



# PASSWORD GENERATOR

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ORGANIZATION: Micro IT  
TOPIC:Password generator.



# INRODUCTION



A Password Generator is a tool designed to automatically create secure, random passwords that are difficult to guess or crack. These passwords typically include a combination of uppercase and lowercase letters, numbers, and special characters, enhancing security.

This project focuses on developing a Password Generator that helps users easily generate strong passwords tailored to their security needs, ensuring better protection of their personal and professional information.

# OBJECTIVES OF THE PROJECT

- ✓ Generate Strong, Random Passwords
- ✓ User-Defined Criteria
- ✓ User-Defined Criteria
- ✓ Cross-Browser Compatibility
- ✓ Modern, Responsive Design
- ✓ Optional  
Features(download,copy,...etc)



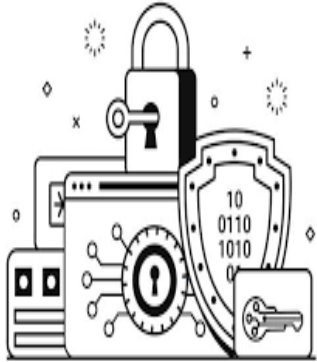
# WHAT IS PASSWORD GENERATOR?



VECTOR

- A password generator is a tool that creates strong, random passwords to help keep your online accounts secure. It allows users to choose the password length and whether to include uppercase letters, lowercase letters, numbers, and special characters. These passwords are difficult to guess or hack, making them much safer than using simple or repeated passwords.

# FEATURES



- ✓ Select password length
- ✓ Include/exclude:
  - ✓ Uppercase letters
  - ✓ Lowercase letters
  - ✓ Numbers
  - ✓ Special characters
- ✓ Copy to clipboard
- ✓ Download password as .txt

# PASSWORD GENERATOR CONSTRUCTION PROCESS



**1.UI Design** – Create input fields, checkboxes, and buttons using HTML & CSS.

**2.User Input** – Collect password length and character type preferences.

**3.Character Pool** – Build a set of characters based on user selections.

**4.Password Logic** – Use JavaScript to generate a random password.

**5.Output** – Display the password with copy and download options.

# TOOLS USED IN PASSWORD GENERATOR

JS

  
Tailwind CSS



- ✓ **HTML** – To create the structure of the webpage
- ✓ **CSS** – To style and design the user interface
- ✓ **JavaScript** – To implement the password generation logic and interactivity
- ✓ **Browser** – To run and view the webpage locally
- ✓ *(Optional)* **VS Code / Code Editor** – To write and edit the project code

# KEY LEARNINGS FROM INTERNSHIP



- ✓ **Web Development Skills**  
Gained hands-on experience with HTML, CSS, and JavaScript.
- ✓ **Project Building**  
Learned how to plan, design, and implement a complete web-based application.
- ✓ **Problem-Solving**  
Improved debugging, logical thinking, and handling real-time errors.
- ✓ **Version Control (Optional)**  
Got introduced to tools like Git for managing project versions.
- ✓ **Teamwork & Communication**  
Understood the importance of clear communication and collaboration in tech projects.
- ✓ **Time Management**  
Learned to prioritize tasks and meet deadlines efficiently.



# CONCLUSION

A password generator is an essential tool for enhancing digital security by creating strong, random, and unique passwords. It helps users avoid weak or reused passwords that are vulnerable to hacking. By automating the creation of complex passwords with a mix of letters, numbers, and symbols, password generators significantly reduce the risk of unauthorized access. Incorporating such tools into personal and organizational security practices promotes safer online behavior and protects sensitive information from cyber threats.



Thanks!

