

काशी हिन्दू  
विश्वविद्यालय



BANARAS HINDU  
UNIVERSITY

AN INSTITUTION OF NATIONAL IMPORTANCE ESTABLISHED BY AN ACT OF PARLIAMENT

CS-107P

Lab Exercises Based on Course CS-107

SEM-V

B. Sc. (Hons.) – Computer Science

Submitted to-

Dr. Sarvesh Pandey

Submitted By-

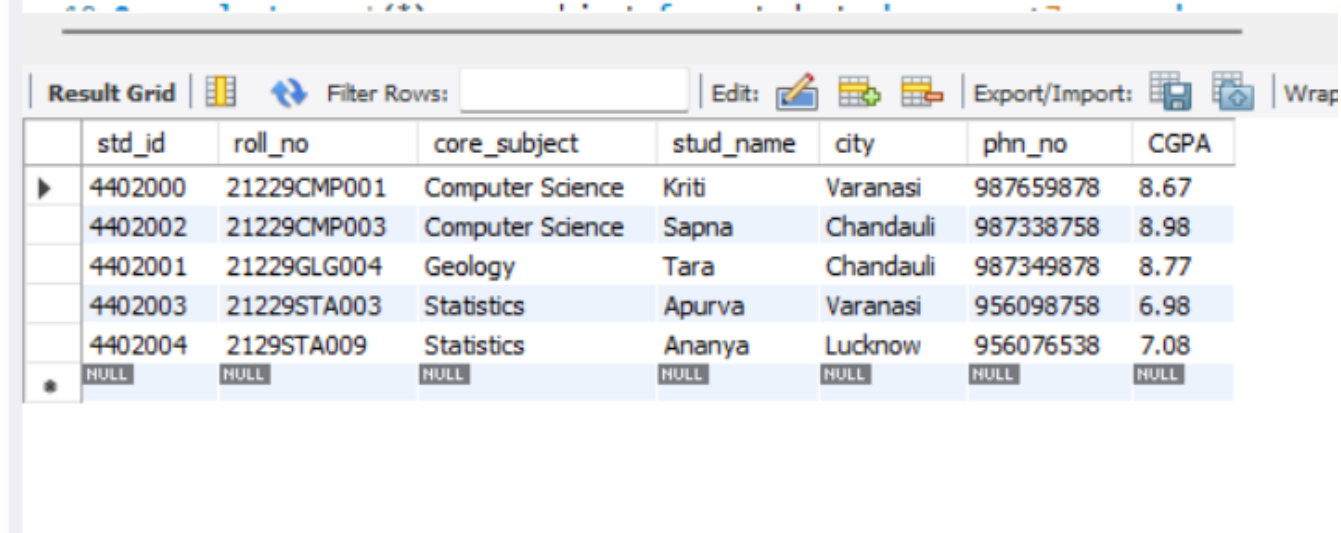
Varsha Saini

B.Sc. Hons – III Year

21229CMP006

1. Write a script in any language to connect the database to its backend .

The given script uses the database exam and the table student whose contents are as follows:



	std_id	roll_no	core_subject	stud_name	city	phn_no	CGPA
▶	4402000	21229CMP001	Computer Science	Kriti	Varanasi	987659878	8.67
	4402002	21229CMP003	Computer Science	Sapna	Chandauli	987338758	8.98
	4402001	21229GLG004	Geology	Tara	Chandauli	987349878	8.77
	4402003	21229STA003	Statistics	Apurva	Varanasi	956098758	6.98
	4402004	2129STA009	Statistics	Ananya	Lucknow	956076538	7.08
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
import mysql.connector as ms

con=ms.connect(host="localhost",user="root",password="Var$ha229",database="exam")
cur=con.cursor()
cur.execute('select * from student')
rec=cur.fetchall()
records=cur.rowcount
print(cur)
print('TOTAL RECORDS --> ',records)
for i in rec:
    print('\t',i)
con.close()
```

```
PS C:\Users\Varsha Saini\OneDrive\Desktop\dbms exam> python -u "c:\Users\Varsha Saini\OneDrive\Desktop\dbms exam\script.py"
CMySQLCursor: select * from student
TOTAL RECORDS --> 5
(4402000, '21229CMP001', 'Computer Science', 'Kriti', 'Varanasi', 987659878, 8.67)
(4402002, '21229CMP003', 'Computer Science', 'Sapna', 'Chandauli', 987338758, 8.98)
(4402001, '21229GLG004', 'Geology', 'Tara', 'Chandauli', 987349878, 8.77)
(4402003, '21229STA003', 'Statistics', 'Apurva', 'Varanasi', 956098758, 6.98)
(4402004, '2129STA009', 'Statistics', 'Ananya', 'Lucknow', 956076538, 7.08)
PS C:\Users\Varsha Saini\OneDrive\Desktop\dbms exam>
```

2. Explain the syntax of select query show the example of a query including select, group by, order by, and having clause in one single query.

```
SELECT count(*),core_subject FROM student WHERE cgpa>7
GROUP BY core_subject HAVING count(*)>1 ORDER BY count(*) ;
```

The given query gives the output as:

	count(*)	core_subject
▶	2	Computer Science



2. Write a query to illustrate the use of IN, BETWEEN and LIKE operator in sql;




```
SELECT* FROM student WHERE cgpa BETWEEN 6 and 8.5;
```



[illegible]

SELECT\* FROM student WHERE city IN ("lucknow" , "Varanasi");

Result Grid

  Filter Rows:

Edit:   

Export/Import:  

	std_id	roll_no	core_subject	stud_name	city	phn_no	CGPA
▶	4402000	21229CMP001	Computer Science	Kriti	Varanasi	987659878	8.67
	4402003	21229STA003	Statistics	Apurva	Varanasi	956098758	6.98
	4402004	2129STA009	Statistics	Ananya	Lucknow	956076538	7.08
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL

SELECT\* FROM student WHERE phn\_no LIKE "95%";

Result Grid

Edit:

Export/Import:

	std_id	roll_no	core_subject	stud_name	city	phn_no	CGPA
▶	4402003	21229STA003	Statistics	Apurva	Varanasi	956098758	6.98
	4402004	2129STA009	Statistics	Ananya	Lucknow	956076538	7.08
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL