

ByName – Amul Bharti
Roll_No – AE-1253
Course – B.S.c.(hons) Computer Science
Semester – Ivth
Assignment – DBMS 4th
Submission Date – 21-03-2024(Monday)
SubmissionTiming – 18:00pm

Submitted to:
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Do the following database administration commands:

- create user:

```
mysql> create user 'amulbharti'@'localhost' Identified by 'atulakulamul990'  
-> ;  
Query OK, 0 rows affected (0.07 sec)
```

- create role:

```
mysql> create role 'Data';  
Query OK, 0 rows affected (0.01 sec)
```

- grant privileges to a role:

```
mysql> create database amul;  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> CREATE TABLE Customer (  
-> Customer_ID INT AUTO_INCREMENT PRIMARY KEY,  
-> Customer_Name VARCHAR(100) NOT NULL,  
-> Gender VARCHAR(45) NOT NULL,  
-> Date_of_Birth DATE NOT NULL,  
-> Room_No CHAR(10) NOT NULL,  
-> Room_Type VARCHAR(100) NOT NULL,  
-> Floor CHAR(10) NOT NULL,  
-> Customer_Address VARCHAR(100) NOT NULL,  
-> Contact CHAR(10) NOT NULL,  
-> Email VARCHAR(100) NOT NULL,  
-> Check_in_Date DATE NOT NULL,  
-> Check_out_Date VARCHAR(45) NOT NULL,  
-> Persons_with_Customer CHAR(100) NOT NULL,  
-> Verification_Mode VARCHAR(45) NOT NULL  
-> );  
Query OK, 0 rows affected (0.06 sec)
```

```
mysql> GRANT SELECT, INSERT, UPDATE on amul.Customer TO 'Data';  
Query OK, 0 rows affected (0.01 sec)
```

- **revoke privileges from a role:**

```
mysql> REVOKE SELECT, INSERT, UPDATE ON amul.Customer FROM 'Data';
Query OK, 0 rows affected (0.01 sec)
```

- **create index.**

```
mysql> create index myindex on Customer (Customer_ID);
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Execute any five queries given in Q 1 of practical list on society database through a high-level language using ODBC connection:

```
import mysql.connector

conn = mysql.connector.connect(
    host="localhost",
    database="Student",
    user="root",
    password="atulakulamul990"
)

cursor = conn.cursor()

queries = [
    "SELECT * FROM Student WHERE `Student Name` LIKE '%A'";
    "SELECT * FROM Student WHERE Course IN ('Computer Science', 'Electronics');",
    "SELECT `Student Name` FROM Student WHERE `Roll No` NOT IN (SELECT `Roll No`
FROM Enrollment);",
    "SELECT `Society Name` FROM Society WHERE `Mentor Name` LIKE '%Thakur%';",
    "SELECT COUNT(`Student Name`) AS Number_of_Students, Age FROM Student WHERE
TIMESTAMPDIFF(YEAR, `Date_of_Birth`, CURDATE()) > 20;"
]

for i in queries:
    cursor.execute(i)
    rows = cursor.fetchall()
    for row in rows:
        print(row)
    print() # Empty Line between queries

# Close the cursor and the connection
cursor.close()
conn.close()
```

1st query:

('AE1204', 'Amul Bharti', 'Computer Science', datetime.date(2003, 1, 23), 9876745454),
('AE1235', 'Aryan', 'Computer Science', datetime.date(2003, 12, 24), 999923567),
('AE1256', 'Ayush Noutiyal', 'Computer Science', datetime.date(2003, 8, 27), 987006577),
('AE1287', 'Ankit', 'Computer Science', datetime.date(2004, 12, 3), 999993567),
('AE1234', 'Abhinav', 'Computer Science', datetime.date(2005, 4, 20), 9924345699)

2nd query:

('AE1204', 'Amul Bharti', 'Computer Science', datetime.date(2003, 1, 23), 9876745454),
('AE1235', 'Aryan', 'Computer Science', datetime.date(2003, 12, 24), 999923567),
('AE1256', 'Ayush Noutiyal', 'Computer Science', datetime.date(2003, 8, 27), 987006577),
('AE1287', 'Ankit', 'Computer Science', datetime.date(2004, 12, 3), 999993567),
('AE1234', 'Abhinav', 'Computer Science', datetime.date(2005, 4, 20), 9924345699)
('AE1234', 'Yash tomar', 'Electronics', datetime.date(2003, 11, 11), 455999999),
('AE1256', 'Sohaib', 'Electronics', datetime.date(2003, 2, 3), 987654566),
('AE2846', 'Thakur', 'Electronics', datetime.date(2003, 7, 22), 997810360)

3rd query

('Abhinav')
('Sohaib')

4th query

('Dhwani')

5th query

('7')