# Chapter 5

# IMPLEMENTATION

Implementation is the process of defining how the system should be built, ensuring that it is operational and meets quality standards. It is a systematic and structured approach for effectively integrating a software-based service or component into the requirements of end users.

## 5.1 Front-end and back-end used

The front-end is everything involved with what the user sees. The back-end, or the "server-side", is basically how the site works, updates and changes. This refers to everything the user can't see in the browser, like databases and servers.

### 5.1.1 Features of front-end

HTML5 code along with CSS3, Bootstrap is used for styling while JavaScript, is used for validation at frontend. PHP is a server-side scripting language designed for Web development, but also used as a general-purpose programming language . PHP code is embedded into HTML5.

PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

### 5.1.2 Features of back-end

WAMP Server is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. The term WAMP is an apparent acronym. Their homepage header reads “WAMP Apache + MariaDB + PHP + Perl", indicating that this abbreviation is a recursive acronym.

The Apache HTTP Server, colloquially called Apache, is a free and open-source

cross- platform web server, released under the terms of Apache License 2.0. Apache is developed and maintained by an open community of developers under the auspices of the Apache Software Foundation. The Apache HTTP Server is cross-platform with Version 2.0 improved support for non-Unix operating systems such as Windows.

MySQL is an open-source relational database management system (RDBMS). MySQL is a central component of the WAMP open-source web application software stack. MySQL is written in C and C++. MySQL works on many system platforms, including Linux, macOS, Microsoft Windows, etc.

MySQL performs extremely well in the average case, the developer interfaces are there, and the documentation is very, very good. It has also been tested to be a fast, stable and true multi- user, multi-threaded SQL database server.

## 5.2 Discussion of code segments

This section includes the segments of code used to provide various user functionalities.

### 5.2.1 Code segment for Hotel Registration

Following shows the code segment for Hotel Registration, when a user tries to book any hotel there will be user info stored in the backend.

1. Link all the HTML and CSS pages.
2. Start PHP Session.
3. Fetch the data searched by the user about a Hotel.
4. Once if the Hotel vacancy is there user is redirected to a registration form.
5. This data typed by the user will be saved in the backend database and also in the admin side.
6. A confirmation message is shown that “Registration confirmed”.

### 5.2.2 Code segment for Admin log in

The below pseudo code shows segment for Admin log in. If the admin has the account credentials, then he/she could log in to their respective admin account by providing correct

username and password.

1. Link all the HTML and CSS pages
2. Start PHP Session
3. Fetch the Admin name and password from login form using post method.
4. Connect and retrieve Admin username and password from database.
5. Validate by comparing both.
6. If the validation fails, raise an alert “ID and Password not matched” and navigates back to Home page.
7. Else navigates to the Admin dashboard where admin can monitor all the user reservations.

### 5.2.3 Code segment to Reserve a Tour package

Following shows the code segment to reserve a tour package. The user can view the tour package and explore more packages available within the country, if user has interest in any tour package, user can further reserve a tour package by filling out a registration form of user details.

1. Link all the HTML and CSS pages
2. Start PHP Session
3. User can visit the tour packages page and explore more packages.
4. User can reserve a tour package by filling out a form containing user information.
5. Data entered by the user will be stored in the backend database and also in the admin side portal.
6. Confirmation will be showed in the portal after user confirms.

### 5.2.4 Code segment to view the events

The below pseudocode shows the code segment to view the various events around him. These events available to the user are added by the admin. Admin is responsible for the

information available in the events. Events covered here are situated around India. This allows the users to view the description of events like venue, date and information of the event.

1. Link all the HTML and CSS pages
2. Start PHP Session
3. User can view some of the events on the dashboard
4. User can click for more events to view other events
5. User can click on any event to know more description of the event.

### 5.2.5 Code segment for Admin to add a new Hotel / Tour Package

The below code segment is used for adding a new hotel / Tour Package into the website. This functionality is available only to the admin. Once this hotel / Tour package is added, it gets stored in the database and also in the frontend database. Users can view this new hotel / Tour Package in the website for making further reservations. Admin has to provide a detailed description like the picture of the hotel / Tour, room description and amenities.

1. Link all the HTML and CSS pages
2. Start PHP Session
3. Admin can log in to the admin portal after successfully entering the credentials
4. Admin dashboard is opened, clicking the option of add a hotel / Tour Package will redirect to a new page.
5. Admin can enter the complete description of the new hotel / Tour package with image, description and save it
6. This entered description is added into the database and also available in the frontend website for the users to view it

### 5.2.6 Code segment for admin to View user reservations

Admin can view the reservations made by the users in the frontend website. The details entered by the user will be visible to the admin. These details are also saved in the database. Admin has all the rights to cancel any reservation made by the user.

1. Link all the HTML and CSS pages
2. Start PHP Session
3. Admin have to log in to the admin portal by entering the correct credentials
4. Admin dashboard is opened clicking on the option of Reservations will redirect to a new page.
5. Admin can view all the tour reservation and hotel reservations with all the details entered by the user.
6. Admin can edit or cancel any reservations.