

Task : Random Password Generator

Description: Developed a command-line tool for generating random passwords with customizable length and complexity.

- Allows users to specify password requirements such as including uppercase letters, lowercase letters, digits, and special characters.
- The application ensures that the generated passwords are secure and random, making them resistant to brute-force attacks and guessing.

Usage

- **Generate a Password with Specific Requirements:**
 - **Length:** Specify the length of the password.
 - **Character Types:** Optionally include uppercase letters, lowercase letters, digits, and special characters.

Command-Line Arguments

- **-l or --length:** (Required) Length of the password.
- **-u or --uppercase:** (Optional) Include uppercase letters.
- **-lw or --lowercase:** (Optional) Include lowercase letters.
- **-d or --digits:** (Optional) Include digits.
- **-s or --special:** (Optional) Include special characters.

Sample Output:

1. **Generate a Password of Length 12 with All Character Types:**

```
(base) faheemagullnaas@Faheemas-MacBook-Air ~ % nano password_generator.py

(base) faheemagullnaas@Faheemas-MacBook-Air ~ % python password_generator.py -l
12 -u -lw -d -s
`

Generated Password: EB*GM=5zF7i:
`
```

2. Generate a Password of Length 8 with Only Lowercase Letters and Digits:

```
(base) faheemagullnaas@Faheemas-MacBook-Air ~ % python password_generator.py -l 8 -lw -d
```

```
Generated Password: vnx37s8x
```