Session 10

Advanced Features of PHP

Session Overview

In this session, you will be able to:

- Identify the process to set up a local server for sending an email.

- Describe how to send an email.

- Explain how to send an HTML email.

- Elaborate on the process of sending an attachment with an email.

- Describe user authentication.

- Outline the process of sending a plain text email.

Set Up a Local Server for Email

Simple Mail Transfer Protocol (SMTP) is a set of communication guidelines (protocol) that allow software applications to transmit an email over the Internet.

The key objective of SMTP is used to set up communication rules between servers.

Users can create PHP scripts to send and receive emails using SMTP. To verify and test the functionality of these scripts, users will require an SMTP server.

One of the easiest and affordable ways to use a local SMTP server is Paper-cut SMTP.

Sending an Email

In order to send an email, a user must ensure that the `php.ini` file includes the corresponding configurations for PHP.

The file must also have precise details on how emails are managed by the system.

Since user is using XAMPP, the file can be opened by right-clicking Config option in XAMPP Control Panel and then, selecting `php.ini`. This will automatically open the file in Notepad.

Alternatively, if a user wants to open the file through File Explorer, navigate to the folder where PHP is installed, locate the `php.ini` file, and then, open it using any text editor.

Sending a Plain Text Email

To send an email, PHP utilizes the `mail()` function. Following are the three mandatory arguments that must be provided to this function:

Email address of the receiver

Descriptive message

Subject of the message
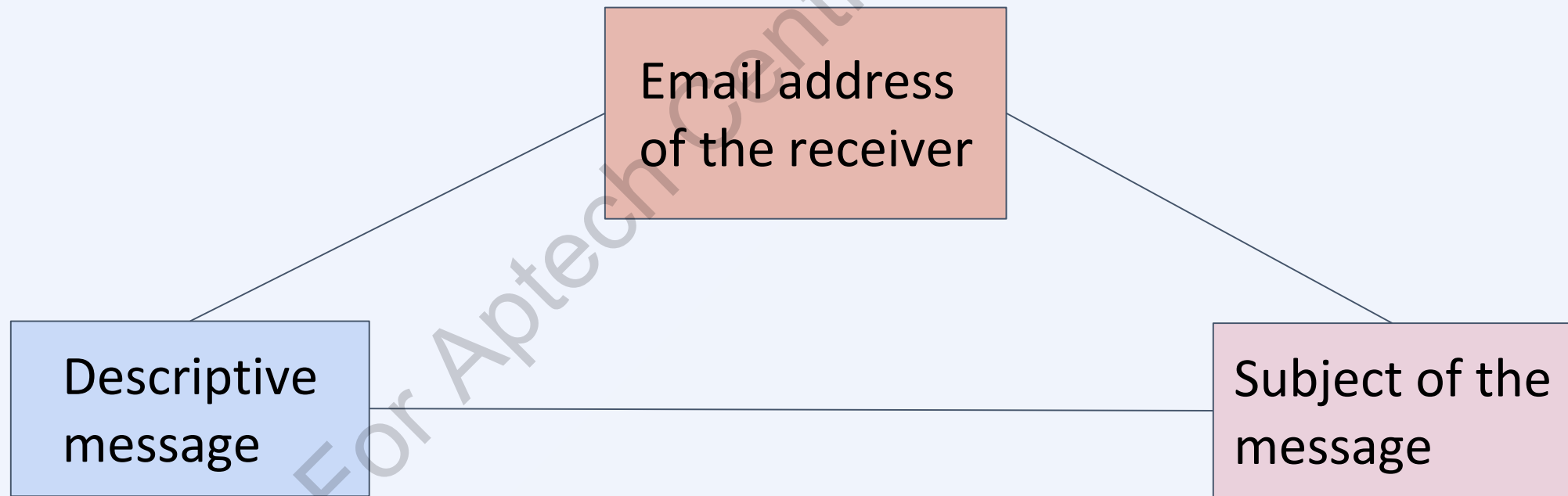
Syntax of mail() Function

Syntax of mail() function is as follows and this includes the optional argument too.

```
mail(to, subject,
message, headers,
    parameters);
```

When mail() function is called, PHP tries to send out the email.

Sending an HTML Email [1-2]

In PHP, when a user sends a text message, it is interpreted as simple text by default. Even if the message contains HTML tags, it is treated as text.

It is important to note that HTML tags are not formatted as per HTML syntax.

To send such an email, the user has to ensure to input the MIME version, content type, and character set.

In general, three different types of message formats available are namely, HTML, Plain Text, and Rich Text Formats. However, in PHP, the most common formats are HTML or plain text.

Sending an HTML Email [2-2]
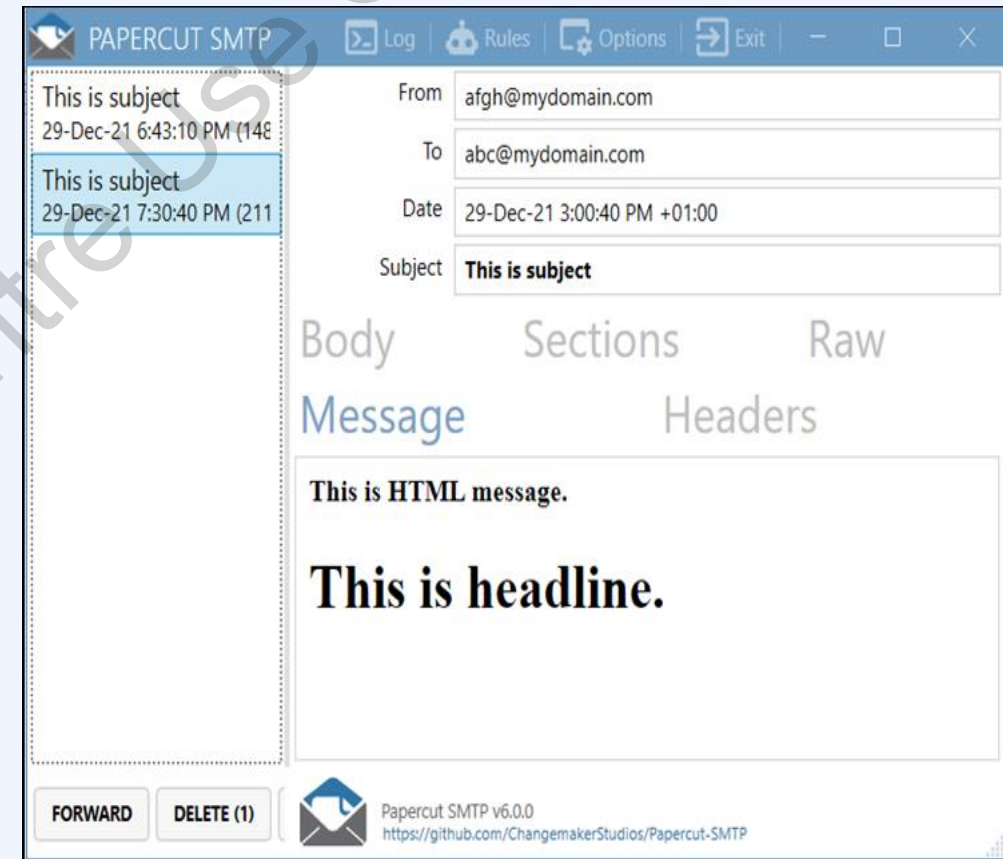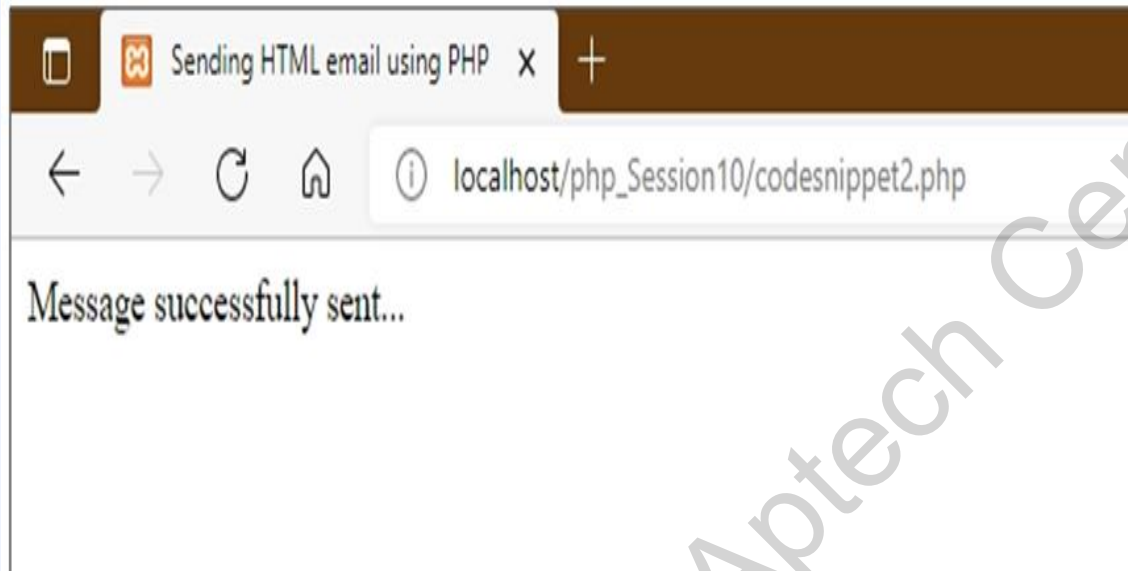
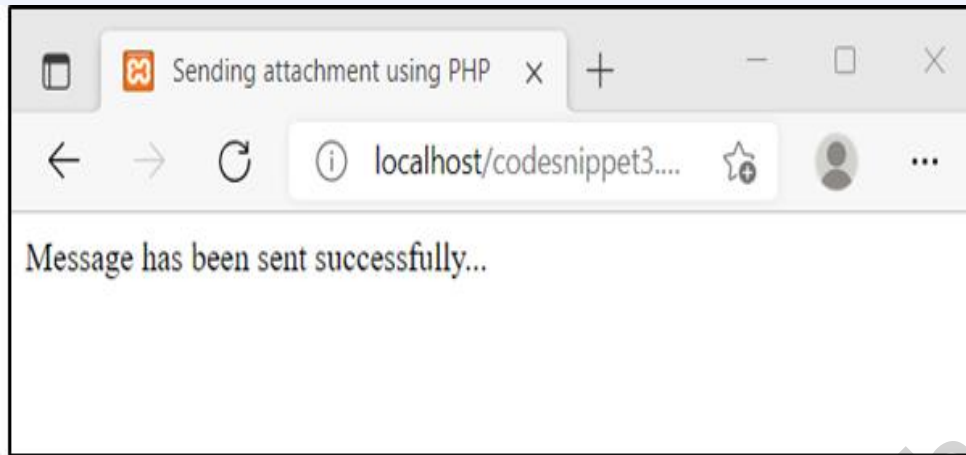*Papercut Server Output*

Sending Attachments with an Email [1-2]

When a user prefers to send an email that has attachments, it is essential to set the `Content-type` header to `multipart/mixed`.

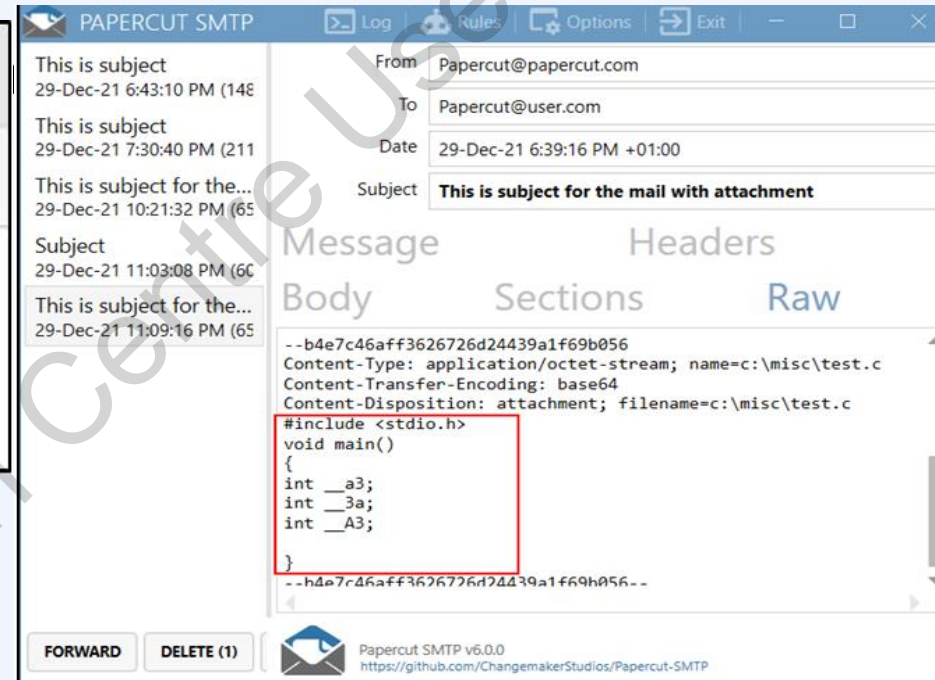To begin a boundary, enter two hyphens and after that enter a unique number.

To generate the unique number, users can utilize the function `md5()`.

To end a boundary, which also marks the conclusion of the email, use two hyphens.

Sending Attachments with an Email [2-2]

Output Image

Papercut Server Output
for Attaching an Attachment

User Authentication

User authentication is a very crucial process in any Web application to ensure that unauthorized persons do not gain access to the application.

In this process, the login data entered by the user is compared and matched with data present in the database of the server.

Using this security mechanism, it is possible to restrict unauthorized users from accessing Web tools or applications.
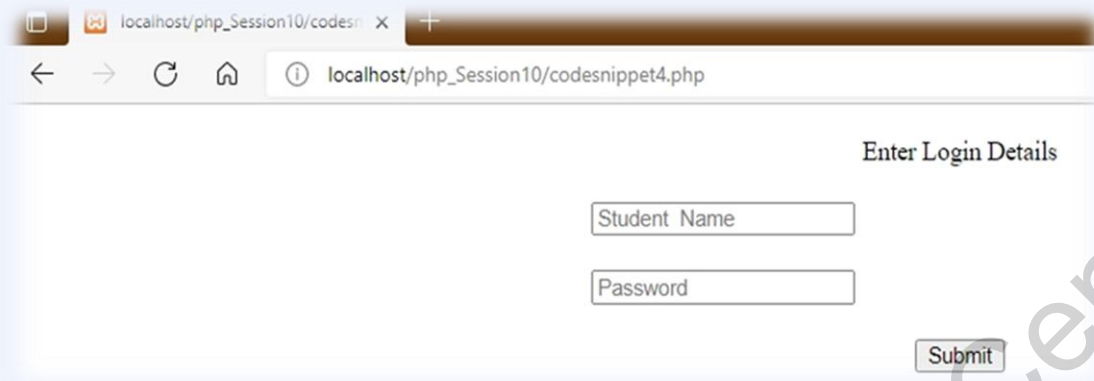
PHP User Authentication with MySQL [1-2]

Create a MySQL database table.

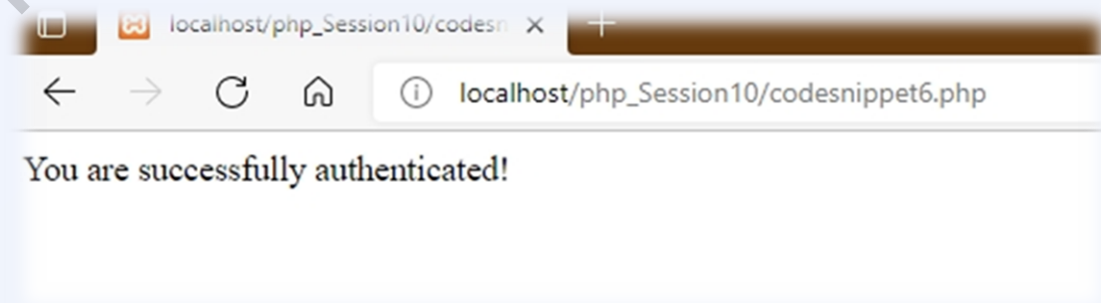Develop a login form for the user to pass the login details to PHP.

Create a query that performs a comparison of the user data with MySQL database.

PHP User Authentication with MySQL [2-2]

Summary

- The SMTP server assists in sending emails to the users. Email application can be set using this server to send an email.

- In order to send an email, a user must ensure that the `php.ini` file includes the corresponding configurations for PHP and the details about how the user's system manages mails.

- To send an email, PHP utilizes the `mail()` function. The three arguments that must be provided to this function are the receiver's email address, the subject of the message, and the descriptive message.

- In PHP, when a user sends a text message, it is interpreted as simple text. Even if the message contains HTML tags, it is treated as text.

- To send an HTML message, the user has to ensure to input the MIME version, content type, and character set.

- When a user prefers to send an email that has attachments, it is essential to set the `Content-type` header to `multipart/mixed`. Then, the user can indicate the text section and attachment section within boundaries.

- User authentication is a process that helps to verify and validate users. Validation is done using certain keys, tokens, or credentials.