

Rajshahi University of Engineering & Technology
Department of Electrical and Computer Engineering



Course Code: ECE- 2216

Course Title: Data Base Systems Sessional

Lab Report No: 01

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1.1 Experiment No: 01

1.2 Name of the Experiment:

Basic problems on DDL & DML.

Tasks:

(i). Create a database system for class 21 where there are 2 tables for odd and even batch containing following information for 10 students:

- Id
- Name
- Contact
- Blood group
- Major subject
- Obtained marks (100)

(ii). Perform the following DDL & DML operations:

- DML: INSERT, DELETE, UPDATE.
- DDL: CREATE, ALTER, DROP, TRUNCATE, RENAME, CHANGE.

1.3 Objectives:

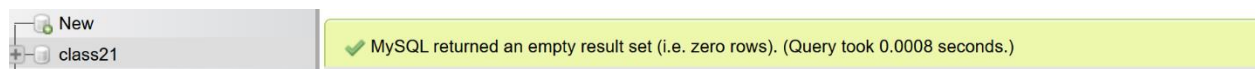
- To comprehend basic DML commands like UPDATE, DELETE, and INSERT.
- To become familiar with CREATE, ALTER, DROP, TRUNCATE, RENAME, and CHANGE, among other fundamental DDL procedures.

1.4 Query & Output:

Creating a new database:

```
CREATE DATABASE 'class21';
```

Output:

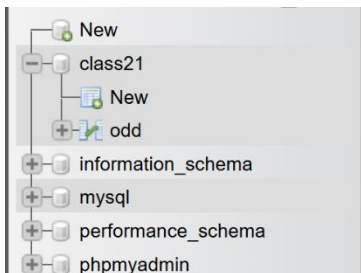


Creating New Tables:

```
CREATE TABLE `odd` (  
  id INT(100),  
  name VARCHAR(255),  
  contact VARCHAR(255),  
  blood_group VARCHAR(255),  
  major_subject VARCHAR(255),  
  obtained_marks INT(100)  
);
```

```
CREATE TABLE `even` (  
  id INT(100),  
  name VARCHAR(255),  
  contact VARCHAR(255),  
  blood_group VARCHAR(255),  
  major_subject VARCHAR(255),  
  obtained_marks INT(100)  
);
```

Output:



The screenshot shows a database management interface. On the left, a tree view displays the database structure. Under a 'New' folder, there is a 'class21' folder, which contains a 'New' folder and a table named 'odd'. Below this, other databases like 'information_schema', 'mysql', 'performance_schema', and 'phpmyadmin' are listed. On the right, a yellow status bar indicates a successful query execution: 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)'. Below this, the SQL query for creating the 'odd' table is displayed in a code editor. The query is: `CREATE TABLE `odd` (id INT(100), name VARCHAR(255), contact VARCHAR(255), blood_group VARCHAR(255), major_subject VARCHAR(255), obtained_marks INT(100));`. At the bottom right of the code editor, there are links: '[Edit inline] [Edit] [Create PHP code]'.

```
CREATE TABLE `odd` ( id INT(100), name VARCHAR(255), contact VARCHAR(255), blood_group VARCHAR(255), major_subject VARCHAR(255), obtained_marks INT(100) );
```

[Edit inline] [Edit] [Create PHP code]



The screenshot shows the same database management interface as the previous one, but now the 'even' table has been created. In the tree view, the 'New' folder under 'class21' now contains two tables: 'even' and 'odd'. The yellow status bar on the right still shows the successful execution of the query: 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)'. The SQL query for creating the 'even' table is displayed in the code editor: `CREATE TABLE `even` (id INT(100), name VARCHAR(255), contact VARCHAR(255), blood_group VARCHAR(255), major_subject VARCHAR(255), obtained_marks INT(100));`. The links at the bottom right are: '[Edit inline] [Edit] [Create PHP code]'.

```
CREATE TABLE `even` ( id INT(100), name VARCHAR(255), contact VARCHAR(255), blood_group VARCHAR(255), major_subject VARCHAR(255), obtained_marks INT(100) );
```

[Edit inline] [Edit] [Create PHP code]

Inserting Data of 10 Students:

```
INSERT INTO `odd` (`id`, `name`, `contact`, `blood_group`, `major_subject`, `obtained_marks`) VALUES
(1, 'Lionel Messi', '01000000001', 'O+ve', 'Math', 95),
(3, 'Pedri', '01000000003', 'B+ve', 'Math', 85),
(5, 'Lamine Yamal', '01000000005', 'AB+ve', 'Math', 88),
(7, 'Robert Lewandowski', '01000000007', 'A+ve', 'Math', 90),
(9, 'Jordi Alba', '01000000009', 'O-ve', 'Math', 82);
```

Odd Table:

id	name	contact	blood_group	major_subject	obtained_marks
1	Lionel Messi	01000000001	O+ve	Math	95
3	Pedri	01000000003	B+ve	Math	85
5	Lamine Yamal	01000000005	AB+ve	Math	88
7	Robert Lewandowski	01000000007	A+ve	Math	90
9	Jordi Alba	01000000009	O-ve	Math	82

```
INSERT INTO `even` (`id`, `name`, `contact`, `blood_group`, `major_subject`, `obtained_marks`) VALUES
(2, 'Erling Haaland', '01000000002', 'A+ve', 'Math', 93),
(4, 'Jack Grealish', '01000000004', 'AB+ve', 'Math', 87),
(6, 'Bernardo Silva', '01000000006', 'O-ve', 'Math', 90),
(8, 'Riyad Mahrez', '01000000008', 'B+ve', 'Math', 84),
(10, 'Phil Foden', '01000000010', 'A-ve', 'Math', 89);
```

Even Table:

id	name	contact	blood_group	major_subject	obtained_marks
2	Erling Haaland	01000000002	A+ve	Math	93
4	Jack Grealish	01000000004	AB+ve	Math	87
6	Bernardo Silva	01000000006	O-ve	Math	90
8	Riyad Mahrez	01000000008	B+ve	Math	84
10	Phil Foden	01000000010	A-ve	Math	89

Updating a row in table:

```
UPDATE `odd`
SET `id` = 9,
    `name` = 'Dani Olmo',
    `contact` = '01000000009',
    `blood_group` = 'O-ve',
    `major_subject` = 'Math',
    `obtained_marks` = 82
WHERE `id` = 9;
```

Output:

id	name	contact	blood_group	major_subject	obtained_marks
1	Lionel Messi	01000000001	O+ve	Math	95
3	Pedri	01000000003	B+ve	Math	85
5	Lamine Yamal	01000000005	AB+ve	Math	88
7	Robert Lewandowski	01000000007	A+ve	Math	90
9	Dani Olmo	01000000009	O-ve	Math	82

Deleting a row in the table:

```
DELETE FROM even WHERE id = 1;
```

Output:

id	name	contact	blood_group	major_subject	obtained_marks
4	Jack Grealish	01000000004	AB+ve	Math	87
6	Bernardo Silva	01000000006	O-ve	Math	90
8	Riyad Mahrez	01000000008	B+ve	Math	84
10	Phil Foden	01000000010	A-ve	Math	89

Drop a column:

```
ALTER TABLE `even`  
DROP COLUMN `blood_group`;
```

Output:

id	name	contact	major_subject	obtained_marks
4	Jack Grealish	01000000004	Math	87
6	Bernardo Silva	01000000006	Math	90
8	Riyad Mahrez	01000000008	Math	84
10	Phil Foden	01000000010	Math	89

Rename a column:

```
ALTER TABLE `even`  
CHANGE `contact` `phone_number` VARCHAR(255);
```

Output:

id	name	phone_number	major_subject	obtained_marks
4	Jack Grealish	01000000004	Math	87
6	Bernardo Silva	01000000006	Math	90
8	Riyad Mahrez	01000000008	Math	84
10	Phil Foden	01000000010	Math	89