

Oracle Database

ENGINEER TABLE

Table SQL

```
CREATE TABLE Engineer (  
Employee_Id VARCHAR(9),  
Role VARCHAR(16),  
Name VARCHAR(32),  
CONSTRAINT Engineer_empId_pk PRIMARY KEY(Employee_Id),  
CONSTRAINT Engineer_Role CHECK(Role = 'Test' OR Role = 'Software'));
```

Tuple SQL

```
INSERT INTO Engineer  
VALUES('000000001', 'Test', 'John Smith');  
INSERT INTO Engineer (Employee_Id, Role, Name)  
WITH names as (  
SELECT '000000005', 'Test', 'mary Strange' FROM dual UNION ALL  
SELECT '000000006', 'Software', 'Ritchie Janey' FROM dual UNION ALL  
SELECT '000000007', 'Test', 'Gary Brown' FROM dual UNION ALL  
SELECT '000000008', 'Software', 'Tori Kimmie' FROM dual UNION ALL  
SELECT '000000009', 'Software', 'Finlay Lark' FROM dual UNION ALL  
SELECT '000000010', 'Test', 'Linton Nona' FROM dual  
)  
SELECT * FROM names  
INSERT INTO Engineer (Employee_Id, Role, Name)  
WITH names as (  
SELECT '000000003', 'Test', 'Cody Strange' FROM dual UNION ALL  
SELECT '000000004', 'Software', 'Lucy Smith' FROM dual  
)  
SELECT * FROM names  
INSERT INTO Engineer  
VALUES('000000002', 'Software', 'Johnny Green');
```

Table Oracle

EMPLOYEE_ID	ROLE	NAME
000000003	Test	Cody Strange
000000004	Software	Lucy Smith
000000005	Test	mary Strange
000000006	Software	Ritchie Janey
000000007	Test	Gary Brown
000000008	Software	Tori Kimmie
000000009	Software	Finlay Lark
000000010	Test	Linton Nona
000000002	Software	Johnny Green
000000001	Test	John Smith

SOFTWARE TABLE

Table SQL

```
CREATE TABLE Software(  
Software_Id VARCHAR(9),  
Type VARCHAR(16),  
Description VARCHAR(500),  
CONSTRAINT Software_softId_pk PRIMARY KEY(Software_Id),  
CONSTRAINT Software_Type CHECK(Type= 'Software' OR Type = 'Test'));
```

Tuple SQL

```
INSERT INTO SOFTWARE
```

```
WITH names as (
```

```
SELECT '000000001', 'Test', 'Tests for bug one' FROM dual UNION ALL  
SELECT '000000002', 'Software', 'Home button' FROM dual UNION ALL  
SELECT '000000003', 'Test', 'Test home button' FROM dual UNION ALL  
SELECT '000000004', 'Software', 'Show ad' FROM dual UNION ALL  
SELECT '000000005', 'Software', 'Redirect to contact' FROM dual UNION ALL  
SELECT '000000006', 'Software', 'Show username' FROM dual UNION ALL  
SELECT '000000007', 'Software', 'Change password' FROM dual UNION ALL  
SELECT '000000008', 'Software', 'Create new user' FROM dual UNION ALL  
SELECT '000000009', 'Software', 'Voice chat button' FROM dual UNION ALL  
SELECT '000000010', 'Test', 'Test voice chat' FROM dual
```

```
)
```

```
SELECT * FROM names
```

Table Oracle

SOFTWARE_ID	TYPE	DESCRIPTION
000000001	Test	Tests for bug one
000000002	Software	Home button
000000003	Test	Test home button
000000004	Software	Show ad
000000005	Software	Redirect to contact
000000006	Software	Show username
000000007	Software	Change password
000000008	Software	Create new user
000000009	Software	Voice chat button
000000010	Test	Test voice chat

PROGRAMS TABLE

Table SQL

```
CREATE TABLE Programs (  
Employee_Id VARCHAR(9),  
Software_Id VARCHAR(9),  
CONSTRAINT Programs_empSoftId_pk PRIMARY KEY(Employee_Id, Software_Id),  
CONSTRAINT pefk FOREIGN KEY(Employee_Id) REFERENCES Engineer(Employee_Id),  
CONSTRAINT psfk FOREIGN KEY(Software_Id) REFERENCES Software(Software_Id))
```

Tuple SQL

```
INSERT INTO Programs  
VALUES('000000001', '000000003');  
INSERT INTO Programs  
VALUES('000000001', '000000001');  
INSERT INTO Programs  
VALUES('000000006', '000000008');  
INSERT INTO Programs  
VALUES('000000001', '000000010');  
INSERT INTO Programs  
VALUES('000000007', '000000003');  
INSERT INTO Programs  
VALUES('000000004', '000000004');  
INSERT INTO Programs  
VALUES('000000002', '000000009');  
INSERT INTO Programs  
WITH names (Employee_Id, Software_Id) as (  
SELECT '000000009', '000000009' FROM dual UNION ALL  
SELECT '000000002', '000000005' FROM dual UNION ALL  
SELECT '000000003', '000000003' FROM dual
```

)
 SELECT * FROM names

Table Oracle

EMPLOYEE_ID	SOFTWARE_ID
000000001	000000001
000000001	000000003
000000001	000000010
000000002	000000005
000000002	000000009
000000003	000000003
000000004	000000004
000000006	000000008
000000007	000000003
000000009	000000009

EXECUTES TABLE

Table SQL

```
CREATE TABLE Executes(
Execute_Id VARCHAR(9),
Result VARCHAR(8),
Employee_Id VARCHAR(9),
Software_Id VARCHAR(9),
CONSTRAINT Executes_exId_pk PRIMARY KEY(Execute_Id),
CONSTRAINT eefk FOREIGN KEY (Employee_Id) REFERENCES Engineer(Employee_Id),
CONSTRAINT esfk FOREIGN KEY (Software_Id) REFERENCES Software(Software_Id));
```

Tuple SQL

```
INSERT INTO Executes
WITH names (Execute_Id, Result, Employee_Id, Software_Id) as (
SELECT '000000001', 'Fail', '000000003', '000000003' FROM dual UNION ALL
SELECT '000000002', 'Fail', '000000001', '000000010' FROM dual UNION ALL
SELECT '000000003', 'Pass', '000000001', '000000010' FROM dual UNION ALL
SELECT '000000004', 'Fail', '000000003', '000000003' FROM dual UNION ALL
SELECT '000000005', 'Pass', '000000001', '000000001' FROM dual UNION ALL
SELECT '000000006', 'Pass', '000000001', '000000010' FROM dual UNION ALL
SELECT '000000007', 'Pass', '000000001', '000000003' FROM dual UNION ALL
SELECT '000000008', 'Pass', '000000003', '000000003' FROM dual UNION ALL
SELECT '000000009', 'Fail', '000000007', '000000003' FROM dual UNION ALL
SELECT '000000010', 'Pass', '000000007', '000000003' FROM dual
)
```

SELECT * FROM names

Table Oracle

EXECUTE_ID	RESULT	EMPLOYEE_ID	SOFTWARE_ID
000000001	Fail	000000003	000000003
000000002	Fail	000000001	000000010
000000003	Pass	000000001	000000010
000000004	Fail	000000003	000000003
000000005	Pass	000000001	000000001
000000006	Pass	000000001	000000010
000000007	Pass	000000001	000000003
000000008	Pass	000000003	000000003
000000009	Fail	000000007	000000003
000000010	Pass	000000007	000000003

10 rows returned in 0.00 seconds

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TIME TABLE

Table SQL

```
CREATE TABLE Time(  
Execute_Id VARCHAR(9),  
DOB DATE,  
Time VARCHAR(5),  
CONSTRAINT Time_TId_pk PRIMARY KEY(Execute_Id),  
CONSTRAINT tefk FOREIGN KEY (Execute_Id) REFERENCES Executes(Execute_Id));
```

Tuple SQL

```
INSERT INTO Time  
WITH names (Execute_Id, DOB, Time) as (  
SELECT '000000001', '12/01/2021', '10:15' FROM dual UNION ALL  
SELECT '000000002', '12/09/2021', '15:10' FROM dual UNION ALL  
SELECT '000000003', '12/01/2021', '01:55' FROM dual UNION ALL  
SELECT '000000004', '01/10/2022', '13:22' FROM dual UNION ALL  
SELECT '000000005', '01/09/2022', '11:15' FROM dual UNION ALL  
SELECT '000000006', '02/03/2022', '19:17' FROM dual UNION ALL  
SELECT '000000007', '02/10/2022', '17:17' FROM dual UNION ALL  
SELECT '000000008', '02/07/2022', '11:05' FROM dual UNION ALL  
SELECT '000000009', '03/11/2022', '10:16' FROM dual UNION ALL  
SELECT '000000010', '03/10/2022', '05:15' FROM dual  
)  
SELECT * FROM names
```

Table Oracle

EXECUTE_ID	DOB	TIME
000000001	12/01/2021	10:15
000000002	12/09/2021	15:10
000000003	12/01/2021	01:55
000000004	01/10/2022	13:22
000000005	01/09/2022	11:15
000000006	02/03/2022	19:17
000000007	02/10/2022	17:17
000000008	02/07/2022	11:05
000000009	03/11/2022	10:16
000000010	03/10/2022	05:15