

## **Password Generator and Validator System**

Team Members:

- 1) Swasthika
- 2) Someshwari
- 3) Sukanya
- 4) Nandhini
- 5) Sahithya
- 6) Vinay





— Passwords are essential for protecting user data.

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Weak passwords can be easily attacked.



This system helps users create secure passwords.

# PROBLEM STATEMENT



Users often choose simple passwords



Weak passwords increase security risks



No proper tool to check password strength



# OBJECTIVES



Generate strong and random passwords



Validate passwords using security rules



Display passper tool to check strewgh clearly



USEFUL FOR STUDENTS & PROFESSIONALS



FOR WEBSITES & APPLICATIONS



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IMPROVES PASSWORD SECURITY AWARENESS

## SCOPE OF THE PROJECT



GLOBAL DIGITAL DEFENSE

## SYSTEM ARCHITECTURE



### USER INTERACTION

User interacts with the system



### USER INTERFACE

User Interface accepts input



### PASSWORD GENERATOR

Generator creates passwords

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### PASSWORD VALIDATOR



### PASSWORD VALIDATOR

Validator checks password strength



## EXTERNAL SYSTEMS



## FUNCTIONAL REQUIREMENTS

## GENERATE PASSWORDS

Using letters, passmbols

/P@\$w0rdS!

ABC

123

#S&amp;

### Using letters, numbers, and symbols

## SELECT PASSWORD LENGTH

Length: 16 Characters

## Allow user to select password length

## VALIDATE PASSWORD STRENGTH

### Validate password strength

STRONG WEAK

WEAK

## Valinate password strength





# NON-FUNCTIONAL REQUIREMENTS



Fast response time



Secure processing



Easy to use interface

# MODULES

## MODULES



User Interface  
Module



Password  
Generator  
Module



Password  
Validator



Strength  
Analyzer

User Interface Module  
Password Generator Module  
Password Generator Module  
Password Validator Module  
Strength Analyzer Module



# TESTING

Tested password generation with different lengths

Tested password validation with various inputs

Errors identified and corrected

Errors identified and corrected



## CONCLUSION

### IMPROVES PASSWORD SECURITY

The system improves password security



### CREATE STRONG PASSWORDS

Helps users create strong passwords easily



### SIMPLE & EFFECTIVE SOLUTION

Simple and effecurity solution

