**National University of Computer & Emerging Sciences Karachi Campus**



**Project Proposal:**

Email Sender Application with SMTP

**Instructor Name:**

Mr.Abuzar Zafar

**Section:**

BCY-7B

**Group Members:**

21k-3594 Abdul Moueed

K21-3557 Shah Muhammad Querashi

21k-3632 Lachman Das

**Date:** 29-9-2024

**Project Objective:**

The project is designed to create an "Advanced Email Sender" application using PyQt5, that focuses on the secure communication of emails. It authenticate the users with the help of log in, user can compose their emails, user can attach files, and send them securely, with a strong focus on protecting users from malicious activities. Key security features include preventing the sending of malicious code, restricted attachments of attaching script files, and detecting phishing emails along with a scan in attachments for threats.

**Malicious Code Prevention:** Protection against the accidental attachment of harmful content or malicious code in an email.

**Script File Attachment Restriction:** If you want to ban users from attaching risky files (e.g., .exe, .js, .bat) this feature can prevent malicious programs from being sent.

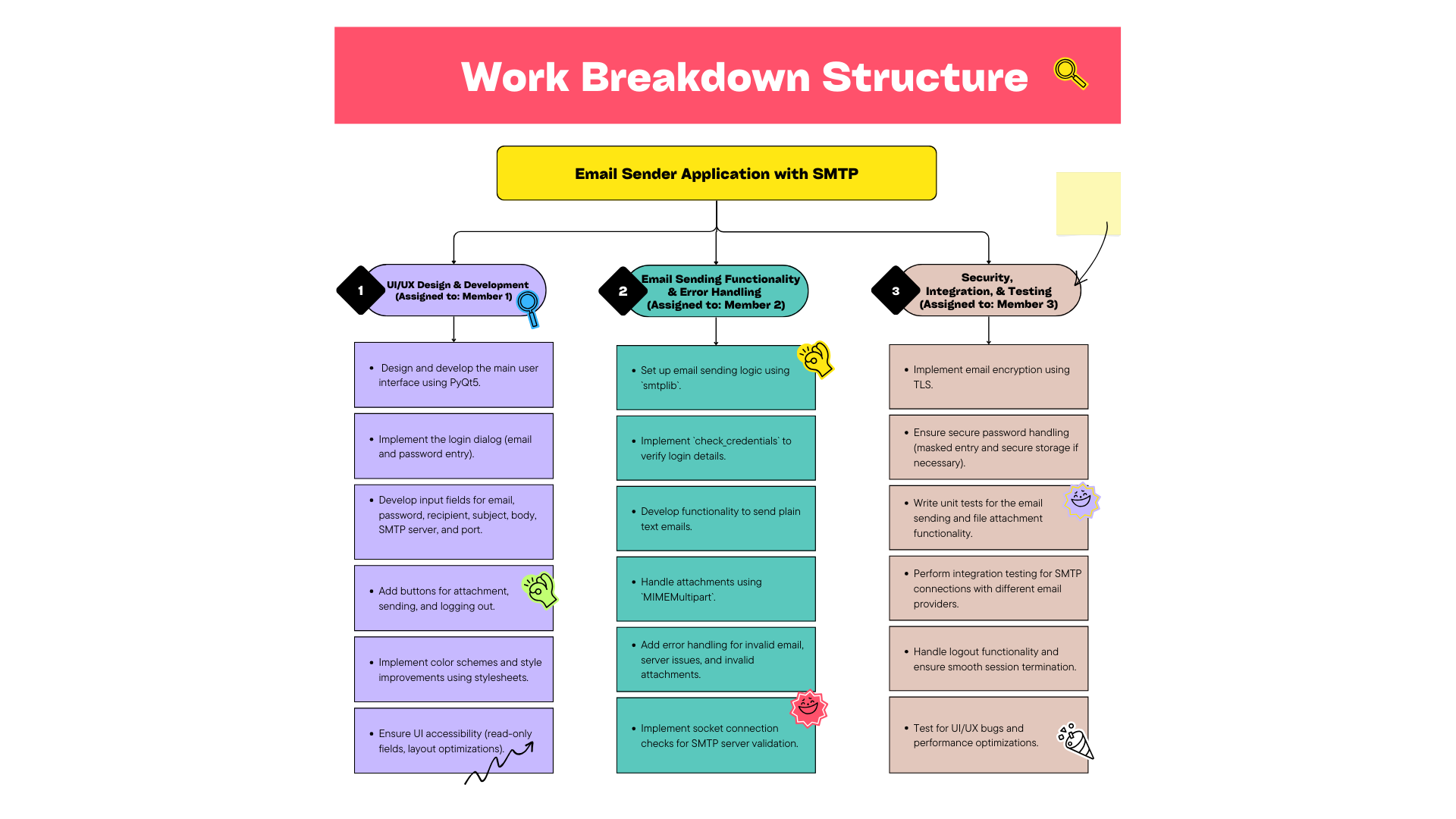
**Phishing Email Detection:** Create a detection tool set, which will also block phishing emails. This can be achieved by marking suspicious links that are of a format or that look spammy.

**Secure File Scanning:** Ensure every file attached to an email is checked for threats before its sending so as not to expose the receiver to dangerous attachments.

**Content filtering:** would block emails that meet common patterns found in phishing attacks, thus your email exchange with others safe.

**Tools & Technologies**

* **Python:** This is the core language in which the script is written
* **PyQt5:** For the GUI
* **smtplib:** Simple Mail Transfer Protocol for sending the email
* **email.mime:** This module is used to create a multipart message email
* **QFileDialog:** These modules are used for attaching files in the GUI.
* **Regular Expressions (re):** It is the regular expression that checks if the email address is formatted correctly or not
* **Socket:** This package is used for checking if the server is connected to the network
* **QMessageBox:** This message is displayed for warnings or alerts in the GUI.

****