The Email Search Program is a Java application that allows users to search for a specific email ID from an array of email IDs. The program utilizes core Java concepts, including methods, collections, and strings. It is designed to run in Eclipse/IntelliJ, using Java as the programming language. The code is version-controlled using Git and stored in a GitHub repository.

Program Workflow

1. The program starts by initializing an array of email IDs. These email IDs represent the email addresses of employees and can be customized as needed.

2. The user is prompted to enter an email ID to search. The program accepts user input using the Scanner class.

3. The program validates the entered email ID using a regular expression (regex). The isValidEmail() method checks if the email ID has a valid format based on the regex pattern ^[A-Za-z0-9+_.-]+@[A-Za-z0-9.-]+$. If the email ID is not valid, an "Invalid email format!" message is displayed.

4. If the email ID is valid, the program proceeds to search for the email ID in the array of email IDs. It iterates over each email ID in the array, comparing it with the entered email ID using the equals() method. If a match is found, the program sets a found flag to true and breaks out of the loop.

5. Finally, the program checks the value of the found flag. If it is true, an "Email ID found!" message is displayed. Otherwise, an "Email ID not found!" message is displayed.

6. The program continues to prompt the user for email IDs to search until the user enters 'q'. If the user inputs 'q', the program terminates.

Usage

- Install Eclipse/IntelliJ or any other preferred Java IDE.

- Create a new Java project and class.

- Copy the provided code into the class file.

- Run the program, and it will start prompting you to enter an email ID to search.

- Enter the desired email ID. The program will display whether the email ID is found in the array or not.

- Continue entering email IDs to search or enter 'q' to quit the program.