



QUALITY ASSURANCE

SOFTWARE TESTING ASSIGNMENT

MODULE - 4

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STANDARD



SYSTEM

MANAGEMENT



SERVICE

CONTROL

PROCESS

CUSTOMER



WHAT IS RDBMS?

- ▶ A Relational Database Management System (RDBMS) is a software application used to efficiently store, manage, and retrieve data that is organized in a structured format using tables.
- ▶ These tables, also known as relations, consist of rows and columns—where each row represents a single record, and each column represents a specific attribute of the data.
- ▶ One of the defining features of an RDBMS is its use of Structured Query Language (SQL), which allows users to perform operations such as inserting, updating, deleting, and querying data with precision and flexibility.
- ▶ RDBMS ensures data integrity and consistency through the use of constraints like primary keys (which uniquely identify each record), foreign keys (which define relationships between tables), and other rules.
- ▶ Additionally, it follows ACID properties (Atomicity, Consistency, Isolation, Durability) to guarantee reliable and secure transaction processing.
- ▶ Popular examples of RDBMS include MySQL, PostgreSQL, Oracle Database, Microsoft SQL Server, and SQLite. These systems are widely used in everything from small applications to large enterprise systems due to their robustness, scalability, and ability to handle complex relationships between data.

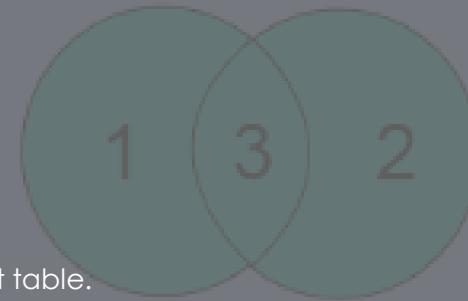
WHAT IS SQL?

- ▶ SQL (Structured Query Language) is a standard programming language specifically designed for managing and manipulating data in a Relational Database Management System (RDBMS).
- ▶ It allows users to interact with the database by writing queries to perform tasks such as retrieving, inserting, updating, and deleting data stored in tables.
- ▶ SQL is essential for working with relational databases because it provides a clear and consistent way to access and modify structured data.
- ▶ SQL is widely used in many database systems like MySQL, PostgreSQL, Oracle, and Microsoft SQL Server.
- ▶ It supports a wide range of commands grouped into different categories:
 - ▶ **DQL – DATA QUERY LANGUAGE**
 - ▶ SELECT – Retrieves data from one or more table.
 - ▶ **DDL – DATA DEFINITION LANGUAGE**
 - ▶ CREATE, ALTER, DROP – Used to create or modify tables & other database projects.
 - ▶ **DML – DATA MANIPULATION LANGUAGE**
 - ▶ INSERT, UPDATE, DELETE – Used to add, change or remove data.
 - ▶ **DCL – DATA CONTROL LANGUAGE**
 - ▶ GRANT, REVOKE – Used to give or take away user permission.

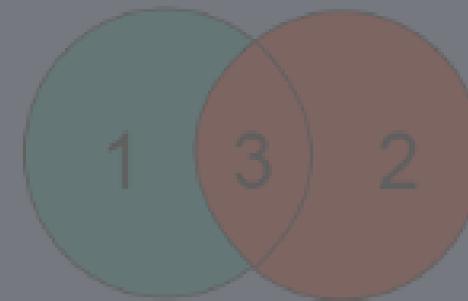
WHAT IS JOIN

- ▶ In a relational database, data is often split into multiple tables to reduce redundancy.
- ▶ A JOIN helps you bring that data back together when you need to see related information from different tables.
- ▶ Types Of JOIN:
 - ▶ **INNER JOIN:**
 - ▶ Returns records that have matching values in both tables.
 - ▶ **LEFT JOIN:**
 - ▶ Returns all record from the left table, & the matched records from the right table.
 - ▶ If no match, the result is **NULL** on the right side.
 - ▶ **RIGHT JOIN:**
 - ▶ Returns all records from the right table, & the matched records from the left table.
 - ▶ If no match, the result is **NULL** on the left side.
 - ▶ **FULL JOIN:**
 - ▶ Returns all records when there is a match in either left or right table.
 - ▶ If there is no match, the result is **NULL** from the missing side.

Full Join



Right Join



DIFFERENCE - DBMS & RDBMS

FEATURE	DBMS	RDBMS
Data Storage	Stores data as files or in a hierarchical form.	Stores data in tables (rows & columns).
Data Relationships	No relationships between data.	Relationships between tables using foreign keys.
Normalization	Not supported.	Supports data normalization to avoid redundancy.
Data Integrity	Less focus on data accuracy & integrity.	Ensures data integrity using constraints.
Examples	File System, XML, MS Access.	MySQL, Oracle, PostgreSQL, MS SQL Server.
Security	Basic security features.	Advanced user-level security features.
Concurrency Control	Limited.	Supports multi-user access & transactions
ACID Compliance	May not supported.	Fully supports ACID (Atomicity, Consistency, Isolation, Durability) properties.
Scalability & Performance	Suitable for small systems.	Designed for large, complex, multi-user applications.

WHAT IS ALIAS IN SQL?

- ▶ In SQL, an alias is a temporary name given to a table or a column, mainly used to make queries more readable and the results more understandable.
- ▶ Aliases are especially helpful when working with complex queries, long table or column names, or when performing joins between multiple tables.
- ▶ There are two main types of aliases: column aliases and table aliases.
- ▶ A column alias is used to rename the output of a column in the result set.
- ▶ A table alias is commonly used in queries involving multiple tables, especially joins.
- ▶ It allows you to assign a short name to a table, making the SQL statement easier to write and read.

TYPES OF API TESTING – OPEN API TESTING

- ▶ Open API testing involves validating APIs that are documented and described using the OpenAPI Specification.
- ▶ This approach provides a clear and standardized way to understand what an API does, what inputs it expects, and what outputs it returns.
- ▶ Using this specification, developers and testers can generate test cases automatically, simulate different request scenarios, and verify the accuracy of responses.
- ▶ With OpenAPI, testing becomes more efficient because changes in the API specification can be quickly reflected in the testing process.
- ▶ This ensures consistency between the API documentation and its actual behavior, reduces human error, and speeds up the quality assurance phase.
- ▶ Overall, Open API testing plays a critical role in modern API development by supporting automation, improving accuracy, and enhancing collaboration between teams.

TYPES OF API TESTING – PARTNER API TESTING

- ▶ Partner API testing is the process of verifying and validating APIs that are exposed to external business partners.
- ▶ Unlike internal APIs, which are used within a company, partner APIs must be carefully tested to ensure they are secure, stable, and perform well under various external conditions.
- ▶ This testing includes checking how the API handles authentication, authorization, and data exchange with outside systems.
- ▶ Since partner APIs often involve sensitive business logic or customer data, security testing is critical to prevent unauthorized access and data breaches.
- ▶ Overall, partner API testing helps build trust with external users, ensures smooth integration with other platforms, and supports the long-term stability of cross-company collaborations.

TYPES OF API TESTING – INTERNAL API TESTING

- ▶ Internal API testing focuses on validating the APIs that are used within a company's own systems, such as those connecting backend services, databases, or microservices.
- ▶ Since these APIs are not accessible by external users, the main goal is to ensure that all internal components communicate correctly, efficiently, and reliably.
- ▶ Testing includes checking data flow between services, verifying business logic, and ensuring that performance and response times meet expected standards.
- ▶ Internal API testing helps development teams catch bugs early, maintain high system reliability, and ensure a smooth end-user experience, even if the user never directly interacts with those APIs.

WHAT IS RESPONSIVE TESTING?

- ▶ Responsive testing is a crucial part of front-end testing that ensures a website or web application looks and functions properly across a variety of devices and screen sizes.
- ▶ With the wide range of smartphones, tablets, and desktop monitors available today, it's important that the user interface adjusts fluidly to provide a consistent and user-friendly experience.
- ▶ During responsive testing, testers check layout alignment, font sizes, image scaling, button placements, navigation behavior, and overall usability on different devices and browsers.
- ▶ This can be done manually by resizing browser windows or using device simulators and emulators, as well as through automated tools like BrowserStack, LambdaTest, or Selenium with responsive frameworks.
- ▶ The main goal is to ensure that the content remains accessible, readable, and interactive, regardless of the screen being used.
- ▶ Responsive testing helps maintain a professional appearance, improves user satisfaction, and supports accessibility standards in modern web development.

WHICH TYPES OF TOOLS ARE AVAILABLE FOR RESPONSIVE TESTING

- ▶ **RESPONSIVE TESTING TOOLS:**
- ▶ LT Browser
- ▶ Lambda Testing
- ▶ Google Resizer
- ▶ I am responsive
- ▶ Pixel tuner

▶ **EXAMPLE:**

- ▶ I AM RESPONSIVE WEBSITE.



WHAT IS FULL FORM OF .ipa, .apk

► **.ipa → iOS App Store Package:**

- It is the file format used to install application on Apple iOS devices.

► **.apk → Android Package Kit:**

- It is the file format used to install applications on Android devices.
- It includes the compiled code, resources, & manifest file.

HOW TO CREATE STEP FOR TO OPEN DEVELOPER OPTION MODE ON? - ANDROID

- ▶ Open the Settings app on your Android device.
- ▶ Scroll down and tap on "About phone" (or "About device", depending on your phone model).
- ▶ Find the option called "Build number".
- ▶ Tap on "Build number" 7 times continuously.
 - ▶ You may be prompted to enter your device PIN or password.
- ▶ After that, you'll see a message:
 - ▶ "You are now a developer!"
- ▶ Go back to the Settings main menu.
- ▶ You will now see a new option called "Developer options" (usually under System or near the bottom).

HOW TO CREATE STEP FOR TO OPEN DEVELOPER OPTION MODE ON? - iPhone

- ▶ Connect your iPhone or iPad to a Mac using a USB cable.
- ▶ Open Xcode on your Mac.
 - ▶ If you don't have it, you can download Xcode from the Mac App Store.
- ▶ In Xcode, go to Window > Devices and Simulators.
- ▶ Your connected iOS device should appear in the list. Select it.
- ▶ If prompted, allow the device to be used for development and trust the computer on the iPhone.
- ▶ After a moment, your iPhone will show a popup asking:
 - ▶ "Developer Mode Required"
 - ▶ "Tap "Turn On".
- ▶ Your iPhone will then restart to enable Developer Mode.
- ▶ After restarting, you'll get another popup asking to confirm.
 - ▶ Tap "Enable".

WRITE A QUERY TO CREATE THE TABLE IN SQL

- ▶ CREATE DATABASE “DATABASE NAME”
- ▶ CREATE TABLE “TABLE NAME” (“FIELD NAME WITH VARIABLE”, FIELD NAME WITH VARIABLE”)
- ▶ EXAMPLE:
 - ▶ CREATE DATABASE WeightList
 - ▶ CREATE TABLE Mild_Steel (ID int PRIMARY KEY AUTO_INCREMENT, Item_Description varchar(255), UOM varchar(255), Unit_Length_Meter int, Unit_Weight int)

The screenshot shows the phpMyAdmin interface for a database named 'weightlist'. The 'Table: mild_steel' page is displayed, showing the structure of the 'mild_steel' table. The table has five columns: 'ID', 'Item_Description', 'UOM', 'Unit_Length_Meter', and 'Unit_Weight'. The 'ID' column is defined as an int(11) type with an AUTO_INCREMENT attribute, set as the primary key. The other four columns are defined as varchar(255) types.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	ID	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	Item_Description	varchar(255)	utf8mb4_general_ci		Yes	NULL			Change Drop More
3	UOM	varchar(255)	utf8mb4_general_ci		Yes	NULL			Change Drop More
4	Unit_Length_Meter	int(11)			Yes	NULL			Change Drop More
5	Unit_Weight	int(11)			Yes	NULL			Change Drop More

WRITE A QUERY TO INSERT DATA INTO TABLE

- ▶ **INSERT INTO “TABLE NAME” (“FIELD NAME WITH VARIABLE”, FIELD NAME WITH VARIABLE”) VALUES (INSERT DATA, ‘INSERT DATA’)**
- ▶ EXAMPLE:
 - ▶ `INSERT INTO mild_steel (Item_Description,UOM,Unit_Length_Meter,Unit_Weight) VALUES ('MS_Plate_10_mm','KGS','1.000','78.5')`

The screenshot shows the phpMyAdmin interface for a MySQL database named 'weightlist'. The 'mild_steel' table is selected. The table structure includes columns: ID, Item_Description, UOM, Unit_Length_Meter, and Unit_Weight. A single row is displayed with the following values:

ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
1	MS_Plate_10_mm	KGS	1	79

The SQL query used to insert the data is:

```
SELECT * FROM `mild_steel`
```

WRITE A QUERY TO UPDATE DATA INTO TABLE WITH VALIDATIONS

- ▶ UPDATE 'TABLE NAME' SET 'FIELD NAME'='DATA' WHERE id='ID NUMBER'
- ▶ EXAMPLE:
 - ▶ UPDATE mild_steel SET Unit_Weight='14.41' WHERE id='6'

BEFORE

phpMyAdmin

Server: 127.0.0.1:3307 » Database: weightlist » Table: mild_steel

Browse Structure SQL Search Insert Export Import Privileges

Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)

SELECT * FROM `mild_steel`

Profile Edit inline Edit Explain SQL Create PHP code Refresh

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

New colorful employee list game information_schema mysql performance_schema phpmyadmin test weightlist New mild_steel

ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
1	MS_Plate_10_mm	KGS	1	79
2	MS_Plate_12_mm	KGS	1	94
3	MS_Plate_16_mm	KGS	1	126
4	MS_Plate_20_mm	KGS	1	157
5	MS_Plate_25_mm	KGS	1	196
6	SHS_100_100_5_mm	KGS	1	20

AFTER

SELECT * FROM `mild_steel`

Profile Edit inline Edit Explain SQL Create PHP code Refresh

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

New colorful employee list game information_schema mysql performance_schema phpmyadmin test weightlist New mild_steel

ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
1	MS_Plate_10_mm	KGS	1	79
2	MS_Plate_12_mm	KGS	1	94
3	MS_Plate_16_mm	KGS	1	126
4	MS_Plate_20_mm	KGS	1	157
5	MS_Plate_25_mm	KGS	1	196
6	SHS_100_100_5_mm	KGS	1	14

WRITE A QUERY TO DELETE DATA INTO TABLE WITH VALIDATIONS

- DELETE FROM '**TABLE NAME**' WHERE id='**ID NUMBER**'
- EXAMPLE:
 - DELETE FROM mild_steel WHERE id='6'

BEFORE

The screenshot shows the MySQL Workbench interface with the 'mild_steel' table selected. The table has columns: ID, Item_Description, UOM, Unit_Length_Meter, and Unit_Weight. The data includes rows for MS_Plate_10_mm through MS_Plate_25_mm, plus an additional row for SHS_100_100_5_mm which is highlighted with a black border.

	ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
<input type="checkbox"/>	1	MS_Plate_10_mm	KGS	1	79
<input type="checkbox"/>	2	MS_Plate_12_mm	KGS	1	94
<input type="checkbox"/>	3	MS_Plate_16_mm	KGS	1	126
<input type="checkbox"/>	4	MS_Plate_20_mm	KGS	1	157
<input type="checkbox"/>	5	MS_Plate_25_mm	KGS	1	196
<input type="checkbox"/>	6	SHS_100_100_5_mm	KGS	1	14

AFTER

The screenshot shows the MySQL Workbench interface with the 'mild_steel' table selected. The table structure is identical to the 'BEFORE' screenshot, but the row for 'SHS_100_100_5_mm' is missing, indicating it has been deleted.

	ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
<input type="checkbox"/>	1	MS_Plate_10_mm	KGS	1	79
<input type="checkbox"/>	2	MS_Plate_12_mm	KGS	1	94
<input type="checkbox"/>	3	MS_Plate_16_mm	KGS	1	126
<input type="checkbox"/>	4	MS_Plate_20_mm	KGS	1	157
<input type="checkbox"/>	5	MS_Plate_25_mm	KGS	1	196

WRITE A QUERY TO DROP TABLE

- DROP TABLE 'TABLE NAME'
- EXAMPLE:
 - DROP TABLE mild_steel

BEFORE

The screenshot shows the phpMyAdmin interface for the 'weightlist' database. On the left, a tree view lists databases: New, colorful, employee list, game, information_schema, mysql, performance_schema, phpmyadmin, test, and weightlist. Under 'weightlist', there is a 'mild_steel' table icon. The main area displays the 'mild_steel' table structure with the following data:

ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight	Area
1	MS_Plate_10_mm	KGS	1	79	NULL
2	MS_Plate_12_mm	KGS	1	94	NULL
3	MS_Plate_16_mm	KGS	1	126	NULL
4	MS_Plate_20_mm	KGS	1	157	NULL
5	MS_Plate_25_mm	KGS	1	196	NULL

The SQL query in the top bar is: `SELECT * FROM `mild_steel``.

AFTER

The screenshot shows the phpMyAdmin interface for the 'weightlist' database after the table has been dropped. The main area displays the following message: **No tables found in database.** On the right, there is a 'Create new table' section with fields for 'Table name' (empty) and 'Number of columns' (set to 4). The tree view on the left remains the same as in the 'Before' screenshot.

WRITE A QUERY TO DROP TABLE

- DROP DATABASE 'DATABASE NAME'
- EXAMPLE:
 - DROP DATABASE weightlist

BEFORE

phpMyAdmin

Server: 127.0.0.1:3307 » Database: weightlist

Structure SQL Search Query Export

No tables found in database.

Create new table

Table name Number of columns

4 Create

New

- colorful
- employee list
- game
- information_schema
- mysql
- performance_schema
- phpmyadmin
- test
- weightlist

AFTER

phpMyAdmin

Server: 127.0.0.1:3307 » Database

Structure SQL Search

Filters

Containing the word:

Table	Action
pma_bookmark	Brow
pma_central_columns	Brow
pma_column_info	Brow
pma_designer_settings	Brow

New

- colorful
- employee list
- game
- information_schema
- mysql
- performance_schema
- phpmyadmin

WRITE A QUERY TO FIND MAX VALUE FROM TABLE

- ▶ `SELECT * FROM 'TABLE NAME' WHERE 'COLUMN NAME' = (SELECT MAX('COLUMN NAME') FROM 'TABLE NAME')`
- ▶ EXAMPLE:
 - ▶ `SELECT * FROM mild_steel WHERE Unit_Weight=(SELECT MAX(Unit_Weight) FROM mild_steel)`

Snow query box

Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
SELECT * FROM mild_steel WHERE Unit_Weight=(SELECT MAX(Unit_Weight) FROM mild_steel);
```

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

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

Extra options

ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
1	MS_Plate_12_mm	KGS		94

New
colorful
employee list
game
information_schema
mysql
performance_schema
phpmyadmin
weight_list
New
mild_steel

WRITE A QUERY TO FIND MINIMUM VALUE FROM TABLE

- ▶ SELECT * FROM 'TABLE NAME' WHERE 'COLUMN NAME' = (SELECT MIN('COLUMN NAME') FROM 'TABLE NAME')
- ▶ EXAMPLE:
 - ▶ SELECT * FROM mild_steel WHERE Unit_Weight=(SELECT MIN(Unit_Weight) FROM mild_steel)

The screenshot shows the MySQL Workbench interface. On the left, there's a tree view of databases and tables. The main area displays a query results grid and a status message.

Status Bar: Showing rows 0 - 0 (1 total, Query took 0.0006 seconds.)

Query Editor: SELECT * FROM mild_steel WHERE Unit_Weight=(SELECT MIN(Unit_Weight) FROM mild_steel);

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

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

Table Headers: ID, Item_Description, UOM, Unit_Length_Meter, Unit_Weight

ID	Item_Description	UOM	Unit_Length_Meter	Unit_Weight
1	SHS_100_100_5_mm	KGS	1	14

CREATE TWO TABLES NAMED SELLER & PRODUCT APPLY FOREIGN KEY IN PRODUCT TABLE. FETCH DATA FROM BOTH TABLE USING DIFFERENT JOINS.

► **INNER JOIN**

► SELECT * FROM '**TABLE NAME-2**' JOIN '**TABLE NAME-1**' ON '**TABLE NAME-2 COLUMN**' = '**TABLE NAME-1 COLUMN**'

► EXAMPLE:

► SELECT * FROM products JOIN seller ON products.Seller_ID = seller.Seller_ID

The screenshot shows the phpMyAdmin interface with a database tree on the left and a query results page on the right.

Database Tree:

- New
- colorful
- employee list
- game
- information_schema
- mysql
- performance_schema
- phpmyadmin
- seller_products** (selected)
- New**
- products** (selected)
- seller**
- weight_list

Query Results:

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
SELECT * FROM products JOIN seller ON products.Seller_ID = seller.Seller_ID;
```

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

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

Extra options

Product_ID	Product_Name	Product_Price	Seller_ID	Seller_ID	Seller_Name	Seller_Loacation
1	Welding M/C	10000	3	3	Samat Yadav Enterprises	Kanalus

CREATE TWO TABLES NAMED SELLER & PRODUCT APPLY FOREIGN KEY IN PRODUCT TABLE. FETCH DATA FROM BOTH TABLE USING DIFFERENT JOINS.

- ▶ **LEFT JOIN**

- ▶ SELECT * FROM '**TABLE NAME-2**' LEFT JOIN '**TABLE NAME-1**' ON '**TABLE NAME-2 COLUMN**' = '**TABLE NAME-1 COLUMN**'

- ▶ EXAMPLE:

- ▶ SELECT * FROM products LEFT JOIN seller ON products.Seller_ID = seller.Seller_ID

The screenshot shows the phpMyAdmin interface with a database tree on the left and a query results page on the right.

Database Tree:

- New
- colorful
- employee list
- game
- information_schema
- mysql
- performance_schema
- phpmyadmin
- seller_products** (selected)
- New
 - products** (selected)
 - seller**
- weight_list

Query Results:

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 2 (3 total, Query took 0.0003 seconds.)

```
SELECT * FROM products LEFT JOIN seller ON products.Seller_ID = seller.Seller_ID;
```

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

Product_ID	Product_Name	Product_Price	Seller_ID	Seller_ID	Seller_Name	Seller_Location
1	Welding M/C	10000	3	3	Samat Yadav Enterprises	Kanalus
2	Miller M/C	50000	4	NULL	NULL	NULL
3	JLG M/C	200000	5	NULL	NULL	NULL

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

CREATE TWO TABLES NAMED SELLER & PRODUCT APPLY FOREIGN KEY IN PRODUCT TABLE. FETCH DATA FROM BOTH TABLE USING DIFFERENT JOINS.

► **RIGHT JOIN**

► SELECT * FROM '**TABLE NAME-2**' RIGHT JOIN '**TABLE NAME-1**' ON '**TABLE NAME-2 COLUMN**' = '**TABLE NAME-1 COLUMN**'

► EXAMPLE:

► SELECT * FROM products RIGHT JOIN seller ON products.Seller_ID = seller.Seller_ID

The screenshot shows the phpMyAdmin interface with a database tree on the left and a query results page on the right.

Database Tree:

- New
- colorful
- employee list
- game
- information_schema
- mysql
- performance_schema
- phpmyadmin
- seller_products** (selected)

 - New
 - products
 - seller** (selected)

- weight_list

Query Results:

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 2 (3 total, Query took 0.0003 seconds.)

```
SELECT * FROM products RIGHT JOIN seller ON products.Seller_ID = seller.Seller_ID;
```

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

Product_ID	Product_Name	Product_Price	Seller_ID	Seller_ID	Seller_Name	Seller_Loacation
1	Welding M/C	10000	3	3	Samat Yadav Enterprises	Kanalus
NULL	NULL	NULL	NULL	1	Shahji_Enterprise	Jamnagar
NULL	NULL	NULL	NULL	2	Sagar Construction	Changa

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

CREATE TWO TABLES NAMED SELLER & PRODUCT APPLY FOREIGN KEY IN PRODUCT TABLE. FETCH DATA FROM BOTH TABLE USING DIFFERENT JOINS.

- ▶ **FULL JOIN**
- ▶ SELECT * FROM '**TABLE NAME-2**' RIGHT JOIN '**TABLE NAME-1**' ON '**TABLE NAME-2**'. '**TABLE NAME-2 COLUMN**' = '**TABLE NAME-1 COLUMN**'
- ▶ **UNION**
- ▶ SELECT * FROM '**TABLE NAME-2**' LEFT JOIN '**TABLE NAME-1**' ON '**TABLE NAME-2**'. '**TABLE NAME-2 COLUMN**' = '**TABLE NAME-1 COLUMN**'
- ▶ **EXAMPLE:**
 - ▶ SELECT * FROM products RIGHT JOIN seller ON products.Seller_ID = seller.Seller_ID
 - ▶ UNION
 - ▶ SELECT * FROM products LEFT JOIN seller ON products.Seller_ID = seller.Seller_ID

The screenshot shows the MySQL Workbench interface. On the left, the database schema is displayed with tables: New, colorful, employee list, game, information_schema, mysql, performance_schema, phpmyadmin, seller_products, products, seller, and weight_list. The products table is currently selected. On the right, the main window displays a query results grid. The query executed was:

```
SELECT * FROM products RIGHT JOIN seller ON products.Seller_ID = seller.Seller_ID UNION SELECT * FROM products LEFT JOIN seller ON products.Seller_ID = seller.Seller_ID
```

The results show rows 0 - 4 (5 total) from the combined query. The columns in the results are Product_ID, Product_Name, Product_Price, Seller_ID, Seller_ID, Seller_Name, and Seller_Loacation. The data is as follows:

Product_ID	Product_Name	Product_Price	Seller_ID	Seller_ID	Seller_Name	Seller_Loacation
1	Welding M/C	10000	3	3	Samat Yadav Enterprises	Kanalus
NULL	NULL	NULL	NULL	1	Shahji_Enterprise	Jamnagar
NULL	NULL	NULL	NULL	2	Sagar Construction	Changa
2	Miller M/C	50000	4	NULL	NULL	NULL
3	JLG M/C	200000	5	NULL	NULL	NULL