-Figure out javaFx or swift for gui

-Mysql database tool

Username and email are separate things

Can we do send a new code? Is that allowed within the UI after they need a code for recovering their pw? I.e. “didn’t receive an email? Send a new code”

Username: minimum 1 character, no max length

For the password, what is the minimum length, and do we need to include characters like “!”?

* 8 characters
* Letters and numbers, no other restrictions
* Special characters okay
* Have at least one number and one letter
* No password recovery codes, just send new PW

For client console: Push a button, update, on demand and it can be all at once

On server side: The admin console pushes update display and the system makes a bunch of database queries, how many users are registered, logged in, who is logged in, how many are disconnected and connected etc.

* Database doesn’t have to be as simple as email
  + Is this user logged in or not
  + Then all you have to do is query the database, give me the users that are logged in and display them

If you wanna warn them that their password is about to be not valid, you can as part of the status you can put a failed login attempts amount if you’d like

Hardware requirements

* can put client on mobile device if want

Server should run forever unless something kills it

Use button to log out, not security questions or cryptography, not worried ab security in this system

3 tries, persistent data, keeping a flag that says this user is logged in

-cant say user is connected

-being connected is different, username doesnt come with connection until it’s logged in

Database:

Make a class called DBaseAccess

* MySQL object, Excel object, that implements those interfaces

Gmail SMTP - are we just using one domain name/accepting one domain name? I.e. gmail.com or callutheran.edu

Login has authentication stage, creat account has a validation stage

Username that’s already been taken, that’s another use case

Proper format, can two people have same email address? Question for customer

If creating own database, then it’s its own system, otherwise it’s an actor

DELIVERABLES-

Introduction

* The system involves a single server connected to a database that can be accessed by multiple clients each with their own threads. When accessed the clients will be encountered with a GUI that gives the option for logging into an existing account or the client can create accounts with a username, password, and email address. A database accessed by the server will store all account information.

System perspectives for the point of view of:

* The customer
  + In the eyes of the customer, this will be a multi client/single server system that allows their users to sign into their email through a 2 step verification process involving the users username and password, and a verification code.
* The user
  + In the eyes of the user, this will be an application that allows them to sign into their email.
* The development team
  + In the eyes of the development team, this system will be a multi-client, single-server system, where each client has their own thread. The server will access a database that stores all client login information (username, email, and password). When the user accesses the server, they are accessing a gui that allows them to either login to an existing account or create an account. The account will be based on the 3 pieces of information provided by the user. We will also implement a second set of verification that requires the user to input a code sent to the valid email that they set up at creation and will lock them out if they fail to log in correctly after 3 attempts. We will also keep track of the online, registered, offline, and locked accounts.
  + Multi-client, single-server application that stores password, email, and username
  + Generate code to stored email address

Note that: Customer may not be the user. The customer specifies the system based on some product they have in mind while the user is the person who will be sitting down in front of the system. The developer is, of course, your team

* Development environment to be used (Provide justification/reasoning behind our choices)
  + What programming language will you use?
    - Java
  + What development environment will you use?
    - Eclipse
  + What GUI library will you use?
    - Swift or JavaFX
  + What email server will you use?
    - Gmail
  + What database management system will you use?
    - MySQL
* List of concerns regarding the specification

The ability to integrate multithreading connections with the swift GUI

How to get the client to properly ask for information based on what buttons are clicked in the GUI and how the server will return the correct information from the database

* List of questions/clarifications regarding specification

Items in the proposal that you do not understand or for which you would like clarification

Can we use any emails or just gmail or outlook or (institution ) cal lutheran provided email ?

Will code authentication be counted in the 3 login attempts?

Can 2 people have the same email address?

Should there be a Password format or requirements ?

Are we writing our own database system ?

* Biography for all team members individually
* Tang Favish has programming experience in Python, Java, Swift, and a little bit of R. The most complex program she has written is a mobile application developed in XCode’s SwiftUI. This endeavor entailed the creation of user interface components and the implementation of mathematical backend logic, all executed within the Swift programming language. The overarching objective of this application was to streamline the process of equitably distributing restaurant bills, accounting for tax and gratuity, making it easier for people to split the bill of large groups after a restaurant.

At its core, the application permits users to manually input detailed dining expenses, along the person who incurred them and their respective prices. Real-time computation, facilitated by Swift's computational capabilities, creates the automatic generation of equitable individual shares, which nixes the need for manual calculations or external tools. Additionally, the application seamlessly integrates with the SwiftUI camera module, enabling users to capture and store receipts within the app's framework.

* Justin Bouse has experience in Java and C++ some in assembly and python as well

The most complex program he has written is a tic tac toe game application. It involved one input being player one and another input being player 2 and checking to see for a winner after each turn. Would display an output on screen based on player 1 or 2 win or draw. With Xs and Os filling in a tic tac toe GUI display board. The application involved a GUI interface using JavaFx and some backend code that was used to implement the game and check for a winner

* Micah Wisniewski

Has ample experience in java, as well as some in python and C++

The most complex program he has written is a simplified version of the DES encryption algorithm. This program receives a String message and encodes it using a combination of bit operations, elements in a feistel algorithm, and a key extraction function.

* Unnati Diya Maharjan
  + Novice when it comes to coding and programming , Unnati has experience with Java and Python . The most complex program written by Unnati was a program that This program involves sorting databases using a variety of input parameters and effectively extracting information based on the provided data.

Process of program