

Project Name	Web based Chat Application
Technologies Used	HTML, CSS, Javascript, JQuery, AJAX, PHP, MySQL
Related Coursework	Web Programming 1
Tools Used	Php MyAdmin: XAMPP Server

Project Features and Description:

- **Database Connectivity.php:**

- This page connects the application to the database using a valid database name, server name and credentials of the admin.
- This application database has three tables as follows:
 - **Users:** Stores all the information belonging to the users.
 - **Friends:** Stores the friendship mappings for all the users.
 - **Chat Messages:** Stores the chat messages.

- **Web Project Welcome Page.php:**

- This is the first page which is displayed to the users when they start this application by entering the following URL on the web browser:
“localhost/Web_project_Welcome_Page.php”
- A feature has been added which does not allow the users to directly enter the application through some other pages like Login or SignUp page.
- This page has a button which allows the users to enter into the application.

- **Web Project Login Page 1.php:**

- This page allows the Existing Users to Log into the application using their username and password.
- There are different validations added to this page like checking for empty username and password fields, checking for a valid username in the database, checking for a matching password for the username entered.
- If the user credentials are valid then the user is taken to the main page.
- If the user credentials are invalid then appropriate error messages are displayed.

- **Web Project Login NewUsers Page 2.php:**

- This page allows the new users to register with the application.
- The users need to provide some information like first name, last name, email address, username and password while registering with this application.
- There are different validations added to this page like checking for empty fields, checking for valid first name and last name, checking for a valid and well-formed email address, etc.
- If the user enters all the fields correctly and hits the register button then the user details are added into the Users table inside the database and the user is taken to the main page of the application.
- If any of the fields are not entered properly, appropriate error messages are displayed.

- **Friends Window.php:**

- This page is the main page of the application where the users can see a list of friends.
 - The user can click on any friend in order to chat with that friend.
 - Once the user clicks on one particular friend, a chat window showing previous history of the messages as well as a text field to feed a new message appears.
 - Hence, the user can now press the SEND button to chat with other friend.
 - Simultaneously, the chat messages are stored inside the table.
 - There is one more feature added inside this page which allows every user to add a new friend by providing the username of that person and doing this will automatically enter that friend in the list of friends displayed to that user using AJAX.
 - Once a user has successfully entered a new friend, their mapping will be stored as a record inside the table Friends.
- There is a LOGOUT button on every page which allows the user to log out of the application at any point of time.
 - A special column called STATUS (Integer) is used which helps to keep a track of who all are logged in at a given time (0 = user is logged out and 1 = user is logged in).
 - Here are the database table schemas used in this project:

1)Users:

Id	First Name	Last Name	Email	Username	Password	Status
Integer	Varchar	Varchar	Varchar	Varchar	Varchar	Integer

2)Friends:

Id	Friend 1	Friend2
Integer	Varchar	Varchar

3)Chat Messages:

Id	Source	Destination	Message	Timestamp
Integer	Varchar	Varchar	Varchar	DateTime