C++ Project: Password Manager - Complete Guide

Password Manager - Full Project Guide

Project Goal
Create a command-line Password Manager using C++, which allows you to:
- Add new passwords
- View saved passwords
- Search passwords
- Save all credentials in a local file

Step 1: Project Setup
Requirements:
- C++ Compiler (g++)
- Git
- Terminal
- GitHub Account

Create Project Folder:
cd ~/Desktop
mkdir PasswordManager
cd PasswordManager

Create Main Code File:
touch main.cpp
open -e main.cpp

Step 2: Write Core C++ Code (main.cpp)
Includes functions:
- addPassword() to save new passwords
- viewPasswords() to read and display all entries
- searchPassword() to search by site name
- main() contains the menu loop

Use standard C++ libraries like iostream, fstream, and string.

Step 3: Compile & Run the Code
Compile:
g++ main.cpp -o passwordmanager

Run:
./passwordmanager

Step 4: Create .gitignore
touch .gitignore
open -e .gitignore
Add: passwords.txt

Step 5: Upload to GitHub
git init
git add .
git commit -m "Initial commit"

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```
git remote add origin https://github.com/yourusername/PasswordManager.git
git branch -M main
git push -u origin main
```

Step 6: Add README.md
```
touch README.md
open -e README.md
Paste README content
git add README.md
git commit -m "Add README"
git push
```

What You Learned
- File I/O in C++
- Menu-driven programs
- String manipulation
- Git + GitHub basics
- Markdown formatting

Future Ideas
- Add encryption to passwords
- Add login system
- Build GUI with Qt