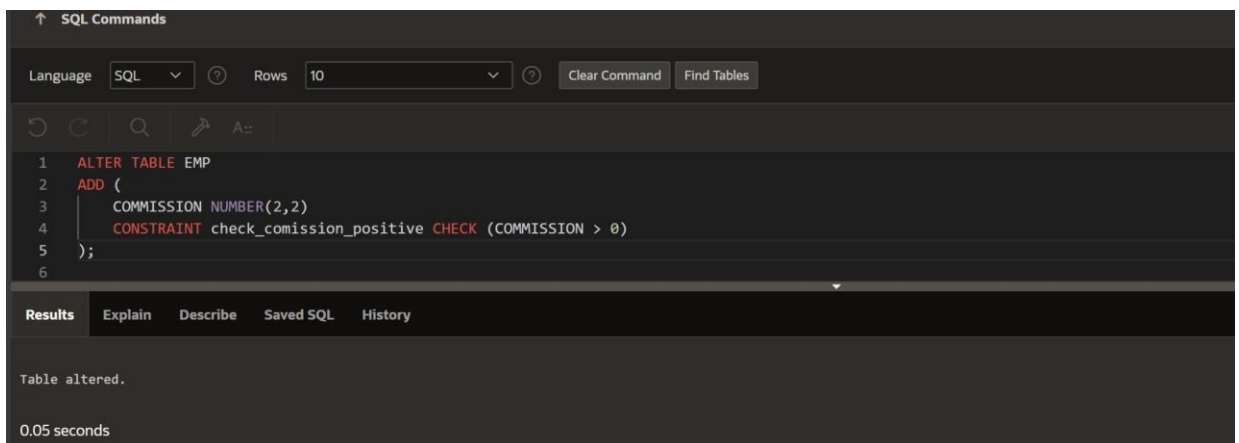


The screenshot shows a SQL interface with a command window and a results pane. The command window contains the following SQL statement:

```
1 ALTER TABLE EMP
2 ADD (
3     DEPT_ID INT,
4     CONSTRAINT my_emp_dept_id_fk FOREIGN KEY (DEPT_ID)
5     REFERENCES DEPARTMENT_TABLE (DEPT_ID)
6 );
7
```

The results pane shows the message "Table altered." and the execution time "0.07 seconds".

4. Modify the EMP table. Add a COMMISSION column of NUMBER data type, precision 2, scale 2. Add a constraint to the commission column that ensures that a commission value is greater than zero.



The screenshot shows a SQL interface with a command window and a results pane. The command window contains the following SQL statement:

```
1 ALTER TABLE EMP
2 ADD (
3     COMMISSION NUMBER(2,2)
4     CONSTRAINT check_commission_positive CHECK (COMMISSION > 0)
5 );
6
```

The results pane shows the message "Table altered." and the execution time "0.05 seconds".