

Overview

emailPLUS is an window application which allows its users to connect with any mail server and retrieve e-mails from his/her mail account using *POP3 protocol*.

This application will allow its users to compose and send mail using *SMTP protocol*. Users will be able to configure any mail account with this applications to retrieve emails.

It is developed to provide a graphical user interface to connect to any mail server using a single interface/platform.

This application will provide support to maintain details of the mails sent through.

Only registered users can use this application.

It will be developed using Java technologies.

Objective

The **objective** of the system is to:

1. Provide graphical user interface to connect to any Mail Server such as Gmail, Yahoo.
2. To access more than one mail accounts using a single interface/platform.
3. To provide graphical user interface to compose and send mails to different email ids.
4. Maintain history of all the activities of users of this application.

Business Functions

1. **Login:** To access this application, users would be required to login through a login screen. After authentication user would be able to access the application according to his/her privileges.
2. **Users Maintenance:** That allows adding or updating the details of all users who are accessing this application.
3. **Mail Receiver:** That allows the user to connect to his/her mail account and retrieve emails. All the mail will be retrieved and displayed to user using this business function.
4. **Mail Sender:** That allows the user to compose and send e-mail. Users will be able to send mails through their configured email addresses. All the history of sent mails will be logged using this business function.
5. **Report:** Reports of users of the system, user activities, E-mails Sent by users.

Input Requirements

1. Login details.
2. Users Details and their privileges.
3. Mail server connection details.

Output Requirements

1. Retrieve and view e-mails from mail server.
2. Compose and send mail using email account on mail server.
3. Listing of user activities.
4. Listing of user details.
5. Details of data sent using emailPLUS.

Users

The users of this system will be the users of the organization using this eMailPLUS.

Following are the type of users:

1. Administrator: Administrator will be the super user of the system having all the privileges. Administrator will be responsible to add, update and assign privileges to the other users of the system. Administrator will decide whether a user can view mail or whether the user can send mail or not.
2. Employee: Employee is the member of staff of the organization using this application. Employee will be having limited privileges as assigned by the administrator.

Technologies to be used

1. Java
 - Java is a platform independent, object-oriented, robust, secure and innovative programming language.
 - It consist of Two Parts
 - JVM (Java Virtual Machine), which is software component that is used to execute java programs.
 - Java API (Application Programming Interface) that consist of inbuilt classes that are used in different programs.
2. Database Programming
 - JDBC is Java Database Connectivity that is used for communication between database server and a java application. JDBC is a specification and API that is in programming database applications in java.
3. Windows Programming
 - Swings: Swings in java is a rich set of components for building GUIs and adding interactivity to java applications. Swing includes all the components that you would expect from a modern GUI toolkit that is table controls, list controls, tree controls, buttons and labels. The basic architecture of swing is MVC. And are entirely made in java.
4. Java Mail API
 - The JavaMail API provides a platform-independent and protocol-independent framework to build mail and messaging applications.

Software Requirements

1. JDK 1.6
 - NetBeans 6.5.1
2. Jdbc Driver for MySQL Database Server
 - mysql-connector-java-5.1.7-bin.jar
3. Database Server
 - MySQL Database Server 5
4. Operating system
 - Windows Vista / XP sp3/ Linux Fedora 11

Hardware Requirements

1. Intel P4 processor with minimum 2.0Ghz Speed
2. RAM: Minimum 512MB
3. Hard Disk: Minimum 20GB

Modules

Following modules are to be developed:

1. Login
2. User Maintenance
3. Mail Server Configuration
4. Mail Receiver
5. Mail Composer and Sender
6. Reports
 - a. All Users details
 - b. User Activities – Login and logout time of users.
 - c. Sent email details