WEB DEVELOPMENT USING FULL STACK

INTRODUCTION

- Full-stack development refers to the development of both the frontend (client-side) and backend (server-side) parts of a web application.
- Font-End(Client side).
  - HTML
  - CSS
  - JavaScript
- Back-End(Server side).
  - PHP
  - Database(MYSQL)

- Font End(Client side)
  - The User Interact with the website directly.
  - It include responsive and interactive layout like images, text, animated form and so on.

- Back End(Server Side)
  - In the backend the data process, managing, retrieve the data.
  - Ensure the font-end get the information .

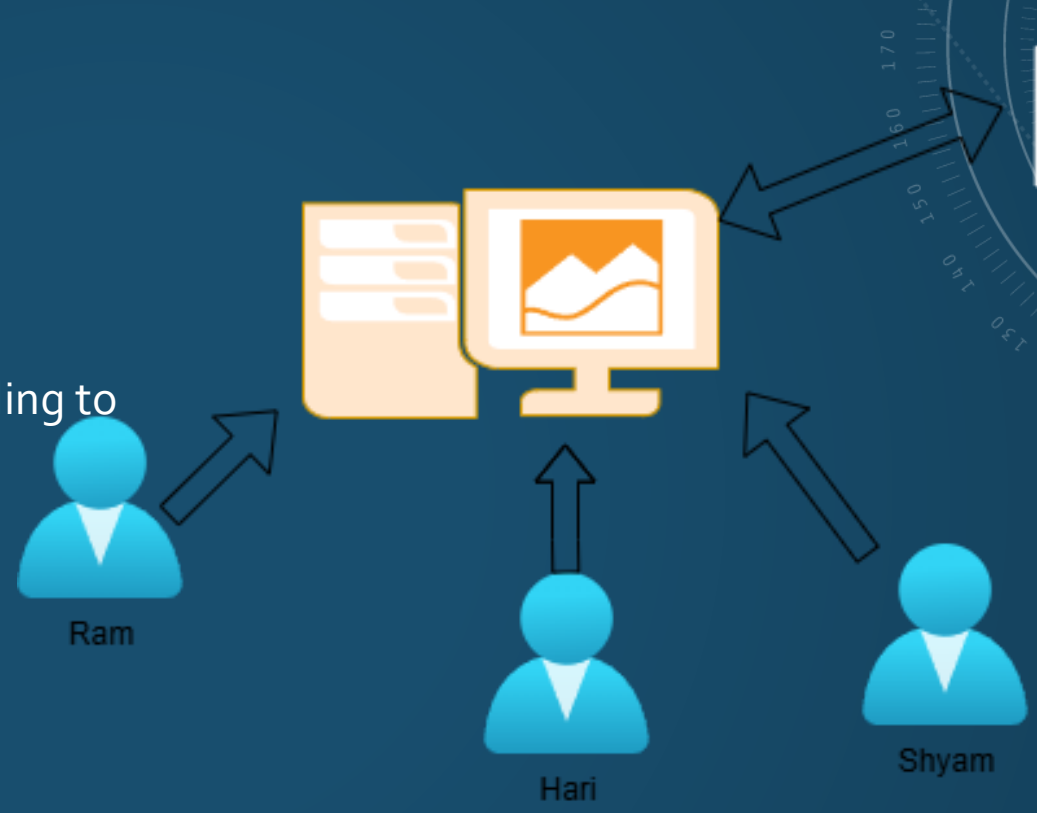
=>User request to the website via web browser

And browser send the data to server.

For example:

(1)Ram, Shyam, Hari want to access the data according to their needs.

(2) The browser send the data to the server according to User needs.



- Server receive the data from browser and process the data, and Response according to the users need.
- And send the data to respective users.

Form example:

Ram, Shyam, Hari get their data in interactive way.

FONT-END

- HTML: The web page defines elements such as headings, paragraphs, links, and images and so on.

- CSS: Styling HTML elements.

  CSS controls the layout, colors, fonts, and responsiveness of a webpage.

- JAVASCRIPT: JavaScript is used to create dynamic content, such as forms, animations, and interactive maps and form validation.

BACK-END

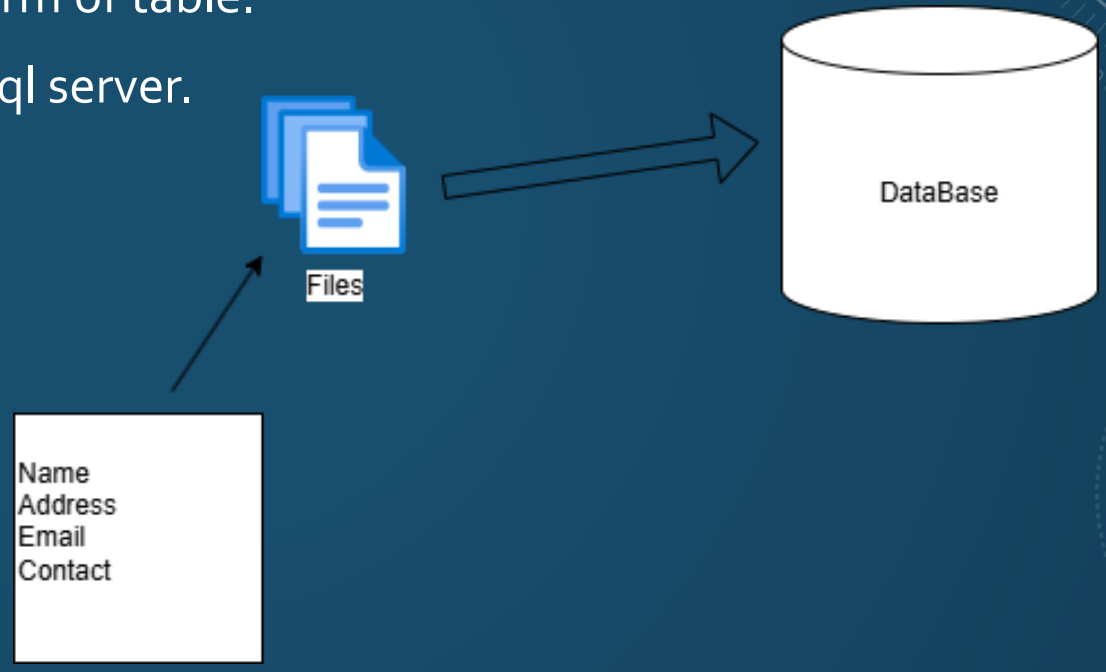
- Databases : Backend systems interact with databases to store and retrieve data.

  Popular databases include MySQL, PostgreSQL, MongoDB.

- PHP: Backend services offer the flexibility and efficiency to develop robust, secure, and scalable products in dynamic way.

DATABASE

- Database is a structured collection of data that is stored in an electronic device.
- A relational database store data in the form of table.
- Example: MySql, Oracle, PostgreSql, & Sql server.

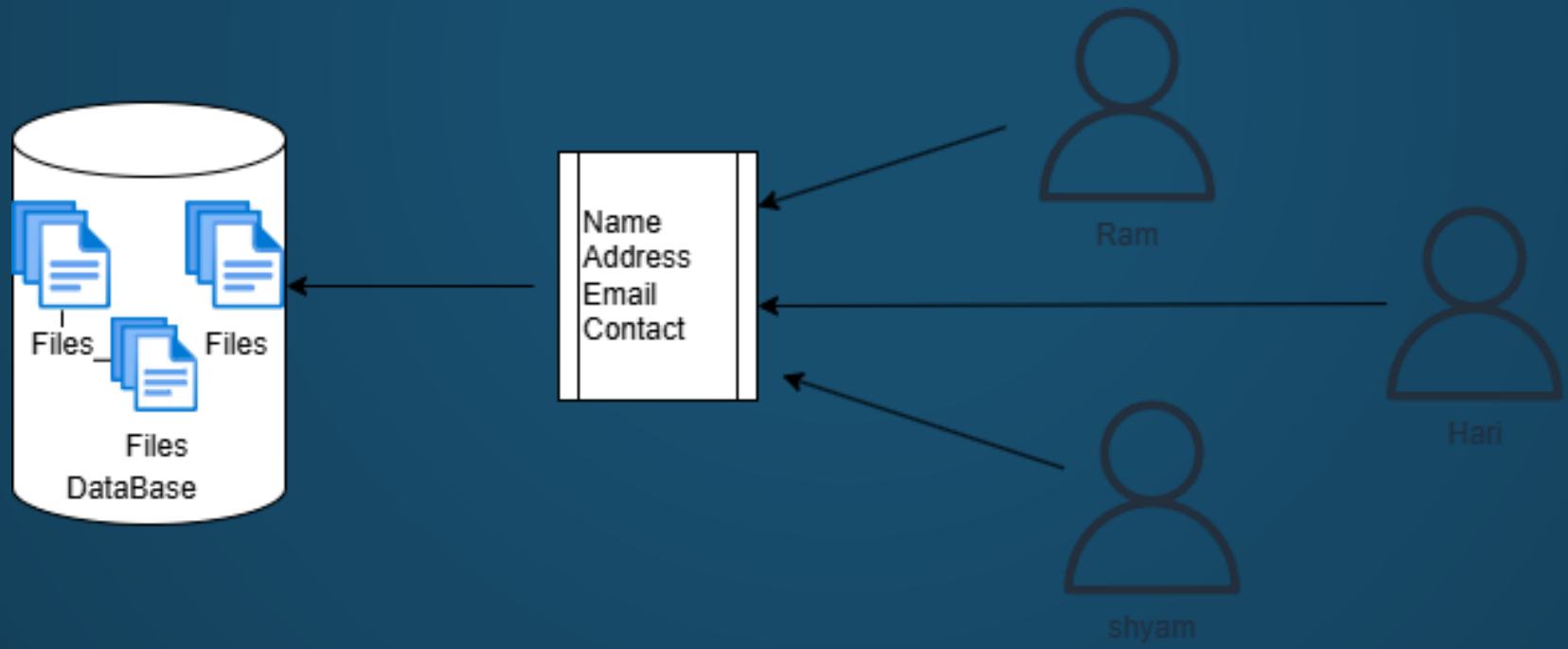


DATABASE MANAGEMENT SYSTEM (DBMS)

- DBMS is a Software used to manage data from a database.
- It acts as an interface between the database and end user or applications ensuring data is consistently organized, easily accessible and secure.
- A DBMS is a software that allows to create, update, and retrieval of data in an organized way.
- It also provides security to the database.

WHY DBMS?

- DBMS reduce data redundancy by avoiding duplicate data.
- It ensure data consistency, integrity and security while multiple user acess and manipulate data simultaneously.



PHP

- In 1995 "**Rasmus Lerdorf "** developed Personal home page.
- Originally PHP is a acronym for Hypertext Preprocessor.
- Php is server-side scripting language that is embedded in HTML.
- It is an interpreted Language.

INSTALLING PHP

- Php is Open Source(Free of Cost).
- For Installing AMP(Apache, My Sql, Php).

➢ Install Localhost -> Xamp/ Wamp

➢ Install Code Editor -> Vscode/ Sublime text/ Notepad++

➢ Install MySql .

- Open Browser to check localhost is install or not.

- Open C:drive

1. Xamp folder then open.
2. Htdocs folder then
3. Create Folder where all php Code or file saved.

SIMPLE FORM

```php
<?php include('connect.php');?>
<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Registration</title>
</head>
<body>
    <form action=" " method="POST">
    Name :<input type="text" name=" Name"><br>
    Address :<input type="text" name="Add"><br>
    Email:<input type="text" name="Email" placeholder="hello@gmail.com"
    required><br>
    Contact:<input type="text" name="num"><br>
    <input type="Submit" name="Submit">
</form>
<?php
if (isset($_POST['Submit'])) {
    $Name=$_POST['Name'];
    $Address=$_POST['Add'];
    $Email=$_POST['Email'];
```

CREATE DATABASE IN PHPMYADMIN

1. Open Phpmyadmin from browser.(Localhost/phpmyadmin)
2. Click on New.
3. Create Database Name. (Student)
4. Then open database name.
5. Create Table and name it .(Admin)

CONNECT.PHP

```php
<?php
$servername = "localhost";
$username = "root";
$password = " ";
$db="student";

$conn =mysqli_connect('localhost','root','','student');
if ($conn) {
  echo"Data Saved";
}else{
echo "Connecion failed";
}
?>
```

server name

User name

Empty Password

database name

- Insert the data in table Admin.
- We write php code where we made registration form .

```php
<?php
if (isset($_POST['Submit'])) {
    $Name=$_POST['Name'];
    $Address=$_POST['Add'];
    $Email=$_POST['Email'];
    $Contact=$_POST['number'];

    $query="INSERT INTO admin(Name, Address, Email, Contact) VALUES('
        $Name','$Address','$Email','$Contact')";
    $data=mysqli_query($conn,$query);
  if($data){
    ?>
```

Table Name

- My SQL and MySQLi both make connection to the database.
- MySQLi (improved) used to secure and flexible.

- If(isset)-> Check the variable is declared and not null.
    1. Check the form is Field ($_POST, $_GET) while submit

- Message appear when data store in database.

```
    if($data){
        ?>
        <script type="text/javascript">
            alert("Data submited sucessfully!");
        </script>
        <?php
    }
    else{
        ?>
        <script type="text/javascript">
            alert("Please try again..");
        </script>
    <?php
    }
}
 ?>
</body>
</html>
```