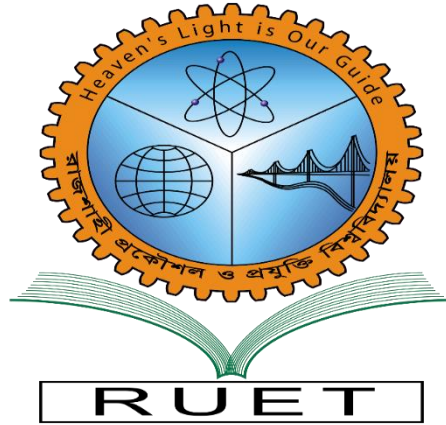


"Heaven's Light is Our Guide"

Rajshahi University of Engineering & Technology, Rajshahi



Department of Electrical & Computer Engineering

Course Code : ECE 2216

Course Title : Database Systems Sessional

Lab reportNo. : 01

Submission Date :17.09.2024

Submitted To-
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Experiment No: 01

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

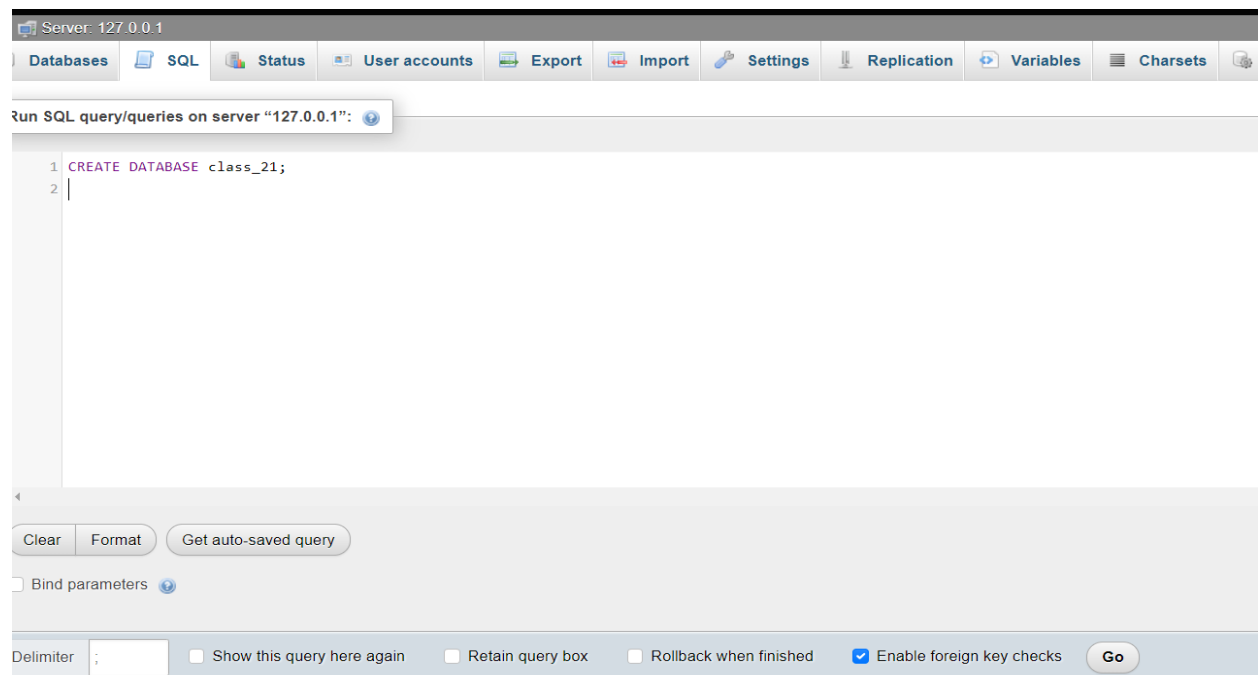
- I. Id.
- II. Name.
- III. Contact
- IV. Blood_group.
- V. Major_subject.
- VI. Obtained_mark.

Objective: Creating a database system for Class 21 where there are two tables, one for odd batch students and one for even batch students, can help manage student information efficiently. The objective of this database system is to organize, store, and retrieve information about students systematically and make operations such as searching, updating, and analyzing the data easier.

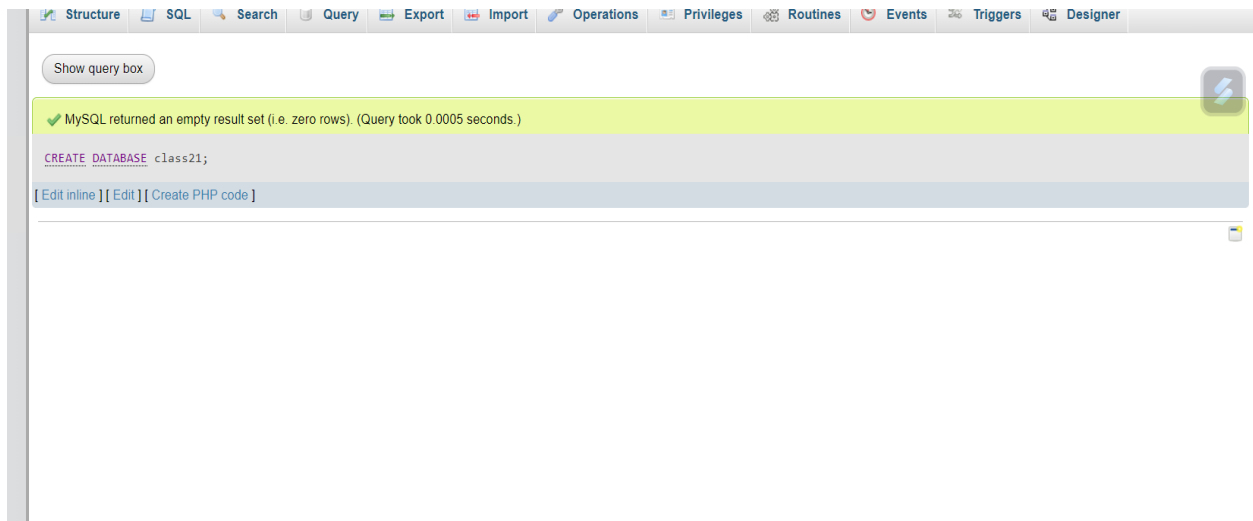
- I. **Efficient Data Management:** Store information about students in an organized way.
- II. **Batch-wise Segmentation:** Separate odd and even batches for better clarity and batch-wise analysis.
- III. **Ease of Retrieval:** Enable querying data about specific students or groups of students.
- IV. **Data Integrity:** Ensure each student has unique identification and complete information.

Output and query:

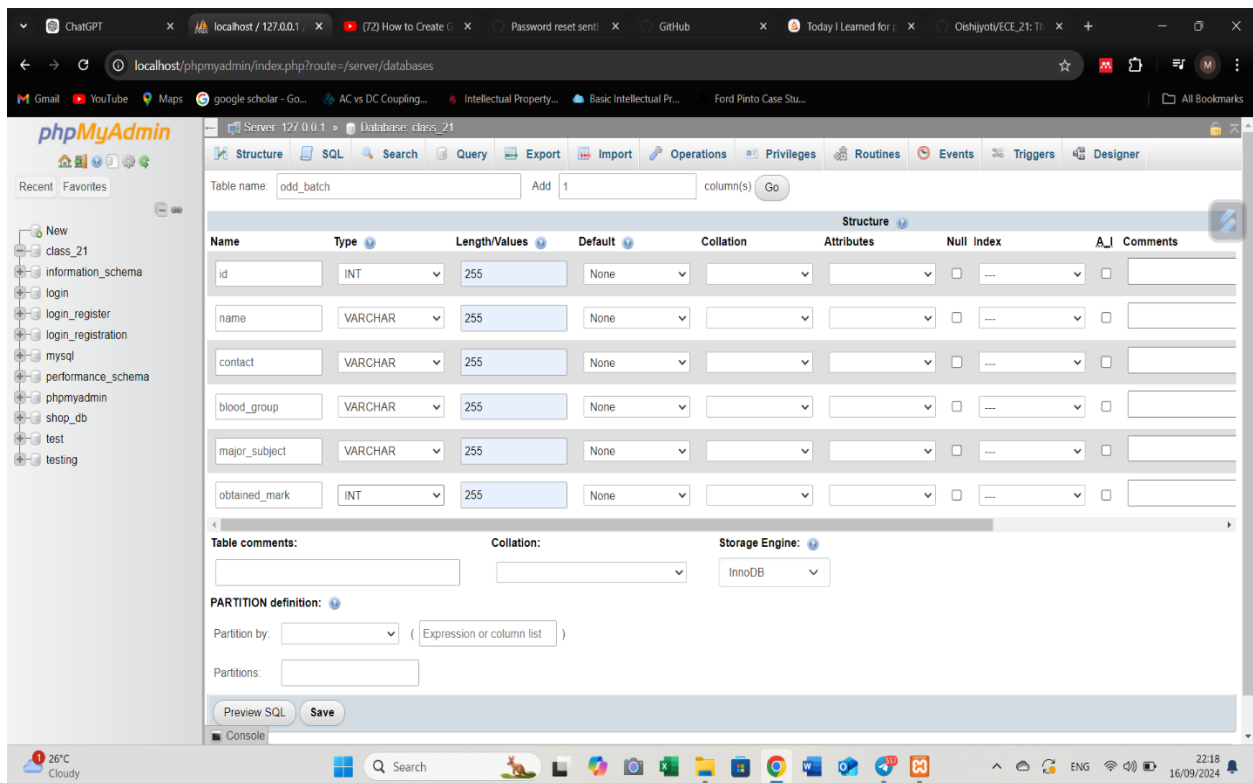
Creating a database name class_21



Output :



Creating a table of odd_batch for 10 students:



Output:

localhost/phpmyadmin/index.php?route=/database/structure&server=18&db=class_21&table=odd_batch

Server: 127.0.0.1 » Database: class_21 » Table: odd_batch

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(255)			No	None			Change Drop More
2	name	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
3	contact	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
4	blood_group	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
5	major_subject	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
6	obtained_mark	int(255)			No	None			Change Drop More

Indexes

No index defined!

Create an index on 1 column(s) Go

Partitions

Partitioning defined!

Inserting data for 10 students:

localhost/phpmyadmin/index.php?route=/table/sql&db=class_21&table=odd_batch

Server: 127.0.0.1 » Database: class_21 » Table: odd_batch

Run SQL query/queries on table class_21.odd_batch:

```
1 INSERT INTO odd_batch (id,name, contact, blood_group, major_subject, obtained_mark)
2 VALUES
3 ('1','Sadik', '1234567890', 'A+', 'Mathematics', 85),
4 ('2','Mahid', '0987654321', 'O+', 'Physics', 78),
5 ('3','Jahin', '1122334455', 'B+', 'Chemistry', 92),
6 ('4','Himel', '6677889900', 'AB+', 'Biology', 80),
7 ('5','Prithu', '2233445566', 'A-', 'Computer Science', 75),
8 ('6','Rubaid', '3344556677', 'O-', 'Mathematics', 82),
9 ('7','Mossabbir', '9988776655', 'B-', 'Physics', 68),
10 ('8','Jifaf', '5566778899', 'A+', 'Chemistry', 89),
11 ('9','Noman', '7766554433', 'O-', 'Biology', 90),
12 ('10','Khalid', '1122112233', 'AB+', 'Computer Science', 95);
13
```

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

Bind parameters

Delimiter ; Show this query here again Retain query box Rollback when finished Enable foreign key checks Go

Output:

The screenshot shows the phpMyAdmin interface for a database named 'class_21'. The 'odd_batch' table is selected, and its structure is displayed. The table has 10 columns: id, name, contact, blood_group, major_subject, and obtained_mark. The data is as follows:

id	name	contact	blood_group	major_subject	obtained_mark
1	Sadik	1234567890	A+	Mathematics	85
2	Nahid	0987654321	O+	Physics	78
3	Jahin	1122334455	B+	Chemistry	92
4	Himel	6677889900	AB+	Biology	80
5	Prithu	2233445566	A-	Computer Science	75
6	Rubaid	3344556677	O+	Mathematics	82
7	Mossabbir	9988776655	B-	Physics	68
8	Jifat	5566778899	A+	Chemistry	89
9	Noman	7766554433	O-	Biology	90
10	Khalid	1122112233	AB+	Computer Science	95

Creating a table of even_batch for 10students:

The screenshot shows the phpMyAdmin interface for creating a new table named 'even_batch' in the 'class_21' database. The table structure is being defined with the following columns:

Name	Type	Length/Values	Default	Collation	Attributes	Null	Index	A_I	Comments
id	INT	255	None						
name	VARCHAR	255	None						
contact	VARCHAR	255	None						
blood_group	VARCHAR	255	None						
major_subject	VARCHAR	255	None						
obtained_mark	INT	255	None						

The storage engine is set to InnoDB. The table comments, collation, and partition definition sections are also visible.

Output:

localhost/phpmyadmin/index.php?route=/database/structure&server=1&db=class_21&table=

Server: 127.0.0.1 » Database: class_21 » Table: even_batch

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(255)			No	None			Change Drop More
2	name	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
3	contact	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
4	blood_group	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
5	major_subject	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
6	obtained_mark	int(255)			No	None			Change Drop More

Indexes

No index defined!

Create an index on 1 columns Go

Partitions

Partitioning defined!

Inserting data for even batch students:

localhost/phpmyadmin/index.php?route=/table/sql&db=class_21&table=even_batch

Server: 127.0.0.1 » Database: class_21 » Table: even_batch

Run SQL query/queries on table class_21.even_batch:

```

1 INSERT INTO even_batch (id,name, contact, blood_group, major_subject, obtained_mark)
2 VALUES
3 ('1','Sakin', '9998887777', 'O-', 'Mathematics', 88),
4 ('2','Faez', '4445556666', 'B-', 'Physics', 76),
5 ('3','Abu', '5556667777', 'A+', 'Chemistry', 90),
6 ('4','Rafiu', '6667778888', 'O+', 'Biology', 82),
7 ('5','Anirban', '3332221111', 'AB-', 'Computer Science', 70),
8 ('6','Chakma', '2221110000', 'A+', 'Mathematics', 78),
9 ('7','Ashik', '9990001111', 'O+', 'Physics', 80),
10 ('8','Arif', '1234567890', 'B-', 'Chemistry', 87),
11 ('9','Sadi', '9876543210', 'A-', 'Biology', 92),
12 ('10','Rabbani', '4321098765', 'AB+', 'Computer Science', 85);
13

```

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

Bind parameters

Delimiter ; Show this query here again Retain query box Rollback when finished Enable foreign key checks Go

Output:

The screenshot displays the phpMyAdmin web interface in a browser. The address bar shows the URL: `localhost/phpmyadmin/index.php?route=/sql&db=class_21&table=even_batch&pos=0`. The interface includes a sidebar with a database structure tree on the left, listing databases like 'class_21', 'information_schema', 'login', 'login_register', 'login_registration', 'mysql', 'performance_schema', 'phpmyadmin', 'shop_db', 'test', and 'testing'. The main panel shows the 'even_batch' table selected. A message at the top states: 'Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.' Below this, a green bar indicates 'Showing rows 0 - 9 (10 total, Query took 0.0005 seconds.)'. The SQL query `SELECT * FROM `even_batch`` is displayed. Below the query, there are options for 'Show all', 'Number of rows' (set to 25), and 'Filter rows' (with a search box). The 'Extra options' section is also visible. The table data is shown in a grid with columns: `id`, `name`, `contact`, `blood_group`, `major_subject`, and `obtained_mark`. The data rows are as follows:

id	name	contact	blood_group	major_subject	obtained_mark
1	Sakin	9998887777	O-	Mathematics	88
2	Faez	4445556666	B-	Physics	76
3	Abu	5556667777	A+	Chemistry	90
4	Rafiu	6667778888	O+	Biology	82
5	Anirban	3332221111	AB-	Computer Science	70
6	Chakma	2221110000	A+	Mathematics	78
7	Ashik	9990001111	O+	Physics	80
8	Arif	1234509876	B-	Chemistry	87
9	Sadi	9876543210	A-	Biology	92
10	Rabbani	4321098765	AB+	Computer Science	85

At the bottom of the interface, there is a 'Query results operations' section and a 'Console' tab. The Windows taskbar at the very bottom shows the system clock as 22:30 on 16/09/2024, with a temperature of 26°C and a 'Cloudy' weather status.