

## PRACTICAL -8

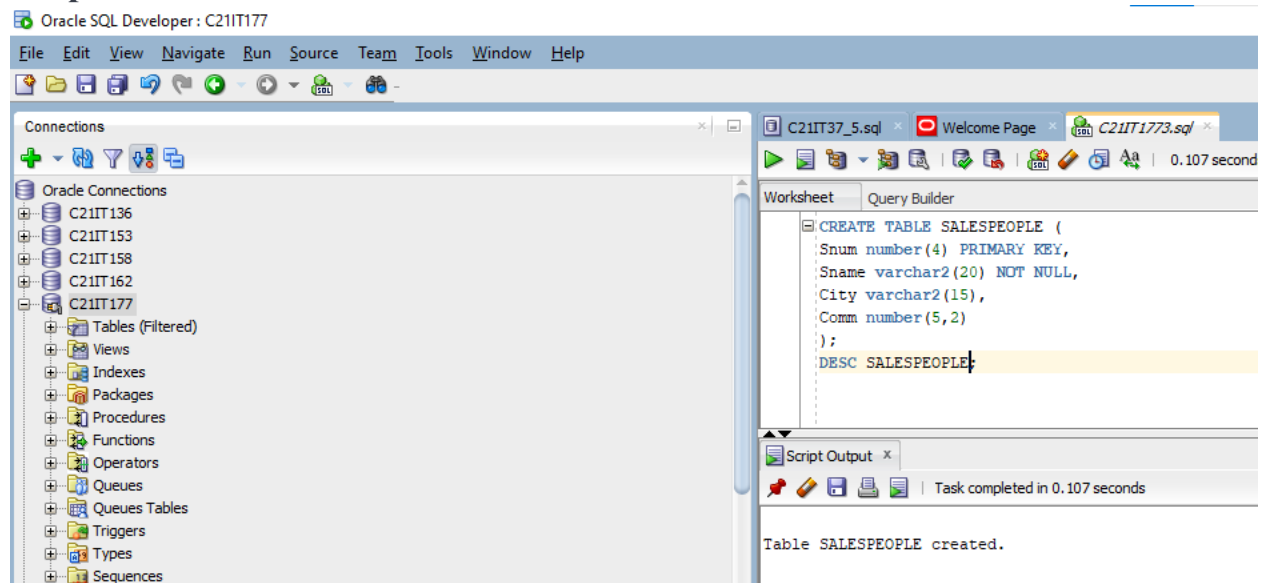
**Aim: To apply the concept of integrity/data constraints while creating or altering table.**

### Query-1: Create Table Salespeople

#### SQL Statement:

```
CREATE TABLE SALESPEOPLE (
  Snum number(4) PRIMARY KEY,
  Sname varchar2(20) NOT NULL,
  City varchar2(15),
  Comm number(5,2)
);
DESC SALESPEOPLE;
```

#### Output:



The screenshot displays the Oracle SQL Developer environment. The main workspace shows the following SQL script:

```
CREATE TABLE SALESPEOPLE (
  Snum number(4) PRIMARY KEY,
  Sname varchar2(20) NOT NULL,
  City varchar2(15),
  Comm number(5,2)
);
DESC SALESPEOPLE;
```

The Script Output pane at the bottom right indicates: "Task completed in 0.107 seconds" and "Table SALESPEOPLE created."

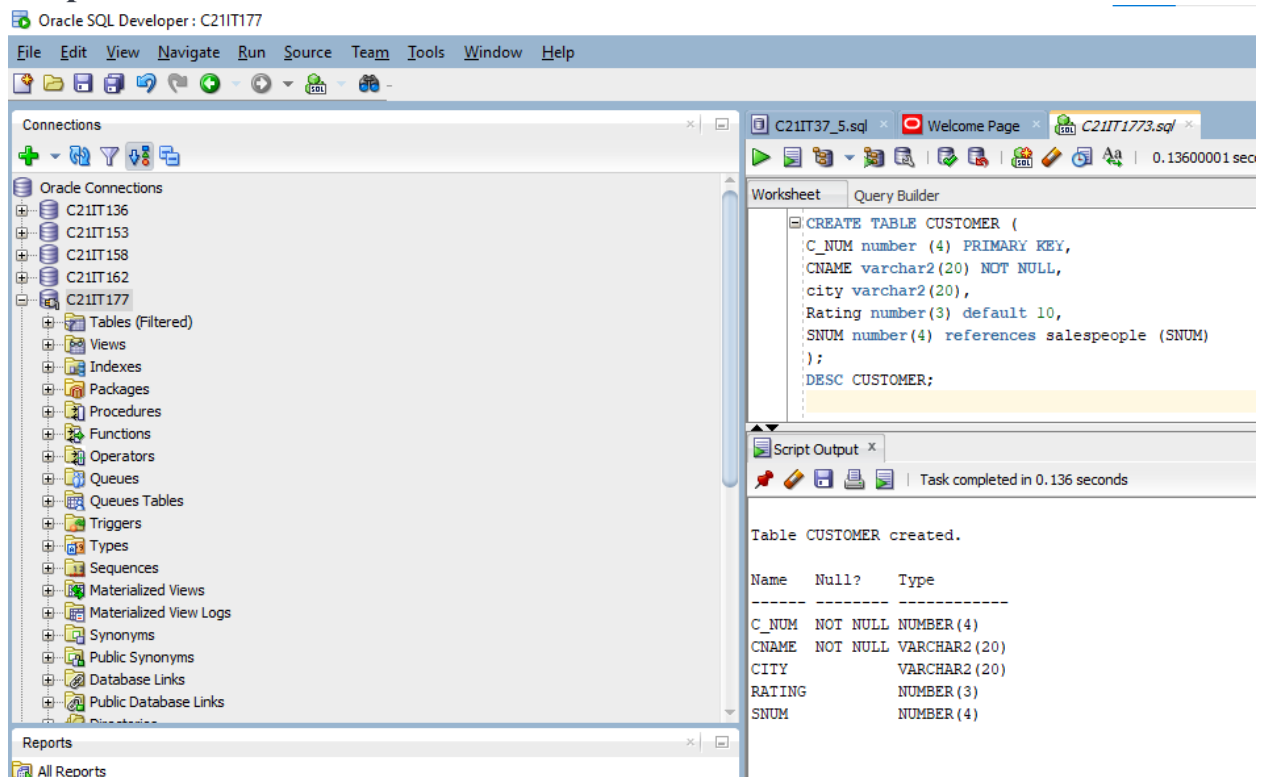
Name	Null?	Type
SNUM	NOT NULL	NUMBER(4)
SNAME	NOT NULL	VARCHAR2(20)
CITY		VARCHAR2(15)
COMM		NUMBER(5,2)

## Query-2: Create table CUSTOMER

### SQL Statement:

```
CREATE TABLE CUSTOMER (
  C_NUM number (4) PRIMARY KEY,
  CNAME varchar2(20) NOT NULL,
  city varchar2(20),
  Rating number(3) default 10,
  SNUM number(4) references salespeople (SNUM)
);
DESC CUSTOMER;
```

### Output:



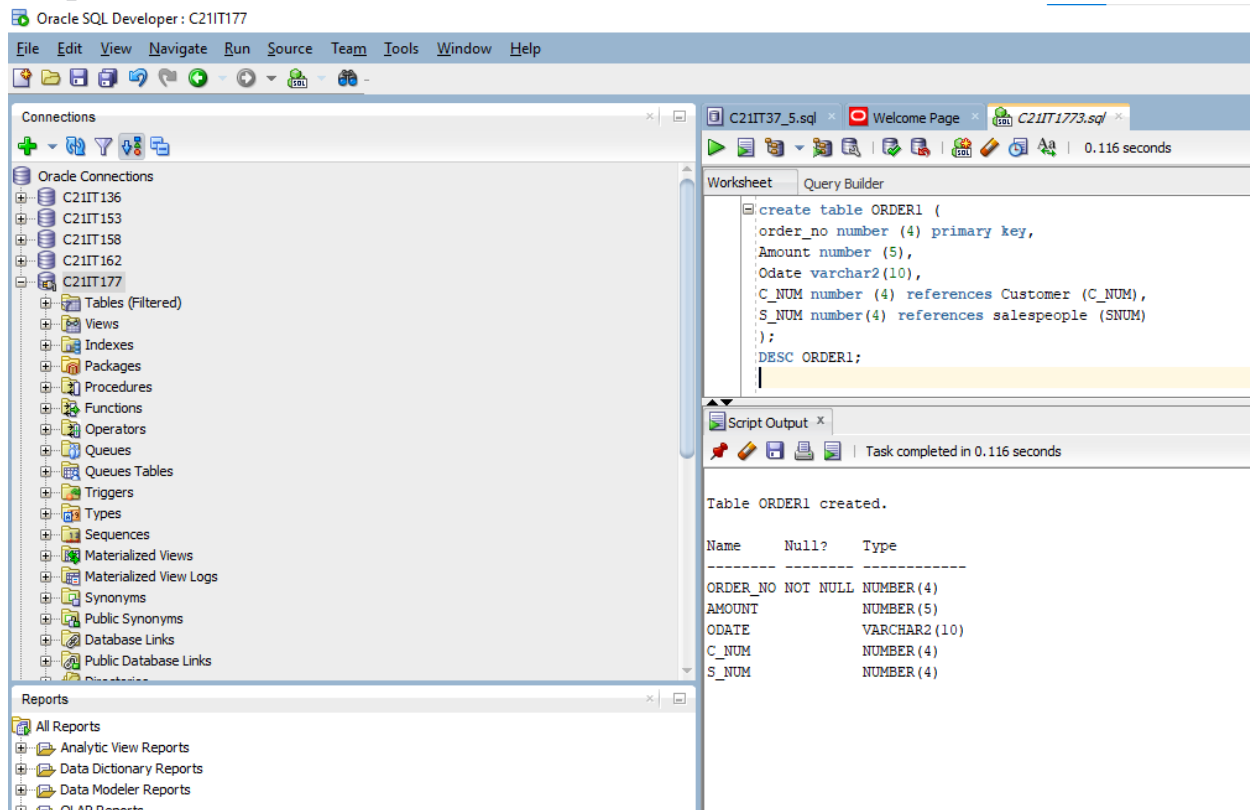
## Query-3: Create table Order

### SQL Statement:

```
create table ORDER1 (
  order_no number (4) primary key,
  Amount number (5),
```

Odate varchar2(10),  
 C\_NUM number (4) references Customer (C\_NUM),  
 S\_NUM number(4) references salespeople (SNUM)  
 );  
 DESC ORDER1;

## Output:



...

## Query-4: Create Table Client\_master

Column name	Data type	Constraints
Client_no	Varchar2(6)	Primary key/first letter must start with 'C'
Name	Varchar2(20)	Not null
Address	Varchar2(30)	
City	Varchar2(15)	
Pincode	Number(8)	
State	Varchar2(15)	
Bal_due	Number(10,2)	

**SQL Statement:**

```

create table CLIENT_MASTER (
CLIENT_NO varchar2(6) PRIMARY KEY CHECK(CLIENT_NO like 'C%'),
NAME VARCHAR2(20) NOT NULL,
Address Varchar2(30),
City Varchar2(15),
PINCODE NUMBER(8),
STATE VARCHAR2(15),
Bal_due number(10,2)
);
DESC CLIENT_MASTER;

```

**Output:**

The screenshot displays the Oracle SQL Developer environment. The 'Connections' pane on the left shows a tree of database objects for connection 'C21IT177', including Tables (Filtered), Views, Indexes, Packages, Procedures, Functions, Operators, Queues, Queues Tables, Triggers, Types, Sequences, Materialized Views, Materialized View Logs, Synonyms, Public Synonyms, Database Links, and Public Database Links. The 'Worksheet' pane in the center contains the SQL script:

```

NAME VARCHAR2(20) NOT NULL,
Address Varchar2(30),
City Varchar2(15),
PINCODE NUMBER(8),
STATE VARCHAR2(15),
Bal_due number(10,2)
);
DESC CLIENT_MASTER;

```

The 'Script Output' pane at the bottom right shows the execution results:

Table CLIENT\_MASTER created.

Name	Null?	Type
CLIENT_NO	NOT NULL	VARCHAR2(6)
NAME	NOT NULL	VARCHAR2(20)
ADDRESS		VARCHAR2(30)
CITY		VARCHAR2(15)
PINCODE		NUMBER(8)
STATE		VARCHAR2(15)
BAL_DUE		NUMBER(10,2)

**Query-5: Create Table Sales\_Master****5. Table: salesman\_master**

Column name	Data type	Constraints
Salesman_no	Varchar2(6)	Primary key/first letter must start with 'S'
Salesman_name	Varchar2(20)	Not null
Address	Varchar2(30)	Not null
City	Varchar2(20)	
Pincode	Varchar2(8)	
State	Varchar2(20)	
Sal_amt	Number(8,2)	Not null, cannot be 0
Ytd_sales	Number(6,2)	Not null, cannot be 0
Tgt_sales	Number(6,2)	Not null

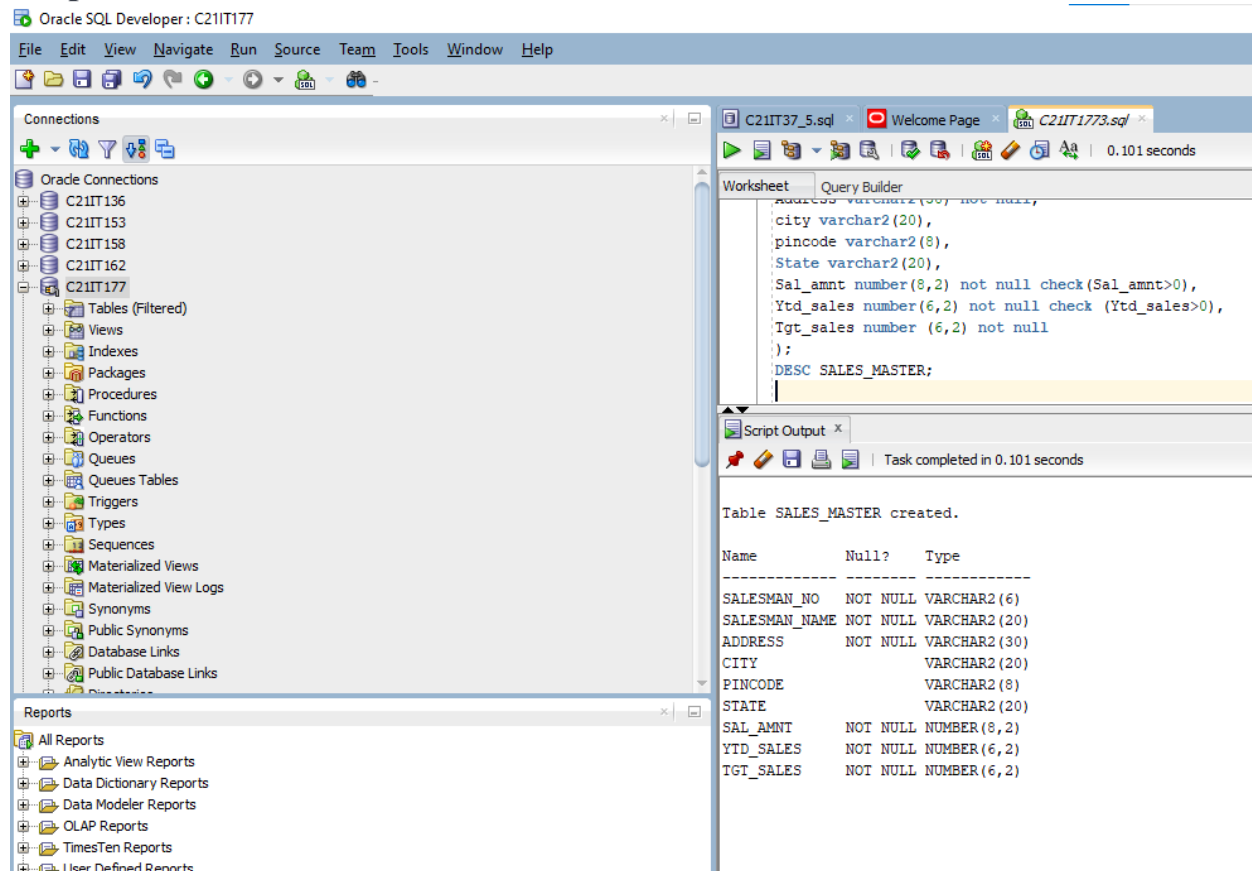
**SQL Statement:**

```

create table SALES_MASTER (
salesman_no varchar2(6) primary key check (salesman_no like '%'),
salesman_name varchar2(20) not null,
Address varchar2(30) not null,
city varchar2(20),
pincode varchar2(8),
State varchar2(20),
Sal_amnt number(8,2) not null check (Sal_amnt>0),
Ytd_sales number(6,2) not null check (Ytd_sales>0),
Tgt_sales number (6,2) not null
);
DESC SALES_MASTER;

```

## Output:



## Query-6: Create Table Sales Order

Column Name	Data Type	Constraints
Order_no	Varchar2(6)	Primary key/First letter start with 'O'
Order_date	Date	
Client_no	Varchar2(6)	Foreign Key references client_no of client_master table
Dely_addr	Varchar2(25)	
Salesman_no	Varchar2(6)	Foreign Key references sales_no of Salesman_master table
Dely_type	char	Delivery: part(P)/ full (f) Default 'F'
Order_status	Varchar2	In Process,Fulfilled,Backorder,Cancelled

## SQL Statement:

```

CREATE TABLE SALES_ORDER(
ORDER_NO Varchar2(6) Primary key check(ORDER_NO like 'O%'),
ORDER_DATE Date,
CLIENT_NO Varchar2(6) references CLIENT_MASTER(CLIENT_NO),

```

```

DELY_ADDR Varchar2(25),
SALESMAN_NO Varchar2(6) references SALES_MASTER(SALESMAN_NO),
DELY_TYPE char default 'F' check(DELY_TYPE in ('f','p')),
DELY_DATE date,
ORDER_STATUS Varchar2(6) check(ORDER_STATUS
in('Process','Fulfilled','Backorder','Cancelled')),
check(dely_date>= Order_date)
);
DESC SALES_ORDER;

```

## Output:

Oracle SQL Developer: C21IT177

File Edit View Navigate Run Source Team Tools Window Help

Connections

Oracle Connections

- C21IT136
- C21IT153
- C21IT158
- C21IT162
- C21IT177

Tables (Filtered)

Views

Indexes

Packages

Procedures

Functions

Operators

Queues

Queues Tables

Triggers

Types

Sequences

Materialized Views

Materialized View Logs

Synonyms

Public Synonyms

Database Links

Public Database Links

Reports

All Reports

- Analytic View Reports
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- TimesTen Reports
- User Defined Reports

Worksheet Query Builder

```

DELY_ADDR Varchar2(25),
SALESMAN_NO Varchar2(6) references SALES_MASTER(SALESMAN_NO),
DELY_TYPE char default 'F' check(DELY_TYPE in ('f','p')),
DELY_DATE date,
ORDER_STATUS Varchar2(6) check(ORDER_STATUS in('Process','Fulfilled','Backorder','Cancelled')),
check(dely_date>= Order_date)
);
DESC SALES_ORDER;

```

Script Output

Task completed in 0.092 seconds

Table SALES\_ORDER created.

Name	Null?	Type
ORDER_NO	NOT NULL	VARCHAR2(6)
ORDER_DATE		DATE
CLIENT_NO		VARCHAR2(6)
DELY_ADDR		VARCHAR2(25)
SALESMAN_NO		VARCHAR2(6)
DELY_TYPE		CHAR(1)
DELY_DATE		DATE
ORDER_STATUS		VARCHAR2(6)

**CONCLUSION:** From this practical we learn how to apply integrity constraints while creating or altering table.