

# **Chandigarh College of Engineering & Technology (Degree Wing)**



## **Department of Computer Science and Engineering** Database Systems (Practical)

**CS 352**

### **Practical - 4**

**DOP: - 26/07/2024**

**DOS:-02/08/2024**

**Submitted By:**

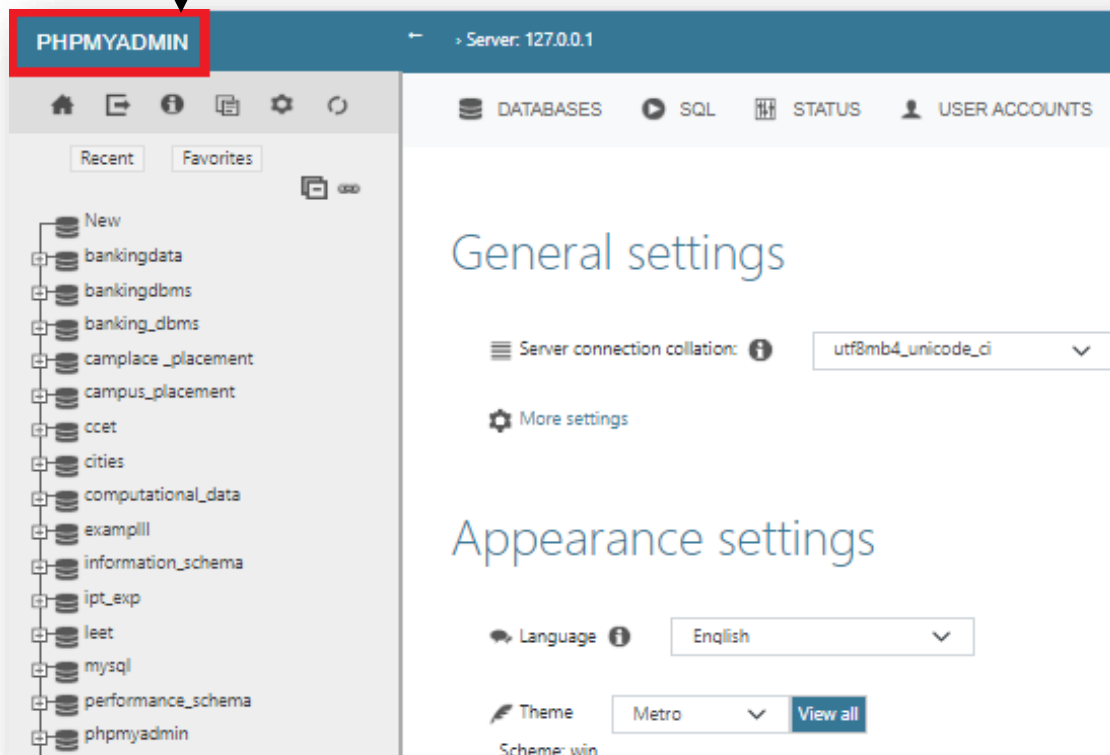
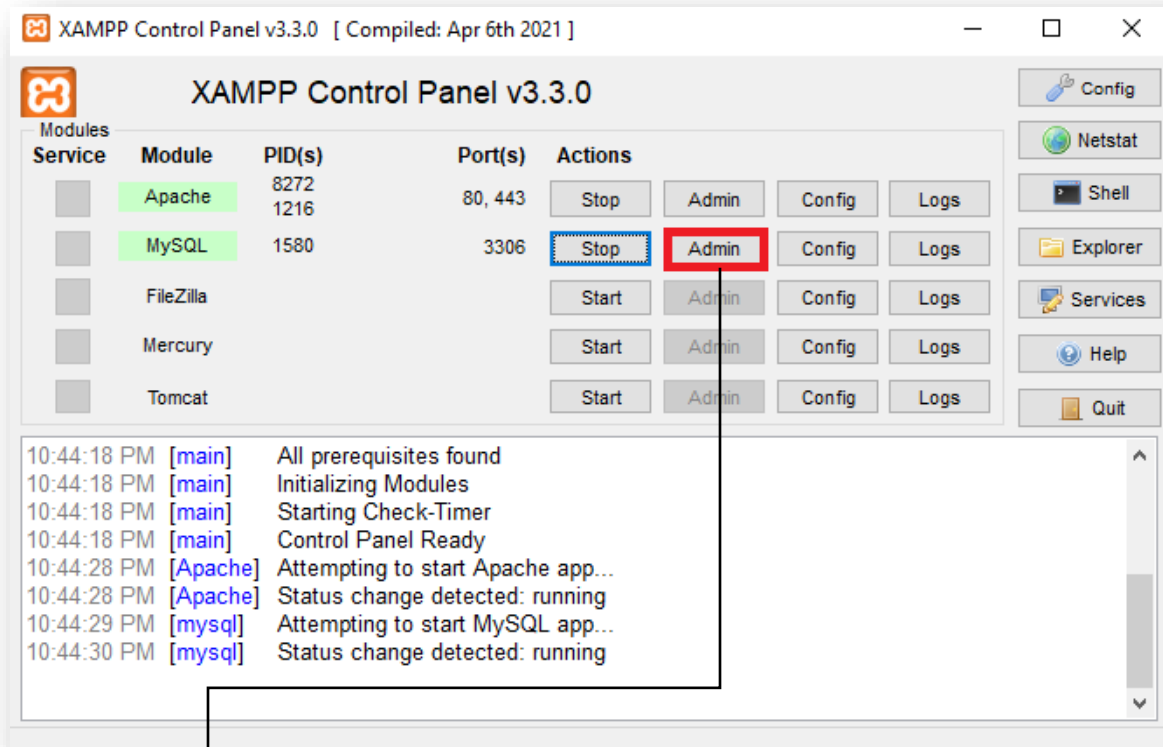
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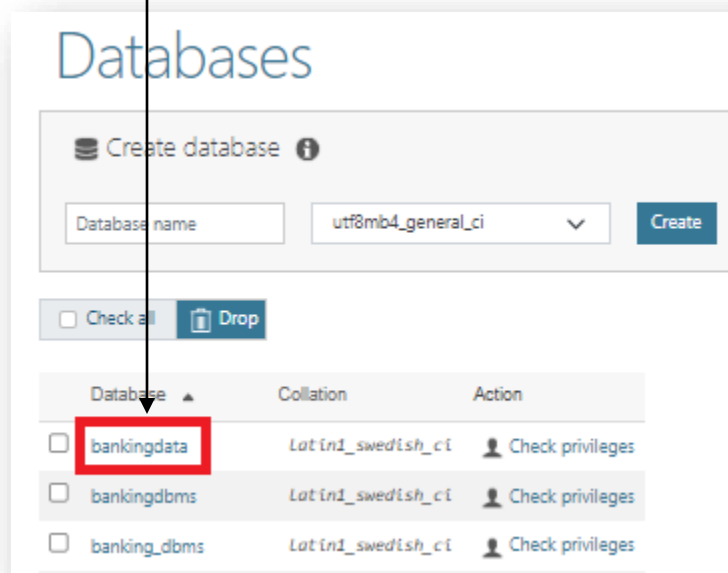
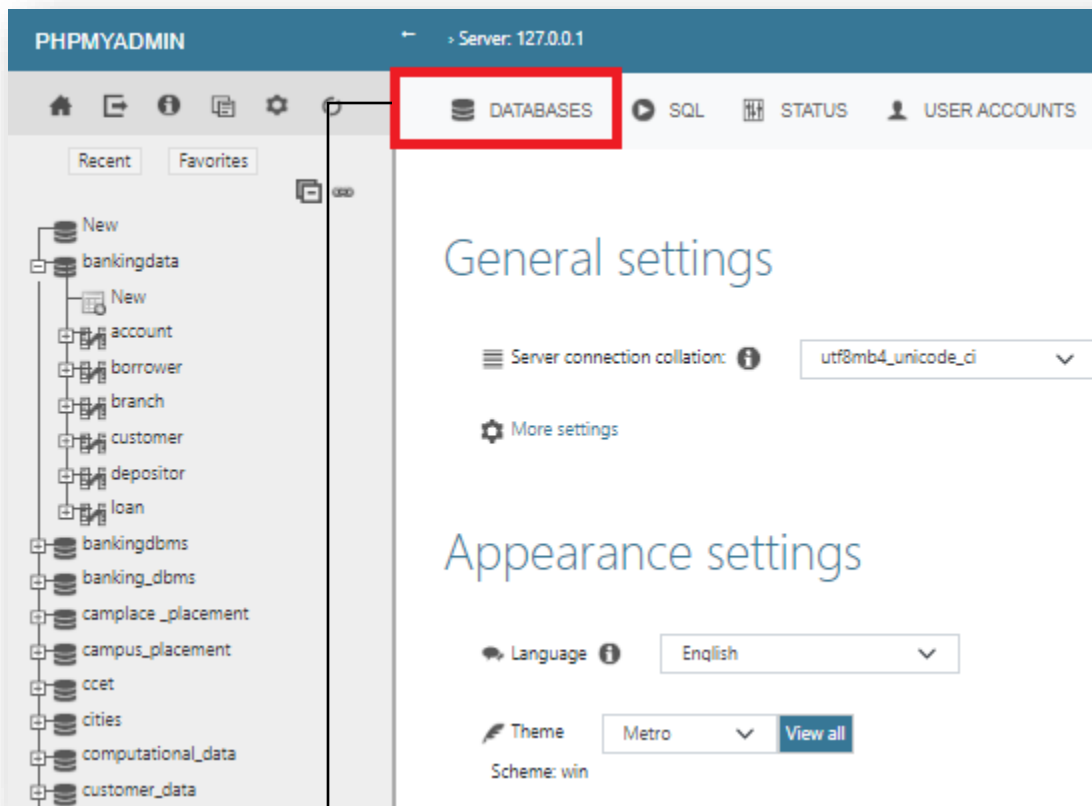
**STEP 1:- Starting XAMPP.**

- Open the “XAMPP” Control Panel and start the Apache and MySQL services, by clicking on start and then admin.
- The “phpMyAdmin” will open in your default web browser.



**Step 2:- Opening “bankingdata”.**

- Once your “**phpMyAdmin**” is opened now go to “**DATABASES**”, which will display every database that exists on your server.
- Click on “**bankingdata**” to open the tables.



### Step 3:- Opening tables in “bankingdata”

- Once you click on “bankingdata”, all the tables in it will be displayed.
- Now select the table on which you want to run your queries, and go to “SQL” section.

Table	Action	Rows	Type	Collation	Size	Overhead
<input checked="" type="checkbox"/> account	Browse  Structure  Search  Insert  Empty  Drop	56	InnoDB	latin1_swedish_ci	16.0 K1B	-
<input type="checkbox"/> borrower	Browse  Structure  Search  Insert  Empty  Drop	64	InnoDB	latin1_swedish_ci	16.0 K1B	-
<input type="checkbox"/> branch	Browse  Structure  Search  Insert  Empty  Drop	64	InnoDB	latin1_swedish_ci	16.0 K1B	-
<input type="checkbox"/> customer	Browse  Structure  Search  Insert  Empty  Drop	96	InnoDB	latin1_swedish_ci	16.0 K1B	-
<input type="checkbox"/> depositor	Browse  Structure  Search  Insert  Empty  Drop	56	InnoDB	latin1_swedish_ci	16.0 K1B	-
<input type="checkbox"/> loan	Browse  Structure  Search  Insert  Empty  Drop	56	InnoDB	latin1_swedish_ci	16.0 K1B	-
6 tables	Sum	392	InnoDB	latin1_swedish_ci	96.0 K1B	0 B

BROWSE STRUCTURE SQL SEARCH

✓ Showing rows 0 - 24 (56 total, Query took 0.0006 seconds.)

`SELECT * FROM `account``

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

1 > >> ☐ Show all | Number of rows: 25

Extra options

account_number	branch_name	balance
A-101	Downtown	500
A-102	Perryridge	400
A-201	Brighton	900
A-215	Mianus	700
A-217	Brighton	750
A-222	Redwood	700
A-305	Round Hill	350
A-101	Downtown	500
A-102	Perryridge	400

BROWSE STRUCTURE SQL SEARCH INSERT


Run SQL query/queries on table bankingdata.account: ⓘ

1 | `SELECT * FROM `account` WHERE 1`

Type your queries here and click on “Go” to run them on your table

**Step 4:- Running Queries of deletion and updation of tuples on “banking data”**

SQL query 1: - DELETE FROM account  
WHERE balance < 600;

Run SQL query/queries on  
bankingdata.account: 

```
1 DELETE FROM account
2 WHERE balance < 600;
```

✓ 6 rows deleted. (Query took 0.0232 seconds.)

DELETE FROM account WHERE balance < 600;

account_number	branch_name	balance
A-201	Brighton	900
A-215	Mianus	700
A-217	Brighton	750
A-222	Redwood	700
A-201	Brighton	900
A-215	Mianus	700
A-217	Brighton	750
A-222	Redwood	700

SQL query 2: - DELETE FROM branch  
WHERE assets > 5000000;

SQL query/queries on ta  
kingdbms.branch: 

```
1 DELETE FROM branch
2 WHERE assets > 5000000;
```

✓ 3 rows deleted. (Query took 0.0025 seconds.)

DELETE FROM branch WHERE assets > 5000000;

branch_name	branch_city	assets
Mianus	Horseneck	400000
North Town	Rye	3700000
Perryridge	Horseneck	1700000
Pownal	Bennington	300000
Redwood	Palo Alto	2100000

SQL query 3:- DELETE FROM loan  
WHERE branch\_name = 'Downtown';

SQL query 4:- DELETE FROM depositor  
WHERE account\_number = 'A-222';

SQL query/queries on table bar

SQL query/queries on table bar

```
1 DELETE FROM loan
2 WHERE branch_name = 'Downtown';
```

```
1 DELETE FROM depositor
2 WHERE account_number = 'A-222';
```

✓ 2 rows deleted. (Query took 0.0018 seconds.)

✓ 1 row deleted. (Query took 0.0003 seconds.)

DELETE FROM loan WHERE branch\_name = 'Downtown';  
.....

DELETE FROM depositor WHERE account\_number = 'A-222';  
.....

loan_number	branch_name	amount
L-11	Round Hill	900
L-15	Perryridge	1500
L-16	Perryridge	1300
L-23	Redwood	2000
L-93	Mianus	500

customer_name	account_number
Johnson	A-101
Hayes	A-102
Johnson	A-201
Smith	A-215
Jones	A-217
Turner	A-305

SQL query 5:- DELETE FROM customer  
WHERE Customer\_City = 'Stamford';

SQL query 6:- DELETE FROM borrower  
WHERE customer\_name = 'Adams';

SQL query/queries on table bank

SQL query/queries on table bank

```
1 DELETE FROM customer
2 WHERE Customer_City = 'Stamford';
```

```
1 DELETE FROM borrower
2 WHERE customer_name = 'Adams';
```

✓ 2 rows deleted. (Query took 0.0003 seconds.)

✓ 1 row deleted. (Query took 0.0003 seconds.)

DELETE FROM customer WHERE Customer\_City = 'Stamford';

DELETE FROM borrower WHERE customer\_name = 'Adams';

Customer_Name	Customer_Street	Customer_City
Brooks	Senator	Brooklyn
Curry	North	Rye
Glenn	Sandhill	Woodside
Hayes	Main	Harrison
Johnson	Alma	Palo Alto
Jones	Main	Harrison
Lindsay	Park	Pittsfield
Smith	North	Rye
Williams	Nassaw	Princeton
Adams	Spring	Pittsfield

customer_name	loan_number
Smith	L-11
Jackson	L-14
Hayes	L-15
Williams	L-17
Smith	L-23
Curry	L-93

SQL query 7 :- UPDATE account  
SET branch\_name = 'Downtown'  
WHERE branch\_name = 'Brighton';

SQL query/queries on table bar

```
1 UPDATE account
2 SET branch_name = 'Downtown'
3 WHERE branch_name = 'Brighton';
```

✓ 2 rows affected. (Query took 0.0018 seconds.)

UPDATE account SET branch\_name = 'Downtown'

SQL query 8:- UPDATE borrower  
SET customer\_name = 'Adam'  
WHERE customer\_name = 'Hayes';

SQL query/queries on table b

```
1 UPDATE borrower
2 SET customer_name = 'Adam'
3 WHERE customer_name = 'Hayes';
```

✓ 1 row affected. (Query took 0.0005 seconds.)

UPDATE borrower SET customer\_name = 'Adam'

account_number	branch_name	balance
A-101	Downtown	500
A-102	Perryridge	400
A-201	Downtown	900
A-215	Mianus	700
A-217	Downtown	750
A-222	Redwood	700
A-305	Round Hill	350

customer_name	loan_number
Smith	L-11
Jackson	L-14
Adam	L-15
Williams	L-17
Smith	L-23
Curry	L-93



SQL query 9:- UPDATE branch  
SET assets = 500000  
WHERE assets = 400000;

SQL query/queries on table

```
1 UPDATE branch
2 SET assets = 500000
3 WHERE assets = 400000;
```

✓ 1 row affected. (Query took 0.0004 seconds.)

UPDATE branch SET assets = 500000 WHERE

branch_name	branch_city	assets
Mianus	Horseneck	500000
North Town	Rye	3700000
Perryridge	Horseneck	1700000
Pownal	Bennington	300000
Redwood	Palo Alto	2100000

SQL query 10:- UPDATE depositor  
SET customer\_name = 'Ohio'  
WHERE customer\_name = 'Turner';

SQL query/queries on table bar

```
1 UPDATE depositor
2 SET customer_name = 'Ohio'
3 WHERE customer_name = 'Turner';
```

✓ 1 row affected. (Query took 0.0004 seconds.)

UPDATE depositor SET customer\_name = 'Ohio' WHERE

customer_name	account_number
Johnson	A-101
Hayes	A-102
Johnson	A-201
Smith	A-215
Jones	A-217
Ohio	A-305

**Step 5:- Running Queries of deletion and updation of tuples on “university data”**

SQL query 1:- DELETE FROM advisor  
WHERE i\_ID < 50000;

SQL query/queries on

```
1 DELETE FROM advisor
2 WHERE i_ID < 50000;
```

✓ 3 rows deleted. (Query took 0.0024 seconds.)

```
DELETE FROM advisor WHERE i_ID < 50000;
```

s_ID	i_ID
23121	76543
76653	98345
98765	98345
98988	76766

SQL query 2:- DELETE FROM classroom  
WHERE capacity = 500;

SQL query/queries on

```
1 DELETE FROM classroom
2 WHERE capacity = 500;
```

✓ 1 row deleted. (Query took 0.0003 seconds.)

```
DELETE FROM classroom WHERE capacity = 500;
```

building	room_number	capacity
Painter	514	10
Taylor	3128	70
Watson	100	30
Watson	120	50

SQL query 3:- DELETE FROM course  
WHERE dept\_name = 'Comp.Sci.';

SQL query 4:- DELETE FROM department  
WHERE building = 'Taylor';

SQL query/queries on table uni

```
1 DELETE FROM course
2 WHERE dept_name = 'Comp. Sci.';
```

SQL query/queries on table

```
1 DELETE FROM department
2 WHERE building = 'Taylor';
```

✓ 5 rows deleted. (Query took 0.0030 seconds.)

✓ 2 rows deleted. (Query took 0.0020 seconds.)

```
DELETE FROM course WHERE dept_name = 'Comp. Sci.';
```

```
DELETE FROM department WHERE building = 'Taylor';
```

course_id	title	dept_name	credits
BIO-101	Intro. to Biology	Biology	4
BIO-301	Genetics	Biology	4
BIO-399	Computational Biology	Biology	3
EE-181	Intro. to Digital Systems	Elec. Eng.	3
FIN-201	Investment Banking	Finance	3
HIS-351	World History	History	3
MU-199	Music Video Production	Music	3
PHY-101	Physical Principles	Physics	4

dept_name	building	budget
Biology	Watson	90000.00
Finance	Painter	120000.00
History	Painter	50000.00
Music	Packard	80000.00
Physics	Watson	70000.00

SQL query 5:- DELETE FROM teaches  
WHERE semester = 'Spring';

SQL query/queries on table

```
1 DELETE FROM teaches
2 WHERE semester = 'Spring';
```

✓ 10 rows deleted. (Query took 0.0043 seconds.)

```
DELETE FROM teaches WHERE semester = 'Spring';
```

ID	course_id	sec_id	semester	year
10101	CS-101	1	Fall	2009
10101	CS-347	1	Fall	2009
22222	PHY-101	1	Fall	2009
76766	BIO-101	1	Summer	2009
76766	BIO-301	1	Summer	2010

SQL query 6:- UPDATE advisor  
SET s\_ID = '10101'  
WHERE s\_ID = '23121';

SQL query/queries on

```
1 UPDATE advisor
2 SET s_ID = '10101'
3 WHERE s_ID = '23121';
```

✓ 1 row affected. (Query took 0.0003 seconds.)

```
UPDATE advisor SET s_ID = '10101' WHERE s_ID
```

s_ID	i_ID
10101	76543
76653	98345
98765	98345
98988	76766

SQL query 7:- UPDATE classroom  
SET building = 'Painter'  
WHERE building = 'Taylor';

SQL query/queries on tabl

```
1 UPDATE classroom
2 SET building = 'Painter'
3 WHERE building = 'Taylor';
```

✓ 1 row affected. (Query took 0.0006 seconds.)

```
UPDATE classroom SET building = 'Painter'
```

SQL query 8:- UPDATE course  
SET dept\_name = 'Bio'  
WHERE dept\_name = 'Biology';

SQL query/queries on table

```
1 UPDATE course
2 SET dept_name = 'Bio'
3 WHERE dept_name = 'Biology';
```

✓ 3 rows affected. (Query took 0.0003 seconds.)

```
UPDATE course SET dept_name = 'Bio' WHERE
```

building	room_number	capacity
Painter	514	10
Painter	3128	70
Watson	100	30
Watson	120	50

course_id	title	dept_name	credits
BIO-101	Intro. to Biology	Bio	4
BIO-301	Genetics	Bio	4
BIO-399	Computational Biology	Bio	3
EE-181	Intro. to Digital Systems	Elec. Eng.	3
FIN-201	Investment Banking	Finance	3
HIS-351	World History	History	3
MU-199	Music Video Production	Music	3
PHY-101	Physical Principles	Physics	4

SQL query 9:- UPDATE department  
SET dept\_name = 'Art'  
WHERE dept\_name = 'Music';

SQL query/queries on tabl

```
1 UPDATE department
2 SET dept_name = 'Art'
3 WHERE dept_name = 'Music';
```

✓ 1 row affected. (Query took 0.0004 seconds.)

```
UPDATE department SET dept_name = 'Art'
```

dept_name	building	budget
Art	Packard	80000.00
Biology	Watson	90000.00
Finance	Painter	120000.00
History	Painter	50000.00
Physics	Watson	70000.00

SQL query 10:- UPDATE teaches  
SET semester = 'Autumn'  
WHERE semester = 'Fall';

SQL query/queries on ta

```
1 UPDATE teaches
2 SET semester = 'Autumn'
3 WHERE semester = 'Fall';
```

✓ 3 rows affected. (Query took 0.0016 seconds.)

```
UPDATE teaches SET semester = 'Autumn' WHERE
```

ID	course_id	sec_id	semester	year
10101	CS-101	1	Autumn	2009
10101	CS-347	1	Autumn	2009
22222	PHY-101	1	Autumn	2009
76766	BIO-101	1	Summer	2009
76766	BIO-301	1	Summer	2010