1). How to Create a database?

CREATE DATABASE Student\_Details;

Query OK, 1 row affected (0.0066 sec)

===========================================================================================================================================================================

2). How to see all the databases created?

show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| sakila |

| student\_details |

| sys |

| world |

+--------------------+

===========================================================================================================================================================================

3). How to drop/delete a database?

drop database student\_details;

Query OK, 0 rows affected (0.0127 sec)

show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| sakila |

| sys |

| world |

+--------------------+

===========================================================================================================================================================================

4). How to use a created database or see which database is being used?

select database();

+------------+

| database() |

+------------+

| NULL |

+------------+

use student\_details;

Default schema set to `student\_details`.

select database();

+-----------------+

| database() |

+-----------------+

| student\_details |

+-----------------+

============================================================================================================================================================================

5). Create a table named STUDENT which has the following attributes:

ID, FIRST NAME, LAST NAME, CITY(CHAR), AGE,Date of joining, RESULT which can be Pass,fail or awaited(default).

See if the table is created and also check the description of the table.

CREATE TABLE Student(

ID INT UNSIGNED NOT NULL AUTO\_INCREMENT PRIMARY KEY,

First\_Name VARCHAR(20) NOT NULL,

Last\_Name VARCHAR(20) NOT NULL,

City CHAR(20) NOT NULL,

Age INT UNSIGNED NOT NULL,

Date\_Of\_Joining DATE NOT NULL,

Result Enum('PASS','FAIL','AWAITED') NOT NULL DEFAULT 'AWAITED'

);

SHOW TABLES;

+---------------------------+

| Tables\_in\_student\_details |

+---------------------------+

| student |

+---------------------------+

DESCRIBE STUDENT;

+-----------------+-------------------------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+-------------------------------+------+-----+---------+----------------+

| ID | int unsigned | NO | PRI | NULL | auto\_increment |

| First\_Name | varchar(20) | NO | | NULL | |

| Last\_Name | varchar(20) | NO | | NULL | |

| City | char(20) | NO | | NULL | |

| Age | int unsigned | NO | | NULL | |

| Date\_Of\_Joining | date | NO | | NULL | |

| Result | enum('PASS','FAIL','AWAITED') | NO | | AWAITED | |

+-----------------+-------------------------------+------+-----+---------+----------------+

7 rows in set (0.0015 sec)

==========================================================================================================================================================================

6). Create a table named DEGREE which has the following attributes:

Degree ID, Course name, Length of the course(Check if its GREATER THAN OR EQUAL TO 3) and Fees.

See if the table is created and also check the description of the table.

CREATE TABLE DEGREE(

Degree\_ID INT UNSIGNED AUTO\_INCREMENT PRIMARY KEY,

Course\_Name VARCHAR(50) NOT NULL,

Length\_of\_Course INT UNSIGNED NOT NULL CHECK(Length\_of\_Course >= 3),

Fees DECIMAL(8,2)

)AUTO\_INCREMENT = 5000;

SHOW TABLES;

+---------------------------+

| Tables\_in\_student\_details |

+---------------------------+

| degree |

| student |

+---------------------------+

DESCRIBE DEGREE;

+------------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+------------------+--------------+------+-----+---------+----------------+

| Degree\_ID | int unsigned | NO | PRI | NULL | auto\_increment |

| Course\_Name | varchar(50) | NO | | NULL | |

| Length\_of\_Course | int unsigned | NO | | NULL | |

| Fees | decimal(8,2) | YES | | NULL | |

+------------------+--------------+------+-----+---------+----------------+

4 rows in set (0.0054 sec)

===========================================================================================================================================================================

7). Rename the attribute Date of joining IN Student table to Admission date.

--> To rename attribute/column use 'CHANGE'. To rename Table use 'RENAME'.

ALTER TABLE Student CHANGE Date\_of\_joining Admission\_date DATE NOT NULL;

DESCRIBE STUDENT;

+----------------+-------------------------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-------------------------------+------+-----+---------+----------------+

| ID | int unsigned | NO | PRI | NULL | auto\_increment |

| First\_Name | varchar(20) | NO | | NULL | |

| Last\_Name | varchar(20) | NO | | NULL | |

| City | char(20) | NO | | NULL | |

| Age | int unsigned | NO | | NULL | |

| Admission\_date | date | NO | | NULL | |

| Result | enum('PASS','FAIL','AWAITED') | NO | | AWAITED | |

+----------------+-------------------------------+------+-----+---------+----------------+

7 rows in set (0.0077 sec)

===========================================================================================================================================================================

8). Change the datatype of CITY in STUDENT table from CHAR TO VARCHAR.

--> Change Datatype 'MODIFY'

--> ADD Column 'ADD'

--> Delete a column 'DROP'

ALTER TABLE Student MODIFY CITY VARCHAR(20) NOT NULL;

DESCRIBE STUDENT;

+----------------+-------------------------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-------------------------------+------+-----+---------+----------------+

| ID | int unsigned | NO | PRI | NULL | auto\_increment |

| First\_Name | varchar(20) | NO | | NULL | |

| Last\_Name | varchar(20) | NO | | NULL | |

| CITY | varchar(20) | NO | | NULL | |

| Age | int unsigned | NO | | NULL | |

| Admission\_date | date | NO | | NULL | |

| Result | enum('PASS','FAIL','AWAITED') | NO | | AWAITED | |

+----------------+-------------------------------+------+-----+---------+----------------+

7 rows in set (0.0012 sec)

===========================================================================================================================================================================

9). In DEGREE table change the name of Course name to Degree name.

ALTER TABLE Degree CHANGE Course\_name degree\_name VARCHAR(50) not null;

describe degree;

+------------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+------------------+--------------+------+-----+---------+----------------+

| Degree\_ID | int unsigned | NO | PRI | NULL | auto\_increment |

| degree\_name | varchar(50) | NO | | NULL | |

| Length\_of\_Course | int unsigned | NO | | NULL | |

| Fees | decimal(8,2) | YES | | NULL | |

+------------------+--------------+------+-----+---------+----------------+

4 rows in set (0.0015 sec)

============================================================================================================================================================================

10). Change the name of Degree table to Degree\_Details and Student table to Student\_Data.

ALTER TABLE DEGREE RENAME DEGREE\_DETAILS;

ALTER TABLE STUDENT RENAME STUDENT\_DATA;

SHOW TABLES;

+---------------------------+

| Tables\_in\_student\_details |

+---------------------------+

| degree\_details |

| student\_data |

+---------------------------+

2 rows in set (0.0012 sec)

===========================================================================================================================================================================

>11). Add a column named Max\_Marks to Degree\_Details.

ALTER TABLE DEGREE\_DETAILS ADD COLUMN MAX\_MARKS INT UNSIGNED NOT NULL;

DESCRIBE DEGREE\_DETAILS;

+------------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+------------------+--------------+------+-----+---------+----------------+

| Degree\_ID | int unsigned | NO | PRI | NULL | auto\_increment |

| degree\_name | varchar(50) | NO | | NULL | |

| Length\_of\_Course | int unsigned | NO | | NULL | |

| Fees | decimal(8,2) | YES | | NULL | |

| MAX\_MARKS | int unsigned | NO | | NULL | |

+------------------+--------------+------+-----+---------+----------------+

5 rows in set (0.0013 sec)

===========================================================================================================================================================================

12). Delete the column named Max\_Marks from Degree\_Details and add column named Min\_Marks.

ALTER TABLE Degree\_details DROP COLUMN Max\_Marks;

describe degree\_details;

+------------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+------------------+--------------+------+-----+---------+----------------+

| Degree\_ID | int unsigned | NO | PRI | NULL | auto\_increment |

| degree\_name | varchar(50) | NO | | NULL | |

| Length\_of\_Course | int unsigned | NO | | NULL | |

| Fees | decimal(8,2) | YES | | NULL | |

+------------------+--------------+------+-----+---------+----------------+

4 rows in set (0.0014 sec)

ALTER TABLE DeGrEe\_DeTaIlS ADD COLUMN MIN\_MARKS INT UNSIGNED NOT NULL;

DESCRIBE DEGREE\_DETAILS;

+------------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+------------------+--------------+------+-----+---------+----------------+

| Degree\_ID | int unsigned | NO | PRI | NULL | auto\_increment |

| degree\_name | varchar(50) | NO | | NULL | |

| Length\_of\_Course | int unsigned | NO | | NULL | |

| Fees | decimal(8,2) | YES | | NULL | |

| MIN\_MARKS | int unsigned | NO | | NULL | |

+------------------+--------------+------+-----+---------+----------------+

=============================================================================================================================================================

13). Create a table named Enrollment which has the following attributes:

Student ID, Marks and Degree ID.

See if the table is created and also check the description of the table.

CREATE TABLE ENROLLMENT(

SID INT UNSIGNED NOT NULL,

MARKS INT UNSIGNED NOT NULL CHECK(MARKS<=100),

DID INT UNSIGNED NOT NULL,

FOREIGN KEY(SID) REFERENCES STUDENT\_DATA(ID)

);

DESCRIBE ENROLLMENT;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| SID | int unsigned | NO | MUL | NULL | |

| MARKS | int unsigned | NO | | NULL | |

| DID | int unsigned | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

3 rows in set (0.0013 sec)

ALTER TABLE ENROLLMENT ADD FOREIGN KEY(DID) REFERENCES DEGREE\_DETAILS(DEGREE\_ID);

DESCRIBE ENROLLMENT;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| SID | int unsigned | NO | MUL | NULL | |

| MARKS | int unsigned | NO | | NULL | |

| DID | int unsigned | NO | MUL | NULL | |

+-------+--------------+------+-----+---------+-------+

3 rows in set (0.0011 sec)

===========================================================================================================================================================================

14). Delete the column named DID from Enrollment table AND create a new column named Deg\_ID that references Degree\_details(Degree\_ID).

ALTER TABLE ENROLLMENT DROP CONSTRAINT enrollment\_ibfk\_2;

ALTER TABLE ENROLLMENT DROP KEY DID;

ALTER TABLE ENROLLMENT DROP COLUMN DID;

DESCRIBE ENROLLMENT;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| SID | int unsigned | NO | MUL | NULL | |

| MARKS | int unsigned | NO | | NULL | |

+-------+--------------+------+-----+---------+-------+

2 rows in set (0.0016 sec)

ALTER TABLE ENROLLMENT ADD COLUMN Deg\_ID INT UNSIGNED NOT NULL;

DESCRIBE ENROLLMENT;

+--------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+--------------+------+-----+---------+-------+

| SID | int unsigned | NO | MUL | NULL | |

| MARKS | int unsigned | NO | | NULL | |

| Deg\_ID | int unsigned | NO | | NULL | |

+--------+--------------+------+-----+---------+-------+

3 rows in set (0.0022 sec)

ALTER TABLE ENROLLMENT ADD FOREIGN KEY(Deg\_ID) references Degree\_Details(Degree\_Id);

describe enrollment;

+--------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+--------------+------+-----+---------+-------+

| SID | int unsigned | NO | MUL | NULL | |

| MARKS | int unsigned | NO | | NULL | |

| Deg\_ID | int unsigned | NO | MUL | NULL | |

+--------+--------------+------+-----+---------+-------+

3 rows in set (0.0098 sec)

===========================================================================================================================================================================

15). Create a table named Parents which has the following attributes:

Father Name, Mother name

CREATE TABLE PARENTS(

F\_Name varchar(20),

M\_Name varchar(20)

);

describe parents;

+--------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+-------------+------+-----+---------+-------+

| F\_Name | varchar(20) | YES | | NULL | |

| M\_Name | varchar(20) | YES | | NULL | |

+--------+-------------+------+-----+---------+-------+

2 rows in set (0.0084 sec)

===========================================================================================================================================================================

16). Delete the table named Parents.

drop table parents;

Query OK, 0 rows affected (0.0159 sec)

show tables;

+---------------------------+

| Tables\_in\_student\_details |

+---------------------------+

| degree\_details |

| enrollment |

| student\_data |

+---------------------------+

3 rows in set (0.0010 sec)

===========================================================================================================================================================================

17). Populate the Student\_data table. Display the number of students.

INSERT INTO STUDENT\_DATA(First\_Name,Last\_name,city,age,admission\_date) values

('Akash','Kumar','Jaipur',24,'2020-03-28'),

('Aaishwarya','Ray','Mumbai',32,'2020-05-29'),

('Abhay','Chander','Mumbai',27,'2019-08-07'),

('Anagha','Ahuja','Chennai',22,'2018-12-12'),

('Bishwas','Bora','Ahmedabad',44,'2015-02-01'),

('Bimla','Bhatt','Ahmedabad',21,'2021-03-21'),

('Brijesh','Kumar','Jaipur',22,'2021-01-01'),

('Arjun','Shet','Bangalore',19,'2020-12-31'),

('Ramya','Bose','Bangalore',25,'2019-09-25'),

('Sharanya','Ahuja','Mumbai',20,'2020-04-15'),

('Suhas','Rai','Bangalore',27,'2016-05-14'),

('Goutham','Sharma','Ahmedabad',26,'2020-07-20'),

('Dilshan','Gupta','Jaipur',23,'2014-02-07'),

('Sachin','Acharya','Bangalore',22,'2020-01-01'),

('Tanveer','Ahmed','Chennai',23,'2019-05-09'),

('Rupali','Gupta','Chennai',21,'2020-06-23'),

('Deepika','Verma','Ahmedabad',26,'2017-08-22'),

('Deepika','Chatterjee','Ahmedabad',29,'2020-11-05'),

('Zhyn','Jackman','Bangalore',24,'2019-06-22');

select \* from student\_data;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | AWAITED |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | AWAITED |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | AWAITED |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | AWAITED |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | AWAITED |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | AWAITED |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | AWAITED |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | AWAITED |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | AWAITED |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | AWAITED |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | AWAITED |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | AWAITED |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | AWAITED |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | AWAITED |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | AWAITED |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | AWAITED |

+----+------------+------------+-----------+-----+----------------+---------+

19 rows in set (0.0008 sec)

insert into degree\_details(degree\_name,length\_of\_course,fees,min\_marks) values

('Bachelor Of Commerce',3,200000,35),

('Master Of Commerce',3,250000,40),

('Bachelor Of Business',3,600000,35),

('Master Of Business',3,500000,50),

('Bachelor Of Technology',4,400000,35),

('Master Of Technology',3,100000,40),

('Phd Technology',5,300000,50),

('Phd Business',5,90000,50),

('Phd Commerce',4,50000,45),

('MBBS',5,100000,40),

('MD',4,500000,35)

('Associate Bachelor Physics',3,75000,35);

select \* from degree\_details;

+-----------+----------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+----------------------------+------------------+-----------+-----------+

| 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 5007 | Phd Business | 5 | 90000.00 | 50 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 5009 | MBBS | 5 | 100000.00 | 40 |

| 5010 | MD | 4 | 500000.00 | 35 |

| 5011 | Associate Bachelor Physics | 3 | 75000.00 | 35 |

+-----------+----------------------------+------------------+-----------+-----------+

12 rows in set (0.0006 sec)

INSERT INTO ENROLLMENT(SID,MARKS,DEG\_ID) VALUES

(1,99,5007),

(2,66,5007),

(3,76,5010),

(5,26,5002),

(6,45,5003),

(7,81,5004),

(8,31,5004),

(9,28,5001),

(11,56,5002),

(12,79,5005),

(13,61,5007),

(14,30,5009),

(15,41,5010),

(16,75,5001),

(17,55,5007),

(19,71,5004);

select \* from enrollment;

+-----+-------+--------+

| sid | marks | deg\_id |

+-----+-------+--------+

| 1 | 99 | 5007 |

| 2 | 66 | 5007 |

| 3 | 76 | 5010 |

| 5 | 26 | 5002 |

| 6 | 45 | 5003 |

| 7 | 81 | 5004 |

| 8 | 31 | 5004 |

| 9 | 28 | 5001 |

| 11 | 56 | 5002 |

| 12 | 79 | 5005 |

| 13 | 61 | 5007 |

| 14 | 30 | 5009 |

| 15 | 41 | 5010 |

| 16 | 75 | 5001 |

| 17 | 55 | 5007 |

| 19 | 71 | 5004 |

+-----+-------+--------+

16 rows in set (0.0009 sec)

DELETE FROM ENROLLMENT WHERE SID = 9;

UPDATE Student\_data as s,Degree\_details as d,enrollment as e set s.Result='Pass' where e.marks>=d.min\_marks and s.id=e.sid and e.deg\_id=d.degree\_id;

select \* from student\_data;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | AWAITED |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | AWAITED |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | AWAITED |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | AWAITED |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

19 rows in set (0.0007 sec)

UPDATE Student\_data as s,Degree\_details as d,enrollment as e set s.Result='Fail' where e.marks<d.min\_marks and s.id=e.sid and e.deg\_id=d.degree\_id;

select \* from student\_data;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | FAIL |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | FAIL |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

19 rows in set (0.0012 sec)

===========================================================================================================================================================================

18). Display the number of degrees/courses in degree\_details table.

select count(\*) from degree\_details;

+----------+

| count(\*) |

+----------+

| 12 |

+----------+

1 row in set (0.0018 sec)

===========================================================================================================================================================================

19).Display the number of students who have enrolled in a course/degree.

select count(\*) from enrollment;

+----------+

| count(\*) |

+----------+

| 16 |

+----------+

1 row in set (0.0016 sec)

============================================================================================================================================================================

20). Display all the data in Student\_Data table.

select \* from student\_data;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | FAIL |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | FAIL |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED |

+----+------------+------------+-----------+-----+----------------+---------+

20 rows in set (0.0029 sec)

===========================================================================================================================================================================

21). Display all the data in Degree\_Details table in descending order of Min\_Marks.

select \* from degree\_details order by Min\_Marks desc;

+-----------+----------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+----------------------------+------------------+-----------+-----------+

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 5007 | Phd Business | 5 | 90000.00 | 50 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| 5009 | MBBS | 5 | 100000.00 | 40 |

| 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 5010 | MD | 4 | 500000.00 | 35 |

| 5011 | Associate Bachelor Physics | 3 | 75000.00 | 35 |

+-----------+----------------------------+------------------+-----------+-----------+

12 rows in set (0.0006 sec)

===========================================================================================================================================================================

22). Display the Student ID, First 3 characters of FIRST NAME.

select id, substring(first\_name,1,3) from student\_data;

+----+---------------------------+

| id | substring(first\_name,1,3) |

+----+---------------------------+

| 1 | Aka |

| 2 | Aai |

| 3 | Abh |

| 4 | Ana |

| 5 | Bis |

| 6 | Bim |

| 7 | Bri |

| 8 | Arj |

| 9 | Ram |

| 10 | Sha |

| 11 | Suh |

| 12 | Gou |

| 13 | Dil |

| 14 | Sac |

| 15 | Tan |

| 16 | Rup |

| 17 | Dee |

| 18 | Dee |

| 19 | Zhy |

| 20 | Ris |

+----+---------------------------+

20 rows in set (0.0004 sec)

============================================================================================================================================================================

23). Display the details of the student whose ID is 15. In the result replace 'v' with 'V'in First name.

select ID, replace(First\_name,'v','V'),Last\_name,City,Age,Admission\_date,Result from student\_data where id=15;

+----+-----------------------------+-----------+---------+-----+----------------+--------+

| ID | replace(First\_name,'v','V') | Last\_name | City | Age | Admission\_date | Result |

+----+-----------------------------+-----------+---------+-----+----------------+--------+

| 15 | TanVeer | Ahmed | Chennai | 23 | 2019-05-09 | FAIL |

+----+-----------------------------+-----------+---------+-----+----------------+--------+

1 row in set (0.0004 sec)

===========================================================================================================================================================================

24). Display the First name as FN in upper case, of students whose last name is 'Sharma'. Also display the position of letter 'a' in first name.

SELECT Upper(First\_name) as 'FN',instr(first\_name,'a') from Student\_data where last\_name='Sharma';

+---------+-----------------------+

| FN | instr(first\_name,'a') |

+---------+-----------------------+

| GOUTHAM | 6 |

+---------+-----------------------+

1 row in set (0.0005 sec)

============================================================================================================================================================================

25). Display last name of students in lower case whose first name is 'Aaishwarya'. Also display the length of the last name.

SELECT lower(LAST\_NAME),char\_length(Last\_name) FROM STUDENT\_DATA WHERE FIRST\_NAME='Aaishwarya';

+------------------+------------------------+

| lower(LAST\_NAME) | char\_length(Last\_name) |

+------------------+------------------------+

| ray | 3 |

+------------------+------------------------+

1 row in set (0.0005 sec)

============================================================================================================================================================================

26). Display the details of the students who are from 'Ahmedabad' city in ascending order of first name and descending order of id. Display Last name in reverse.

select id,first\_name,reverse(last\_name),city,age,admission\_date,result from student\_data where city='Ahmedabad' order by first\_name,id desc;

+----+------------+--------------------+-----------+-----+----------------+---------+

| id | first\_name | reverse(last\_name) | city | age | admission\_date | result |

+----+------------+--------------------+-----------+-----+----------------+---------+

| 6 | Bimla | ttahB | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 5 | Bishwas | aroB | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 18 | Deepika | eejrettahC | Ahmedabad | 29 | 2020-11-05 | PASS |

| 17 | Deepika | amreV | Ahmedabad | 26 | 2017-08-22 | PASS |

| 12 | Goutham | amrahS | Ahmedabad | 26 | 2020-07-20 | PASS |

+----+------------+--------------------+-----------+-----+----------------+---------+

5 rows in set (0.0006 sec)

==============================================================================================================================================================================

27). Write a query to display the first names of students in Upper case.

select upper(first\_name) from student\_data;

+-------------------+

| upper(first\_name) |

+-------------------+

| AKASH |

| AAISHWARYA |

| ABHAY |

| ANAGHA |

| BISHWAS |

| BIMLA |

| BRIJESH |

| ARJUN |

| RAMYA |

| SHARANYA |

| SUHAS |

| GOUTHAM |

| DILSHAN |

| SACHIN |

| TANVEER |

| RUPALI |

| DEEPIKA |

| DEEPIKA |

| ZHYN |

| RISHI |

+-------------------+

20 rows in set (0.0005 sec)

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28). Write a query to display the full names of students as COMPLETE NAME in Lower case.

select LOWER(concat(first\_name,' ',last\_name)) as 'COMPLETE NAME'from student\_data;

+--------------------+

| COMPLETE NAME |

+--------------------+

| akash kumar |

| aaishwarya ray |

| abhay chander |

| anagha ahuja |

| bishwas bora |

| bimla bhatt |

| brijesh kumar |

| arjun shet |

| ramya bose |

| sharanya ahuja |

| suhas rai |

| goutham sharma |

| dilshan gupta |

| sachin acharya |

| tanveer ahmed |

| rupali gupta |

| deepika verma |

| deepika chatterjee |

| zhyn jackman |

| rishi shakshamas |

+--------------------+

20 rows in set (0.0004 sec)

============================================================================================================================================================================

29). Write a query to display the unique cities to which the students belong to in ascending order of city.

SELECT DISTINCT CITY FROM STUDENT\_DATA ORDER BY CITY;

+-----------+

| CITY |

+-----------+

| Ahmedabad |

| Bangalore |

| Chennai |

| Jaipur |

| Mumbai |

+-----------+

5 rows in set (0.0005 sec)

===========================================================================================================================================================================

30). Write a query to display the degrees offered. Order them in descending order of Min\_Marks.

SELECT DISTINCT DEGREE\_NAME FROM DEGREE\_DETAILS ORDER BY MIN\_MARKS DESC;

+----------------------------+

| DEGREE\_NAME |

+----------------------------+

| Master Of Business |

| Phd Technology |

| Phd Business |

| Phd Commerce |

| Master Of Commerce |

| Master Of Technology |

| MBBS |

| Bachelor Of Commerce |

| Bachelor Of Business |

| Bachelor Of Technology |

| MD |

| Associate Bachelor Physics |

+----------------------------+

12 rows in set (0.0006 sec)

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31). Write a query to display the details of students who are more than 23 years of age and first name has exactly 5 characters.

SELECT \* FROM STUDENT\_DATA WHERE AGE>23 AND CHAR\_LENGTH(FIRST\_NAME)=5;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED |

+----+------------+------------+-----------+-----+----------------+---------+

5 rows in set (0.0005 sec)

===========================================================================================================================================================================

32). Write a query to display the FIRST names of students who are 22 years old or younger.

select first\_name from student\_data where age<=22;

+------------+

| first\_name |

+------------+

| Anagha |

| Bimla |

| Brijesh |

| Arjun |

| Sharanya |

| Sachin |

| Rupali |

+------------+

7 rows in set (0.0004 sec)

===========================================================================================================================================================================

33). Write a query to display the First names of students who are not from Chennai.

select first\_name from student\_data where city != 'Chennai';

+------------+

| first\_name |

+------------+

| Akash |

| Aaishwarya |

| Abhay |

| Bishwas |

| Bimla |

| Brijesh |

| Arjun |

| Ramya |

| Sharanya |

| Suhas |

| Goutham |

| Dilshan |

| Sachin |

| Deepika |

| Deepika |

| Zhyn |

| Rishi |

+------------+

17 rows in set (0.0004 sec)

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34). Write a query to display the details of students who are 22 years old or are from Mumbai.

select \* from student\_data where age=22 or city='Mumbai';

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

+----+------------+-----------+-----------+-----+----------------+---------+

6 rows in set (0.0005 sec)

35). Write a query to display the name and age of students who are from Bangalore and of age 27.

select first\_name,age from student\_data where age=27 and city='Bangalore';

+------------+-----+

| first\_name | age |

+------------+-----+

| Suhas | 27 |

+------------+-----+

1 row in set (0.0004 sec)

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36). Write a query to display the name, age,city of students who are from Mumbai,Chennai or Jaipur.

select first\_name,age,city from student\_data where city in ('Jaipur','Mumbai','Chennai');

+------------+-----+---------+

| first\_name | age | city |

+------------+-----+---------+

| Akash | 24 | Jaipur |

| Aaishwarya | 32 | Mumbai |

| Abhay | 27 | Mumbai |

| Anagha | 22 | Chennai |

| Brijesh | 22 | Jaipur |

| Sharanya | 20 | Mumbai |

| Dilshan | 23 | Jaipur |

| Tanveer | 23 | Chennai |

| Rupali | 21 | Chennai |

| Rishi | 25 | Jaipur |

+------------+-----+---------+

10 rows in set (0.0005 sec)

===========================================================================================================================================================================

37). Write a query to display the name, age and city of students who are not from Mumbai,Chennai or Jaipur.

select first\_name,age,city from student\_data where city not in ('Jaipur','Mumbai','Chennai');

+------------+-----+-----------+

| first\_name | age | city |

+------------+-----+-----------+

| Bishwas | 44 | Ahmedabad |

| Bimla | 21 | Ahmedabad |

| Arjun | 19 | Bangalore |

| Ramya | 25 | Bangalore |

| Suhas | 27 | Bangalore |

| Goutham | 26 | Ahmedabad |

| Sachin | 22 | Bangalore |

| Deepika | 26 | Ahmedabad |

| Deepika | 29 | Ahmedabad |

| Zhyn | 24 | Bangalore |

+------------+-----+-----------+

10 rows in set (0.0004 sec)

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38). Write a query to display the Id,Full name,MARKS of students who are more than 20 years old and scored more than 90.

Order of execution:

FROM

WHERE

JOIN

GROUP BY

HAVING

SELECT

ORDER BY

LIMIT

select s.id,concat(s.first\_name,' ',s.last\_name) as 'Full Name',e.Marks from student\_data as s,enrollment as e where s.age>20 and e.marks>90 and s.id=e.sid;

+----+-------------+-------+

| id | Full Name | Marks |

+----+-------------+-------+

| 1 | Akash Kumar | 99 |

+----+-------------+-------+

1 row in set (0.0006 sec)

============================================================================================================================================================================

39). Write a query to display the details of degrees who have fees more than 200000 and duration 4 years or less.

select \* from degree\_details where fees>200000 and length\_of\_course<=4;

+-----------+------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+------------------------+------------------+-----------+-----------+

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 5010 | MD | 4 | 500000.00 | 35 |

+-----------+------------------------+------------------+-----------+-----------+

5 rows in set (0.0029 sec)

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40). Write a query to display the details of students whose age is less than 22 or greater than 25.

select \* from student\_data where age not between 22 and 25;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | AWAITED |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

11 rows in set (0.0006 sec)

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41). Write a query to display the details of students whose age is between 22 and 25 in descending order of first name.

select \* from student\_data where age between 22 and 25 order by first\_name desc;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

| 21 | Tushar | Thammanna | Ahmedabad | 24 | 2019-03-06 | AWAITED |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | FAIL |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | FAIL |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

10 rows in set (0.0007 sec)

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42). Write a query to display the last\_name of all students and display the number of 'S' and 's' in their last names.

insert into student\_data values(20,'Rishi','Shakshamas','Jaipur',25,'2021-01-03','AWAITED');

select last\_name,char\_length(last\_name)-char\_length(replace(lower(last\_name),'s','')) from student\_data;

select last\_name,char\_length(last\_name)-char\_length(replace(replace(last\_name,'s',''),'S','')) from student\_data;

+------------+-------------------------------------------------------------------------------+

| last\_name | char\_length(last\_name)-char\_length(replace(replace(last\_name,'s',''),'S','')) |

+------------+-------------------------------------------------------------------------------+

| Kumar | 0 |

| Ray | 0 |

| Chander | 0 |

| Ahuja | 0 |

| Bora | 0 |

| Bhatt | 0 |

| Kumar | 0 |

| Shet | 1 |

| Bose | 1 |

| Ahuja | 0 |

| Rai | 0 |

| Sharma | 1 |

| Gupta | 0 |

| Acharya | 0 |

| Ahmed | 0 |

| Gupta | 0 |

| Verma | 0 |

| Chatterjee | 0 |

| Jackman | 0 |

| Shakshamas | 3 |

| Thammanna | 0 |

+------------+-------------------------------------------------------------------------------+

21 rows in set (0.0005 sec)

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43). Display the details of students whose first name have exactly 1 'i'.

select \* from student\_data where char\_length(first\_name)-char\_length(replace(lower(first\_name),'i',''))=1;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | FAIL |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

9 rows in set (0.0008 sec)

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44). Display the details of students whose first name and last name together have exactly 2 't'.

insert into student\_data values (21,'Tushar','Thammanna','Ahmedabad',24,'2019-03-06','AWAITED');

select \* from student\_data where char\_length(concat(first\_name,last\_name))-char\_length(replace(lower(concat(first\_name,last\_name)),'t',''))=2;

select \* from student\_data where char\_length(first\_name)-char\_length(replace(lower(first\_name),'t',''))

+char\_length(last\_name)-char\_length(replace(lower(last\_name),'t',''))=2;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 21 | Tushar | Thammanna | Ahmedabad | 24 | 2019-03-06 | AWAITED |

+----+------------+------------+-----------+-----+----------------+---------+

3 rows in set (0.0007 sec)

================================================================================================================================================================================

LIKE

--> \_ Matches One character

--> % Matched Zero or more characters.

RLIKE/REGEXP

--> \* Zero or more instances of the string preceding it.

--> + One or more instances of the string preceding it.

--> . Any single character.

--> ? Zero or One instances of the string preceding it.

--> ^ Matches beginning of the string.

--> $ Matches the end of the string.

--> [] Matches any data that contains any one of the characters within [].

--> [^ ] Matches any data that does not contain any of the characters within [].

--> [A-Z] Matches any uppercase letter

--> [a-z] Matches any lower case letter

--> [0-9] Matches any digit

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45). Write a query to display details of students whose first names start from S.

select \* from student\_data where first\_name Rlike '^S';

select \* from student\_data where first\_name like 'S%';

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhas | Rai | Bangalore | 27 | 2016-05-14 | AWAITED |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

+----+------------+-----------+-----------+-----+----------------+---------+

3 rows in set (0.0007 sec)

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46). Write a query to display the details of the students whose First names start from 'Bim'.

select \* from student\_data where first\_name rlike '^Bim';

select \* from student\_data where first\_name like 'Bim%';

+----+------------+-----------+-----------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+--------+

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

+----+------------+-----------+-----------+-----+----------------+--------+

1 row in set (0.0005 sec)

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47). Write a query to display details of students whose first names end with A.

select \* from student\_data where first\_name like '%a';

select \* from student\_data where first\_name rlike 'a$';

+----+------------+------------+-----------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+--------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | Deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

+----+------------+------------+-----------+-----+----------------+--------+

7 rows in set (0.0005 sec)

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48). Write a query to display details of the students whose last\_names end with 'ma'

select \* from student\_data where LAST\_NAME Like '%ma';

select \* from student\_data where LAST\_NAME rLike 'ma$';

+----+------------+-----------+-----------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+--------+

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

+----+------------+-----------+-----------+-----+----------------+--------+

2 rows in set (0.0007 sec)

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49). Write a query to display details of students who have joined on the 1st of any month.

select \* from student\_data where admission\_date like '%01';

select \* from student\_data where admission\_date rlike '01$';

select \* from student\_data where admission\_date rlike '[0-9]+-[0-9]+-01';

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | FAIL |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

+----+------------+-----------+-----------+-----+----------------+---------+

3 rows in set (0.0008 sec)

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50). Write a query to display name and id of courses starts from 'Bachelor'.

select degree\_name,degree\_id from degree\_details where degree\_name like 'Bachelor%';

select degree\_name,degree\_id from degree\_details where degree\_name rlike '^Bachelor';

+------------------------+-----------+

| degree\_name | degree\_id |

+------------------------+-----------+

| Bachelor Of Commerce | 5000 |

| Bachelor Of Business | 5002 |

| Bachelor Of Technology | 5004 |

+------------------------+-----------+

3 rows in set (0.0010 sec)

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51). Write a query to display name and id of courses that contain 'Of'.

select degree\_name,degree\_id from degree\_details where degree\_name like '%Of%';

select degree\_name,degree\_id from degree\_details where degree\_name REGEXP 'Of';

+------------------------+-----------+

| degree\_name | degree\_id |

+------------------------+-----------+

| Bachelor Of Commerce | 5000 |

| Master Of Commerce | 5001 |

| Bachelor Of Business | 5002 |

| Master Of Business | 5003 |

| Bachelor Of Technology | 5004 |

| Master Of Technology | 5005 |

+------------------------+-----------+

6 rows in set (0.0006 sec)

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52). Write a query to display name and id of courses that end with 'Technology'.

SELECT DEGREE\_NAME,DEGREE\_ID FROM DEGREE\_DETAILS WHERE Degree\_name LIKE '%Technology';

SELECT DEGREE\_NAME,DEGREE\_ID FROM DEGREE\_DETAILS WHERE Degree\_name RLIKE 'Technology$';

+------------------------+-----------+

| DEGREE\_NAME | DEGREE\_ID |

+------------------------+-----------+

| Bachelor Of Technology | 5004 |

| Master Of Technology | 5005 |

| Phd Technology | 5006 |

+------------------------+-----------+

3 rows in set (0.0005 sec)

====================================================================================================================================================================================

53). Write a query to display the name and id of course where the 3rd character of Degree\_name is 'd' or First character is 'A'.

select degree\_name,degree\_id from degree\_details where Degree\_name like 'A%' or Degree\_name like '\_\_d%';

select degree\_name,degree\_id from degree\_details where Degree\_name rlike '^A' or Degree\_name rlike '..d';

+----------------------------+-----------+

| degree\_name | degree\_id |

+----------------------------+-----------+

| Phd Technology | 5006 |

| Phd Business | 5007 |

| Phd Commerce | 5008 |

| Associate Bachelor Physics | 5011 |

+----------------------------+-----------+

4 rows in set (0.0005 sec)

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54). Write a query to display the name and id of course where the 4th and 3rd characters from the last is 'lo'.

select degree\_name,degree\_id from degree\_details where degree\_name like '%lo\_\_';

select degree\_name,degree\_id from degree\_details where degree\_name rlike 'lo..$';

+------------------------+-----------+

| degree\_name | degree\_id |

+------------------------+-----------+

| Bachelor Of Technology | 5004 |

| Master Of Technology | 5005 |

| Phd Technology | 5006 |

+------------------------+-----------+

3 rows in set (0.0005 sec)

====================================================================================================================================================================================

55). Write a query to display the details of the course that contains exactly 3 words in its name.

update degree\_details set degree\_name='Assoc Bach Physics Hons' where degree\_id=5011;

select \* from degree\_details where degree\_name like '% % %' and degree\_name not like '% % % %';

select \* from degree\_details where degree\_name rlike '[A-Za-z]+ [A-Za-z]+ [A-Za-z]+' and degree\_name

not rlike '[A-Za-z]+ [A-Za-z]+ [A-Za-z]+ [A-Za-z]+';

+-----------+------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+------------------------+------------------+-----------+-----------+

| 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 |

+-----------+------------------------+------------------+-----------+-----------+

6 rows in set (0.0008 sec)

======================================================================================================================================================================================

56). Write a query to display the details of the course that contains atleast 2 words in its name.

select \* from degree\_details where degree\_name like '% %';

select \* from degree\_details where degree\_name rlike '[A-Za-z]+ [A-Za-z]+';

+-----------+-------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+-------------------------+------------------+-----------+-----------+

| 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 5007 | Phd Business | 5 | 90000.00 | 50 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 5011 | Assoc Bach Physics Hons | 3 | 75000.00 | 35 |

+-----------+-------------------------+------------------+-----------+-----------+

10 rows in set (0.0007 sec)

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57). Write a query to display the details of courses that have atmost 2 words in its name.

select \* from degree\_details where (degree\_name like '%' or degree\_name like '% %') and degree\_name not like '% % %';

select \* from degree\_details where (degree\_name rlike '[A-Za-z]+' or degree\_name rlike '[A-Za-z]+ [A-Za-z]+') and

degree\_name not rlike '[A-Za-z]+ [A-Za-z]+ [A-Za-z]+';

+-----------+----------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+----------------+------------------+-----------+-----------+

| 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 5007 | Phd Business | 5 | 90000.00 | 50 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 5009 | MBBS | 5 | 100000.00 | 40 |

| 5010 | MD | 4 | 500000.00 | 35 |

+-----------+----------------+------------------+-----------+-----------+

5 rows in set (0.0006 sec)

==================================================================================================================================================================================

58). Write a query to display the names of students that have exactly 5 characters using LIKE and RLIKE.

select first\_name from student\_data where first\_name like '\_\_\_\_\_';

select first\_name from student\_data where first\_name rlike '^.....$';

+------------+

| first\_name |

+------------+

| Akash |

| Abhay |

| Bimla |

| Arjun |

| Ramya |

| Suhas |

| Rishi |

+------------+

7 rows in set (0.0008 sec)

============================================================================================================================================================================

59). Write a query to display details of students whose first name contains 'pi' and 'De'. 'D' must be capital.

update student\_data set first\_name='deepika' where id =18;

select \* from student\_data where first\_name like '%pi%' and first\_name like BINARY '%De%';

select \* from student\_data where first\_name rlike 'pi' and cast(first\_name as Binary) rlike BINARY 'De';

+----+------------+-----------+-----------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+--------+

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

+----+------------+-----------+-----------+-----+----------------+--------+

1 row in set (0.0005 sec)

============================================================================================================================================================================

60). Write a query to display the first name and id of students who joined in July 2020.

select first\_name,id from student\_data where admission\_date like '2020-07-%';

select first\_name,id from student\_data where admission\_date rlike '^2020-07-[1-3][0-9]$';

+------------+----+

| first\_name | id |

+------------+----+

| Goutham | 12 |

+------------+----+

1 row in set (0.0005 sec)

===========================================================================================================================================================================

61). Write a query to display the first name of students whose first name contains consecutive a's.

select first\_name from student\_data where first\_name rlike 'aaa\*';

select first\_name from student\_data where first\_name rlike 'aa+';

select first\_name from student\_data where first\_name rlike 'aa';

select first\_name from student\_data where first\_name like '%aa%';

+------------+

| first\_name |

+------------+

| Aaishwarya |

+------------+

1 row in set (0.0004 sec)

============================================================================================================================================================================

62). Write a query to display the first name and id of students whose first name contains a vowel.

select id,first\_name from student\_data where first\_name like '%a%' or first\_name like '%e%' or first\_name like '%i%' or

first\_name like '%o%' or first\_name like '%u%';

select id,first\_name from student\_data where first\_name rlike '[a e i o u]';

+----+------------+

| id | first\_name |

+----+------------+

| 1 | Akash |

| 2 | Aaishwarya |

| 3 | Abhay |

| 4 | Anagha |

| 5 | Bishwas |

| 6 | Bimla |

| 7 | Brijesh |

| 8 | Arjun |

| 9 | Ramya |

| 10 | Sharanya |

| 11 | Suhaaaaaas |

| 12 | Goutham |

| 13 | Dilshan |

| 14 | Sachin |

| 15 | Tanveer |

| 16 | Rupali |

| 17 | Deepika |

| 18 | deepika |

| 20 | Rishi |

| 21 | Tushar |

| 22 | Emilio |

+----+------------+

21 rows in set (0.0012 sec)

=============================================================================================================================================================================

63). Write a query to display the name and id of students whose first name doesnot contain vowels.

select id, first\_name from student\_data where first\_name not like '%a%' and first\_name not like '%e%'

and first\_name not like '%i%' and first\_name not like '%o%' and first\_name not like '%u%';

select id,first\_name from student\_data where first\_name not rlike '[a e i o u]';

+----+------------+

| id | first\_name |

+----+------------+

| 19 | Zhyn |

+----+------------+

1 row in set (0.0007 sec)

==============================================================================================================================================================================

64). Write a query to display the details of students whose name starts with a vowel.

select \* from student\_data where first\_name like 'a%' or first\_name like 'e%' or first\_name like 'o%'or first\_name like 'i%'

or first\_name like 'u%';

select \* from student\_data where first\_name rlike '^[a e i o u]';

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

+----+------------+-----------+-----------+-----+----------------+---------+

6 rows in set (0.0007 sec)

================================================================================================================================================================================

65). Write a query to display the details of students whose name ends with a vowel.

select \* from student\_data where first\_name rlike '[a e i o u]$'

select \* from student\_data where first\_name like '%a' or first\_name like '%e' or first\_name like '%o'or first\_name like '%i'

-> or first\_name like '%u';

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

+----+------------+------------+-----------+-----+----------------+---------+

10 rows in set (0.0007 sec)

================================================================================================================================================================================

66). Write a query to display the details of students whose name doesnot start and end with a vowel.

select \* from student\_data where first\_name not like 'a%' and first\_name not like 'e%' and first\_name not like 'i%' and

first\_name not like 'o%' and first\_name not like 'u%' and first\_name not like '%a' and first\_name not like '%e' and

first\_name not like '%o' and first\_name not like '%u' and first\_name not like '%i';

select \* from student\_data where first\_name not rlike '^[a e i o u]' and first\_name not rlike '[a e i o u]$';

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

| 21 | Tushar | Thammanna | Ahmedabad | 24 | 2019-03-06 | AWAITED |

+----+------------+-----------+-----------+-----+----------------+---------+

9 rows in set (0.0009 sec)

================================================================================================================================================================================

67). Write a query to display the details of students whose name starts and ends with a vowel.

INSERT INTO STUDENT\_DATA VALUES(22,'Emilio','Rodriguez','Bangalore',23,'2020-02-23','AWAITED');

select \* from student\_data where (first\_name like 'a%' or first\_name like 'e%' or first\_name like 'i%' or

first\_name like 'o%' or first\_name like 'u%') and (first\_name like '%a' or first\_name like '%e' or

first\_name like '%o' or first\_name like '%u' or first\_name like '%i');

select \* from student\_data where first\_name rlike '^[a e i o u]' and first\_name rlike '[a e i o u]$';

select \* from student\_data where first\_name rlike '^[a e i o u][a-z]\*[a e i o u]$';

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

+----+------------+-----------+-----------+-----+----------------+---------+

3 rows in set (0.0007 sec)

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68). Write a query to display the details of students whose name starts with a vowel but doesnot end with a vowel.

SELECT \* FROM STUDENT\_DATA WHERE (FIRST\_NAME LIKE 'a%' or FIRST\_NAME LIKE 'e%' or FIRST\_NAME LIKE 'i%' or FIRST\_NAME LIKE 'o%' or FIRST\_NAME LIKE 'u%') and

(First\_name not like '%a' and First\_name not like '%e' and First\_name not like '%i' and First\_name not like '%o' and First\_name not like '%u');

select \* from student\_data where first\_name rlike '^[a e i o u]' and first\_name not rlike '[a e i o u]$';

+----+------------+-----------+-----------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+--------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

+----+------------+-----------+-----------+-----+----------------+--------+

3 rows in set (0.0007 sec)

================================================================================================================================================================================

69). Write a query to display the name and id of student whose name starts with a consonant and ends with a vowel.

select id,first\_name from student\_data where (first\_name not like 'a%' and first\_name not like 'e%' and first\_name not like 'i%' and first\_name not like 'o%' and

first\_name not like 'u%') and (first\_name like '%a' or first\_name like '%e' or first\_name like '%i' or first\_name like '%o' or first\_name like '%u');

select id,first\_name from student\_data where first\_name rlike '^[^a e i o u]' and first\_name rlike'[a e i o u]$';

+----+------------+

| id | first\_name |

+----+------------+

| 6 | Bimla |

| 9 | Ramya |

| 10 | Sharanya |

| 16 | Rupali |

| 17 | Deepika |

| 18 | deepika |

| 20 | Rishi |

+----+------------+

7 rows in set (0.0005 sec)

================================================================================================================================================================================

70). Write a query to display the details of the courses where there is zero enrollment.

select distinct deg\_id from enrollment;

+--------+

| deg\_id |

+--------+

| 5001 |

| 5002 |

| 5003 |

| 5004 |

| 5005 |

| 5007 |

| 5009 |

| 5010 |

+--------+

8 rows in set (0.0035 sec)

select \* from degree\_details where degree\_id not in(select distinct deg\_id from enrollment);

+-----------+-------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+-------------------------+------------------+-----------+-----------+

| 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 5011 | Assoc Bach Physics Hons | 3 | 75000.00 | 35 |

+-----------+-------------------------+------------------+-----------+-----------+

4 rows in set (0.0010 sec)

================================================================================================================================================================================

71). Write a query to display the degree\_name, degree\_id and count of students who have enrolled in that degree course.

select d.degree\_name,d.degree\_id,count(\*) as 'No.of Students Enrolled' from degree\_details as d,enrollment as e

where e.deg\_id=d.degree\_id group by d.degree\_name,d.degree\_id;

+------------------------+-----------+-------------------------+

| degree\_name | degree\_id | No.of Students Enrolled |

+------------------------+-----------+-------------------------+

| Master Of Commerce | 5001 | 2 |

| Bachelor Of Business | 5002 | 2 |

| Master Of Business | 5003 | 1 |

| Bachelor Of Technology | 5004 | 3 |

| Master Of Technology | 5005 | 1 |

| Phd Business | 5007 | 4 |

| MBBS | 5009 | 1 |

| MD | 5010 | 2 |

+------------------------+-----------+-------------------------+

8 rows in set (0.0066 sec)

================================================================================================================================================================================

72). Write a query to display the degree\_name and degree\_id of the course that has highest enrollment.

select d.degree\_name,d.degree\_id from degree\_details as d,enrollment as e

where e.deg\_id=d.degree\_id group by d.degree\_name,d.degree\_id ORDER BY count(\*) desc LIMIT 1;

+--------------+-----------+

| degree\_name | degree\_id |

+--------------+-----------+

| Phd Business | 5007 |

+--------------+-----------+

1 row in set (0.0007 sec)

insert into enrollment values (22,63,5004);

select degree\_name,degree\_id from degree\_details,enrollment where degree\_id=deg\_id group by degree\_name,degree\_id having count(\*) IN

(select max(R1.count) from (select deg\_id,count(\*) as 'count' from enrollment group by deg\_id) as R1);

select degree\_name,degree\_id from degree\_details,enrollment where degree\_id=deg\_id group by degree\_name,degree\_id having count(\*) =

(select max(R1.count) from (select deg\_id,count(\*) as 'count' from enrollment group by deg\_id) as R1);

+------------------------+-----------+

| degree\_name | degree\_id |

+------------------------+-----------+

| Bachelor Of Technology | 5004 |

| Phd Business | 5007 |

+------------------------+-----------+

2 rows in set (0.0011 sec)

================================================================================================================================================================================

73). Write a query to display the degree\_name and degree\_id of the course that has least enrollment

among the courses that have atleast one enrollment/among the courses present in the enrollment table.

select d.degree\_name,d.degree\_id from degree\_details as d,enrollment as e

where e.deg\_id=d.degree\_id group by d.degree\_name,d.degree\_id ORDER BY count(\*) LIMIT 1;

+--------------------+-----------+

| degree\_name | degree\_id |

+--------------------+-----------+

| Master Of Business | 5003 |

+--------------------+-----------+

1 row in set (0.0006 sec)

================================================================================================================================================================================

74). Write a query to display the maximum marks scored in all subjects taken together.

SELECT max(marks) from enrollment;

+------------+

| max(marks) |

+------------+

| 99 |

+------------+

1 row in set (0.0060 sec)

================================================================================================================================================================================

75). Write a query to display the minimum of marks scored by the students in all subjects taken together.

select min(marks) from enrollment;

+------------+

| min(marks) |

+------------+

| 26 |

+------------+

1 row in set (0.0005 sec)

================================================================================================================================================================================

76). Write a query to display the sum of marks scored in all subjects taken together.

select sum(marks) from enrollment;

+------------+

| sum(marks) |

+------------+

| 920 |

+------------+

1 row in set (0.0004 sec)

================================================================================================================================================================================

77). Write a query to display the average marks taken all subjects together.

select avg(marks) from enrollment;

+------------+

| avg(marks) |

+------------+

| 57.5000 |

+------------+

1 row in set (0.0005 sec)

================================================================================================================================================================================

78). Write a query to display the id, name of course along with maximum marks scored in each COURSE.

SELECT d.degree\_id,d.degree\_name,max(e.marks) from degree\_details as d,enrollment as e where

d.degree\_id=e.deg\_id group by d.degree\_id,d.degree\_name;

+-----------+------------------------+--------------+

| degree\_id | degree\_name | max(e.marks) |

+-----------+------------------------+--------------+

| 5007 | Phd Business | 99 |

| 5010 | MD | 76 |

| 5002 | Bachelor Of Business | 56 |

| 5003 | Master Of Business | 45 |

| 5004 | Bachelor Of Technology | 81 |

| 5001 | Master Of Commerce | 75 |

| 5005 | Master Of Technology | 79 |

| 5009 | MBBS | 30 |

+-----------+------------------------+--------------+

8 rows in set (0.0007 sec)

================================================================================================================================================================================

79). Write a query to display the id and name of the course along with minimum marks scored in each COURSE.

SELECT d.degree\_id,d.degree\_name,min(e.marks) from degree\_details as d,enrollment as e

where d.degree\_id=e.deg\_id group by d.degree\_id,d.degree\_name;

+-----------+------------------------+--------------+

| degree\_id | degree\_name | min(e.marks) |

+-----------+------------------------+--------------+

| 5007 | Phd Business | 55 |

| 5010 | MD | 41 |

| 5002 | Bachelor Of Business | 26 |

| 5003 | Master Of Business | 45 |

| 5004 | Bachelor Of Technology | 31 |

| 5001 | Master Of Commerce | 28 |

| 5005 | Master Of Technology | 79 |

| 5009 | MBBS | 30 |

+-----------+------------------------+--------------+

8 rows in set (0.0007 sec)

============================================================================================================================================================================================

80). Write a query to display the id and name of the course along with minimum marks scored in each COURSE where minimum marks is

lesser than 50.

SELECT d.degree\_id,d.degree\_name,min(e.marks) from degree\_details as d,enrollment as e

where d.degree\_id=e.deg\_id group by d.degree\_id,d.degree\_name having min(e.marks)<50;

+-----------+------------------------+--------------+

| degree\_id | degree\_name | min(e.marks) |

+-----------+------------------------+--------------+

| 5010 | MD | 41 |

| 5002 | Bachelor Of Business | 26 |

| 5003 | Master Of Business | 45 |

| 5004 | Bachelor Of Technology | 31 |

| 5001 | Master Of Commerce | 28 |

| 5009 | MBBS | 30 |

+-----------+------------------------+--------------+

6 rows in set (0.0007 sec)

============================================================================================================================================================================================

81). Write a query to display the id and name of the course along with minimum marks scored in each COURSE where marks is lesser than 50.

SELECT d.degree\_id,d.degree\_name,min(e.marks) from degree\_details as d,enrollment as e

where d.degree\_id=e.deg\_id and e.marks<50 group by d.degree\_id,d.degree\_name having min(e.marks)<50;

+-----------+------------------------+--------------+

| degree\_id | degree\_name | min(e.marks) |

+-----------+------------------------+--------------+

| 5002 | Bachelor Of Business | 26 |

| 5003 | Master Of Business | 45 |

| 5004 | Bachelor Of Technology | 31 |

| 5001 | Master Of Commerce | 28 |

| 5009 | MBBS | 30 |

| 5010 | MD | 41 |

+-----------+------------------------+--------------+

6 rows in set (0.0006 sec)

================================================================================================================================================================================

82).Write a query to display the details of the cross product table of degree\_details and enrollment

along with minimum,maximum,average marks scored and count of rows in each group.

SELECT \*,min(marks),max(marks),avg(marks),count(\*) FROM DEGREE\_DETAILS,ENROLLMENT WHERE degree\_id=deg\_id

group by Degree\_ID,DEGREE\_NAME,Length\_of\_course,Fees,Min\_Marks,Sid,marks,deg\_id order by deg\_id;

+-----------+------------------------+------------------+-----------+-----------+-----+-------+--------+------------+------------+------------+----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS | sid | marks | deg\_id | min(marks) | max(marks) | avg(marks) | count(\*) |

+-----------+------------------------+------------------+-----------+-----------+-----+-------+--------+------------+------------+------------+----------+

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 | 9 | 28 | 5001 | 28 | 28 | 28.0000 | 1 |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 | 16 | 75 | 5001 | 75 | 75 | 75.0000 | 1 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 | 5 | 26 | 5002 | 26 | 26 | 26.0000 | 1 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 | 11 | 56 | 5002 | 56 | 56 | 56.0000 | 1 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 | 6 | 45 | 5003 | 45 | 45 | 45.0000 | 1 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 7 | 81 | 5004 | 81 | 81 | 81.0000 | 1 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 8 | 31 | 5004 | 31 | 31 | 31.0000 | 1 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 19 | 71 | 5004 | 71 | 71 | 71.0000 | 1 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 22 | 63 | 5004 | 63 | 63 | 63.0000 | 1 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 | 12 | 79 | 5005 | 79 | 79 | 79.0000 | 1 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 1 | 99 | 5007 | 99 | 99 | 99.0000 | 1 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 2 | 66 | 5007 | 66 | 66 | 66.0000 | 1 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 13 | 61 | 5007 | 61 | 61 | 61.0000 | 1 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 17 | 55 | 5007 | 55 | 55 | 55.0000 | 1 |

| 5009 | MBBS | 5 | 100000.00 | 40 | 14 | 30 | 5009 | 30 | 30 | 30.0000 | 1 |

| 5010 | MD | 4 | 500000.00 | 35 | 3 | 76 | 5010 | 76 | 76 | 76.0000 | 1 |

| 5010 | MD | 4 | 500000.00 | 35 | 15 | 41 | 5010 | 41 | 41 | 41.0000 | 1 |

+-----------+------------------------+------------------+-----------+-----------+-----+-------+--------+------------+------------+------------+----------+

17 rows in set (0.0008 sec)

================================================================================================================================================================================

Types of joins:

Equi Join

Non-Equi Join

Natural Join

Inner Join

Left Join

Right Join

Full Join(Not supported in MySQL)

===============================================================================================================================================================================

83). Inner Join Student\_data with enrollment table on id=sid and display all the data.

SELECT \* FROM

Student\_data AS s

Inner Join

Enrollment as e

ON s.ID=e.SID;

+----+------------+-----------+-----------+-----+----------------+---------+-----+-------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | sid | marks | deg\_id |

+----+------------+-----------+-----------+-----+----------------+---------+-----+-------+--------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS | 1 | 99 | 5007 |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS | 2 | 66 | 5007 |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS | 3 | 76 | 5010 |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED | 5 | 26 | 5002 |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL | 6 | 45 | 5003 |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS | 7 | 81 | 5004 |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS | 8 | 31 | 5004 |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL | 9 | 28 | 5001 |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS | 11 | 56 | 5002 |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS | 12 | 79 | 5005 |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS | 13 | 61 | 5007 |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS | 14 | 30 | 5009 |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS | 15 | 41 | 5010 |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS | 16 | 75 | 5001 |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS | 17 | 55 | 5007 |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS | 19 | 71 | 5004 |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED | 22 | 63 | 5004 |

+----+------------+-----------+-----------+-----+----------------+---------+-----+-------+--------+

17 rows in set (0.0008 sec)

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84). Left join Degree\_details with Enrollment then inner join with Student\_data on id=sid and deg\_id=degree\_id. Show all the data.

SELECT \* FROM

Degree\_details as d

Left Join

Enrollment as e

ON d.degree\_id=e.deg\_id

Inner Join

Student\_data as s

on s.id=e.sid;

+-----------+------------------------+------------------+-----------+-----------+-----+-------+--------+----+------------+-----------+-----------+-----+----------------+---------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS | sid | marks | deg\_id | ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+-----------+------------------------+------------------+-----------+-----------+-----+-------+--------+----+------------+-----------+-----------+-----+----------------+---------+

| 5007 | Phd Business | 5 | 90000.00 | 50 | 1 | 99 | 5007 | 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 2 | 66 | 5007 | 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 5010 | MD | 4 | 500000.00 | 35 | 3 | 76 | 5010 | 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 | 5 | 26 | 5002 | 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 5003 | Master Of Business | 3 | 500000.00 | 50 | 6 | 45 | 5003 | 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 7 | 81 | 5004 | 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 8 | 31 | 5004 | 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 | 9 | 28 | 5001 | 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 | 11 | 56 | 5002 | 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 | 12 | 79 | 5005 | 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 13 | 61 | 5007 | 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 5009 | MBBS | 5 | 100000.00 | 40 | 14 | 30 | 5009 | 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 5010 | MD | 4 | 500000.00 | 35 | 15 | 41 | 5010 | 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 | 16 | 75 | 5001 | 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 17 | 55 | 5007 | 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 19 | 71 | 5004 | 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 22 | 63 | 5004 | 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

+-----------+------------------------+------------------+-----------+-----------+-----+-------+--------+----+------------+-----------+-----------+-----+----------------+---------+

17 rows in set (0.0011 sec)

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85). Right join student\_data with Enrollment on id=sid. Then right join with Degree\_details on degree\_id=deg\_id.

select \* from Enrollment as e Right Join student\_data as s on s.id=e.sid right join degree\_details as d on d.degree\_id=e.deg\_id;

+------+-------+--------+------+------------+-----------+-----------+------+----------------+---------+-----------+-------------------------+------------------+-----------+-----------+

| sid | marks | deg\_id | ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+------+-------+--------+------+------------+-----------+-----------+------+----------------+---------+-----------+-------------------------+------------------+-----------+-----------+

| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 9 | 28 | 5001 | 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL | 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 16 | 75 | 5001 | 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS | 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5 | 26 | 5002 | 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED | 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 11 | 56 | 5002 | 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS | 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 6 | 45 | 5003 | 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL | 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 7 | 81 | 5004 | 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 8 | 31 | 5004 | 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 19 | 71 | 5004 | 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 22 | 63 | 5004 | 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 12 | 79 | 5005 | 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS | 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 1 | 99 | 5007 | 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 2 | 66 | 5007 | 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 13 | 61 | 5007 | 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 17 | 55 | 5007 | 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 14 | 30 | 5009 | 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS | 5009 | MBBS | 5 | 100000.00 | 40 |

| 3 | 76 | 5010 | 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS | 5010 | MD | 4 | 500000.00 | 35 |

| 15 | 41 | 5010 | 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS | 5010 | MD | 4 | 500000.00 | 35 |

| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | 5011 | Assoc Bach Physics Hons | 3 | 75000.00 | 35 |

+------+-------+--------+------+------------+-----------+-----------+------+----------------+---------+-----------+-------------------------+------------------+-----------+-----------+

21 rows in set (0.0012 sec)

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86). Inner join Student\_data with Enrollment where marks > 75. Display Student ID and result from Student\_data and Marks from enrollment.

select s.id,s.result,e.marks from

student\_data as s

inner join

enrollment as e

where marks>75;

+----+---------+-------+

| id | result | marks |

+----+---------+-------+

| 1 | PASS | 79 |

| 1 | PASS | 81 |

| 1 | PASS | 76 |

| 1 | PASS | 99 |

| 2 | PASS | 79 |

| 2 | PASS | 81 |

| 2 | PASS | 76 |

| 2 | PASS | 99 |

| 3 | PASS | 79 |

| 3 | PASS | 81 |

| 3 | PASS | 76 |

| 3 | PASS | 99 |

| 4 | PASS | 79 |

| 4 | PASS | 81 |

| 4 | PASS | 76 |

| 4 | PASS | 99 |

| 5 | AWAITED | 79 |

| 5 | AWAITED | 81 |

| 5 | AWAITED | 76 |

| 5 | AWAITED | 99 |

| 6 | FAIL | 79 |

| 6 | FAIL | 81 |

| 6 | FAIL | 76 |

| 6 | FAIL | 99 |

| 7 | PASS | 79 |

| 7 | PASS | 81 |

| 7 | PASS | 76 |

| 7 | PASS | 99 |

| 8 | PASS | 79 |

| 8 | PASS | 81 |

| 8 | PASS | 76 |

| 8 | PASS | 99 |

| 9 | FAIL | 79 |

| 9 | FAIL | 81 |

| 9 | FAIL | 76 |

| 9 | FAIL | 99 |

| 10 | FAIL | 79 |

| 10 | FAIL | 81 |

| 10 | FAIL | 76 |

| 10 | FAIL | 99 |

| 11 | PASS | 79 |

| 11 | PASS | 81 |

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| 17 | PASS | 99 |

| 18 | PASS | 79 |

| 18 | PASS | 81 |

| 18 | PASS | 76 |

| 18 | PASS | 99 |

| 19 | PASS | 79 |

| 19 | PASS | 81 |

| 19 | PASS | 76 |

| 19 | PASS | 99 |

| 20 | AWAITED | 79 |

| 20 | AWAITED | 81 |

| 20 | AWAITED | 76 |

| 20 | AWAITED | 99 |

| 21 | AWAITED | 79 |

| 21 | AWAITED | 81 |

| 21 | AWAITED | 76 |

| 21 | AWAITED | 99 |

| 22 | AWAITED | 79 |

| 22 | AWAITED | 81 |

| 22 | AWAITED | 76 |

| 22 | AWAITED | 99 |

+----+---------+-------+

88 rows in set (0.0007 sec)

=================================================================================================================================================================================

87). Full join Student\_data with Enrollment. Display all the data.

select \* from

Student\_data as s

Left Join

Enrollment as e

on s.id=e.sid

UNION

select \* from

Student\_data as s

Right Join

Enrollment as e

on s.id=e.sid;

+----+------------+------------+-----------+-----+----------------+---------+------+-------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | sid | marks | deg\_id |

+----+------------+------------+-----------+-----+----------------+---------+------+-------+--------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS | 1 | 99 | 5007 |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS | 2 | 66 | 5007 |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS | 3 | 76 | 5010 |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS | NULL | NULL | NULL |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED | 5 | 26 | 5002 |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL | 6 | 45 | 5003 |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS | 7 | 81 | 5004 |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS | 8 | 31 | 5004 |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL | 9 | 28 | 5001 |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL | NULL | NULL | NULL |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS | 11 | 56 | 5002 |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS | 12 | 79 | 5005 |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS | 13 | 61 | 5007 |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS | 14 | 30 | 5009 |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS | 15 | 41 | 5010 |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS | 16 | 75 | 5001 |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS | 17 | 55 | 5007 |

| 18 | deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS | NULL | NULL | NULL |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS | 19 | 71 | 5004 |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED | NULL | NULL | NULL |

| 21 | Tushar | Thammanna | Ahmedabad | 24 | 2019-03-06 | AWAITED | NULL | NULL | NULL |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED | 22 | 63 | 5004 |

+----+------------+------------+-----------+-----+----------------+---------+------+-------+--------+

22 rows in set (0.0010 sec)

=================================================================================================================================================================================

88). Full join Degree\_details with enrollment table. Display all data where fees < 200000.

select \* from degree\_details as d Left Join Enrollment as e ON d.degree\_id = e.deg\_id where d.fees<200000

UNION

Select \* from Degree\_details as d Right Join Enrollment as e ON d.degree\_id=e.deg\_id where d.fees<200000;

+-----------+-------------------------+------------------+-----------+-----------+------+-------+--------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS | sid | marks | deg\_id |

+-----------+-------------------------+------------------+-----------+-----------+------+-------+--------+

| 5005 | Master Of Technology | 3 | 100000.00 | 40 | 12 | 79 | 5005 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 1 | 99 | 5007 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 2 | 66 | 5007 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 13 | 61 | 5007 |

| 5007 | Phd Business | 5 | 90000.00 | 50 | 17 | 55 | 5007 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 | NULL | NULL | NULL |

| 5009 | MBBS | 5 | 100000.00 | 40 | 14 | 30 | 5009 |

| 5011 | Assoc Bach Physics Hons | 3 | 75000.00 | 35 | NULL | NULL | NULL |

+-----------+-------------------------+------------------+-----------+-----------+------+-------+--------+

8 rows in set (0.0010 sec)

=================================================================================================================================================================================

89). Display the average marks scored by the students who joined the courses across different age groups. Order the output in descending order of average marks.

SELECT AGE,avg(MARKS) FROM

Student\_data as s

inner join

ENROLLMENT AS e

on s.id=e.sid

group by age

order by avg(marks) desc;

+-----+------------+

| AGE | avg(MARKS) |

+-----+------------+

| 24 | 85.0000 |

| 26 | 67.0000 |

| 32 | 66.0000 |

| 27 | 66.0000 |

| 21 | 60.0000 |

| 22 | 55.5000 |

| 23 | 55.0000 |

| 19 | 31.0000 |

| 25 | 28.0000 |

| 44 | 26.0000 |

+-----+------------+

10 rows in set (0.0006 sec)

=================================================================================================================================================================================

90). Write a query to display the degree id,degree name,fees along sum of marks scored by the students in the college in each subject.

select d.degree\_id,d.degree\_name,d.fees,sum(e.marks) from degree\_details as d left join

enrollment as e on d.degree\_id = e.deg\_id group by d.degree\_id,d.degree\_name,d.fees;

+-----------+-------------------------+-----------+--------------+

| degree\_id | degree\_name | fees | sum(e.marks) |

+-----------+-------------------------+-----------+--------------+

| 5000 | Bachelor Of Commerce | 200000.00 | NULL |

| 5001 | Master Of Commerce | 250000.00 | 103 |

| 5002 | Bachelor Of Business | 600000.00 | 82 |

| 5003 | Master Of Business | 500000.00 | 45 |

| 5004 | Bachelor Of Technology | 400000.00 | 246 |

| 5005 | Master Of Technology | 100000.00 | 79 |

| 5006 | Phd Technology | 300000.00 | NULL |

| 5007 | Phd Business | 90000.00 | 281 |

| 5008 | Phd Commerce | 50000.00 | NULL |

| 5009 | MBBS | 100000.00 | 30 |

| 5010 | MD | 500000.00 | 117 |

| 5011 | Assoc Bach Physics Hons | 75000.00 | NULL |

+-----------+-------------------------+-----------+--------------+

12 rows in set (0.0005 sec)

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91). Write a query to display the average marks scored in each subject along with the name, id, fees of the subject where there is atleast 1 enrollment.

select d.degree\_name,d.degree\_id,d.fees,avg(marks) from enrollment as e inner join degree\_details as d on d.degree\_id = e.deg\_id

group by d.degree\_name,d.degree\_id,d.fees;

+------------------------+-----------+-----------+------------+

| degree\_name | degree\_id | fees | avg(marks) |

+------------------------+-----------+-----------+------------+

| Phd Business | 5007 | 90000.00 | 70.2500 |

| MD | 5010 | 500000.00 | 58.5000 |

| Bachelor Of Business | 5002 | 600000.00 | 41.0000 |

| Master Of Business | 5003 | 500000.00 | 45.0000 |

| Bachelor Of Technology | 5004 | 400000.00 | 61.5000 |

| Master Of Commerce | 5001 | 250000.00 | 51.5000 |

| Master Of Technology | 5005 | 100000.00 | 79.0000 |

| MBBS | 5009 | 100000.00 | 30.0000 |

+------------------------+-----------+-----------+------------+

8 rows in set (0.0008 sec)

=================================================================================================================================================================================

92). Write a query to display the id,name,age and marks of the students who have scored more than the overall

average in descending order of the marks scored.

select s.first\_name,s.id, s.age,e.marks from student\_data as s inner join enrollment as e

on s.id=e.sid and e.marks > (select avg(marks) from enrollment) order by e.marks desc;

+------------+----+-----+-------+

| first\_name | id | age | marks |

+------------+----+-----+-------+

| Akash | 1 | 24 | 99 |

| Brijesh | 7 | 22 | 81 |

| Goutham | 12 | 26 | 79 |

| Abhay | 3 | 27 | 76 |

| Rupali | 16 | 21 | 75 |

| Zhyn | 19 | 24 | 71 |

| Aaishwarya | 2 | 32 | 66 |

| Emilio | 22 | 23 | 63 |

| Dilshan | 13 | 23 | 61 |

+------------+----+-----+-------+

9 rows in set (0.0008 sec)

===============================================================================================================================================================================

93). Write a query to display the maximum of sum of scores scored by students in each subject.

select max(R1.SM) from (select deg\_id,sum(marks) as 'SM' from enrollment group by deg\_id) AS R1;

+------------+

| max(R1.SM) |

+------------+

| 281 |

+------------+

1 row in set (0.0009 sec)

===============================================================================================================================================================================

94). Write a query to display the minimum of sum of scores scored by students in each subject.

Select min(R1.SM)from (select deg\_id,sum(marks) as 'SM' from enrollment group by deg\_id) as R1;

+------------+

| min(R1.SM) |

+------------+

| 30 |

+------------+

1 row in set (0.0005 sec)

===============================================================================================================================================================================

95). Write a query to display id and name of students who have not enrolled in any course using joins.

select s.first\_name,s.id from

student\_data as s

left join

enrollment as e

on s.id=e.sid

where isnull(e.sid);

+------------+----+

| first\_name | id |

+------------+----+

| Anagha | 4 |

| Sharanya | 10 |

| deepika | 18 |

| Rishi | 20 |

| Tushar | 21 |

+------------+----+

5 rows in set (0.0005 sec)

================================================================================================================================================================================

96). Write a query to display the first name, id, degree\_name, marks and results of top 3 students overall using Joins.

select s.first\_name,s.id,d.degree\_name,e.marks,s.result from

student\_data as s

inner join

enrollment as e

on s.id=e.sid

inner join

degree\_details as d

on d.degree\_id = e.deg\_id

order by e.marks desc LIMIT 3;

+------------+----+------------------------+-------+--------+

| first\_name | id | degree\_name | marks | result |

+------------+----+------------------------+-------+--------+

| Akash | 1 | Phd Business | 99 | PASS |

| Brijesh | 7 | Bachelor Of Technology | 81 | PASS |

| Goutham | 12 | Master Of Technology | 79 | PASS |

+------------+----+------------------------+-------+--------+

3 rows in set (0.0005 sec)

================================================================================================================================================================================

97). Write a query to display the name, id, degree\_name, marks and results of bottom 5 students overall.

SELECT \* from (select s.first\_name,s.id,d.degree\_name,e.marks,s.result from

student\_data as s

inner join

enrollment as e

on s.id=e.sid

inner join

degree\_details as d

on d.degree\_id = e.deg\_id

order by e.marks LIMIT 5) as R1 order by R1.marks desc;

+------------+----+------------------------+-------+---------+

| first\_name | id | degree\_name | marks | result |

+------------+----+------------------------+-------+---------+

| Tanveer | 15 | MD | 41 | PASS |

| Arjun | 8 | Bachelor Of Technology | 31 | PASS |

| Sachin | 14 | MBBS | 30 | PASS |

| Ramya | 9 | Master Of Commerce | 28 | FAIL |

| Bishwas | 5 | Bachelor Of Business | 26 | AWAITED |

+------------+----+------------------------+-------+---------+

5 rows in set (0.0006 sec)

================================================================================================================================================================================

98). Write a query to display all the details of the student and all the details of their course along with marks scored for those

who have passed in descending order of age.

select s.\*,d.\*,e.marks from

student\_data as s

inner join

enrollment as e

inner join

degree\_details as d

on d.degree\_id = e.deg\_id and s.id=e.sid

where s.result='PASS' order by age desc;

+----+------------+-----------+-----------+-----+----------------+--------+-----------+------------------------+------------------+-----------+-----------+-------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS | marks |

+----+------------+-----------+-----------+-----+----------------+--------+-----------+------------------------+------------------+-----------+-----------+-------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 | 66 |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS | 5010 | MD | 4 | 500000.00 | 35 | 76 |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS | 5002 | Bachelor Of Business | 3 | 600000.00 | 35 | 56 |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS | 5005 | Master Of Technology | 3 | 100000.00 | 40 | 79 |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 | 55 |

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 | 99 |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 71 |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 | 61 |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS | 5010 | MD | 4 | 500000.00 | 35 | 41 |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 81 |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS | 5009 | MBBS | 5 | 100000.00 | 40 | 30 |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS | 5001 | Master Of Commerce | 3 | 250000.00 | 40 | 75 |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 | 31 |

+----+------------+-----------+-----------+-----+----------------+--------+-----------+------------------------+------------------+-----------+-----------+-------+

13 rows in set (0.0006 sec)

==================================================================================================================================================================================================

99). Write a query to display all the details of students and their course who have failed in ascending order of marks.

select s.\*,d.\*,e.marks from

student\_data as s

inner join

enrollment as e

inner join

degree\_details as d

on d.degree\_id = e.deg\_id and s.id=e.sid

where s.result='FAIL' order by e.marks;

+----+------------+-----------+-----------+-----+----------------+--------+-----------+--------------------+------------------+-----------+-----------+-------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS | marks |

+----+------------+-----------+-----------+-----+----------------+--------+-----------+--------------------+------------------+-----------+-----------+-------+

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL | 5001 | Master Of Commerce | 3 | 250000.00 | 40 | 28 |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL | 5003 | Master Of Business | 3 | 500000.00 | 50 | 45 |

+----+------------+-----------+-----------+-----+----------------+--------+-----------+--------------------+------------------+-----------+-----------+-------+

2 rows in set (0.0031 sec)

===================================================================================================================================================================================================

100). Display details of students and degree courses only for those who have taken the courses.

+----+------------+-----------+-----------+-----+----------------+---------+-----------+------------------------+------------------+-----------+-----------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+----+------------+-----------+-----------+-----+----------------+---------+-----------+------------------------+------------------+-----------+-----------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS | 5010 | MD | 4 | 500000.00 | 35 |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED | 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL | 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL | 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS | 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS | 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS | 5009 | MBBS | 5 | 100000.00 | 40 |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS | 5010 | MD | 4 | 500000.00 | 35 |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS | 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS | 5007 | Phd Business | 5 | 90000.00 | 50 |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED | 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

+----+------------+-----------+-----------+-----+----------------+---------+-----------+------------------------+------------------+-----------+-----------+

17 rows in set (0.0006 sec)

===================================================================================================================================================================================================

101). Write a query to display only the Rows of Student\_data table that have even ID.

select \* from student\_data where mod(id,2)=0;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 18 | deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

+----+------------+------------+-----------+-----+----------------+---------+

11 rows in set (0.0005 sec)

====================================================================================================================================================

103). Write a query to display only the Rows of the Degree\_details table that have odd ID.

select \* from degree\_details where degree\_id%2=1;

+-----------+-------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+-------------------------+------------------+-----------+-----------+

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| 5007 | Phd Business | 5 | 90000.00 | 50 |

| 5009 | MBBS | 5 | 100000.00 | 40 |

| 5011 | Assoc Bach Physics Hons | 3 | 75000.00 | 35 |

+-----------+-------------------------+------------------+-----------+-----------+

6 rows in set (0.0004 sec)

=========================================================================================================================================================

104). Write a query to clone the Student\_data table.

create table Student\_data\_Clone1 like Student\_data;

show tables;

+---------------------------+

| Tables\_in\_student\_details |

+---------------------------+

| degree\_details |

| enrollment |

| practice |

| student\_data |

| student\_data\_clone1 |

+---------------------------+

6 rows in set (0.0013 sec)

describe student\_data\_clone1;

+----------------+-------------------------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-------------------------------+------+-----+---------+----------------+

| ID | int unsigned | NO | PRI | NULL | auto\_increment |

| First\_Name | varchar(20) | NO | | NULL | |

| Last\_Name | varchar(20) | NO | | NULL | |

| CITY | varchar(20) | NO | | NULL | |

| Age | int unsigned | NO | | NULL | |

| Admission\_date | date | NO | | NULL | |

| Result | enum('PASS','FAIL','AWAITED') | NO | | AWAITED | |

+----------------+-------------------------------+------+-----+---------+----------------+

7 rows in set (0.0013 sec)

select \* from student\_data\_clone1;

Empty set (0.0006 sec)

insert into student\_data\_clone1 (select \* from student\_data); //To insert Data from Student\_data directly into the clone.

==========================================================================================================================================================================

105). Display the current date and time.

select curdate();

+------------+

| curdate() |

+------------+

| 2021-04-26 |

+------------+

1 row in set (0.0003 sec)

select curtime();

+-----------+

| curtime() |

+-----------+

| 13:54:52 |

+-----------+

1 row in set (0.0003 sec)

==========================================================================================================================================================================

106). Display the details of the third highest scorer in all subjects.

select s.\*,e.marks from

student\_data as s

inner join

enrollment as e

on s.id = e.sid order by e.marks desc LIMIT 2,1;

+----+------------+-----------+-----------+-----+----------------+--------+-------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | marks |

+----+------------+-----------+-----------+-----+----------------+--------+-------+

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS | 79 |

+----+------------+-----------+-----------+-----+----------------+--------+-------+

1 row in set (0.0006 sec)

==================================================================================================================================================================

107). Display the details of the second lowest scorer in Degree 5007.

select s.\*,e.deg\_id,e.marks from

Student\_data as s

inner join

Enrollment as e

on s.id=e.sid

where e.deg\_id = 5007

order by e.marks LIMIT 1,1;

+----+------------+-----------+--------+-----+----------------+--------+--------+-------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result | deg\_id | marks |

+----+------------+-----------+--------+-----+----------------+--------+--------+-------+

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS | 5007 | 61 |

+----+------------+-----------+--------+-----+----------------+--------+--------+-------+

1 row in set (0.0007 sec)

==================================================================================================================================================================

108). Display the first 50% records of the student\_data table.

SELECT \* from student\_data where id <= (select max(id) from student\_data)/2;

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS |

+----+------------+-----------+-----------+-----+----------------+---------+

11 rows in set (0.0007 sec)

==================================================================================================================================================================

109). Write a query to get a list of course IDs that have less than 3 enrollments.

select d.degree\_id from

Degree\_details as d

Left Join

enrollment as e

on d.degree\_id=e.deg\_id

group by d.degree\_id having count(\*)<3;

+-----------+

| degree\_id |

+-----------+

| 5000 |

| 5001 |

| 5002 |

| 5003 |

| 5005 |

| 5006 |

| 5008 |

| 5009 |

| 5010 |

| 5011 |

+-----------+

10 rows in set (0.0006 sec)

==================================================================================================================================================================

110). Write a query to get the first record of student table.

select \* from student\_data where id = (select min(id) from student\_data);

+----+------------+-----------+--------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+--------+-----+----------------+--------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

+----+------------+-----------+--------+-----+----------------+--------+

1 row in set (0.0005 sec)

==================================================================================================================================================================

111). Display the last record of enrollment table.

select \* from student\_data where id = (select max(id) from student\_data);

+----+------------+-----------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+-----------+-----+----------------+---------+

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

+----+------------+-----------+-----------+-----+----------------+---------+

1 row in set (0.0005 sec)

==================================================================================================================================================================

112). Get the output as "--Name-- studying in degree ----- with id ------ scored ------" for id=1,id=5 and id=19 separately.

select concat(s.first\_name,' studying in degree ',d.degree\_name,' with id ',d.degree\_id,' scored ',e.marks) from

student\_data as s

inner join

enrollment as e

on s.id=e.sid

inner join

degree\_details as d

on d.degree\_id=e.deg\_id

where s.id=1 or s.id=5 or s.id=19;

+------------------------------------------------------------------------------------------------------+

| concat(s.first\_name,' studying in degree ',d.degree\_name,' with id ',d.degree\_id,' scored ',e.marks) |

+------------------------------------------------------------------------------------------------------+

| Akash studying in degree Phd Business with id 5007 scored 99 |

| Bishwas studying in degree Bachelor Of Business with id 5002 scored 26 |

| Zhyn studying in degree Bachelor Of Technology with id 5004 scored 71 |

+------------------------------------------------------------------------------------------------------+

3 rows in set (0.0007 sec)

======================================================================================================================================================================================

113). Display the id,name,admission\_date of the student and the day name of the day they took admission.

select id,first\_name,admission\_date,dayname(admission\_date) as 'DAY NAME' from student\_data;

+----+------------+----------------+-----------+

| id | first\_name | admission\_date | DAY NAME |

+----+------------+----------------+-----------+

| 1 | Akash | 2020-03-28 | Saturday |

| 2 | Aaishwarya | 2020-05-29 | Friday |

| 3 | Abhay | 2019-08-07 | Wednesday |

| 4 | Anagha | 2018-12-12 | Wednesday |

| 5 | Bishwas | 2015-02-01 | Sunday |

| 6 | Bimla | 2021-03-21 | Sunday |

| 7 | Brijesh | 2021-01-01 | Friday |

| 8 | Arjun | 2020-12-31 | Thursday |

| 9 | Ramya | 2019-09-25 | Wednesday |

| 10 | Sharanya | 2020-04-15 | Wednesday |

| 11 | Suhaaaaaas | 2016-05-14 | Saturday |

| 12 | Goutham | 2020-07-20 | Monday |

| 13 | Dilshan | 2014-02-07 | Friday |

| 14 | Sachin | 2020-01-01 | Wednesday |

| 15 | Tanveer | 2019-05-09 | Thursday |

| 16 | Rupali | 2020-06-23 | Tuesday |

| 17 | Deepika | 2017-08-22 | Tuesday |

| 18 | deepika | 2020-11-05 | Thursday |

| 19 | Zhyn | 2019-06-22 | Saturday |

| 20 | Rishi | 2021-01-03 | Sunday |

| 21 | Tushar | 2019-03-06 | Wednesday |

| 22 | Emilio | 2020-02-23 | Sunday |

+----+------------+----------------+-----------+

22 rows in set (0.0007 sec)

===================================================================================================================================================================================================

114). Display the details of the student who joined on a Thursday in the month of may.

SELECT \* FROM STUDENT\_DATA WHERE DAYNAME(ADMISSION\_DATE)='Thursday' and admission\_date like '%-05-%';

+----+------------+-----------+---------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+---------+-----+----------------+--------+

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS |

+----+------------+-----------+---------+-----+----------------+--------+

1 row in set (0.0005 sec)

====================================================================================================================================================================================================

115). Display the details of the students who joined in a leap year.

select \* from student\_data where (year(admission\_date)%4=0 and year(admission\_date)%100!=0)

-> or year(admission\_date)%400=0;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 18 | deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

| 31 | A | B | Mumbai | 41 | 2400-06-23 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

11 rows in set (0.0008 sec)

=====================================================================================================================================================================================================

116). Write a query to display the Degree Id in which more than 2 students have enrolled and the combined score of the students is more than 100.

select deg\_id from enrollment group by deg\_id having count(\*)>2 and sum(marks);

+--------+

| deg\_id |

+--------+

| 5004 |

| 5007 |

+--------+

2 rows in set (0.0008 sec)

=====================================================================================================================================================================================================

117). Write a stored procedure to display the student details based on the city.

DELIMITER &&

CREATE PROCEDURE get\_Student\_Details(IN City\_name varchar(20))

BEGIN

Select \* from student\_data where city = city\_name;

END &&

DELIMITER ;

call get\_Student\_Details('Mumbai');

+----+------------+-----------+--------+-----+----------------+--------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+-----------+--------+-----+----------------+--------+

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 30 | A | B | Mumbai | 41 | 2100-06-23 | PASS |

| 31 | A | B | Mumbai | 41 | 2400-06-23 | PASS |

+----+------------+-----------+--------+-----+----------------+--------+

5 rows in set (0.0012 sec)

Query OK, 0 rows affected (0.0012 sec)

====================================================================================================================================================================================================================

118). Write a procedure to get total count of the students.

DELIMITER &&

CREATE PROCEDURE get\_Total()

BEGIN

select count(\*) from student\_data;

END &&

DELIMITER ;

call get\_Total();

+----------+

| count(\*) |

+----------+

| 24 |

+----------+

1 row in set (0.0013 sec)

Query OK, 0 rows affected (0.0013 sec)

=====================================================================================================================================================================================================================

119). Display the student\_data, degree\_details and enrollment table using a single call.

DELIMITER &&

CREATE PROCEDURE Tracker()

BEGIN

select \* from student\_data;

select \* from degree\_details;

select \* from enrollment;

END &&

DELIMITER ;

call tracker;

+----+------------+------------+-----------+-----+----------------+---------+

| ID | First\_Name | Last\_Name | CITY | Age | Admission\_date | Result |

+----+------------+------------+-----------+-----+----------------+---------+

| 1 | Akash | Kumar | Jaipur | 24 | 2020-03-28 | PASS |

| 2 | Aaishwarya | Ray | Mumbai | 32 | 2020-05-29 | PASS |

| 3 | Abhay | Chander | Mumbai | 27 | 2019-08-07 | PASS |

| 4 | Anagha | Ahuja | Chennai | 22 | 2018-12-12 | PASS |

| 5 | Bishwas | Bora | Ahmedabad | 44 | 2015-02-01 | AWAITED |

| 6 | Bimla | Bhatt | Ahmedabad | 21 | 2021-03-21 | FAIL |

| 7 | Brijesh | Kumar | Jaipur | 22 | 2021-01-01 | PASS |

| 8 | Arjun | Shet | Bangalore | 19 | 2020-12-31 | PASS |

| 9 | Ramya | Bose | Bangalore | 25 | 2019-09-25 | FAIL |

| 10 | Sharanya | Ahuja | Mumbai | 20 | 2020-04-15 | FAIL |

| 11 | Suhaaaaaas | Rai | Bangalore | 27 | 2016-05-14 | PASS |

| 12 | Goutham | Sharma | Ahmedabad | 26 | 2020-07-20 | PASS |

| 13 | Dilshan | Gupta | Jaipur | 23 | 2014-02-07 | PASS |

| 14 | Sachin | Acharya | Bangalore | 22 | 2020-01-01 | PASS |

| 15 | Tanveer | Ahmed | Chennai | 23 | 2019-05-09 | PASS |

| 16 | Rupali | Gupta | Chennai | 21 | 2020-06-23 | PASS |

| 17 | Deepika | Verma | Ahmedabad | 26 | 2017-08-22 | PASS |

| 18 | deepika | Chatterjee | Ahmedabad | 29 | 2020-11-05 | PASS |

| 19 | Zhyn | Jackman | Bangalore | 24 | 2019-06-22 | PASS |

| 20 | Rishi | Shakshamas | Jaipur | 25 | 2021-01-03 | AWAITED |

| 21 | Tushar | Thammanna | Ahmedabad | 24 | 2019-03-06 | AWAITED |

| 22 | Emilio | Rodriguez | Bangalore | 23 | 2020-02-23 | AWAITED |

| 30 | A | B | Mumbai | 41 | 2100-06-23 | PASS |

| 31 | A | B | Mumbai | 41 | 2400-06-23 | PASS |

+----+------------+------------+-----------+-----+----------------+---------+

24 rows in set (0.0006 sec)

+-----------+-------------------------+------------------+-----------+-----------+

| Degree\_ID | degree\_name | Length\_of\_Course | Fees | MIN\_MARKS |

+-----------+-------------------------+------------------+-----------+-----------+

| 5000 | Bachelor Of Commerce | 3 | 200000.00 | 35 |

| 5001 | Master Of Commerce | 3 | 250000.00 | 40 |

| 5002 | Bachelor Of Business | 3 | 600000.00 | 35 |

| 5003 | Master Of Business | 3 | 500000.00 | 50 |

| 5004 | Bachelor Of Technology | 4 | 400000.00 | 35 |

| 5005 | Master Of Technology | 3 | 100000.00 | 40 |

| 5006 | Phd Technology | 5 | 300000.00 | 50 |

| 5007 | Phd Business | 5 | 90000.00 | 50 |

| 5008 | Phd Commerce | 4 | 50000.00 | 45 |

| 5009 | MBBS | 5 | 100000.00 | 40 |

| 5010 | MD | 4 | 500000.00 | 35 |

| 5011 | Assoc Bach Physics Hons | 3 | 75000.00 | 35 |

+-----------+-------------------------+------------------+-----------+-----------+

12 rows in set (0.0006 sec)

+-----+-------+--------+

| sid | marks | deg\_id |

+-----+-------+--------+

| 1 | 99 | 5007 |

| 2 | 66 | 5007 |

| 3 | 76 | 5010 |

| 5 | 26 | 5002 |

| 6 | 45 | 5003 |

| 7 | 81 | 5004 |

| 8 | 31 | 5004 |

| 9 | 28 | 5001 |

| 11 | 56 | 5002 |

| 12 | 79 | 5005 |

| 13 | 61 | 5007 |

| 14 | 30 | 5009 |

| 15 | 41 | 5010 |

| 16 | 75 | 5001 |

| 17 | 55 | 5007 |

| 19 | 71 | 5004 |

| 22 | 63 | 5004 |

+-----+-------+--------+

17 rows in set (0.0006 sec)

Query OK, 0 rows affected (0.0006 sec)

====================================================================================================================================================================================================================

120). Display the grades of the students based on their marks. Grade A if marks are >90, Grade B between 75 and 89, Grade C between 60 and 74

and Grade D otherwise using if-else.

DELIMITER &&

CREATE PROCEDURE Assign\_Grad(IN ID\_Num INT)

BEGIN

DECLARE Grade varchar(10);

DECLARE Score INT Default 0;

SELECT marks into Score from enrollment where sid=ID\_Num;

IF Score > 90 Then

SET Grade='Grade A';

ELSEIF Score>=75 and Score <=89 Then

SET Grade='Grade B';

ELSEIF Score>=60 and Score <=74 Then

SET Grade='Grade C';

ELSE

SET Grade = 'Grade D';

END IF;

Select Grade;

END &&

DELIMITER ;

call Assign\_Grad(13);

+---------+

| Grade |

+---------+

| Grade C |

+---------+

1 row in set (0.0011 sec)

call Assign\_Grad(1);

+---------+

| Grade |

+---------+

| Grade A |

+---------+

1 row in set (0.0005 sec)

Query OK, 0 rows affected (0.0005 sec)

=====================================================================================================================================================================

121). Do the same as question 121 using CASE.

DELIMITER &&

CREATE PROCEDURE Assign\_GradC(IN ID\_Num INT)

BEGIN

DECLARE Grade varchar(10);

DECLARE Score INT Default 0;

SELECT marks into Score from enrollment where sid=ID\_Num;

CASE

When Score>90 Then

SET Grade='Grade A';

When Score>=75 and Score<=89 Then

SET Grade = 'Grade B';

WHEN Score>=60 and Score<=74 Then

SET Grade = 'Grade C';

ELSE

SET Grade = 'Grade D';

END CASE;

Select Grade;

END &&

DELIMITER ;

call Assign\_GradC(13);

+---------+

| Grade |

+---------+

| Grade C |

+---------+

1 row in set (0.0008 sec)

Query OK, 0 rows affected (0.0008 sec)

call Assign\_GradC(1);

+---------+

| Grade |

+---------+

| Grade A |

+---------+

1 row in set (0.0005 sec)

Query OK, 0 rows affected (0.0005 sec)

======================================================================================================================================================================================================

122). Write a procedure to display first N even numbers.

DELIMITER &&

CREATE PROCEDURE Even\_Num\_Generator(IN N INT)

BEGIN

Declare Counter int default 0;

Declare Answer int default 2;

Declare str varchar(255);

SET str=' ';

IF N>=1 Then

Label1:LOOP

SET str = CONCAT(str, Answer,' ');

SET Counter = Counter + 1;

SET Answer = Answer + 2;

IF Counter=N Then

LEAVE Label1;

END IF;

END LOOP;

ELSE

Select 'Unable to display';

END IF;

Select str;

END &&

DELIMITER ;

call Even\_Num\_Generator(25);

+---------------------------------------------------------------------------------------------------+

| str |

+---------------------------------------------------------------------------------------------------+

| 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 |

+---------------------------------------------------------------------------------------------------+

1 row in set (0.0007 sec)

Query OK, 0 rows affected (0.0007 sec)

call Even\_Num\_Generator(6);

+-----------------------+

| str |

+-----------------------+

| 2 4 6 8 10 12 |

+-----------------------+

1 row in set (0.0005 sec)

Query OK, 0 rows affected (0.0005 sec)

====================================================================================================================================================================================================================

123). Generate first N Odd numbers using WHILE LOOP.

DELIMITER &&

CREATE PROCEDURE Odd\_Num\_Generator(IN N INT)

BEGIN

Declare Counter int default 0;

Declare Answer int default 1;

Declare str varchar(255);

SET str=' ';

WHILE Counter!=N DO

SET str = concat(str,answer,' ');

SET Counter = Counter + 1;

SET Answer = Answer + 2;

END WHILE;

Select str;

END &&

DELIMITER ;

call Odd\_Num\_Generator(25);

+-------------------------------------------------------------------------+

| str |

+-------------------------------------------------------------------------+

| 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 |

+-------------------------------------------------------------------------+

1 row in set (0.0008 sec)

Query OK, 0 rows affected (0.0008 sec)

=====================================================================================================================================================================================================================

124). Display a horizontal list of last names in the student\_data table.

DELIMITER &&

CREATE PROCEDURE LN\_Appender()

BEGIN

DECLARE str varchar(1000) DEFAULT ' ';

DECLARE Holder varchar(50) Default ' ';

DECLARE Indicator INT DEFAULT 0;

DECLARE curln CURSOR FOR select Last\_name from student\_data;

DECLARE Continue HANDLER FOR NOT FOUND SET Indicator=1;

OPEN curln;

WHILE Indicator=0 DO

Fetch curln into Holder;

SET str =CONCAT(str,' ',Holder);

END WHILE;

Select str;

CLOSE curln;

END &&

DELIMITER ;

CALL LN\_Appender();

+---------------------------------------------------------------------------------------------------------------------------------------------------------------+

| str |

+---------------------------------------------------------------------------------------------------------------------------------------------------------------+

| Kumar Ray Chander Ahuja Bora Bhatt Kumar Shet Bose Ahuja Rai Sharma Gupta Acharya Ahmed Gupta Verma Chatterjee Jackman Shakshamas Thammanna Rodriguez B B B |

+---------------------------------------------------------------------------------------------------------------------------------------------------------------+

1 row in set (0.0022 sec)

Query OK, 0 rows affected (0.0022 sec)

=========================================================================================================================================================================================================================

125). In question 121 use Signal and resignal to check if IDs entered are actually present in the table or not. If not display an error.

DELIMITER &&

CREATE PROCEDURE Assign\_Grad3(IN ID\_Num INT)

BEGIN

DECLARE Grade varchar(10);

DECLARE Score INT;

DECLARE ID\_NOT\_EXIST CONDITION FOR SQLSTATE '02000';

DECLARE CONTINUE HANDLER FOR ID\_NOT\_EXIST

RESIGNAL SET MESSAGE\_TEXT = 'ID DOESNOT EXIST IN THE TABLE SPECIFIED';

SELECT marks into Score from enrollment where sid=ID\_Num;

if isnull(score) then

signal ID\_NOT\_EXIST;

END IF;

CASE

When Score>90 Then

SET Grade = 'Grade A';

When Score>=75 and Score<=89 Then

SET Grade = 'Grade B';

WHEN Score>=60 and Score<=74 Then

SET Grade = 'Grade C';

ELSE

SET Grade = 'Grade D';

END CASE;

Select Grade;

END &&

DELIMITER ;

CALL Assign\_Grad3(1);

+---------+

| Grade |

+---------+

| Grade A |

+---------+

1 row in set (0.0012 sec)

Query OK, 0 rows affected (0.0012 sec)

CALL Assign\_Grad3(999);

ERROR: 1643 (02000): ID DOESNOT EXIST IN THE TABLE SPECIFIED

===========================================================================================================================================================================================================================