

Project Report

Random Password Generator using Python and Tkinter

Introduction:

A random password generator is a program that generates a unique and secure password for users. In this project, we have developed a random password generator using Python ,Tkinter module and Pyperclip module. The main objective of this project is to create a secure and easy-to-use password generator that can generate strong passwords for users.

Methodology:

To create this random password generator, we have used Python programming language and the Tkinter module. We have used the following steps to develop this application:

1. **Designing the User Interface:** The first step in creating any GUI application is to design the user interface. We have used the Tkinter module to create the user interface for our password generator application. The user interface consists of a display screen and buttons for generating passwords.
2. **Implementing the Password Generation Algorithm:** After designing the user interface, we have implemented the password generation algorithm using Python programming language. We have used the random module to generate random characters and combined them to form a strong password.
3. **Adding Copy to Clipboard Feature:** To make it easier for users to use the generated password, we have added a copy to clipboard feature using the pyperclip3 module.
4. **Testing:** Finally, we have tested our password generator application to ensure that it works correctly and meets our requirements.

Results:

Our password generator application provides a simple and user-friendly interface for generating strong passwords. It can generate passwords of different lengths and with different combinations of characters, including upper and lower case letters, numbers, and special characters. The application also includes a copy to clipboard feature to make it easier for users to use the generated password.

Conclusion:

In conclusion, we have successfully developed a random password generator using Python programming language and the Tkinter module. The application provides a secure and easy-to-use interface for generating strong passwords. It can be further improved by adding more advanced features such as password strength indicators and password history. Overall, this project has helped us to gain a better understanding of Python programming language and GUI development using the Tkinter module and the Pyperclip module.

