

Password Manager - User Manual

Introduction

In today's digital world, managing dozens of online accounts with unique, strong passwords has become a significant challenge. Our Password Manager application provides a secure, encrypted vault for storing all your passwords in one place. By remembering just one master password, you can safely store and easily retrieve all your credentials while maintaining strong security practices.

Problem

The average person maintains 70-80 online accounts, often resulting in risky practices like:

- Using the same password across multiple sites
- Creating simple, easily-remembered passwords
- Storing passwords in unsecured locations

Our application eliminates these vulnerabilities while maintaining ease of use through encryption, organization, and password generation features.

User Personas

Our Password Manager addresses the needs of diverse users:

Parent User: LeBron James "I need to keep track of my kids' passwords for school accounts and apps while teaching them."

LeBron needs family sharing features with appropriate controls, educational components for teaching password safety, and organization by family member.

Security-Conscious Professional: Marcus Smart "I need to know exactly how my passwords are being stored and encrypted. I won't use anything that might compromise my security."

Marcus requires detailed technical information about encryption methods and transparent security practices.

Business Professional: Sarah Guillot "I need a password manager that's secure but doesn't slow me down. I can't remember all these different passwords anymore."

Sarah values quick access across devices, efficiency without compromising security, and simple interfaces.

Getting Started

Installation & Setup

1. Ensure the latest version of Java is installed
2. Clone/download the repository
3. Navigate to the project's root directory
4. Run: `./gradlew runPasswordManager`

When first run, the application will:

1. Create a storage directory (`.passwordmanager`) in your home folder
2. Generate an encryption key for securing your data
3. Direct you to the registration screen

Creating Your Account

1. Click "Register" on the login screen
2. Enter a username and a strong master password (min. 8 characters)
3. Confirm your password and click "Create Account"

IMPORTANT: Remember your master password! There is no recovery option.

User Interface Guide

Login Screen

- Username and password fields
- Login and Register buttons

Main Password Management Screen

- **Toolbar:** Add/Edit/Delete buttons, Password Generator, Logout
- **Password List:** Displays all stored passwords
- **Search/Filter:** Search bar and category dropdown
- **Details Panel:** Shows information for the selected password

Common Tasks

Adding a Password

1. Click "Add Password"
2. Enter website/app name, username, and password

3. Optionally add URL, notes, and category
4. Click "Save"

Retrieving a Password

1. Find the password entry in the list
2. Click on the entry to view details
3. Click "Show" to reveal or "Copy" to copy to the clipboard

Generating a Secure Password

1. Click "Generate Password" (in toolbar or when adding/editing)
2. The system creates a strong password with mixed characters
3. Use "Copy" or "Save" as needed

Organizing Passwords

1. When adding/editing, select or create a category
2. Use the category filter to view passwords by category
3. Use the search bar to find passwords by website or username

Editing & Deleting Passwords

1. Select a password entry
2. Click "Edit" or "Delete"
3. Make changes and save, or confirm deletion

Logging Out

1. Click "Logout" in the toolbar
2. Changes are automatically saved
3. You return to the login screen

Security Features

- **AES Encryption:** Industry-standard encryption for all sensitive data
- **Master Password:** Single secure key to your password vault

Troubleshooting

Common Issues

Login Problems

- Ensure caps lock is off
- Verify the correct username and password

Application Won't Start

- Verify Java installation
- Check you're in the correct directory

Data Storage Issues

- Check permissions for the `.passwordmanager` directory

Support Resources

- GitHub repository documentation
- Email: bm038@bucknell.edu, ajb040@bucknell.edu, ajk041@bucknell.edu