Assignment 3
Garvit Shah [U21CS089]

Create a table Student with fields

Enrollment_No Number (6) Primary key [Constraint: Should have pattern U21CSXXX] **Name**
Character (25) [Constraint: Only Alphabets allowed]

Semester Number (3) [Constraint: Only Number allowed]

DOB Date [Constraint: Only Date allowed]

Admission_Date Date [Constraint: Only Date allowed]

Hostel_Room Number (5) (Null values allowed) [Constraint: Only number allowed] **Gender**
Boolean [Constraint: Not NULL]

Address Varchar (50)

Contact_No Number(10) [Constraint: Only numbers]

```
[garvitshah@Garvits-MacBook-Air ~> mysql -u root -p
[Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.32 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

[mysql> use SVNIT;
Database changed
[mysql> show tables;
Empty set (0.00 sec)

[mysql> create table Student(Enrollment_No char(6) check(Enrollment_No RLIKE'^U21CS[
0-9][0-9][0-9]'), Name char(25) check(Name RLIKE'[a-z]*[A-Z]*'), Semester INT(3), D
OB DATE, Admission_Date DATE, Hostel_Room INT(5), Gender BOOL NOT NULL, Address VAR
CHAR(50), Contact_No INT(10), PRIMARY KEY(Enrollment_No));
Query OK, 0 rows affected, 3 warnings (0.06 sec)


[mysql> insert into Student values('U21CS066', 'A', 3, 2003-03-20, 2021-06-02, 001,
0, 'Surat', 11111111111);
ERROR 1406 (22001): Data too long for column 'Enrollment_No' at row 1
[mysql> alter table Student CHANGE Enrollment_No Enrollment_No char(8) check(Enrollm
ent_No RLIKE'^U21CS[0-9][0-9][0-9]');
Query OK, 0 rows affected (0.07 sec)
Records: 0  Duplicates: 0  Warnings: 0
```
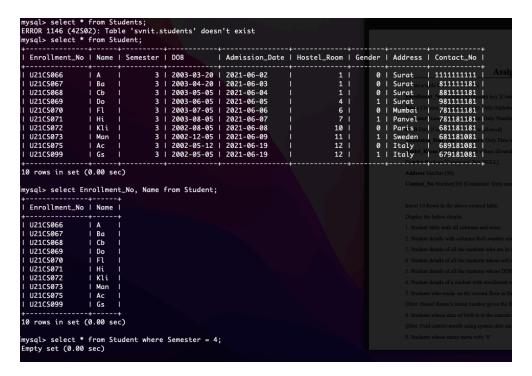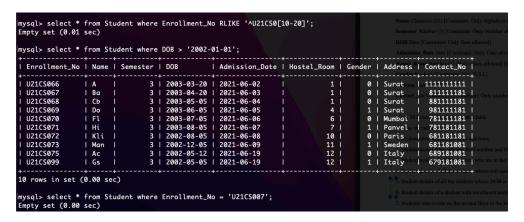
Insert 10 Rows in the above-created table.

```
mysql> insert into Student values('U21CS066', 'A', 3,'2003-03-20', '2021-06-02', 00
1, 0, 'Surat', 11111111111);
ERROR 1264 (22003): Out of range value for column 'Contact_No' at row 1
mysql> insert into Student values('U21CS066', 'A', 3,'2003-03-20', '2021-06-02', 00
1, 0, 'Surat', 1111111111);
Query OK, 1 row affected (0.03 sec)

mysql> insert into Student values('U21CS067', 'Ba', 3,'2003-04-20', '2021-06-03', 0
01, 0, 'Surat', 8111111181);
ERROR 1264 (22003): Out of range value for column 'Contact_No' at row 1
mysql> insert into Student values('U21CS067', 'Ba', 3,'2003-04-20', '2021-06-03', 0
01, 0, 'Surat', 811111181);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values('U21CS068', 'Cb', 3,'2003-05-05', '2021-06-04', 0
01, 0, 'Surat', 881111181);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values('U21CS069', 'Do', 3,'2003-06-05', '2021-06-05', 0
04, 1, 'Surat', 981111181);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Student values('U21CS070', 'Fl', 3,'2003-07-05', '2021-06-06', 0
06, 0, 'Mumbai', 781111181);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Student values('U21CS071', 'Hi', 3,'2003-08-05', '2021-06-07', 0
07, 1, 'Panvel', 781181181);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values('U21CS072', 'Kli', 3,'2002-08-05', '2021-06-08', 
010, 0, 'Paris', 681181181);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Student values('U21CS073', 'Man', 3,'2002-12-05', '2021-06-09', 
011, 1, 'Sweden', 681181081);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values('U21CS075', 'Ac', 3,'2002-05-12', '2021-06-19', 0
12, 0, 'Italy', 689181081);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Student values('U21CS099', 'Gs', 3,'2002-05-05', '2021-06-19', 0
12, 1, 'Italy', 679181081);
Query OK, 1 row affected (0.00 sec)
```

Display the below details.
1. Student table with all columns and rows.
2. Student details with columns Roll number and Name only.
3. Student details of all the students who are in the 4th Semester.

```
mysql> select * from Students;
ERROR 1146 (42S02): Table 'svnit.students' doesn't exist
mysql> select * from Student;
+--------------+------+----------+------------+----------------+-------------+--------+---------+------------+
| Enrollment_No | Name | Semester | DOB        | Admission_Date | Hostel_Room | Gender | Address | Contact_No |
+--------------+------+----------+------------+----------------+-------------+--------+---------+------------+
| U21CS066     | A    |        3 | 2003-03-20 | 2021-06-02     |           1 |      0 | Surat   | 1111111111 |
| U21CS067     | Ba   |        3 | 2003-04-20 | 2021-06-03     |           1 |      0 | Surat   |  811111181 |
| U21CS068     | Cb   |        3 | 2003-05-05 | 2021-06-04     |           1 |      0 | Surat   |  881111181 |
| U21CS069     | Do   |        3 | 2003-06-05 | 2021-06-05     |           4 |      1 | Surat   |  981111181 |
| U21CS070     | Fl   |        3 | 2003-07-05 | 2021-06-06     |           6 |      0 | Mumbai  |  781111181 |
| U21CS071     | Hi   |        3 | 2003-08-05 | 2021-06-07     |           7 |      1 | Panvel  |  781181181 |
| U21CS072     | Kli  |        3 | 2002-08-05 | 2021-06-08     |          10 |      0 | Paris   |  681181181 |
| U21CS073     | Man  |        3 | 2002-12-05 | 2021-06-09     |          11 |      1 | Sweden  |  681181081 |
| U21CS075     | Ac   |        3 | 2002-05-12 | 2021-06-19     |          12 |      0 | Italy   |  689181081 |
| U21CS099     | Gs   |        3 | 2002-05-05 | 2021-06-19     |          12 |      1 | Italy   |  679181081 |
+--------------+------+----------+------------+----------------+-------------+--------+---------+------------+
10 rows in set (0.00 sec)

mysql> select Enrollment_No, Name from Student;
+--------------+------+
| Enrollment_No | Name |
+--------------+------+
| U21CS066     | A    |
| U21CS067     | Ba   |
| U21CS068     | Cb   |
| U21CS069     | Do   |
| U21CS070     | Fl   |
| U21CS071     | Hi   |
| U21CS072     | Kli  |
| U21CS073     | Man  |
| U21CS075     | Ac   |
| U21CS099     | Gs   |
+--------------+------+
10 rows in set (0.00 sec)

mysql> select * from Student where Semester = 4;
Empty set (0.00 sec)
```

4. Student details of all the students whose roll number is between 10 to 20.

5. Student details of all the students whose DOB is greater than 1st Jan 2002.

6. Student details of a student with enrollment number 'U21CS007'

```
mysql> select * from Student where Enrollment_No RLIKE '^U21CS0[10-20]';
Empty set (0.01 sec)

mysql> select * from Student where DOB > '2002-01-01';
+--------------+------+----------+------------+----------------+-------------+--------+---------+------------+
| Enrollment_No | Name | Semester | DOB        | Admission_Date | Hostel_Room | Gender | Address | Contact_No |
+--------------+------+----------+------------+----------------+-------------+--------+---------+------------+
| U21CS066     | A    |        3 | 2003-03-20 | 2021-06-02     |           1 |      0 | Surat   | 1111111111 |
| U21CS067     | Ba   |        3 | 2003-04-20 | 2021-06-03     |           1 |      0 | Surat   |  811111181 |
| U21CS068     | Cb   |        3 | 2003-05-05 | 2021-06-04     |           1 |      0 | Surat   |  881111181 |
| U21CS069     | Do   |        3 | 2003-06-05 | 2021-06-05     |           4 |      1 | Surat   |  981111181 |
| U21CS070     | Fl   |        3 | 2003-07-05 | 2021-06-06     |           6 |      0 | Mumbai  |  781111181 |
| U21CS071     | Hi   |        3 | 2003-08-05 | 2021-06-07     |           7 |      1 | Panvel  |  781181181 |
| U21CS072     | Kli  |        3 | 2002-08-05 | 2021-06-08     |          10 |      0 | Paris   |  681181181 |
| U21CS073     | Man  |        3 | 2002-12-05 | 2021-06-09     |          11 |      1 | Sweden  |  681181081 |
| U21CS075     | Ac   |        3 | 2002-05-12 | 2021-06-19     |          12 |      0 | Italy   |  689181081 |
| U21CS099     | Gs   |        3 | 2002-05-05 | 2021-06-19     |          12 |      1 | Italy   |  679181081 |
+--------------+------+----------+------------+----------------+-------------+--------+---------+------------+
10 rows in set (0.00 sec)

mysql> select * from Student where Enrollment_No = 'U21CS007';
Empty set (0.00 sec)
```

7. Students who reside on the second floor in the hostel. [Hint: Hostel Room's initial number gives the floor]

```
mysql> select * from Student where Hostel_Room RLIKE '^2';
+---------------+------+----------+------------+----------------+-------------+--------+---------+------------+
| Enrollment_No | Name | Semester | DOB        | Admission_Date | Hostel_Room | Gender | Address | Contact_No |
+---------------+------+----------+------------+----------------+-------------+--------+---------+------------+
| U21CS072      | Kli  |        3 | 2002-08-05 | 2021-06-08     |         204 |      0 | Paris   | 681181181  |
| U21CS073      | Man  |        3 | 2002-12-05 | 2021-06-09     |         201 |      1 | Sweden  | 681181081  |
+---------------+------+----------+------------+----------------+-------------+--------+---------+------------+
2 rows in set (0.00 sec)
```

8. Students whose date of birth is in the current month. [Hint: Find current month using system date and time] 9. Students whose name starts with 'S'

```
mysql> select * from Student where MONTH(DOB) = MONTH(CURDATE());
Empty set (0.00 sec)

mysql> select * from Student where Name like 's%' or 'S%';
Empty set, 1 warning (0.00 sec)
```

2. Create a table Employee with fields
Emp_ID Number (6) **Primary key**
Name Character (25) [Constraint: Only Alphabets allowed]
Department Character (30)
Manager_ID Number (6)
Joining_Date Date
Salary Number (8) [Constraint: Only Number allowed]

Insert 10 Rows in the above-created table.

```
mysql> create table Employee(Emp_ID int(6) Primary Key, Name char(25), Department char(30), Manager_ID, int(6), Joining_
Date date, Salary int(8));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version
 for the right syntax to use near ', int(6), Joining_Date date, Salary int(8))' at line 1
mysql> create table Employee(Emp_ID int(6) Primary Key, Name char(25), Department char(30), Manager_ID int(6), Joining_D
ate date, Salary int(8));
Query OK, 0 rows affected, 3 warnings (0.02 sec)

mysql> insert into Employee values(100001, 'Johnny', 'HR', 200001, '2022-06-01', 90000000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Employee values(100002, 'Gates', 'IT', 200002, '2022-01-01', 8000000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Employee values(100003, 'Wozniak', 'IT', 200003, '2023-01-01', 5400000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Employee values(100004, 'Samson', 'HR', 200001, '2022-11-01', 500000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Employee values(100005, 'Bob', 'Admin', 200002, '2022-11-20', 200000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Employee values(100006, 'Peter', 'Admin', 200004, '2022-01-10', 2200000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Employee values(100007, 'Nicholas', 'Staff', 200000, '2022-01-10', 10000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Employee values(100008, 'Brandit', 'IT', 200001, '2023-02-10', 700000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Employee values(100009, 'Adani', 'HR', 200002, '2023-02-01', 7000000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Employee values(1000010, 'Ambani', 'IT', 200003, '2022-02-01', 1100000);
Query OK, 1 row affected (0.00 sec)
```

Display the below details.
1. Employee table with all columns and rows.
2. Employee details with columns name and department only.

```
mysql> select * from Employee;
+---------+----------+------------+------------+--------------+-----------+
| Emp_ID  | Name     | Department | Manager_ID | Joining_Date | Salary    |
+---------+----------+------------+------------+--------------+-----------+
|  100001 | Johnny   | HR         |     200001 | 2022-06-01   | 90000000  |
|  100002 | Gates    | IT         |     200002 | 2022-01-01   |  8000000  |
|  100003 | Wozniak  | IT         |     200003 | 2023-01-01   |  5400000  |
|  100004 | Samson   | HR         |     200001 | 2022-11-01   |   500000  |
|  100005 | Bob      | Admin      |     200002 | 2022-11-20   |   200000  |
|  100006 | Peter    | Admin      |     200004 | 2022-01-10   |  2200000  |
|  100007 | Nicholas | Staff      |     200000 | 2022-01-10   |    10000  |
|  100008 | Brandit  | IT         |     200001 | 2023-02-10   |   700000  |
|  100009 | Adani    | HR         |     200002 | 2023-02-01   |  7000000  |
| 1000010 | Ambani   | IT         |     200003 | 2022-02-01   |  1100000  |
+---------+----------+------------+------------+--------------+-----------+
10 rows in set (0.00 sec)

mysql> select Name, Department from Employee;
+----------+------------+
| Name     | Department |
+----------+------------+
| Johnny   | HR         |
| Gates    | IT         |
| Wozniak  | IT         |
| Samson   | HR         |
| Bob      | Admin      |
| Peter    | Admin      |
| Nicholas | Staff      |
| Brandit  | IT         |
| Adani    | HR         |
| Ambani   | IT         |
+----------+------------+
10 rows in set (0.00 sec)
```

3. Employee details of all employees in the HR department.
4. Employee details of all the employees whose salary is between 50000 to 100000.

```
mysql> select * from Employee where Department = 'HR';
+--------+--------+------------+------------+--------------+----------+
| Emp_ID | Name   | Department | Manager_ID | Joining_Date | Salary   |
+--------+--------+------------+------------+--------------+----------+
| 100001 | Johnny | HR         |     200001 | 2022-06-01   | 90000000 |
| 100004 | Samson | HR         |     200001 | 2022-11-01   |   500000 |
| 100009 | Adani  | HR         |     200002 | 2023-02-01   |  7000000 |
+--------+--------+------------+------------+--------------+----------+
3 rows in set (0.00 sec)

mysql> select * from Employee where Salary between 50000 and 100000;
Empty set (0.01 sec)
```

5. Employee details of all the employees whose joining date is greater than 1st Jan 2023.

```
mysql> select * from Employee where Joining_Date > '2023-01-01';
+--------+---------+------------+------------+--------------+---------+
| Emp_ID | Name    | Department | Manager_ID | Joining_Date | Salary  |
+--------+---------+------------+------------+--------------+---------+
| 100008 | Brandit | IT         |     200001 | 2023-02-10   |  700000 |
| 100009 | Adani   | HR         |     200002 | 2023-02-01   | 7000000 |
+--------+---------+------------+------------+--------------+---------+
2 rows in set (0.00 sec)
```