Name-Satish Kumar
Roll No- 244CA046
MCA Sem II

1->
INSERT INTO classroom VALUES ('Main', '101', 50);
INSERT INTO classroom VALUES ('Main', '102', 30);
INSERT INTO classroom VALUES ('Main', '103', 60);
INSERT INTO classroom VALUES ('Main', '104', 40);
INSERT INTO classroom VALUES ('Main', '105', 45);
INSERT INTO classroom VALUES ('Main', '106', 35);
INSERT INTO classroom VALUES ('East', '200', 70);
INSERT INTO classroom VALUES ('East', '202', 25);
INSERT INTO classroom VALUES ('East', '203', 50);
INSERT INTO classroom VALUES ('East', '204', 40);

```
SQL> select * from classroom
  2  ;

BUILDING        ROOM_NU   CAPACITY
--------------- -------   ----------
main            101              50
main            102              30
main            103              60
main            104              40
main            105              45
main            106              35
East            202              25
East            203              50
East            204              40
East            200              20

10 rows selected.
```

2->

```
INSERT INTO department VALUES ('Computer Science', 'Main', 500000.00);
INSERT INTO department VALUES ('Mathematics', 'East', 300000.00);
INSERT INTO department VALUES ('AI', 'East', 200000.00);
INSERT INTO department VALUES ('Physics', 'Main', 250000.00);
INSERT INTO department VALUES ('Chemistry', 'East', 280000.00);
INSERT INTO department VALUES ('Biology', 'East', 210000.00);
INSERT INTO department VALUES ('Electrical', 'Main', 400000.00);
INSERT INTO department VALUES ('Mechanical', 'Main', 350000.00);
INSERT INTO department VALUES ('Civil', 'East', 320000.00);
INSERT INTO department VALUES ('Environmental', 'Main', 150000.00);
```

```
SQL> select * from department;

DEBT_NAME            BUILDING          BUDGET
------------------- --------------- ----------
Computer Science    Main              500000
Mathematics         East              300000
AI                  East              200000
Physics             Main              250000
Chemistry           East              280000
Biology             East              210000
Electrical          Main              400000
Mechanical          Main              350000
Civil               East              320000
Environmental       Main              150000

10 rows selected.
```

3->

```
INSERT INTO course VALUES ('MA607', 'Database Management Systems', 'Computer Science', 3);
INSERT INTO course VALUES ('MA609', 'Object Oriented Programming', 'Computer Science', 3);
INSERT INTO course VALUES ('MA649', 'Machine Learning', 'AI', 3);
INSERT INTO course VALUES ('MA610', 'DSA Lab using OOP Concept', 'Computer Science', 2);
INSERT INTO course VALUES ('MA611', 'Database Management Systems Lab', 'Computer Science', 2);
INSERT INTO course VALUES ('MA606', 'Data Structures and Algorithms', 'Computer Science', 3);
INSERT INTO course VALUES ('MA608', 'Computational Mathematics', 'Mathematics', 3);
INSERT INTO course VALUES ('MA700', 'Advanced Databases', 'Computer Science', 3);
INSERT INTO course VALUES ('MA702', 'Artificial Intelligence', 'AI', 3);
INSERT INTO course VALUES ('MA705', 'Advanced Mathematics for Computing', 'Mathematics', 3);
```

```
SQL> set linesize 300;
SQL> select * from course;

COURSE_I TITLE                                              DEBT_NAME            CREDITS
-------- -------------------------------------------------- ------------------- ----------
MA607    Database Management Systems                        Computer Science           3
MA609    Object Oriented Programming                        Computer Science           3
MA649    Machine Learning                                   AI                         3
MA610    DSA Lab using OOP Concept                          Computer Science           2
MA611    Database Management Systems Lab                    Computer Science           2
MA606    Data Structures and Algorithms                     Computer Science           3
MA608    Computational Mathematics                          Mathematics                3
MA700    Advanced Databases                                 Computer Science           3
MA702    Artificial Intelligence                            AI                         3
MA705    Advanced Mathematics for Computing                 Mathematics                3

10 rows selected.
```

4->

```
INSERT INTO instructor VALUES ('I001', 'Dr. Pushpajit Khaire', 'Computer Science', 75000.00);
INSERT INTO instructor VALUES ('I002', 'Dr. Hamsa Ajay Bhat', 'Computer Science', 75000.00);
INSERT INTO instructor VALUES ('I003', 'Nandagopal S. A', 'AI', 75000.00);
INSERT INTO instructor VALUES ('I004', 'Mr. Karuppasamy S', 'Computer Science', 75000.00);
INSERT INTO instructor VALUES ('I005', 'Bibekananda Sitha', 'Computer Science', 75000.00);
INSERT INTO instructor VALUES ('I006', 'Dr. Mahima', 'Computer Science', 75000.00);
INSERT INTO instructor VALUES ('I007', 'Dr. Amit Kumar', 'Mathematics', 75000.00);
INSERT INTO instructor VALUES ('I008', 'Dr. Neelam Singh', 'Physics', 75000.00);
INSERT INTO instructor VALUES ('I009', 'Dr. Sandeep Sharma', 'Mathematics', 75000.00);
INSERT INTO instructor VALUES ('I010', 'Dr. Priya Chatterjee', 'Chemistry', 75000.00);
```

```
SQL> select * from instructor;

ID      NAME                   DEBT_NAME               SALARY
-----   --------------------   --------------------   ----------
I001    Dr. Pushpajit Khaire   Computer Science          75000
I002    Dr. Hamsa Ajay Bhat    Computer Science          75000
I003    Nandagopal S. A        AI                        75000
I004    Mr. Karuppasamy S      Computer Science          75000
I005    Bibekananda Sitha      Computer Science          75000
I006    Dr. Mahima             Computer Science          75000
I007    Dr. Amit Kumar         Mathematics               75000
I008    Dr. Neelam Singh       Physics                   75000
I009    Dr. Sandeep Sharma     Mathematics               75000
I010    Dr. Priya Chatterjee   Chemistry                 75000

10 rows selected.
```

5->

```
INSERT INTO section VALUES ('MA607', '001', 'Fall', 2025, 'main', '101', 'T1');
INSERT INTO section VALUES ('MA609', '002', 'Spring', 2025, 'East', '200', 'T2');
INSERT INTO section VALUES ('MA649', '003', 'Fall', 2025, 'main', '102', 'T3');
INSERT INTO section VALUES ('MA610', '004', 'Winter', 2025, 'main', '103', 'T4');
INSERT INTO section VALUES ('MA611', '005', 'Spring', 2025, 'main', '104', 'T5');
INSERT INTO section VALUES ('MA606', '006', 'Fall', 2025, 'East', '202', 'T6');
INSERT INTO section VALUES ('MA608', '007', 'Spring', 2025, 'main', '103', 'T7');
INSERT INTO section VALUES ('MA700', '008', 'Fall', 2025, 'East', '203', 'T1');
INSERT INTO section VALUES ('MA702', '009', 'Spring', 2025, 'main', '105', 'T2');
INSERT INTO section VALUES ('MA705', '010', 'Winter', 2025, 'East', '204', 'T3');
```

```
SQL> select * from section;

COURSE_I SEC_ID   SEMEST      YEAR BUILDING         ROOM_NU TIME
-------- -------  ------   ---------- --------------  ------- ----
MA609    002      Spring      2025 East             200     T2
MA607    001      Fall        2025 main             101     T1
MA649    003      Fall        2025 main             102     T3
MA610    004      Winter      2025 main             103     T4
MA611    005      Spring      2025 main             104     T5
MA606    006      Fall        2025 East             202     T6
MA608    007      Spring      2025 main             103     T7
MA700    008      Fall        2025 East             203     T1
MA702    009      Spring      2025 main             105     T2
MA705    010      Winter      2025 East             204     T3

10 rows selected.
```

6->

```
INSERT INTO teaches VALUES ('I001', 'MA607', '001', 'Fall', 2025);
INSERT INTO teaches VALUES ('I002', 'MA609', '002', 'Spring', 2025);
INSERT INTO teaches VALUES ('I003', 'MA649', '003', 'Fall', 2025);
INSERT INTO teaches VALUES ('I004', 'MA610', '004', 'Winter', 2025);
INSERT INTO teaches VALUES ('I005', 'MA611', '005', 'Spring', 2025);
INSERT INTO teaches VALUES ('I006', 'MA606', '006', 'Fall', 2025);
INSERT INTO teaches VALUES ('I007', 'MA608', '007', 'Spring', 2025);
INSERT INTO teaches VALUES ('I008', 'MA700', '008', 'Fall', 2025);
INSERT INTO teaches VALUES ('I009', 'MA702', '009', 'Spring', 2025);
INSERT INTO teaches VALUES ('I010', 'MA705', '010', 'Winter', 2025);
```

```
SQL> select * from teaches;

ID    COURSE_I SEC_ID  SEMEST      YEAR
----- -------- ------- ------ ----------
I001  MA607    001     Fall        2025
I002  MA609    002     Spring      2025
I003  MA649    003     Fall        2025
I004  MA610    004     Winter      2025
I005  MA611    005     Spring      2025
I006  MA606    006     Fall        2025
I007  MA608    007     Spring      2025
I008  MA700    008     Fall        2025
I009  MA702    009     Spring      2025
I010  MA705    010     Winter      2025

10 rows selected.
```

7->

```
INSERT INTO student VALUES ('S001', 'Satish', 'Computer Science', 15);
INSERT INTO student VALUES ('S002', 'Harsh', 'Computer Science', 12);
INSERT INTO student VALUES ('S003', 'Sourav', 'AI', 10);
INSERT INTO student VALUES ('S004', 'Deeksha', 'Computer Science', 18);
INSERT INTO student VALUES ('S005', 'Sunil', 'Mathematics', 6);
INSERT INTO student VALUES ('S006', 'Shruti', 'Computer Science', 20);
INSERT INTO student VALUES ('S007', 'Apurv', 'Computer Science', 14);
INSERT INTO student VALUES ('S008', 'Ravi', 'AI', 17);
INSERT INTO student VALUES ('S009', 'Anjali', 'Mathematics', 22);
INSERT INTO student VALUES ('S010', 'Priya', 'Physics', 8);
```

```
SQL> select * from student;

ID    NAME                 DEBT_NAME            TOT_CRED
----- -------------------- -------------------- ---------
S001  Satish               Computer Science           15
S002  Harsh                Computer Science           12
S003  Sourav               AI                         10
S004  Deeksha              Computer Science           18
S005  Sunil                Mathematics                 6
S006  Shruti               Computer Science           20
S007  Apurv                Computer Science           14
S008  Ravi                 AI                         17
S009  Anjali               Mathematics                22
S010  Priya                Physics                     8

10 rows selected.
```

8->

```
INSERT INTO takes VALUES ('S001', 'MA607', '001', 'Fall', 2025, 'A');
INSERT INTO takes VALUES ('S002', 'MA609', '002', 'Spring', 2025, 'B');
INSERT INTO takes VALUES ('S003', 'MA649', '003', 'Fall', 2025, 'A');
INSERT INTO takes VALUES ('S004', 'MA610', '004', 'Winter', 2025, 'B');
INSERT INTO takes VALUES ('S005', 'MA611', '005', 'Spring', 2025, 'C');
INSERT INTO takes VALUES ('S006', 'MA606', '006', 'Fall', 2025, 'A');
INSERT INTO takes VALUES ('S007', 'MA608', '007', 'Spring', 2025, 'A');
INSERT INTO takes VALUES ('S008', 'MA700', '008', 'Fall', 2025, 'A');
INSERT INTO takes VALUES ('S009', 'MA702', '009', 'Spring', 2025, 'B');
INSERT INTO takes VALUES ('S010', 'MA705', '010', 'Winter', 2025, 'C');
```

```
SQL> select * from takes;

ID     COURSE_I SEC_ID   SEMEST     YEAR GR
-----  -------- --------  ------ ---------- --
S001   MA607    001       Fall       2025 A
S002   MA609    002       Spring     2025 B
S003   MA649    003       Fall       2025 A
S004   MA610    004       Winter     2025 B
S005   MA611    005       Spring     2025 C
S006   MA606    006       Fall       2025 A
S007   MA608    007       Spring     2025 A
S008   MA700    008       Fall       2025 A
S009   MA702    009       Spring     2025 B
S010   MA705    010       Winter     2025 C

10 rows selected.
```

9->

```
INSERT INTO advisor VALUES ('S001', 'I001');
INSERT INTO advisor VALUES ('S002', 'I002');
INSERT INTO advisor VALUES ('S003', 'I003');
INSERT INTO advisor VALUES ('S004', 'I004');
INSERT INTO advisor VALUES ('S005', 'I005');
INSERT INTO advisor VALUES ('S006', 'I006');
INSERT INTO advisor VALUES ('S007', 'I007');
INSERT INTO advisor VALUES ('S008', 'I008');
INSERT INTO advisor VALUES ('S009', 'I009');
INSERT INTO advisor VALUES ('S010', 'I010');
```

```
SQL> select * from advisor;

S_ID   I_ID
-----  -----
S002   I002
S003   I003
S004   I004
S005   I005
S006   I006
S007   I007
S008   I008
S009   I009
S010   I010
S001   I001

10 rows selected.
```

10->
```
INSERT INTO time_slot VALUES ('T1', 'M', 9, 0, 10, 0);
INSERT INTO time_slot VALUES ('T2', 'T', 10, 30, 11, 30);
INSERT INTO time_slot VALUES ('T3', 'W', 12, 0, 13, 0);
INSERT INTO time_slot VALUES ('T4', 'R', 13, 30, 14, 30);
INSERT INTO time_slot VALUES ('T5', 'F', 15, 0, 16, 0);
INSERT INTO time_slot VALUES ('T6', 'M', 16, 30, 17, 30);
INSERT INTO time_slot VALUES ('T7', 'T', 18, 0, 19, 0);
INSERT INTO time_slot VALUES ('T8', 'W', 9, 30, 10, 30);
INSERT INTO time_slot VALUES ('T9', 'R', 10, 0, 11, 0);
INSERT INTO time_slot VALUES ('T10', 'F', 14, 0, 15, 0);
```

```
SQL> select * from time_slot;

TIME D   START_HR  START_MIN    END_HR    END_MIN
---- -  ---------- ---------- ---------- ----------
T1   M           9          0         10          0
T2   T          10         30         11         30
T3   W          12          0         13          0
T4   R          13         30         14         30
T5   F          15          0         16          0
T6   M          16         30         17         30
T7   T          18          0         19          0
T8   W           9         30         10         30
T9   R          10          0         11          0
T10  F          14          0         15          0

10 rows selected.
```

11->

```
INSERT INTO prereq VALUES ('MA607', 'MA606');
INSERT INTO prereq VALUES ('MA609', 'MA606');
INSERT INTO prereq VALUES ('MA649', 'MA607');
INSERT INTO prereq VALUES ('MA610', 'MA606');
INSERT INTO prereq VALUES ('MA611', 'MA607');
INSERT INTO prereq VALUES ('MA700', 'MA606');
INSERT INTO prereq VALUES ('MA702', 'MA649');
INSERT INTO prereq VALUES ('MA705', 'MA702');
INSERT INTO prereq VALUES ('MA700', 'MA649');
INSERT INTO prereq VALUES ('MA705', 'MA700');
```

```
SQL> select * from prereq;

COURSE_I PREREQ_I
-------- --------
MA607    MA606
MA609    MA606
MA610    MA606
MA611    MA607
MA649    MA607
MA700    MA606
MA700    MA649
MA702    MA649
MA705    MA700
MA705    MA702

10 rows selected.
```