

WEEK 2 :

Query 1 - collageinfo - Schema

```

1 • CREATE DATABASE collageinfo_db;
2 • USE collageinfo_db;
3 • ○ CREATE TABLE students (
4     student_id INT PRIMARY KEY,
5     student_name VARCHAR(100) NOT NULL,
6     email VARCHAR(100),
7     age INT,
8     gender CHAR(1),
9     city VARCHAR(50),
10    admission_date DATE,
11    mentor_id INT
12 );
13

```

Action Output

- 1 11:28:24 Apply changes to collageinfo
- 2 11:29:17 CREATE DATABASE collageinfo_db
- 3 11:29:17 USE collageinfo_db
- 4 11:29:39 CREATE TABLE students (student_id INT PRIMARY KEY, student_name VARCHAR(100) NOT NULL, email V... 0 row(s) affected

Output

No object selected

Result Grid

student_id	student_name	email	age	gender	city	admission_date	mentor_id
1	Aarav	aarav@gmail.com	20	M	Delhi	'2022-06-10', NULL	
2	Neha	neha@gmail.com	21	F	Mumbai	'2021-07-15', 1	
3	Rahul	NULL	22	M	Delhi	'2022-01-12', 1	
4	Priya	priya@gmail.com	20	F	NULL	'2023-03-20', 2	
5	Karan	karan@gmail.com	23	M	Pune	'2021-11-01', 2	
6	Anita	NULL	21	F	Mumbai	'2022-08-05', 3	

Output

No object selected

Action Output

- 1 11:28:24 Apply changes to collageinfo
- 2 11:29:17 CREATE DATABASE collageinfo_db
- 3 11:29:17 USE collageinfo_db
- 4 11:29:39 CREATE TABLE students (student_id INT PRIMARY KEY, student_name VARCHAR(100) NOT NULL, email V... 0 row(s) affected
- 5 11:30:46 INSERT INTO students VALUES (1, 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL), (2, 'Neha', 'neha@gmail.com', 21, 'F', 'Mumbai', '2021-07-15', 1), (3, 'Rahul', 'NULL', 22, 'M', 'Delhi', '2022-01-12', 1), (4, 'Priya', 'priya@gmail.com', 20, 'F', 'NULL', '2023-03-20', 2), (5, 'Karan', 'karan@gmail.com', 23, 'M', 'Pune', '2021-11-01', 2), (6, 'Anita', 'NULL', 21, 'F', 'Mumbai', '2022-08-05', 3)
- 6 11:31:00 CREATE DATABASE collageinfo_db
- 7 11:31:13 INSERT INTO students VALUES (1, 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL), (2, 'Neha', 'neha@gmail.com', 21, 'F', 'Mumbai', '2021-07-15', 1), (3, 'Rahul', 'NULL', 22, 'M', 'Delhi', '2022-01-12', 1), (4, 'Priya', 'priya@gmail.com', 20, 'F', 'NULL', '2023-03-20', 2), (5, 'Karan', 'karan@gmail.com', 23, 'M', 'Pune', '2021-11-01', 2), (6, 'Anita', 'NULL', 21, 'F', 'Mumbai', '2022-08-05', 3)
- 8 11:31:45 SELECT * FROM students LIMIT 0, 1000 6 row(s) returned

Result Grid

student_id	student_name	total_students
1	Aarav	6
2	Neha	6
3	Rahul	6
4	Priya	6
5	Karan	6
6	Anita	6

Output

No object selected

Action Output

- 1 11:29:17 CREATE DATABASE collageinfo_db
- 2 11:29:17 USE collageinfo_db
- 3 11:29:39 CREATE TABLE students (student_id INT PRIMARY KEY, student_name VARCHAR(100) NOT NULL, email V... 0 row(s) affected
- 4 11:30:46 INSERT INTO students VALUES (1, 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL), (2, 'Neha', 'neha@gmail.com', 21, 'F', 'Mumbai', '2021-07-15', 1), (3, 'Rahul', 'NULL', 22, 'M', 'Delhi', '2022-01-12', 1), (4, 'Priya', 'priya@gmail.com', 20, 'F', 'NULL', '2023-03-20', 2), (5, 'Karan', 'karan@gmail.com', 23, 'M', 'Pune', '2021-11-01', 2), (6, 'Anita', 'NULL', 21, 'F', 'Mumbai', '2022-08-05', 3)
- 5 11:30:46 INSERT INTO students VALUES (1, 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL), (2, 'Neha', 'neha@gmail.com', 21, 'F', 'Mumbai', '2021-07-15', 1), (3, 'Rahul', 'NULL', 22, 'M', 'Delhi', '2022-01-12', 1), (4, 'Priya', 'priya@gmail.com', 20, 'F', 'NULL', '2023-03-20', 2), (5, 'Karan', 'karan@gmail.com', 23, 'M', 'Pune', '2021-11-01', 2), (6, 'Anita', 'NULL', 21, 'F', 'Mumbai', '2022-08-05', 3)
- 6 11:31:00 CREATE DATABASE collageinfo_db
- 7 11:31:13 INSERT INTO students VALUES (1, 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL), (2, 'Neha', 'neha@gmail.com', 21, 'F', 'Mumbai', '2021-07-15', 1), (3, 'Rahul', 'NULL', 22, 'M', 'Delhi', '2022-01-12', 1), (4, 'Priya', 'priya@gmail.com', 20, 'F', 'NULL', '2023-03-20', 2), (5, 'Karan', 'karan@gmail.com', 23, 'M', 'Pune', '2021-11-01', 2), (6, 'Anita', 'NULL', 21, 'F', 'Mumbai', '2022-08-05', 3)
- 8 11:31:45 SELECT * FROM students LIMIT 0, 1000 6 row(s) returned
- 9 11:32:47 SELECT student_id, student_name, (SELECT COUNT(*) FROM students) AS total_students FROM students 6 row(s) returned

The screenshot shows the MySQL Workbench interface. The top menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The left sidebar has sections for MANAGEMENT (Server Status, Client Connections, User Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup Shutdown, Session Log, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The main area has tabs for 'collegeinfo_Schema' and 'collegeinfo_db'. A query editor window titled 'Query 1' contains the following SQL code:

```

22
23     student_id,
24     student_name,
25     (SELECT COUNT(*) FROM students) AS total_students
26
27     FROM students
28     WHERE age > (
29         SELECT AVG(age)
30         FROM students

```

Below the query editor is a results grid titled 'Result Grid' with columns: student_id, student_name, email, age, gender, city, admission_date, mentor_id. The data shows:

student_id	student_name	email	age	gender	city	admission_date	mentor_id
1	Rahul	rahu@gmail.com	22	M	Delhi	2022-01-12	1
5	Karan	karan@gmail.com	23	M	Pune	2021-11-01	2
6	Neha	neha@gmail.com	22	F	Mumbai	2022-01-12	3

At the bottom, there's an 'Output' tab and a status bar indicating 'No object selected'.

The screenshot shows the MySQL Workbench interface. The top menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The left sidebar has sections for MANAGEMENT (Server Status, Client Connections, Local Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Start/Shutdown, Server Logs, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The main area displays a query editor with the following SQL code:

```

    collageinfo - Schema
    +-----+-----+
    | student_id | student_name | email | age | gender | city | admission_date | mentor_id |
    +-----+-----+
    |          1 | Rahul        | aarav@gmail.com | 22 | M     | Delhi | 2022-01-12    |          2 |
    |          2 | Karan        | karan@gmail.com | 23 | M     | Pune  | 2022-11-01    |          2 |
    +-----+-----+
  
```

The results grid shows two rows of data. Below the results grid is an output window titled "Action Output" with the following log entries:

Action	Time	Action	Message
CREATE TABLE	4 11:29:39	students (student_id INT PRIMARY KEY, student_name VARCHAR(100) NOT NULL, email VARCHAR(100) NOT NULL, age INT, gender ENUM('M', 'F'), city VARCHAR(50), admission_date DATE, mentor_id INT)	0 row(s) affected
INSERT INTO	5 11:30:00	students VALUES ('1', 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL)	6 row(s) affected. 6 Duplicates. 0 Warnings.
CREATE DATABASE	6 11:31:00	collageinfo_db	Error Code: 1062 Can't create database 'collageinfo_db'; database exists
INSERT INTO	7 11:31:13	students VALUES ('1', 'Aarav', 'aarav@gmail.com', 20, 'M', 'Delhi', '2022-06-10', NULL)	Error Code: 1062 Duplicate entry '1' for key 'students.PRIMARY'
SELECT	8 11:31:45	SELECT * FROM students LIMIT 0, 1000	6 row(s) returned
SELECT	9 11:32:47	SELECT student_id, student_name, (SELECT COUNT(*) FROM students) AS total_students FROM students	6 row(s) returned

The screenshot shows the MySQL Workbench interface. The top menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. On the left, there's a Navigator pane with sections for MANAGEMENT (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup / Shutdown, Server Logs, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The bottom navigation bar has tabs for Administration, Schemas, and Information, with 'No object selected' currently active. The main area features a 'Query 1' tab titled 'collageinfo - Schema'. The query editor contains the following SQL code:

```
CREATE TABLE senior_students (
    student_id INT,
    student_name VARCHAR(100),
    age INT
);
INSERT INTO senior_students (student_id, student_name, age)
SELECT student_id, student_name, age
FROM students
WHERE age =
    (SELECT AVG(age)
     FROM students
    );
SELECT * FROM senior_students;
```

The results grid below shows the data from the 'senior_students' table:

student_id	student_name	age
3	Rahul	22
5	Karan	23
3	Rahul	22
5	Karan	23

The 'Output' pane at the bottom displays the execution log:

#	Time	Action	Message
1	11:34:51	SELECT * FROM students WHERE age > (SELECT AVG(age) FROM students) LIMIT 0, 1000	2 row(s) returned
2	11:36:07	CREATE TABLE senior_students (student_id INT, student_name VARCHAR(100), age INT)	0 rows(s) affected
3	11:36:23	INSERT INTO senior_students (student_id, student_name, age) SELECT student_id, student_name, age FROM stud...	2 rows(s) affected Records: 2 Duplicates: 0 Warnings: 0
4	11:36:27	INSERT INTO senior_students (student_id, student_name, age) SELECT student_id, student_name, age FROM stud...	2 rows(s) affected Records: 2 Duplicates: 0 Warnings: 0
5	11:36:42	SELECT * FROM senior_students LIMIT 0, 1000	4 row(s) returned

File Edit View Query Database Server Tools Scripting Help

Navigator

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

Administration Schemas Information

No object selected

Object Info Session

```

Query 1 < collageinfo - Schema
42
43 • INSERT INTO senior_students (student_id, student_name, age)
44     SELECT student_id, student_name, age
45     FROM students
46     WHERE age > (
47         SELECT AVG(age)
48         FROM students
49     );
50 • SELECT * FROM senior_students;
51 • SELECT *
52     CURRENT_DATE AS current_date,
53     CURRENT_TIME AS current_time,
54     CURRENT_TIMESTAMP AS current_timestamp;
55 • SELECT *
56     FROM students
57     WHERE admission_date > '2022-01-01'

```

Result Grid | Filter Rows: | Edit: | Export: | Wrap Cell Content: |

student_id	student_name	email	age	gender	city	admission_date	mentor_id
1	Aarav	aarav@gmail.com	20	M	Delhi	2022-06-10	NULL
3	Rahul	rahul@gmail.com	22	M	Delhi	2022-01-12	1
4	Priya	priya@gmail.com	20	F	Mumbai	2022-03-20	2
6	Anita	anita@gmail.com	21	F	Mumbai	2022-08-03	3
7	Karan	karan@gmail.com	18	M	Mumbai	2022-05-05	NULL

Action Output

#	Time	Action	Message
14	11:36:27	INSERT INTO senior_students (student_id, student_name, age) SELECT student_id, student_name, age FROM students WHERE admission_date > '2022-01-01'	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0
15	11:36:42	SELECT * FROM senior_students LIMIT 0, 1000	4 row(s) returned
16	11:37:47	SELECT CURRENT_DATE AS current_date, CURRENT_TIME AS current_time, CURRENT_TIMESTAMP AS current_timestamp	Error Code: 1064. You have an error in your SQL syntax; check the manual that came with this MySQL server.
17	11:38:00	SELECT * FROM students WHERE admission_date > '2022-01-01' LIMIT 0, 1000	4 row(s) returned
18	11:39:00	SELECT * FROM students WHERE admission_date > '2022-01-01' LIMIT 0, 1000	4 row(s) returned

File Edit View Query Database Server Tools Scripting Help

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Administration Schemas Information

No object selected

Object Info Session

```

Query 1 < collageinfo - Schema
54 • CURRENT_TIMESTAMP AS current_timestamp;
55 • SELECT *
56     FROM students
57     WHERE admission_date > '2022-01-01';
58 • SELECT
59     student_id,
60     admission_date,
61     YEAR(admission_date) AS year,
62     MONTH(admission_date) AS month,
63     DAY(admission_date) AS day
64     FROM students;
65 • SELECT
66     student_name,
67     DATEDIFF(CURRENT_DATE, admission_date) AS days_since_admission
68     FROM students;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

student_name	days_since_admission
Aarav	132
Neha	1663
Rahul	1482
Priya	1050
Karan	1554

Action Output

#	Time	Action	Message
18	11:39:00	SELECT * FROM students WHERE admission_date > '2022-01-01' LIMIT 0, 1000	4 row(s) returned
19	11:40:32	SELECT student_id, admission_date, YEAR(admission_date) AS year, MONTH(admission_date) AS month, DAY(admission_date) AS day	6 row(s) returned
20	11:41:21	SELECT student_name, DATEDIFF(CURRENT_DATE, admission_date) AS days_since_admission FROM students	6 row(s) returned
21	11:41:45	CREATE DATABASE collageinfo_db	Error Code: 1007. Can't create database 'collegeinfo_db'; database exists
22	11:41:51	SELECT student_name, DATEDIFF(CURRENT_DATE, admission_date) AS days_since_admission FROM students	6 row(s) returned
23	11:43:00	SELECT student_name, admission_date, DATE_ADD(admission_date, INTERVAL 1 YEAR) AS plus_one_year, DATE_SUB(admission_date, INTERVAL 6 MONTH) AS minus_six_months	6 row(s) returned

File Edit View Query Database Server Tools Scripting Help

Navigator

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- Server Logs
- Options File

PERFORMANCE

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- Performance Reports
- Performance Schema Setup

Administration Schemas Information

No object selected

Object Info Session

```

Query 1 < collageinfo - Schema
60     admission_date,
61     YEAR(admission_date) AS year,
62     MONTH(admission_date) AS month,
63     DAY(admission_date) AS day
64     FROM students;
65 • SELECT
66     student_name,
67     DATEDIFF(CURRENT_DATE, admission_date) AS days_since_admission
68     FROM students;
69 • SELECT
70     student_name,
71     admission_date,
72     DATE_ADD(admission_date, INTERVAL 1 YEAR) AS plus_one_year,
73     DATE_SUB(admission_date, INTERVAL 6 MONTH) AS minus_six_months
74     FROM students;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

student_name	admission_date	plus_one_year	minus_six_months
Aarav	2022-06-10	2023-06-10	2021-12-10
Neha	2021-07-15	2022-07-15	2021-01-15
Rahul	2022-01-12	2023-01-12	2021-07-12
Priya	2023-03-20	2024-03-20	2022-09-20
Karan	2021-11-01	2022-11-01	2021-05-01

Action Output

#	Time	Action	Message
19	11:40:32	SELECT student_id, admission_date, YEAR(admission_date) AS year, MONTH(admission_date) AS month, DAY(admission_date) AS day	6 row(s) returned
20	11:41:21	SELECT student_name, DATEDIFF(CURRENT_DATE, admission_date) AS days_since_admission FROM students	6 row(s) returned
21	11:41:45	CREATE DATABASE collageinfo_db	Error Code: 1007. Can't create database 'collegeinfo_db'; database exists
22	11:41:51	SELECT student_name, DATEDIFF(CURRENT_DATE, admission_date) AS days_since_admission FROM students	6 row(s) returned
23	11:43:00	SELECT student_name, admission_date, DATE_ADD(admission_date, INTERVAL 1 YEAR) AS plus_one_year, DATE_SUB(admission_date, INTERVAL 6 MONTH) AS minus_six_months	6 row(s) returned