SEFP ASSIGNMENT-5
(PHP MYADMIN)

PHPMYADMIN is a free and open source tool written in php intended to handle the administration of MYSQL with the use of a web browser. It can perform various tasks such as creating, modifying or deleting databases,tables,fields or rows; executing SQL statements; or managing users and permissions.

FEATURES:-
1.Web interface.
2.MySQL database management.
3.Import data from CSV &SQL.
4.Export data to CSV,SQL,XML,PDF,WORD,EXCEL etc.....
5.Administering multiple servers.
6.Creating PDF graphics of the database layout.
7.Creating complex queries using Query-by-Example (QBE).
8.Searching globally in a database or a subset of it.
9.Working with different operating systems.

PHPMYADMIN ARCHITECTURE:-
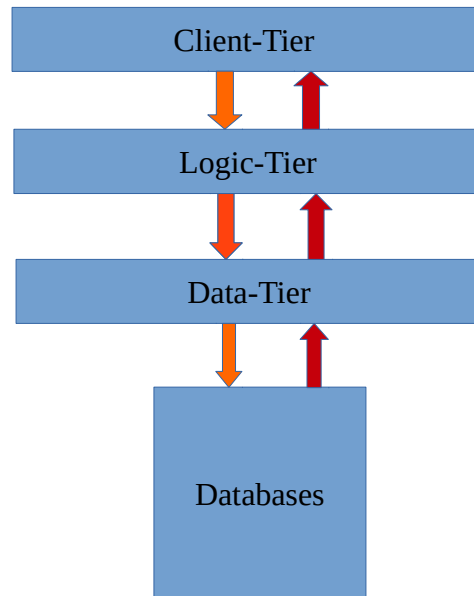PhpMyAdmin follows Multi-tier Architecture Pattern.

In Software Engineering,Multi-Tier Architecture (often referred to as N-tier Architecture) is a Client-Server in which presentation, application processing, and data management functions are logically separated. For example, an application that uses middleware to service data requests between a user and a database employs multi-tier architecture. The most widespread use of multi-tier architecture is the 3-Tier Architecture.

N-tier application architecture provides a model by which developers can create flexible and reusable applications. By segregating an application into tiers, developers acquire the option of modifying or adding a specific layer, instead of reworking the entire application. 3-tier architectures typically comprise a Client tier, Logic tier, and a Aata tier.

→ **CLIENT-TIER:-**The top-most level of the application is the user interface.The main function of the interface to translate tasks and results to something that user can understand.

→ **LOGIC-TIER:-**This layer coordinates the application processes commands,logical decisions,evalutions and performs calculations.It also moves and process the data between the two layers.

→**DATA-TIER:-**In this Tier information stored and retrieved from the database or filesystem.Then this information passed back to the logic tier and moves to the cilent tier displays to the user.

```
┌─────────────────────────┐
│      Client-Tier        │
└─────────────────────────┘
        ↓      ↑
┌─────────────────────────┐
│      Logic-Tier         │
└─────────────────────────┘
        ↓      ↑
┌─────────────────────────┐
│      Data-Tier          │
└─────────────────────────┘
        ↓      ↑
┌─────────────────────────┐
│                         │
│      Databases          │
│                         │
└─────────────────────────┘
```

PHPMYADMIN WORK FLOWS:-
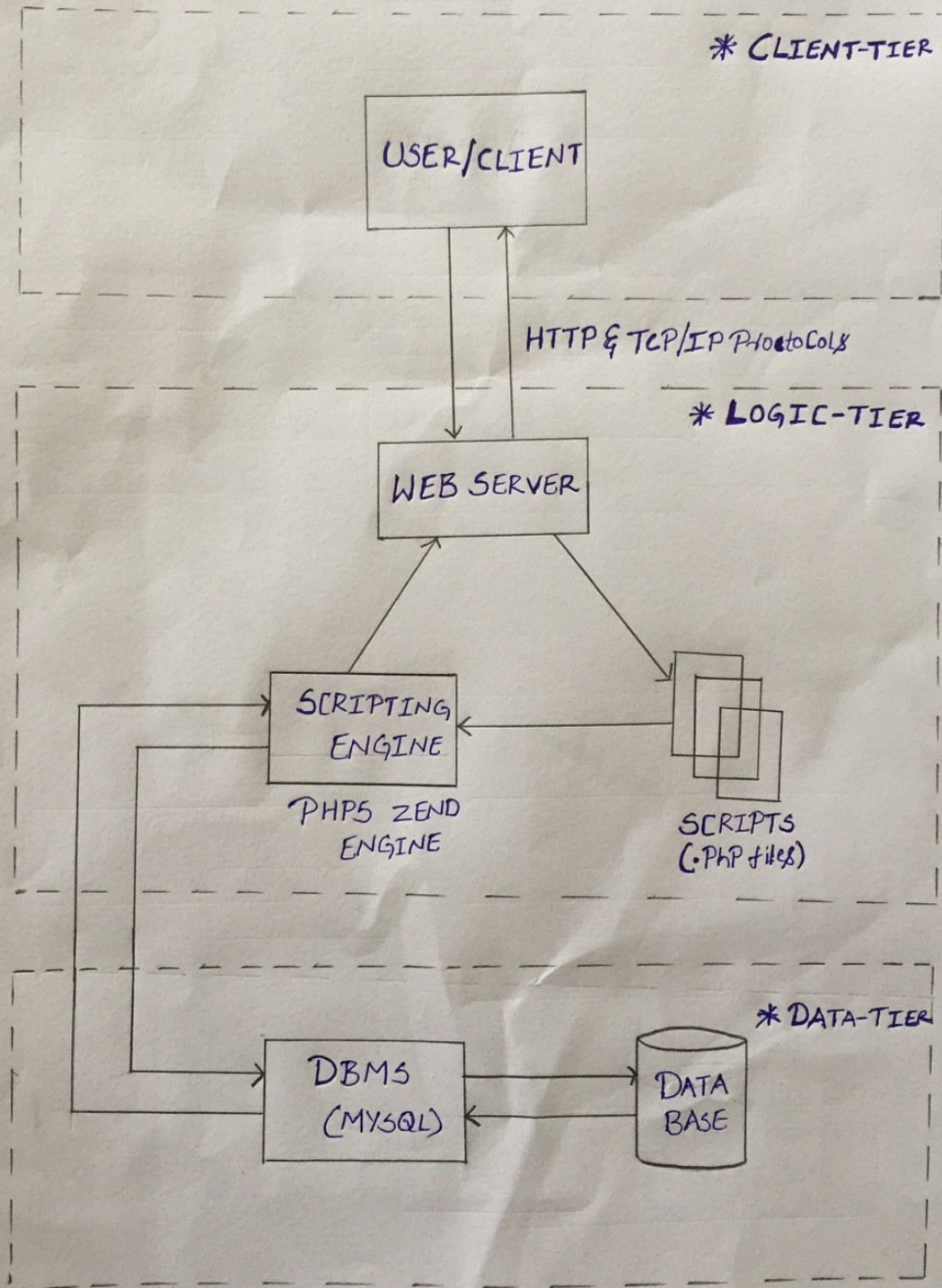### Storing Data:-
→ Firstly,from Cilent-Tier the user performs any task(creation of table,deletion and modifies) and moves to Logic-Tier there by using phpscript the task is converts into code and instructs to Data-Tier to store the information.

Retriving Data:-
→ The user requests the data and from Client-tier to moves to Logic-tier and then to Data-tier and sends back to the Client-Tier displays to the user.

PHPMYADMIN ARCHITECTURE

* CLIENT-TIER

USER/CLIENT

HTTP & TCP/IP Protocols

* LOGIC-TIER

WEB SERVER

SCRIPTING ENGINE

PHP5 ZEND ENGINE

SCRIPTS (.PHP files)

* DATA-TIER

DBMS (MYSQL)

DATA BASE

BENFITS:-

→ The ability to **separate logical components** of an application ensures that applications are easy to manage and understand.
i.e. experts can be employed that specialise in one of the layers e.g. user interface design

→ Because **communication can be controlled** between each logical tier of an application, changes in one tier, for example, the database access tier, do not have to affect the client component
i.e. a change from one DBMS to another would only require a change to the component in the data access layer with little or no effect on the business/logic (middle) or UI layer.

→ **specific tools and technologies suited to each layer** can be deployed (and may evolve at a different pace) .

CONCLUSION:-

Here in this framework they proposed the 3-tier architecture.I want to propose the architecture this framework into 2-Tier form................ :-).