



# **Jashore University of Science and Technology**

## **Department of Computer Science and Engineering**

Course Code: **CSE 1202**

Course Title: **Data Structures**

**Project Proposal of Group-1**

Submitted by	Submitted to
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# **Project Proposal for Password's Strength Check**

By Group-1

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# Project Proposal



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**Introduction**



**Objective**



**Methodology**

# Introduction



Q1 : What is a password ?

Passwords provide the first line of defense against unauthorized access to computer and personal information

Ref : Google

# Introduction

## Fields where password is used :

- Securing our Bank Accounts
- Securing our Social Media Accounts like Facebook, Twitter, LinkedIn
- Securing our Confidential Data
- Securing our PC, Wi-Fi and others
- Where there is Security there is Password

# Objective

Q2 : What is the objective from this project ?

To make people aware of the importance of sound password and provide with a handy tool that will monitor the quality of the password



# facebook

Next time you log in, click your picture.  
To remove an account from this page,  
click here.

×

Enter a combination of at least six numbers, letters  
and punctuation marks (such as ! and &).

Nazmus Sakib

Add Account

## Sign Up

×

It's quick and easy.

abc

def

123456789



New password

Date of birth ?

2



Jan



2023



Gender ?

Female



Male



Custom



People who use our service may have uploaded your contact information to Facebook. [Learn more.](#)

By clicking Sign Up, you agree to our [Terms](#), [Privacy Policy](#) and [Cookies Policy](#).  
You may receive SMS notifications from us and can opt out at any time.

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Create New Account

ge for a celebrity, brand or business.



**Create an ESET HOME account, add your licenses and download protection or start a free trial.**

[Need help to get started?](#)



## ← Create an account and get started

Email: **51ho3w66@duck.com**

Password (required)

- at least 10 characters long
- 1 lowercase letter
- 1 uppercase letter
- 1 number

Country

Bangladesh ▾

- ☐ I would like to receive special offers, useful support and product information via electronic channels in compliance with the [Privacy Policy](#).

By creating an ESET HOME account, you agree to the [ESET Terms & Conditions](#) and confirm you have been informed about our [Privacy Policy](#).

**Create account and log in**

# Objective

World's top 10 most used password :

1. 123456
2. 123456789
3. 12345
4. qwerty
5. password
6. 12345678
7. 111111
8. 123123
9. 1234567890
10. 1234567

Ref: CS50

# Methodology

Q3 : What is the methodology for determining a strong password ?

# Methodology

1. The source code is in the C++ language
2. Take the password as string
3. Run various tests on the password
4. Run some sanitizers in the password string
5. Give the verdict regarding the password's strength
6. Display proper helpful comments to make the password even more stronger

# Methodology

Q4: What are the tests that we performed in the password string ?

Test 1: Checking the Length of the Password

Test 2: Checking the Upper Case letters in the Password

Test 3: Checking the Lower Case letters in the Password

Test 4: Checking the Special Characters in the Password

Test 5: Checking the existence of Numbers in the Password

# Methodology

Q5: What are the sanitizers that we performed in the password string ?

Sanitizer 1: Checking Common “QWERTY” keyboard combinations in the Password

Sanitizer 2: Checking Contiguous Characters in the Password

# Methodology


Q6: What are the index that will determine a healthy password ?

Length (7) + Upper Case (4) + Lower Case (2) + Special Characters (4) + Numbers (3) = 20

Common “QWERTY” Combination (-8) / Contiguous Characters (-8) = -8

# Methodology

Q7: How the judgment will be given ?

- 
- If the length is below 6 characters : Extremely Weak
  - If the length is between 6 to 8 Characters : Weak
  - If the index value is more than or equal to 15 then : Strong Password
  - If the index value is more than or equal to 10 : Fair Password
  - If the index value is more than or equal to 7 : Weak Password
  - Else the password will be treated as Extremely Weak Password

Priority



# Methodology

Q8: The criteria for the comments to be shown ?

- If the length of the password is small.
- If the ASCII Code of the characters entered are contiguous.
- If the Password is in the Wordlist file of Kali Linux.
- If the characters are common “QWERTY” combination.
- If user entered special symbol more than three or equal to three to remind to remember it carefully.
- If the user entered space as a password : to remind him about the fact.
- If insufficient number of Upper or Lower case letters are entered.
- If insufficient number of Alphanumeric characters are used.
- To congratulate if a strong password is entered.

# Methodology

Q9: What are the challenges that we faced during this project ?

- Giving a proper index number in total
- Counting maximum contiguous characters in the password

# Methodology

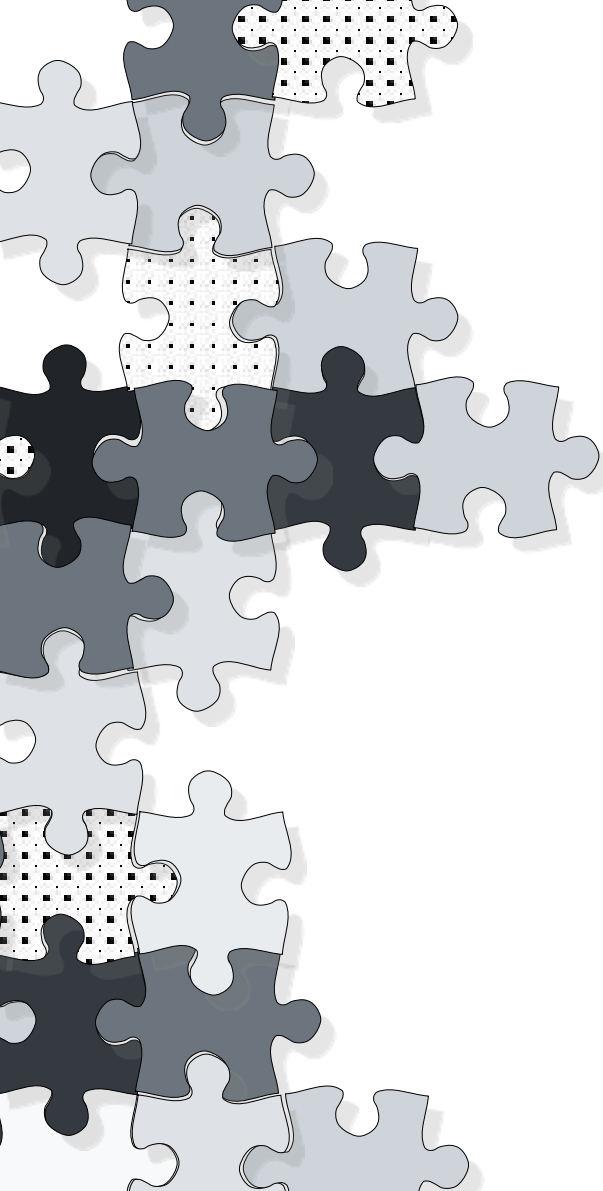
Q10: What are the shortcomings of this project till recent development?

- The common passwords that we took are limited.

# Methodology

Q11: How to resolve the current shortcomings ?

- By using an advance file for storing common passwords.



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**Thank you**  
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