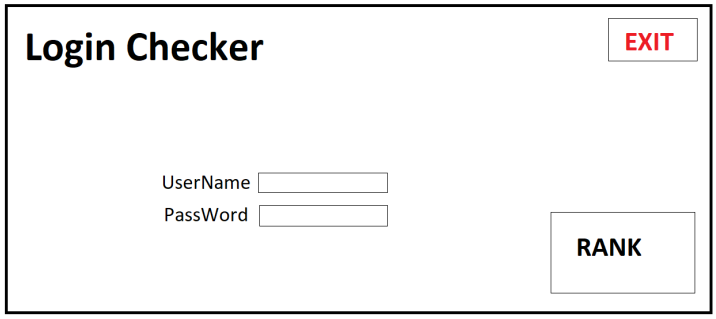
https://ufl.instructure.com/courses/455634/assignments/5205720

- **Team Name: Optimize Primes**
- **Team Members**
  1. **Jesse Allen**
  2. **Charlene Creighton**
  3. **Alec Patterson**

- **Project Title**
  1. **Login Analyzer**
- **Body:**
  1. **Problem**
     - **Is your username unique?**
     - **Is your password weak?**
  2. **Motivation**
     - **Everyone wants to be cool and secure online.**
  3. **Features**
     - **We know that we have solved the problem when a user receives a high score for both their login username and password. Program will take in username and password as input, and return a score for both.**
  4. **Data**
     - **Reddit username database**
       - **https://www.kaggle.com/datasets/colinmorris/reddit-usernames**

     - **Passwords**
       - **https://www.kaggle.com/datasets/bhavikbb/password-strength-classifier-dataset?resource=download**
       - **https://drive.google.com/file/d/1MkaSxs1doA6XdLMCfYamsPmc1THF8sVC/view?usp=sharing**
  5. **Tools**
     - **C++**
     - **GUI: Qt**
     - **GitHub**
  6. **Visuals**



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7. **Strategy**
   - **Red Black Tree**
   - **B+ Tree**
8. **Distribution of Responsibility and Roles**
   - Charlene
     - Presentation
     - GUI
     - Assist with both data structures
   - Alec
     - Presentation
     - Red Black
   - Jesse
     - B+ tree research
     - Data validation
9. **References:**

Balanced Trees Slides (COP 3530 Module 4):
https://ufl.instructure.com/courses/455634/files/68954183?wrap=1