

BSc (Hons) Artificial Intelligence and Data Science

Module: CM1603 Database Systems

Individual Coursework Report

Module Leader: Ms. Dileeka Alwis

RGU Student ID : 2313077

IIT Student ID : 20220577

Student Name : R.V.Wellalage

Acknowledgement

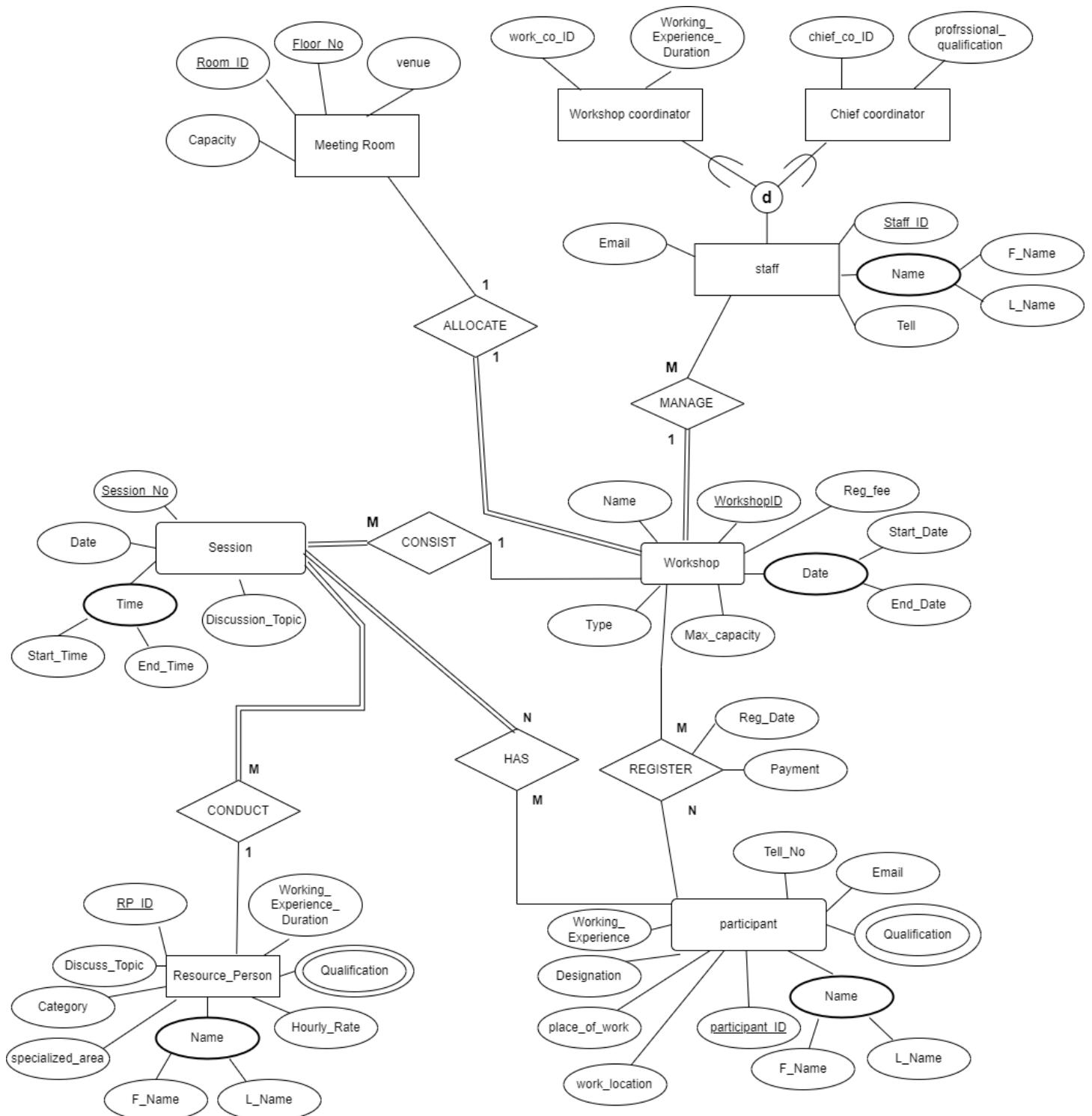
In this project we had to create a database for the National Institute of Training and Development (NITD) professional institute which organizes training and development workshops for professionals scattered among diverse sectors. And it was not an easy task for database beginners. And also it was a great practice for database beginners. NITD is planning to implement a new computerized system with Artificial Intelligence to enhance the operational excellence of the institute.

So that NITD wants to introduce a new Relational Database Management System (RDBMS) to keep track of a large collection of information associated with the workshops they organize. This was great practice for us . and our lecturers did a massive job by teaching those fundamentals for us.

TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
1.1. Section - (EXTENDED ENTITY DIAGRAM).....	4
1.2. Assumptions.....	5
2.1. Section - (RELATIONAL SCHEMA).....	8
2.2. Section - NORMALIZATION	9
3. Create Database	9
3.1. section - (CREATING DATABASE TABLES).....	10
3.2. Section – Data insertion (INSERT SAMPLE DATA TO THE CREATED TABLES)	22
3.3. Database Diagram.....	34
4. Section - Answer the questions	35

1.1. Section - (EXTENDED ENTITY DIAGRAM)



1.2. Assumptions

- ❖ Assumed that, when a participant is going to register to the workshop program, the database system will record the payment amount that has been made by the participant and also the registered date of that particular participant.
For that I used relation attributes to record that information. (Reg_Date , Payment).
- ❖ The scenario has mentioned the qualities of participant and resource person. It has two types of qualities. Educational qualities and professional qualities are the types of qualities that they have mentioned. But it would several qualities among the participants and resource persons. Therefore, I got the qualification attribute as a multi valued attribute. In that case users can mentioned several qualities that they have.
- ❖ I assumed that resource person is not belongs to the staff of the NITD institute.
- ❖ Therefore according to the given scenario, I used two entities that shows part of the institution staff. Those are workshop coordinator and chief coordinator. And my assumption is there might be more staff members than these two category, hence I used partial disjoint method to describe this situation. And also, same person could not have bear two designations. Chief coordinators can not be the workshop coordinators and workshop coordinators can not be the chief coordinator. That why I used disjoint method into this.
- ❖ All the staff members have a staff ID to identify each staff member uniquely.
- ❖ Staff ID is going to be the primary and foreign key of each sub entity. And to identify each member of staff whether he/she is a workshop coordinator or chief coordinator, there is a different ID numbers for each type of employees. By searing work_co_ID and chief_co_ID we can identify the employees separately.
- ❖ I assumed that, whenever user needs to find the meeting rooms for different sessions, they have to follow floor number and the corresponding room number. Hence all the details of the meeting room such as capacity and venue depend on the both primary keys. Then creates fully functional dependent for those two primary keys.

Assumptions about multiplicity constraints.

❖ Workshop – participant

- one workshop has more participants and one participants can join more than one workshop program. Hence it will go up with many to many relationship. Workshop may have participants or not , and participant may join for a workshop program or not. Therefor it is partial constraint.

❖ workshop – staff

- one workshop has more than one staff members, and one staff member has only one workshop at a time. He can not work in several workshops, one staff member can only one workshop at a time.
- For the workshop there must be staff members. But for the staff members there may be a workshop program or not. Therefore there is a total constraint.

❖ Workshop – meeting room

- I assumed that one workshop allocate in one meeting room, and one meeting room has one workshop at a time. So it will give one to one relationship.
- Workshop must have a meeting room. But to a meeting room it is not mandatory to have a workshop program.

❖ Workshop – Session

- one workshop may have several sessions. But one particular session should be in one workshop program. Therefore it will create one to many relationship between the two entities.
- In this institute, it is not compulsory to have sessions in a workshop. But it is compulsory to have a workshop for ongoing sessions. So it will create total constraint to session side.

❖ Session – Resource person

- In the given scenario they mention that one resource person can handle several sessions. But one session can be handled by one resource person only. Hence it will create one to many relationship between those two entities.
- It is not mandatory have a session to a resource person. But for a session it is mandatory to have a resource person. (total constraint)

❖ Session – Participant

- Participants have one or more sessions and sessions have more than one participant. So there will be a many to many relationship.
- It is not mandatory has sessions to participants . but it is mandatory to have participants for sessions. Therefore it will be total constraint.

2.1. Section - (RELATIONAL SCHEMA)

Meeting Room

Room_ID	floor_no	Capacity	WorkshopID	Venue
---------	----------	----------	------------	-------

Session

Session_No	Discussion_Topic	Date	Start_Time	End_Time	WorkshopID	RP_ID
------------	------------------	------	------------	----------	------------	-------

Workshop

WorkshopID	Name	Type	Start_Date	End_Date	Max_Capacity	Reg_fee
------------	------	------	------------	----------	--------------	---------

Participant

Participant_ID	F_Name	L_Name	Tell_No	Email	Designation	Working_Experience	place_of_work	work_location
----------------	--------	--------	---------	-------	-------------	--------------------	---------------	---------------

Participant_Qualification

Participant_ID	Qualification
----------------	---------------

Resource Person

RP_ID	F_Name	L_Name	Discussion_Topic	Hourly_Rate	Category	specialized_area	working_experience_duration
-------	--------	--------	------------------	-------------	----------	------------------	-----------------------------

Resource Person_Qualification

RP_ID	Qualification
-------	---------------

Staff

Staff_ID	F_Name	L_Name	Tell	Email	WorkshopID
----------	--------	--------	------	-------	------------

Workshop coordinator

Staff_ID	Work_CO_ID	Working_Experience_Duration
----------	------------	-----------------------------

Chief coordinator

Staff_ID	Chief_Co_ID	Professional_Qualification
----------	-------------	----------------------------

Workshop_Participant

WorkshopID	Participant_ID	Reg_Date	payment
------------	----------------	----------	---------

Session_Participant

Session_No	Participant_ID
------------	----------------

2.2. Section - NORMALIZATION

❖ 0 NF to 1 NF

⇒ There is no any repeating groups , composite attributes and multivalued attributes in the relational schema given above. Therefore it is in 1st normalized form.

❖ 1 NF to 2 NF

⇒ In above relational schema we could not see any partial dependencies. Every thing is in fully functional dependent mode. And there is no any possible composite or compound primary key available. Therefore this relation schema is in 2nd normalized form.

❖ 2 NF to 3 NF

⇒ There is no any transitive dependencies in above relational schema. Therefore it is in 3rd normalized form.

3. Create Database

SQL Code:

```
CREATE DATABASE ntid_workshop_management_db
```

Generated Database:

The screenshot shows the phpMyAdmin interface. On the left, the sidebar lists databases: New, information_schema, megafirm_db, mysql, ntid_workshop_management_db, performance_schema, phpmyadmin, and test. The main area shows a query result: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0019 seconds.)" Below this, the SQL query "CREATE DATABASE ntid_workshop_management_db;" is displayed. At the bottom, an error message "Error: #1046 No database selected" is shown. The top navigation bar includes tabs for Databases, SQL, Status, User accounts, Export, Import, Settings, Replication, Variables,Charsets, and More.

3.1. section - (CREATING DATABASE TABLES)

1. Workshop Table

SQL Code:

```
CREATE TABLE workshop(
    workshopID varchar(10),
    name varchar(15),
    type varchar(15),
    start_date date,
    end_date date,
    max_capacity int(10),
    Reg_fee decimal(7,2),
    Primary key (workshopID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface. On the left, the database tree shows 'niti_workshop_management_db' selected, with a 'workshop' table node expanded. The main panel has a toolbar at the top with tabs for Structure, SQL, Search, Query, Export, Import, Operations, Privileges, Routines, Events, and More. Below the toolbar, a message box says 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0009 seconds.)'. The SQL query entered is:

```
CREATE TABLE workshop( workshopID varchar(10), name varchar(15), type varchar(15), start_date date, end_date date, max_capacity int(10), Reg_fee decimal(20), Primary key (workshopID) );
```

Buttons below the SQL input field include [Edit inline], [Edit], and [Create PHP code].

The screenshot shows the phpMyAdmin interface after the table has been created. The database tree and toolbar are identical to the previous screenshot. The main panel now shows the 'Table: workshop' under the 'niti_workshop_management_db' database. The toolbar includes tabs for Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, Operations, Tracking, and Triggers. A message box says 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0019 seconds.)'. The SQL query entered is:

```
SELECT * FROM `workshop`
```

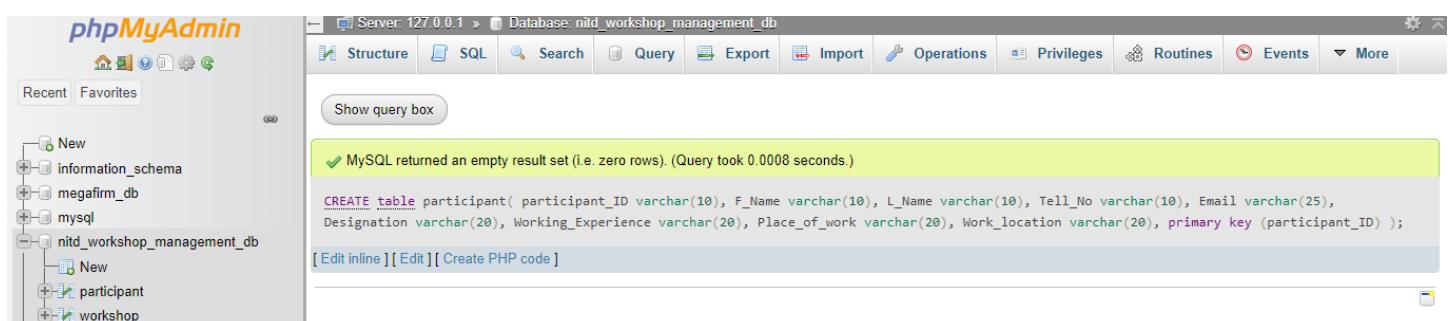
Below the SQL input field are checkboxes for Profiling, Edit inline, Explain SQL, Create PHP code, and Refresh. A table structure is displayed with columns: workshopID, name, type, start_date, end_date, max_capacity, and Reg_fee. The bottom of the screen shows a 'Query results operations' bar.

2. Participant table

SQL Code:

```
CREATE table participant(
    participant_ID varchar(10),
    F_Name varchar(10),
    L_Name varchar(10),
    Tell_No varchar(10),
    Email varchar(25),
    Designation varchar(20),
    Working_Experience varchar(20),
    Place_of_work varchar(20),
    Work_location varchar(20),
    primary key (participant_ID)
);
```

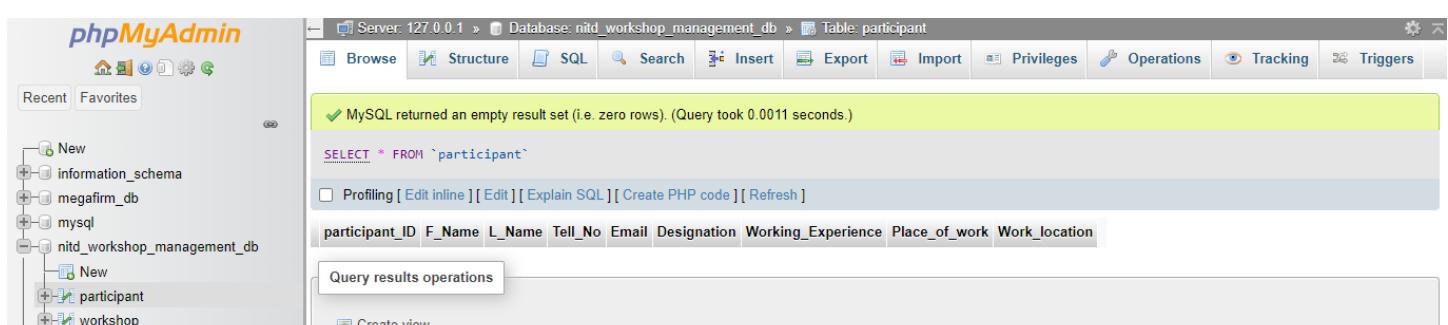
Generated table:



The screenshot shows the phpMyAdmin interface for a database named 'niti_workshop_management_db'. In the left sidebar, under the 'niti_workshop_management_db' schema, there is a new table named 'participant'. The main panel displays the SQL query used to create the table:

```
CREATE table participant( participant_ID varchar(10), F_Name varchar(10), L_Name varchar(10), Tell_No varchar(10), Email varchar(25), Designation varchar(20), Working_Experience varchar(20), Place_of_work varchar(20), Work_location varchar(20), primary key (participant_ID) );
```

A green status bar at the bottom indicates: MySQL returned an empty result set (i.e. zero rows). (Query took 0.0008 seconds.)



The screenshot shows the phpMyAdmin interface for the same database. The 'participant' table has been successfully created and is now listed in the table list. The table structure is shown in the main panel:

participant_ID	F_Name	L_Name	Tell_No	Email	Designation	Working_Experience	Place_of_work	Work_location
----------------	--------	--------	---------	-------	-------------	--------------------	---------------	---------------

A green status bar at the top indicates: MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

3. Resource person Table

SQL Code:

```
create table resource_person(
    RP_ID varchar(10),
    F_Name varchar(10),
    L_Name varchar(10),
    category varchar(20),
    hourly_rate decimal(7,2),
    specialized_area varchar(20),
    working_experience_duration varchar(20),
    primary key (RP_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface. On the left, the database tree shows the 'nitr_workshop_management_db' database selected, containing tables for 'New', 'participant', 'resource_person', and 'workshop'. The main area shows the SQL tab with the following content:

```
create table resource_person( RP_ID varchar(10), F_Name varchar(10), L_Name varchar(10), category varchar(20), qualification varchar(20), Discussion_topic varchar(20), hourly_rate decimal(3), specialized_area varchar(20), working_experience_duration varchar(20), primary key (RP_ID) );
```

A green message bar at the top indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0057 seconds.)". Below the message, there are links for [Edit inline], [Edit], and [Create PHP code].

The screenshot shows the phpMyAdmin interface. On the left, the database tree shows the 'nitr_workshop_management_db' database selected, containing tables for 'New', 'participant', 'resource_person', and 'workshop'. The main area shows the Structure tab for the 'resource_person' table. The table structure is displayed with columns: RP_ID, F_Name, L_Name, category, qualification, Discussion_topic, hourly_rate, specialized_area, and working_experience_duration. A green message bar at the top indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0021 seconds.)". Below the message, there are links for [Edit], [Explain SQL], [Create PHP code], and [Refresh].

4. Meeting room table

SQL Code:

```
create table meeting_room(
    Room_ID char(10) not null,
    Floor_ID char(10) not null,
    venue varchar(20),
    capacity int(10),
    workshopID varchar(10),
    primary key (Room_ID,Floor_ID),
    FOREIGN key (workshopID) REFERENCES workshop(workshopID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface for a database named 'nild_workshop_management_db'. In the left sidebar, under the 'nild_workshop_management_db' section, there is a table named 'meeting_room'. The main area displays the SQL query used to create the table:

```
create table meeting_room( Room_ID char(10) not null, Floor_ID char(10) not null, venue varchar(20), capacity int(10), workshopID varchar(10), primary key (Room_ID,Floor_ID), FOREIGN key (workshopID) REFERENCES workshop(workshopID) );
```

A green status bar at the top indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)".

The screenshot shows the phpMyAdmin interface for the same database. The 'meeting_room' table is now listed in the table structure view. The table has five columns: Room_ID, Floor_ID, venue, capacity, and workshopID. The 'Structure' tab is selected. A green status bar at the top indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)".

5. Session table

SQL Code:

```
create table session(
    session_no varchar(10) primary key,
    workshopID varchar(10),
    Resource_Person varchar(10),
    Discussion_topic varchar(20),
    Date_start date,
    start_time time,
    end_time time,
    FOREIGN key (Resource_Person) REFERENCES resource_person(RP_ID),
    FOREIGN key (workshopID) REFERENCES workshop(workshopID)
);
```

Generated table:

This screenshot shows the phpMyAdmin interface for creating a new table named 'session'. The left sidebar lists databases: information_schema, megafirm_db, mysql, and ntid_workshop_management_db. Under 'ntid_workshop_management_db', there are three tables: New, meeting_room, and participant. The main panel shows the SQL query for creating the 'session' table, which includes columns for session_no (primary key), workshopID, Resource_Person, Discussion_topic, Date_start, start_time, and end_time. A note indicates that MySQL returned an empty result set (zero rows). Below the query, there are links for Edit inline, Edit, and Create PHP code.

This screenshot shows the phpMyAdmin interface after the 'session' table has been created. The left sidebar remains the same. The main panel now displays the 'Structure' tab for the 'session' table. It shows the columns: session_no, workshopID, Resource_Person, Discussion_topic, Date_start, start_time, and end_time. A note indicates that MySQL returned an empty result set (zero rows). Below the table structure, there are tabs for Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, Operations, Tracking, and Triggers. A 'Query results operations' section at the bottom contains a link for Create view.

6. Staff Table

SQL Code:

```
create table staff(
    staff_ID varchar(20) not null,
    F_Name varchar(20),
    L_Name varchar(20),
    Tell varchar(10),
    Email varchar(20),
    workshop varchar,
    primary key (staff_ID),
    foreign key (workshop) REFERENCES workshop(workshopID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface for a database named 'niti_workshop_management_db'. In the left sidebar, under the 'New' section, there is a 'staff' entry. The main query window displays the SQL code for creating the 'staff' table:

```
create table staff( staff_ID varchar(20) not null, F_Name varchar(20), L_Name varchar(20), Tell varchar(10), Email varchar(20), workshop varchar, primary key (staff_ID), foreign key (workshop) REFERENCES workshop(workshopID) );
```

The status bar at the bottom indicates: MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

The screenshot shows the phpMyAdmin interface for the same database. The 'staff' table has been successfully created, as indicated by the table structure listed in the main window:

staff_ID	F_Name	L_Name	Tell	Email	workshop
----------	--------	--------	------	-------	----------

The status bar at the bottom indicates: MySQL returned an empty result set (i.e. zero rows). (Query took 0.0039 seconds.)

7. Workshop coordinator Table

SQL Code:

```
CREATE TABLE workshop_coordinator(
    staff_ID varchar(10),
    work_co_ID varchar( 10) not null,
    salary decimal(8,2),
    PRIMARY KEY (staff_ID),
    FOREIGN KEY (staff_ID) REFERENCES staff(staff_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface for a MySQL server at 127.0.0.1. The database selected is 'niti_workshop_management_db'. In the left sidebar, under the 'niti_workshop_management_db' section, there are tables named 'New', 'meeting_room', and 'participant'. The main query window displays the SQL code for creating the 'workshop_coordinator' table, which includes fields for staff_ID (varchar(10)), work_co_ID (varchar(10) not null), and salary (decimal(8,2)). A note indicates that MySQL returned an empty result set. Below the code, there are links for 'Edit inline', 'Edit', and 'Create PHP code'.

The screenshot shows the phpMyAdmin interface for the same MySQL server and database. The left sidebar shows the same table structures. The main window now displays the 'Structure' tab for the 'workshop_coordinator' table. It lists the columns: staff_ID, work_co_ID, and working_experience_duration. The 'Query results operations' section at the bottom contains a link to 'Create view'.

8. Chief coordinator Table

SQL Code:

```
create table chief_coordinator(
    staff_ID varchar(10),
    chief_co_ID varchar(10) not null,
    Salary decimal(8,2),
    primary key (staff_ID),
    FOREIGN key ( staff_ID ) REFERENCES staff(staff_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface. On the left, the database tree shows 'nltd_workshop_management_db' expanded, with 'chief_coordinator' selected. The main panel displays the SQL query for creating the table:

```
create table chief_coordinator( staff_ID varchar(10), chief_co_ID varchar(10) not null, professional_Qualification varchar(30), primary key (staff_ID), FOREIGN key ( staff_ID ) REFERENCES staff(staff_ID) );
```

A green message bar at the top indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)". Below the message, there are links for [Edit inline], [Edit], and [Create PHP code].

The screenshot shows the phpMyAdmin interface. On the left, the database tree shows 'nltd_workshop_management_db' expanded, with 'chief_coordinator' selected. The main panel shows the table structure:

staff_ID	chief_co_ID	professional_Qualification
----------	-------------	----------------------------

A green message bar at the top indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0021 seconds.)". Below the message, there are links for Profiling, [Edit inline], [Edit], [Explain SQL], [Create PHP code], and [Refresh]. A 'Query results operations' section is visible at the bottom.

9. Session participant Table

SQL Code:

```
CREATE TABLE session_participant(
    session_no varchar(10),
    participant_ID varchar(10),
    PRIMARY KEY(session_no,participant_ID),
    FOREIGN KEY(session_no)REFERENCES session(session_no),
    FOREIGN KEY(participant_ID)REFERENCES participant(participant_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface for a database named 'niti_workshop_management_db'. In the left sidebar, under the 'niti_workshop_management_db' schema, there are tables: 'New', 'chief_coordinator', and 'meeting_room'. The main area shows the SQL tab with the following code and output:

```
CREATE TABLE session_participant( session_no varchar(10), participant_ID varchar(10), PRIMARY KEY(session_no,participant_ID), FOREIGN KEY(session_no)REFERENCES session(session_no), FOREIGN KEY(participant_ID)REFERENCES participant(participant_ID) );
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

The screenshot shows the phpMyAdmin interface for the same database. The left sidebar now includes the 'participant' table. The main area shows the Structure tab for the 'session_participant' table, which has two columns: 'session_no' and 'participant_ID'. The SQL tab shows the following code:

```
SELECT * FROM `session_participant`
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0074 seconds.)

10. Workshop_participant Table

SQL Code:

```
CREATE TABLE workshop_participant(
    workshop_ID varchar(10),
    participant_ID varchar(10),
    Reg_Date date,
    payment decimal (7,2),
    PRIMARY KEY(workshop_ID,participant_ID),
    FOREIGN KEY(workshop_ID)REFERENCES workshop(workshopID),
    FOREIGN KEY(participant_ID)REFERENCES participant(participant_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface with the following details:

- Server:** 127.0.0.1
- Database:** ntid_workshop_management_db
- Structure:** Tab selected.
- Query:** The SQL query for creating the table is displayed:

```
CREATE TABLE workshop_participant( workshop_ID varchar(10), participant_ID varchar(10), Reg_Date date, payment decimal (7,2), PRIMARY KEY(workshop_ID,participant_ID), FOREIGN KEY(workshop_ID)REFERENCES workshop(workshopID), FOREIGN KEY(participant_ID)REFERENCES participant(participant_ID) );
```
- Result:** MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

The screenshot shows the phpMyAdmin interface with the following details:

- Server:** 127.0.0.1
- Database:** ntid_workshop_management_db
- Table:** workshop_participant
- Structure:** Tab selected.
- Query:** The SQL query for selecting all columns from the table is displayed:

```
SELECT * FROM `workshop_participant`
```
- Result:** MySQL returned an empty result set (i.e. zero rows). (Query took 0.0266 seconds.)

11. Participant qualification Table

SQL Code:

```
CREATE TABLE participant_qualification(
    Participant_ID varchar(10),
    Qualification varchar(10),
    PRIMARY KEY(participant_ID,Qualification),
    FOREIGN KEY(Participant_ID)REFERENCES participant(participant_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface for a database named 'niti_workshop_management_db'. In the left sidebar, under the 'niti_workshop_management_db' section, there is a new table named 'participant_qualification'. The main panel displays the SQL query used to create the table:

```
CREATE TABLE participant_qualification( Participant_ID varchar(10), Qualification varchar(10), PRIMARY KEY(participant_ID,Qualification), FOREIGN KEY(Participant_ID)REFERENCES participant(participant_ID) );
```

The status bar at the top indicates: Server: 127.0.0.1 » Database: niti_workshop_management_db.

The screenshot shows the phpMyAdmin interface for the same database. The table 'participant_qualification' has been successfully created and is now listed in the table list. The main panel shows the table structure with columns 'Participant_ID' and 'Qualification'. The status bar at the top indicates: Server: 127.0.0.1 » Database: niti_workshop_management_db » Table: participant_qualification.

12. Resource person qualification Table

SQL Code:

```
CREATE TABLE Resource_person_qualification(
    RP_ID varchar(10),
    Qualification varchar(10),
    PRIMARY KEY(RP_ID,Qualification),
    FOREIGN KEY(RP_ID)REFERENCES resource_person(RP_ID)
);
```

Generated table:

The screenshot shows the phpMyAdmin interface for a database named 'niti_workshop_management_db'. In the left sidebar, under the 'niti_workshop_management_db' schema, there is a new table named 'Resource_person_qualification'. The main panel displays the SQL query used to create the table:

```
CREATE TABLE Resource_person_qualification( RP_ID varchar(10), Qualification varchar(10), PRIMARY KEY(RP_ID,Qualification), FOREIGN KEY(RP_ID)REFERENCES resource_person(RP_ID) );
```

A green message bar at the top indicates that MySQL returned an empty result set (0.0059 seconds). Below the message, there are links for 'Edit inline', 'Edit', and 'Create PHP code'.

The screenshot shows the phpMyAdmin interface for the same database and table. The table structure is displayed with columns 'RP_ID' and 'Qualification'. The main panel shows the SQL query used to select all rows from the table:

```
SELECT * FROM `resource_person_qualification`
```

A green message bar at the top indicates that MySQL returned an empty result set (0.0102 seconds). Below the message, there are links for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', 'Create PHP code', and 'Refresh'. A 'Query results operations' section is visible at the bottom.

3.2. Section – Data insertion (INSERT SAMPLE DATA TO THE CREATED TABLES)

1) Workshop table

SQL code:

```
INSERT INTO `workshop`(`workshopID`, `name`, `type`, `start_date`, `end_date`, `max_capacity`, `Reg_fee`) VALUES
('A001','ENIGMA'23','Leadership','2023-04-10','2023-04-15','100','48000.00'),
('A002','GANGA','Soft Skills','2023-05-10','2023-05-15','500','38000.00'),
('A003','TopManagement'23','management','2023-04-15','2023-04-25','200','40000.00'),
('A004','Search&Search','Research','2023-06-10','2023-06-15','100','50000.00'),
('A005','Techno2023','Technical Skills','2023-06-01','2023-06-10','300','45000.00');
```

Generated Table:

The screenshot shows a MySQL Workbench interface with the following details:

- Query Result Panel:** Shows a green bar indicating "Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)".
- SQL Editor:** Contains the SQL query: `SELECT * FROM `workshop``.
- Toolbar:** Includes options for Profiling, Edit inline, Edit, Explain SQL, Create PHP code, and Refresh.
- Table Options:** Buttons for Show all, Number of rows (set to 25), Filter rows, Search this table, Sort by key (set to None), and Extra options.
- Table Data:** A grid showing the workshop table with 5 rows. The columns are: workshopID, name, type, start_date, end_date, max_capacity, and Reg_fee.
- Action Buttons:** At the bottom, there are buttons for Check all, With selected, Edit, Copy, Delete, and Export.

	workshopID	name	type	start_date	end_date	max_capacity	Reg_fee
<input type="checkbox"/>	A001	ENIGMA'23	Leadership	2023-04-10	2023-04-15	100	48000.00
<input type="checkbox"/>	A002	GANGA	Soft Skills	2023-05-10	2023-05-15	500	38000.00
<input type="checkbox"/>	A003	TopManagement'23	management	2023-04-15	2023-04-25	200	40000.00
<input type="checkbox"/>	A004	Search&Search	Research	2023-06-10	2023-06-15	100	50000.00
<input type="checkbox"/>	A005	Techno2023	Technical Skills	2023-06-01	2023-06-10	300	45000.00

2) Participant table

SQL Code:

```
INSERT INTO `participant`(`participant_ID`, `F_Name`, `L_Name`, `Tell_No`, `Email`, `Designation`, `Working_Experience`, `Place_of_work`, `Work_location`)
VALUES
('P001','SANUKA','WIJERATHNA','0711250397','sanukawijeratna@gmail.com','Assistant Manager','5 years','Dialog','Kottawa'),
('P002','RAVINDU','WELLALAGE','0711250398','ravinduwell@gmail.com','Senior Manager','6 years','Dxdy','Thalawathugoda'),
('P003','NADUN','WIJESINHNA','0711250357','nadunwiquesinha@gmail.com','Diretor','5 years','Mercantile invesments','Kottawa'),
('P004','SAJITH','RAJAPAKSHA','0715250397','sajiya2023@gmail.com','Accountant','3 years','Rocell','Moratuwa'),
('P005','AMAL','KODITHUWAKKU','0711256397','kodithuwakkuamal@gmail.com','Executive Director','5 years','Dialog','Kottawa'),
('P006','SANJEEWA','ARIYARATHNA','0721250397','sanjeewaari@gmail.com','Executive Manager','5 years','Dialog','Kurunegala'),
('P007','SADUN','GAMAGE','0711250398','saduna@gmail.com','Manager','6 years','Dxdy','Colombo'),
('P008','VISHMI','PERERA','0711257357','vishmi@gmail.com','Senior Diretor','5 years','Mercantile invesments','Galle'),
('P009','PULINDU','SIRIWARDANA','0719250397','puliya2345@gmail.com','Project Manager','3 years','Rocell','Kandy'),
('P010','CHAMINDA','ABEWARDANA','0711256397','chamindaabewardana@gmail.com','Managing Director','5 years','Dialog','Colombo');
```

Generated Table:

The screenshot shows the MySQL Workbench interface with the 'participant' table selected. The table has the following structure:

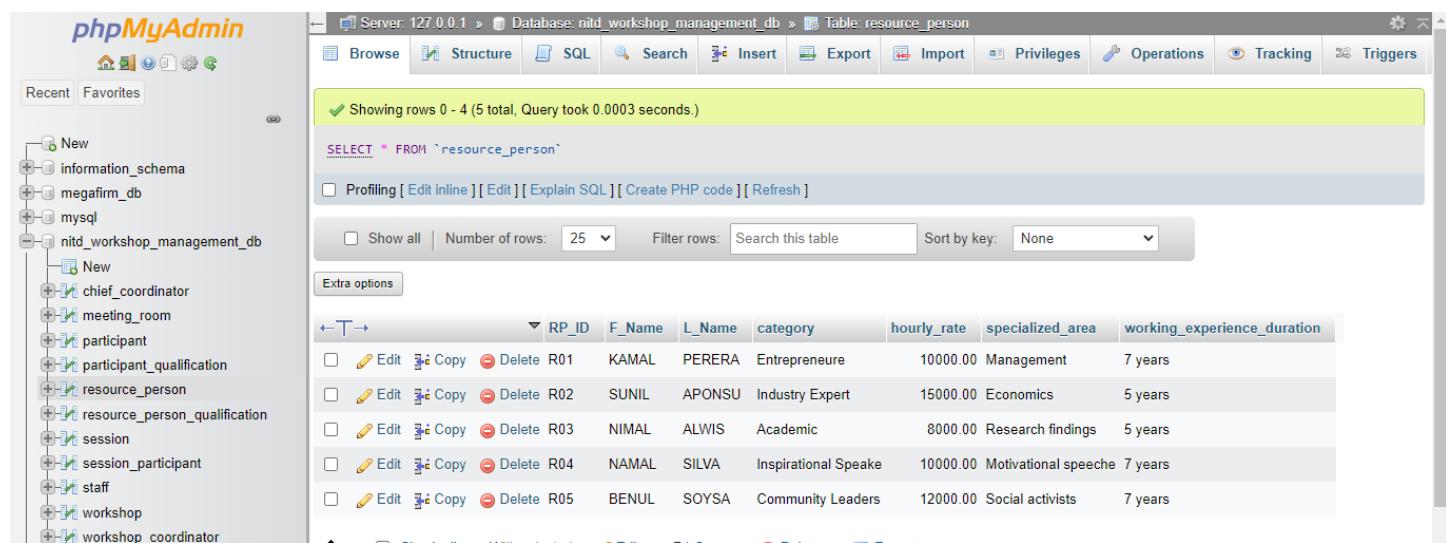
	participant_ID	F_Name	L_Name	Tell_No	Email	Designation	Working_Experience	Place_of_work	Work_location
<input type="checkbox"/>	P001	SANUKA	WIJERATHNA	0711250397	sanukawijeratna@gmail.com	Assistant Manager	5 years	Dialog	Kottawa
<input type="checkbox"/>	P002	RAVINDU	WELLALAGE	0711250398	ravinduwell@gmail.com	Senior Manager	6 years	Dxdy	Thalawathugoda
<input type="checkbox"/>	P003	NADUN	WIJESINHNA	0711250357	nadunwiquesinha@gmail.com	Diretor	5 years	Mercantile invesments	Kottawa
<input type="checkbox"/>	P004	SAJITH	RAJAPAKSHA	0715250397	sajiya2023@gmail.com	Accountant	3 years	Rocell	Moratuwa
<input type="checkbox"/>	P005	AMAL	KODITHUWAKKU	0711256397	kodithuwakkuamal@gmail.com	Executive Director	5 years	Dialog	Kottawa
<input type="checkbox"/>	P006	SANJEEWA	ARIYARATHNA	0721250397	sanjeewaari@gmail.com	Executive Manager	5 years	Dialog	Kurunegala
<input type="checkbox"/>	P007	SADUN	GAMAGE	0711250398	saduna@gmail.com	Manager	6 years	Dxdy	Colombo
<input type="checkbox"/>	P008	VISHMI	PERERA	0711257357	vishmi@gmail.com	Senior Diretor	5 years	Mercantile invesments	Galle
<input type="checkbox"/>	P009	PULINDU	SIRIWARDANA	0719250397	puliya2345@gmail.com	Project Manager	3 years	Rocell	Kandy
<input type="checkbox"/>	P010	CHAMINDA	ABEWARDANA	0711256397	chamindaabewardana@gmail.com	Managing Director	5 years	Dialog	Colombo

3) Resource person table

SQL Code:

```
INSERT INTO `resource_person`(`RP_ID`, `F_Name`, `L_Name`, `category`, `hourly_rate`,  
`specialized_area`, `working_experience_duration`)  
VALUES  
('R01','KAMAL','PERERA','Entrepreneur','10000.00','Management','7 years'),  
('R02','SUNIL','APONSU','Industry Expert','15000.00','Economics','5 years'),  
('R03','NIMAL','ALWIS','Academic','8000.00','Research findings','5 years'),  
('R04','NAMAL','SILVA','Inspirational Speaker','10000.00','Motivational speeches','7 years'),  
('R05','BENUL','SOYSA','Community Leaders','12000.00','Leadership training','7 years');
```

Generated table:



The screenshot shows the phpMyAdmin interface with the 'resource_person' table selected. The table contains 5 rows of data, each representing a resource person with their ID, first name, last name, category, hourly rate, specialized area, and working experience duration.

	RP_ID	F_Name	L_Name	category	hourly_rate	specialized_area	working_experience_duration
<input type="checkbox"/>	R01	KAMAL	PERERA	Entrepreneur	10000.00	Management	7 years
<input type="checkbox"/>	R02	SUNIL	APONSU	Industry Expert	15000.00	Economics	5 years
<input type="checkbox"/>	R03	NIMAL	ALWIS	Academic	8000.00	Research findings	5 years
<input type="checkbox"/>	R04	NAMAL	SILVA	Inspirational Speaker	10000.00	Motivational speeches	7 years
<input type="checkbox"/>	R05	BENUL	SOYSA	Community Leaders	12000.00	Social activists	7 years

4) Participant qualification Table

SQL Code:

```
INSERT INTO `participant_qualification`(`Participant_ID`, `Qualification`)
VALUES
('P001','Bsc in Network Engineering '),
('P001','GCE A/L in Mathematics'),
('P002','Bsc in Software Engineering'),
('P002','GCE A/L in Mathematics'),
('P003','Msc in Management'),
('P003','Bsc in Business management'),
('P004','GCE A/L in Mathematics'),
('P004','Bsc in Banking '),
('P005','GCE A/L in Biology'),
('P005','Professional Software Developer');
```

Generated table:

The screenshot shows the phpMyAdmin interface with the following details:

- Server:** 127.0.0.1
- Database:** ntid_workshop_management_db
- Table:** participant_qualification

The table structure is displayed with the following columns:

	Participant_ID	Qualification
<input type="checkbox"/>	P001	Bsc in Network Engineering
<input type="checkbox"/>	P001	GCE A/L in Mathematics
<input type="checkbox"/>	P002	Bsc in Software Engineering
<input type="checkbox"/>	P002	GCE A/L in Mathematics
<input type="checkbox"/>	P003	Bsc in Business management
<input type="checkbox"/>	P003	Msc in Management
<input type="checkbox"/>	P004	Bsc in Banking
<input type="checkbox"/>	P004	GCE A/L in Mathematics
<input type="checkbox"/>	P005	GCE A/L in Biology
<input type="checkbox"/>	P005	Professional Software Developer

5) Resource person qualification table

SQL Code:

```
INSERT INTO `resource_person_qualification`(`RP_ID`, `Qualification`)
VALUES
('R01','Masters in Management'),
('R02','Masters in Business studies'),
('R03','Bsc in Academics'),
('R04','Masters in self improvements'),
('R05','Bsc in Leadership community');
```

Generated table:

The screenshot shows the phpMyAdmin interface for the 'niti_workshop_management_db' database. The left sidebar lists databases and tables, including 'resource_person_qualification'. The main area displays the table structure and data. The table has columns 'RP_ID' and 'Qualification'. The data shows five rows of qualifications for resource persons R01 through R05.

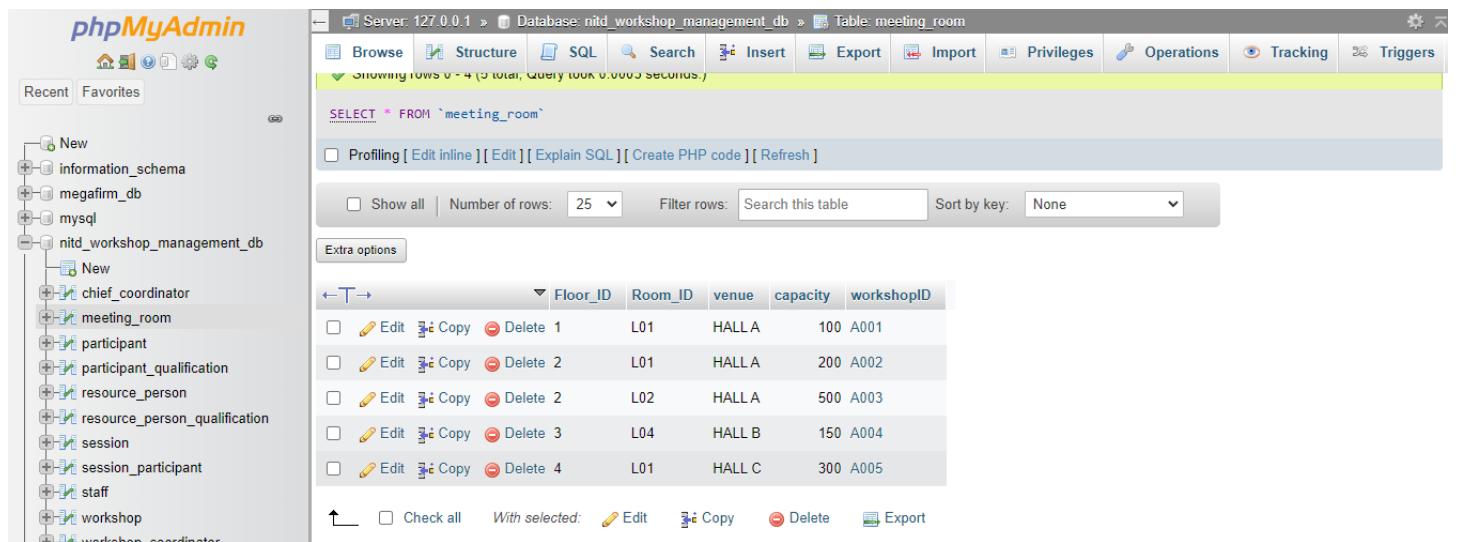
RP_ID	Qualification
R01	Masters in Management
R02	Masters in Business studies
R03	Bsc in Academics
R04	Masters in self improvements
R05	Bsc in Leadership community

6) Meeting room table

SQL Code:

```
INSERT INTO `meeting_room`(`Floor_ID`, `Room_ID`, `venue`, `capacity`, `workshopID`)
VALUES
('1','L01','HALL A','100','A001'),
('2','L01','HALL A','200','A002'),
('2','L02','HALL A','500','A003'),
('3','L04','HALL B','150','A004'),
('4','L01','HALL C','300','A005');
```

Generated table:



The screenshot shows the phpMyAdmin interface for the 'niti_workshop_management_db' database. The 'meeting_room' table is selected. The table structure includes columns: Floor_ID, Room_ID, venue, capacity, and workshopID. There are 5 rows of data:

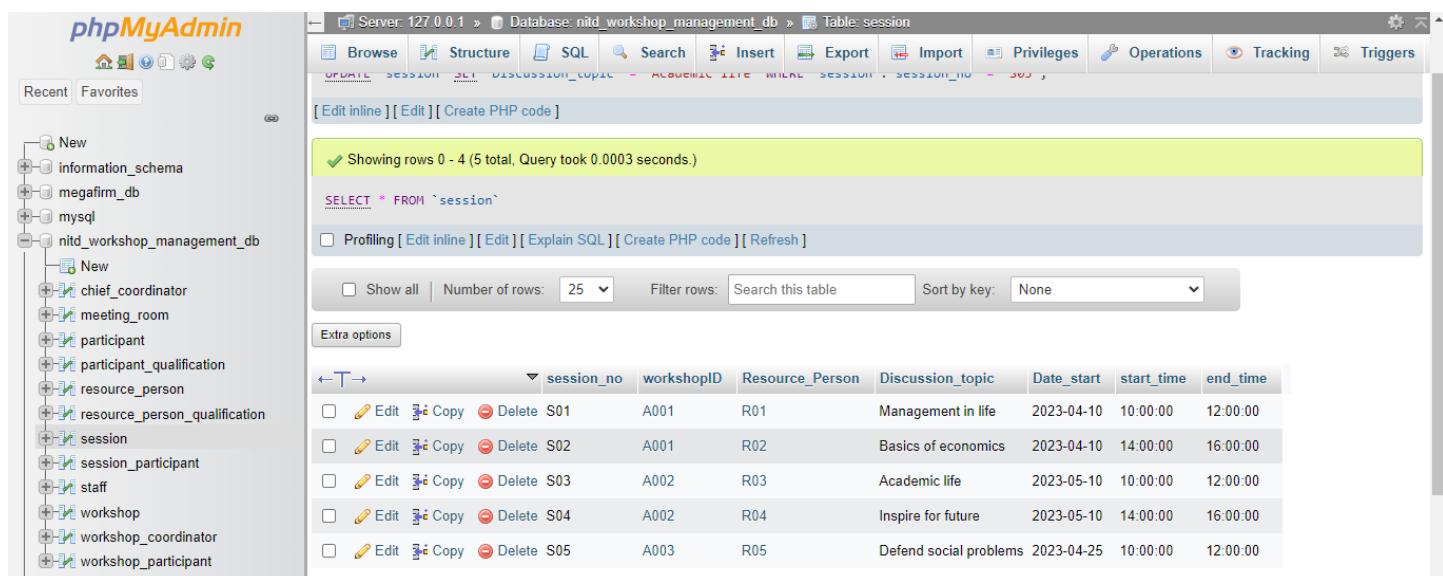
	Floor_ID	Room_ID	venue	capacity	workshopID
1	L01	HALL A	100	A001	
2	L01	HALL A	200	A002	
2	L02	HALL A	500	A003	
3	L04	HALL B	150	A004	
4	L01	HALL C	300	A005	

7) Session Table

SQL Code:

```
INSERT INTO `session`(`session_no`, `workshopID`, `Resource_Person`, `Discussion_topic`,  
`Date_start`, `start_time`, `end_time`)  
VALUES  
('S01','A001','R01','Management in life','2023-04-10','10:00:00','12:00:00'),  
('S02','A001','R02','Basics of economics ','2023-04-10','14:00:00','16:00:00'),  
('S03','A002','R03','Academic life','2023-05-10','10:00:00','12:00:00'),  
('S04','A002','R04','Inspire for future','2023-05-10','14:00:00','16:00:00'),  
('S05','A003','R05','Defend social problems','2023-04-25','10:00:00','12:00:00');
```

Generated table:



The screenshot shows the phpMyAdmin interface for the 'nild_workshop_management_db' database. The left sidebar lists schemas like 'information_schema', 'megafirm_db', 'mysql', and the current database 'nild_workshop_management_db' which contains tables such as 'chief_coordinator', 'meeting_room', 'participant', 'participant_qualification', 'resource_person', 'resource_person_qualification', 'session', 'session_participant', 'staff', 'workshop', 'workshop_coordinator', and 'workshop_participant'. The main area shows the 'session' table with the following data:

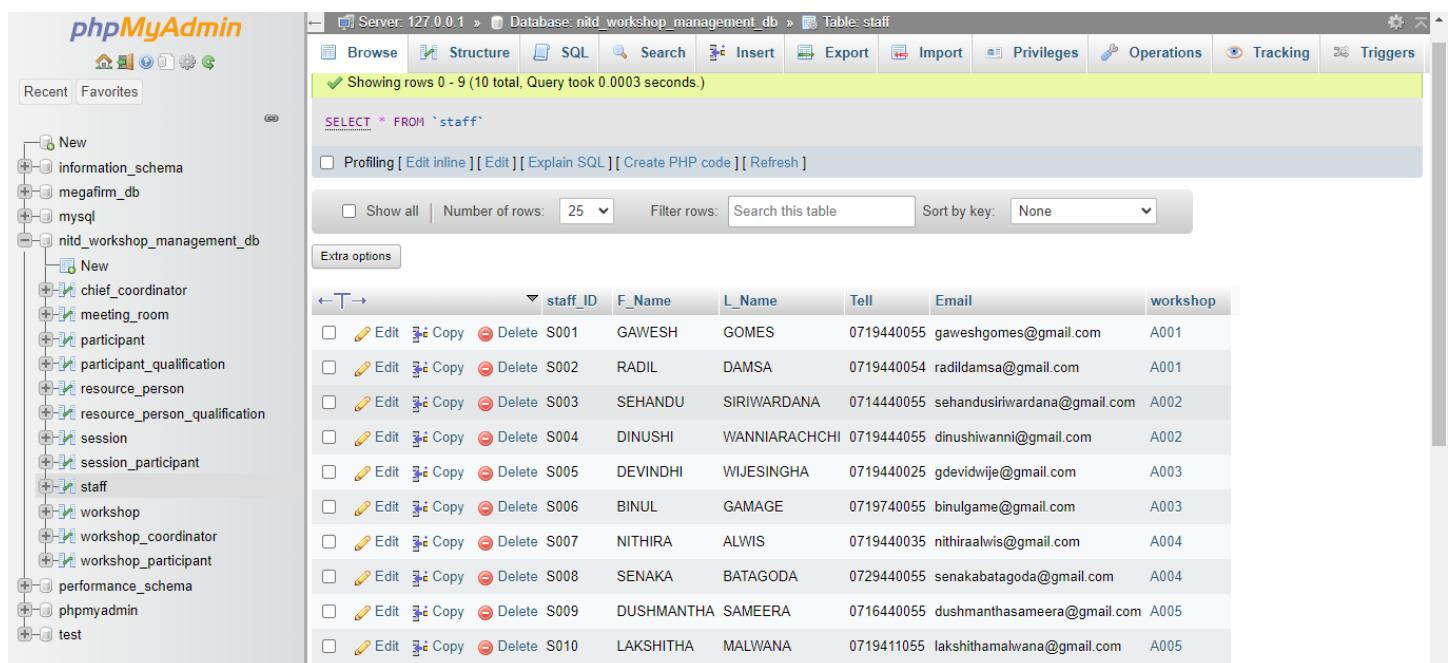
	session_no	workshopID	Resource_Person	Discussion_topic	Date_start	start_time	end_time
<input type="checkbox"/>	S01	A001	R01	Management in life	2023-04-10	10:00:00	12:00:00
<input type="checkbox"/>	S02	A001	R02	Basics of economics	2023-04-10	14:00:00	16:00:00
<input type="checkbox"/>	S03	A002	R03	Academic life	2023-05-10	10:00:00	12:00:00
<input type="checkbox"/>	S04	A002	R04	Inspire for future	2023-05-10	14:00:00	16:00:00
<input type="checkbox"/>	S05	A003	R05	Defend social problems	2023-04-25	10:00:00	12:00:00

8) Staff Table

SQL Code:

```
INSERT INTO `staff`(`staff_ID`, `F_Name`, `L_Name`, `Tell`, `Email`, `workshop`)
VALUES
('S001','GAWESH','GOMES','0719440055','gaweshgomes@gmail.com','A001'),
('S002','RADIL','DAMSA','0719440054','radildamsa@gmail.com','A001'),
('S003','SEHANDU','SIRIWARDANA','0714440055','sehandusiriwardana@gmail.com','A002'),
('S004','DINUSHI','WANNIARACHCHI','0719444055','dinushiwanni@gmail.com','A002'),
('S005','DEVINDHI','WIJESINGHA','0719440025','gdevidwije@gmail.com','A003'),
('S006','BINUL','GAMAGE','0719740055','binulgame@gmail.com','A003'),
('S007','NITHIRA','ALWIS','0719440035','nithiraalwis@gmail.com','A004'),
('S008','SENAKA','BATAGODA','0729440055','senakabatagoda@gmail.com','A004'),
('S009','DUSHMANTHA','SAMEERA','0716440055','dushmanthasameera@gmail.com','A005'),
('S010','LAKSHITHA','MALWANA','0719411055','lakshithamalwana@gmail.com','A005');
```

Generated table:



The screenshot shows the phpMyAdmin interface for the 'staff' table in the 'niti_workshop_management_db'. The table has columns: staff_ID, F_Name, L_Name, Tell, Email, and workshop. The data consists of 10 rows, each representing a staff member with their details and assigned workshop code.

	staff_ID	F_Name	L_Name	Tell	Email	workshop
<input type="checkbox"/>	S001	GAWESH	GOMES	0719440055	gaweshgomes@gmail.com	A001
<input type="checkbox"/>	S002	RADIL	DAMSA	0719440054	radildamsa@gmail.com	A001
<input type="checkbox"/>	S003	SEHANDU	SIRIWARDANA	0714440055	sehandusiriwardana@gmail.com	A002
<input type="checkbox"/>	S004	DINUSHI	WANNIARACHCHI	0719444055	dinushiwanni@gmail.com	A002
<input type="checkbox"/>	S005	DEVINDHI	WIJESINGHA	0719440025	gdevidwije@gmail.com	A003
<input type="checkbox"/>	S006	BINUL	GAMAGE	0719740055	binulgame@gmail.com	A003
<input type="checkbox"/>	S007	NITHIRA	ALWIS	0719440035	nithiraalwis@gmail.com	A004
<input type="checkbox"/>	S008	SENAKA	BATAGODA	0729440055	senakabatagoda@gmail.com	A004
<input type="checkbox"/>	S009	DUSHMANTHA	SAMEERA	0716440055	dushmanthasameera@gmail.com	A005
<input type="checkbox"/>	S010	LAKSHITHA	MALWANA	0719411055	lakshithamalwana@gmail.com	A005

9) Workshop coordinator Table

SQL Code:

```
INSERT INTO `workshop_coordinator`(`staff_ID`, `work_co_ID`, `Salary`)
VALUES
('S001','W001','80000.00'),
('S003','W002','75000.00'),
('S005','W003','100000.00'),
('S007','W004','88000.00'),
('S009','W005','158000.00');
```

Generated table:

The screenshot shows the phpMyAdmin interface for the 'nitr_workshop_management_db' database. The 'workshop_coordinator' table is selected. The table structure is displayed with columns: staff_ID, work_co_ID, and Salary. There are 5 rows of data:

	staff_ID	work_co_ID	Salary
<input type="checkbox"/> Edit Copy Delete	S001	W001	80000.00
<input type="checkbox"/> Edit Copy Delete	S003	W002	75000.00
<input type="checkbox"/> Edit Copy Delete	S005	W003	100000.00
<input type="checkbox"/> Edit Copy Delete	S007	W004	88000.00
<input type="checkbox"/> Edit Copy Delete	S009	W005	158000.00

10) Chief Coordinator Table

SQL Code:

```
INSERT INTO `chief_coordinator`(`staff_ID`, `chief_co_ID`, `Salary`)
VALUES
('S002','CH001','155000.00'),
('S004','CH002','180000.00'),
('S006','CH003','190000.00'),
('S008','CH004','200000.00'),
('S010','CH005','188000.00');
```

Generated table:

The screenshot shows the phpMyAdmin interface for the 'nitr_workshop_management_db' database. The 'chief_coordinator' table is selected. The table structure is as follows:

	staff_ID	chief_co_ID	Salary
<input type="checkbox"/> Edit Copy Delete	S002	CH001	155000.00
<input type="checkbox"/> Edit Copy Delete	S004	CH002	180000.00
<input type="checkbox"/> Edit Copy Delete	S006	CH003	190000.00
<input type="checkbox"/> Edit Copy Delete	S008	CH004	200000.00
<input type="checkbox"/> Edit Copy Delete	S010	CH005	188000.00

11) Session Participant Table

SQL Code:

```
INSERT INTO `session_participant`(`session_no`, `participant_ID`)
VALUES
('S01','P001'),
('S01','P002'),
('S02','P003'),
('S02','P004'),
('S03','P005'),
('S03','P001'),
('S04','P002'),
('S04','P003'),
('S05','P004'),
('S05','P005');
```

Generated table:

The screenshot shows the phpMyAdmin interface for the 'nfd_workshop_management_db' database. The left sidebar lists various schemas and tables. The 'session_participant' table is selected in the main area. The SQL tab contains the query: 'SELECT * FROM `session_participant`'. The results show 10 rows of data:

	session_no	participant_ID
<input type="checkbox"/>	S01	P001
<input type="checkbox"/>	S01	P002
<input type="checkbox"/>	S02	P003
<input type="checkbox"/>	S02	P004
<input type="checkbox"/>	S03	P005
<input type="checkbox"/>	S03	P001
<input type="checkbox"/>	S04	P002
<input type="checkbox"/>	S04	P003
<input type="checkbox"/>	S05	P004
<input type="checkbox"/>	S05	P005

12) Workshop participant table

SQL Code:

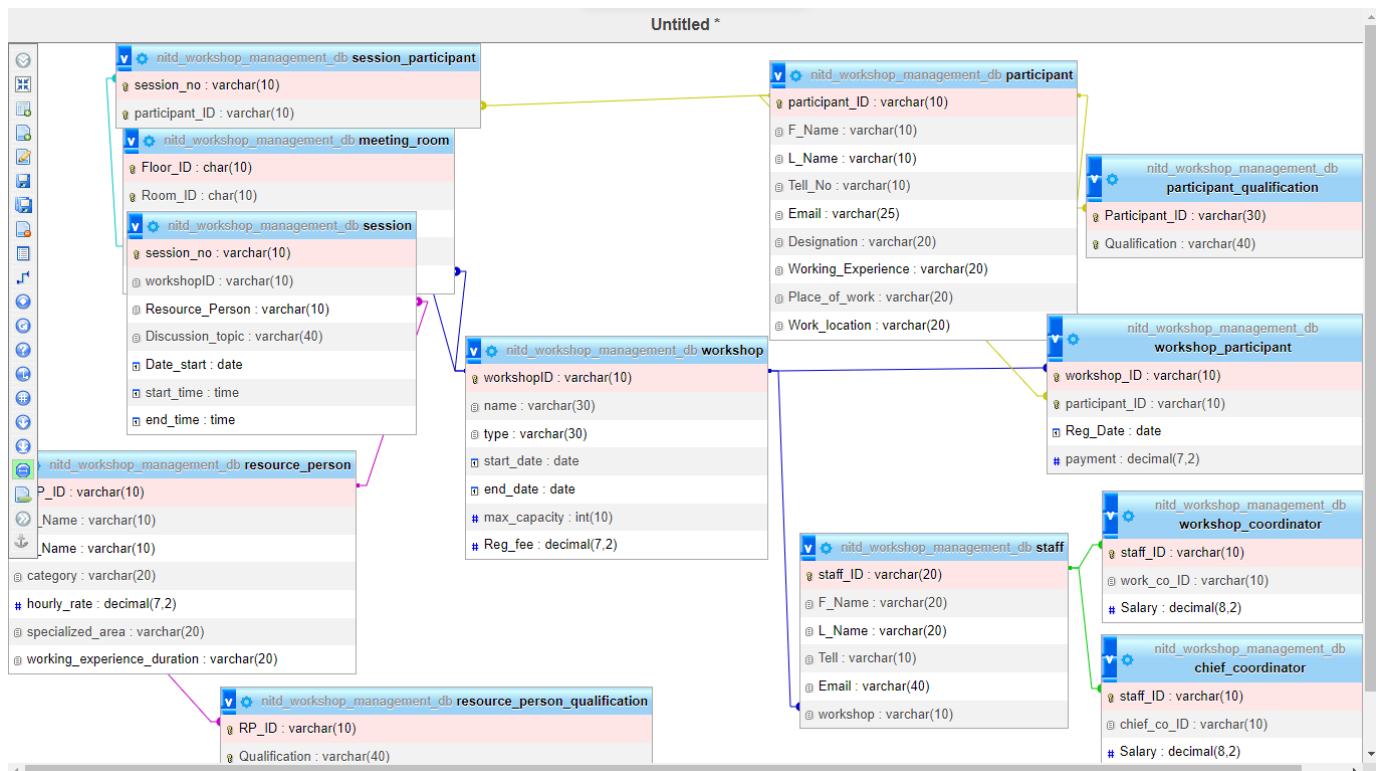
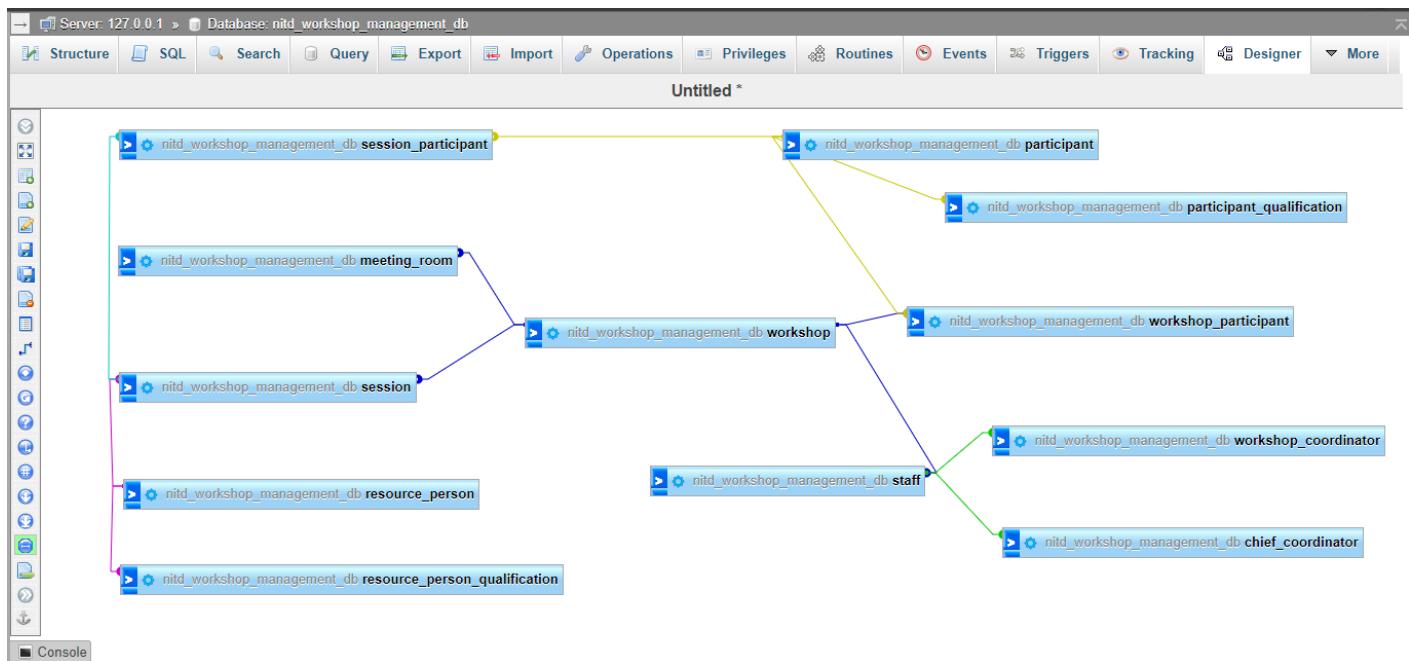
```
INSERT INTO `workshop_participant`(`workshop_ID`, `participant_ID`, `Reg_Date`, `payment`)
VALUES
('A001','P001','2023-04-05','20000.00'),
('A002','P002','2023-05-05','30000.00'),
('A003','P003','2023-04-10','25000.00'),
('A004','P004','2023-06-05','40000.00'),
('A005','P005','2023-05-28','45000.00'),
('A001','P002','2023-04-07','20000.00'),
('A002','P001','2023-05-05','28000.00'),
('A003','P004','2023-04-05','25000.00'),
('A004','P005','2023-06-08','20000.00'),
('A005','P003','2023-06-02','20000.00');
```

Generated table:

The screenshot shows the phpMyAdmin interface for the ntd_workshop_management_db database. The left sidebar lists various schemas and tables. The main area is focused on the 'workshop_participant' table, which has the following structure:

	workshop_ID	participant_ID	Reg_Date	payment
<input type="checkbox"/>	A001	P001	2023-04-05	20000.00
<input type="checkbox"/>	A002	P002	2023-04-07	20000.00
<input type="checkbox"/>	A003	P001	2023-05-05	28000.00
<input type="checkbox"/>	A004	P002	2023-05-05	30000.00
<input type="checkbox"/>	A005	P003	2023-04-10	25000.00
<input type="checkbox"/>	A001	P004	2023-06-05	40000.00
<input type="checkbox"/>	A002	P005	2023-06-08	45000.00
<input type="checkbox"/>	A003	P001	2023-05-28	20000.00
<input type="checkbox"/>	A004	P003	2023-06-02	20000.00
<input type="checkbox"/>	A005	P004	2023-06-02	20000.00

3.3. Database Diagram



4. Section - Answer the questions

- a) List down the name and the hourly rate of each resource person who is specialised in leadership training or categorized as an entrepreneur. Assume that multiple resource persons can get the same hourly rate. The result set should be displayed from the highest to lowest hourly rate and the alphabetical order of the surname.

SQL Code:

```
SELECT F_name,L_Name,hourly_rate  
FROM resource_person  
WHERE specialized_area = 'Leadership training' OR  
Category = 'Entrepreneur'  
ORDER BY hourly_rate DESC,L_Name;
```

Result:

Showing rows 0 - 1 (2 total, Query took 0.0014 seconds.) [hourly_rate: 12000.00... - 10000.00...] [L_Name: SOYSA... - PERERA...]

```
SELECT F_name,L_Name,hourly_rate FROM resource_person WHERE specialized_area = 'Leadership training' OR Category = 'Entrepreneur' ORDER BY hourly_rate DESC,L_Name;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None ▾

Extra options

	F_name	L_Name	hourly_rate	
<input type="checkbox"/>	Edit Copy Delete	BENUL	SOYSA	12000.00
<input type="checkbox"/>	Edit Copy Delete	KAMAL	PERERA	10000.00

- b)** Display the name (should appear in a single field), designation, and the workplace of the participants who work in organizations situated in cities Colombo, Kandy, Kurunegala and Galle and involved in management related jobs (eg: Project manager, management executive, managing director, etc.)

SQL Code:

```
SELECT CONCAT(F_Name, ' ', L_Name) AS 'Name', Designation, Work_location
FROM participant
WHERE Work_location in ('Colombo', 'Kandy', 'Kurunegala', 'Galle') AND Designation
LIKE('%Manag%');
```

Result:

Showing rows 0 - 3 (4 total, Query took 0.0007 seconds.)

```
SELECT CONCAT(F_Name, ' ', L_Name) AS 'Name', Designation, Work_location FROM participant WHERE Work_location in ('Colombo', 'Kandy', 'Kurunegala', 'Galle') AND Designation LIKE('%Manag%');
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

	Name	Designation	Work_location
<input type="checkbox"/>	SANJEEWA ARIYARATHNA	Executive Manager	Kurunegala
<input type="checkbox"/>	SADUN GAMAGE	Manager	Colombo
<input type="checkbox"/>	PULINDU SIRIWARDANA	Project Manager	Kandy
<input type="checkbox"/>	CHAMINDA ABEWARDANA	Managing Director	Colombo

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None ▾ Extra options

← → ▾ Check all With selected: Edit Copy Delete Export

- c)** Display the name and the email address of all the coordinators along with the name and the category of the workshops they handled within last 6 months.

SQL Code:

```
SELECT DISTINCT CONCAT(s.F_Name, ' ', s.L_Name) AS Name, s.Email, W.name, W.type
FROM staff AS s
INNER JOIN workshop AS W
INNER JOIN workshop_coordinator AS wc
ON wc.work_co_ID = W.workshopID
BETWEEN "2022-11-15" AND CURRENT_DATE;
```

Result:

✓ Showing rows 0 - 4 (5 total, 0 in query, Query took 0.0020 seconds.)

```
SELECT DISTINCT CONCAT(s.F_Name, ' ', s.L_Name) AS Name,s.Email,W.name,W.type FROM staff AS s INNER JOIN workshop AS W INNER JOIN workshop_coordinator AS wc ON wc.work_co_ID = W.workshopID BETWEEN "2022-11-15" AND CURRENT_DATE;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

Number of rows:

25 ▾

Filter rows:

Search this table

Extra options

Name	Email	name	type
GAWESH GOMES	gaweshgomes@gmail.com	ENIGMA'23	Leadership
GAWESH GOMES	gaweshgomes@gmail.com	GANGA	Soft Skills
GAWESH GOMES	gaweshgomes@gmail.com	TopManagement'23	management
GAWESH GOMES	gaweshgomes@gmail.com	Search&Search	Research
GAWESH GOMES	gaweshgomes@gmail.com	Techno2023	Technical Skills
RADIL DAMSA	radildamsa@gmail.com	ENIGMA'23	Leadership
RADIL DAMSA	radildamsa@gmail.com	GANGA	Soft Skills
RADIL DAMSA	radildamsa@gmail.com	TopManagement'23	management
RADIL DAMSA	radildamsa@gmail.com	Search&Search	Research
RADIL DAMSA	radildamsa@gmail.com	Techno2023	Technical Skills

SEHANDU SIRIWARDANA	sehandusiriwardana@gmail.com	ENIGMA'23	Leadership
SEHANDU SIRIWARDANA	sehandusiriwardana@gmail.com	GANGA	Soft Skills
SEHANDU SIRIWARDANA	sehandusiriwardana@gmail.com	TopManagement'23	management
SEHANDU SIRIWARDANA	sehandusiriwardana@gmail.com	Search&Search	Research
SEHANDU SIRIWARDANA	sehandusiriwardana@gmail.com	Techno2023	Technical Skills
DINUSHI WANNIARACHCHI	dinushiwanni@gmail.com	ENIGMA'23	Leadership
DINUSHI WANNIARACHCHI	dinushiwanni@gmail.com	GANGA	Soft Skills
DINUSHI WANNIARACHCHI	dinushiwanni@gmail.com	TopManagement'23	management
DINUSHI WANNIARACHCHI	dinushiwanni@gmail.com	Search&Search	Research
DINUSHI WANNIARACHCHI	dinushiwanni@gmail.com	Techno2023	Technical Skills
DEVINDHI WIJESINGHA	gdevidwije@gmail.com	ENIGMA'23	Leadership
DEVINDHI WIJESINGHA	gdevidwije@gmail.com	GANGA	Soft Skills
DEVINDHI WIJESINGHA	gdevidwije@gmail.com	TopManagement'23	management
DEVINDHI WIJESINGHA	gdevidwije@gmail.com	Search&Search	Research
DEVINDHI WIJESINGHA	gdevidwije@gmail.com	Techno2023	Technical Skills

D) Display the details of all the meeting rooms which can accommodate the maximum number of participants in each floor, if it was not allocated to any workshop within the month of February 2023.

SQL Code:

```
SELECT *
FROM meeting_room AS M
WHERE `capacity` = (SELECT MAX(`capacity`)
                     FROM meeting_room
                     WHERE `Floor_ID` = `Floor_ID`
                     AND M.Room_ID NOT IN (SELECT `Room_ID`
                     FROM workshop
                     WHERE start_date >'2023-02-01' AND start_date < '2023-02-29' ));
```

Result:

Showing rows 0 - 0 (1 total, Query took 0.0275 seconds.)

```
SELECT * FROM meeting_room AS M WHERE `capacity` = (SELECT MAX(`capacity`) FROM meeting_room WHERE `Floor_ID` = `Floor_ID` AND M.Room_ID NOT IN (SELECT `Room_ID` FROM workshop WHERE start_date >'2023-02-01' AND start_date < '2023-02-29' ));
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

Floor_ID	Room_ID	venue	capacity	workshopID
2	L02	HALLA	500	A003

 Edit  Copy  Delete  Edit  Copy  Delete 

- e) Display the workshop details such as name, number of sessions held, number of registered participants, and the total revenue generated from each workshop.

SQL Code:

```
SELECT workshop.name AS Workshop_Name,
COUNT(DISTINCT session.session_no) AS Number_of_sessions,
COUNT(DISTINCT workshop_participant.participant_ID) AS Total_Participants,
SUM(workshop.Reg_fee) AS Total_Revenue
FROM workshop
LEFT OUTER JOIN session ON workshop.workshopID = session.workshopID
LEFT OUTER JOIN workshop_participant ON workshop_participant.workshop_ID =
workshop.workshopID
GROUP BY workshop.workshopID;
```

Result:

Showing rows 0 - 4 (5 total, Query took 0.0026 seconds.)

```
SELECT workshop.name AS Workshop_Name, COUNT(DISTINCT session.session_no) AS Number_of_sessions, COUNT(DISTINCT workshop_participant.participant_ID) AS Total_Participants, SUM(workshop.Reg_fee) AS Total_Revenue FROM workshop LEFT OUTER JOIN session ON workshop.workshopID = session.workshopID LEFT OUTER JOIN workshop_participant ON workshop_participant.workshop_ID = workshop.workshopID GROUP BY workshop.workshopID;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

Workshop_Name	Number_of_sessions	Total_Participants	Total_Revenue
ENIGMA'23	2	2	192000.00
GANGA	2	2	152000.00
TopManagement'23	1	2	80000.00
Search&Search	0	2	100000.00
Techno2023	0	2	90000.00