American International University – Bangladesh (AIUB)
Faculty of Engineering
Department of CSE, EEE, and CoE

EEE3102 Digital Logic and Circuits LAB
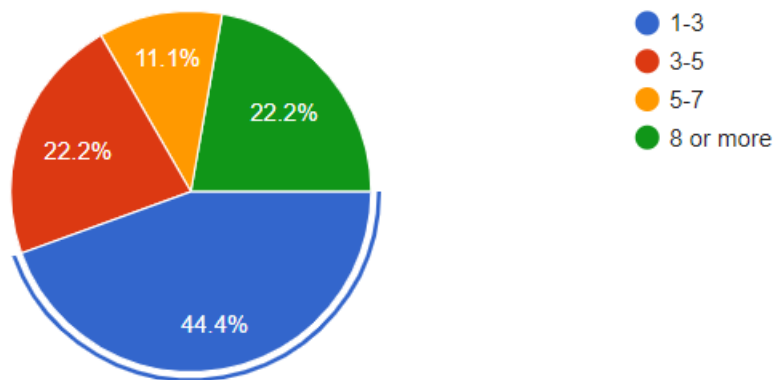# PROJECT PROPOSAL FORM

SEMESTER: Fall 2023-2024
PROJECT TITLE: PASSWORD SECURITY SYSTEM

Survey to develop a process for complex engineering problems with a wide range of conflicting requirements (use pie chart):
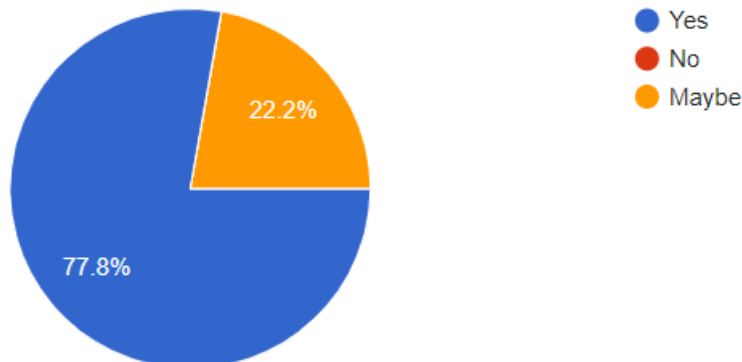
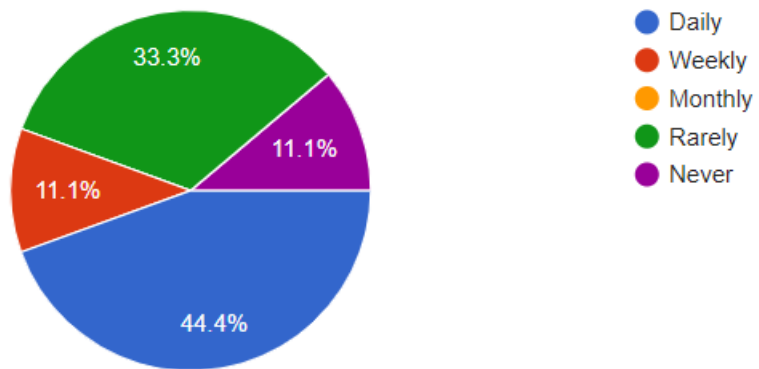How many online accounts do you have?

9 responses

- 1-3
- 3-5
- 5-7
- 8 or more

Do you use a different password for each account?

9 responses

- Yes
- No
- Maybe

How often do you use a password-protected system or device?
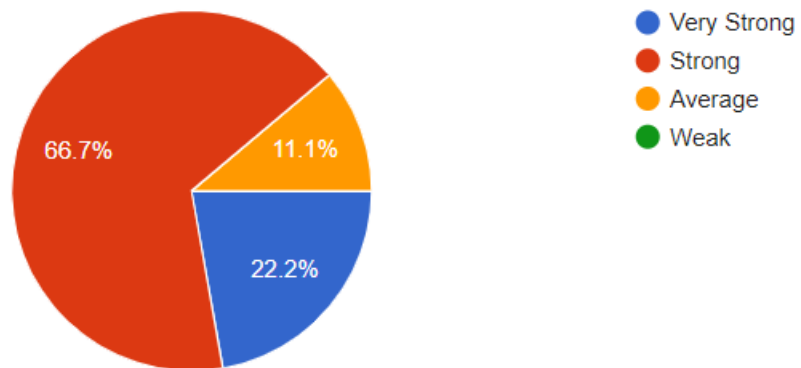
9 responses

- Daily — 44.4%
- Weekly — 11.1%
- Monthly
- Rarely — 33.3%
- Never — 11.1%

How strong do you consider your password creation practices?

9 responses

- Very Strong — 22.2%
- Strong — 66.7%
- Average — 11.1%
- Weak

How frequent you change your passwords?

9 responses

- Daily
- Weekly
- Rarely
- Never

11.1%
11.1%
77.8%
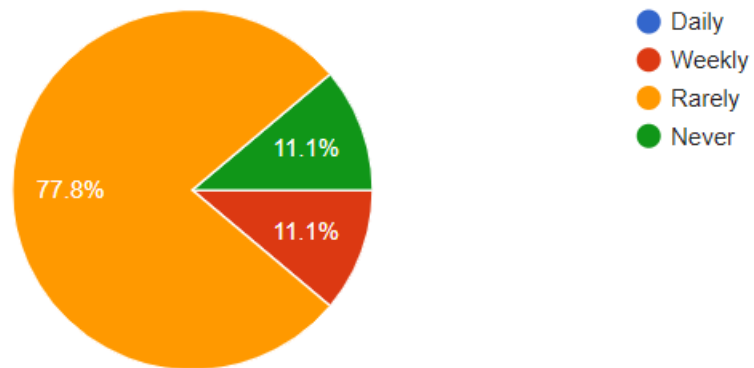
How do you usually manage your passwords?

9 responses

- Write them down
- Use a password manager
- Memorize them
- Other

55.6%
11.1%
22.2%
11.1%
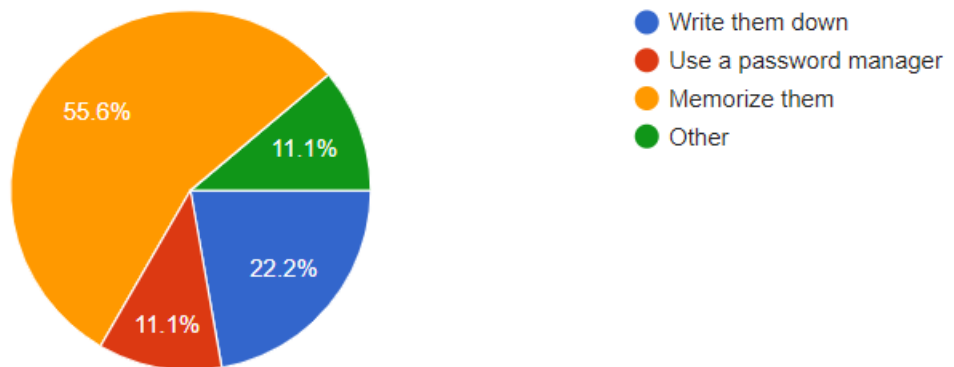
Do you agree that a secure password is important in maintain our privacy throughout internet?

9 responses

- Strongly agree
- Agree
- Neutral
- Not agree

44.4%
11.1%
44.4%
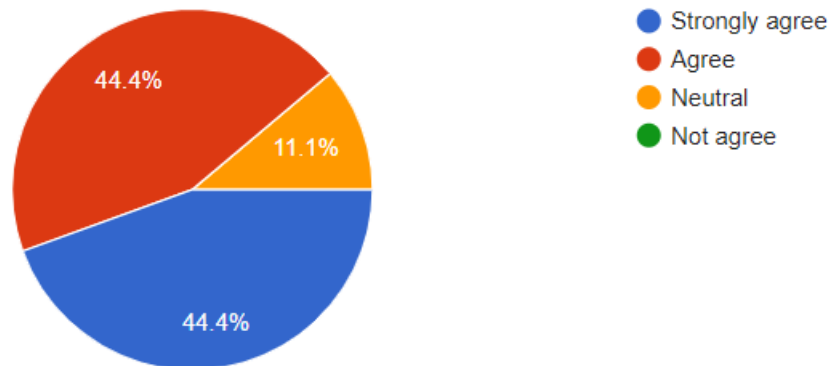
Are you aware of or have you used password security systems before?

9 responses

- Yes
- No

33.3%
66.7%
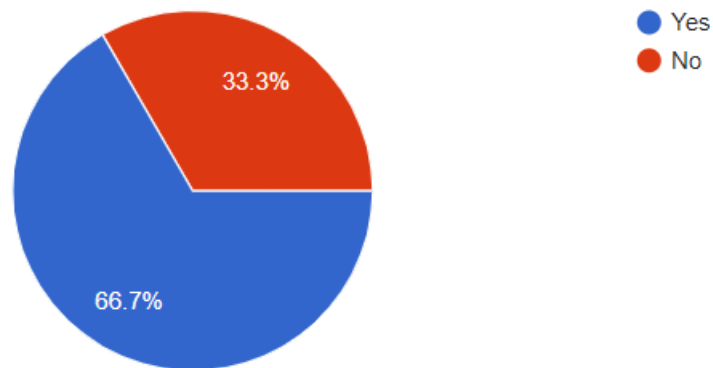
AIMS AND OBJECTIVES OF THE PROJECT:

To develop and implement a Password Security System that safeguards user accounts and sensitive information from unauthorized access and data breaches.

LITERATURE REVIEW:

The proposed project, titled "Password Security System," aims to design and implement a digital logic system to enhance access control and security in various applications, such as homes, offices, and personal devices. Password-based authentication is a fundamental aspect of modern security systems, and this project seeks to develop an efficient and reliable solution. The system will consist of an input interface for users to enter a password, which will be compared to a pre-stored, secure password. When the entered password matches the stored one, a green LED indicator will illuminate to grant access; otherwise, a red LED will signify denied access. This project will leverage digital logic gates, memory elements to create a cost-effective and low-power security system. By conducting a comprehensive literature review, this proposal identifies the existing literature on digital logic-based access control systems, password security, and LED indicator designs. It will critically assess the strengths and limitations of prior works to inform the design and implementation of an innovative and reliable Password Security System, contributing to the field of digital logic and security technology.

EXPERIMENTAL BLOCK DIAGRAM:

PASSWORD SECURITY SYSTEM
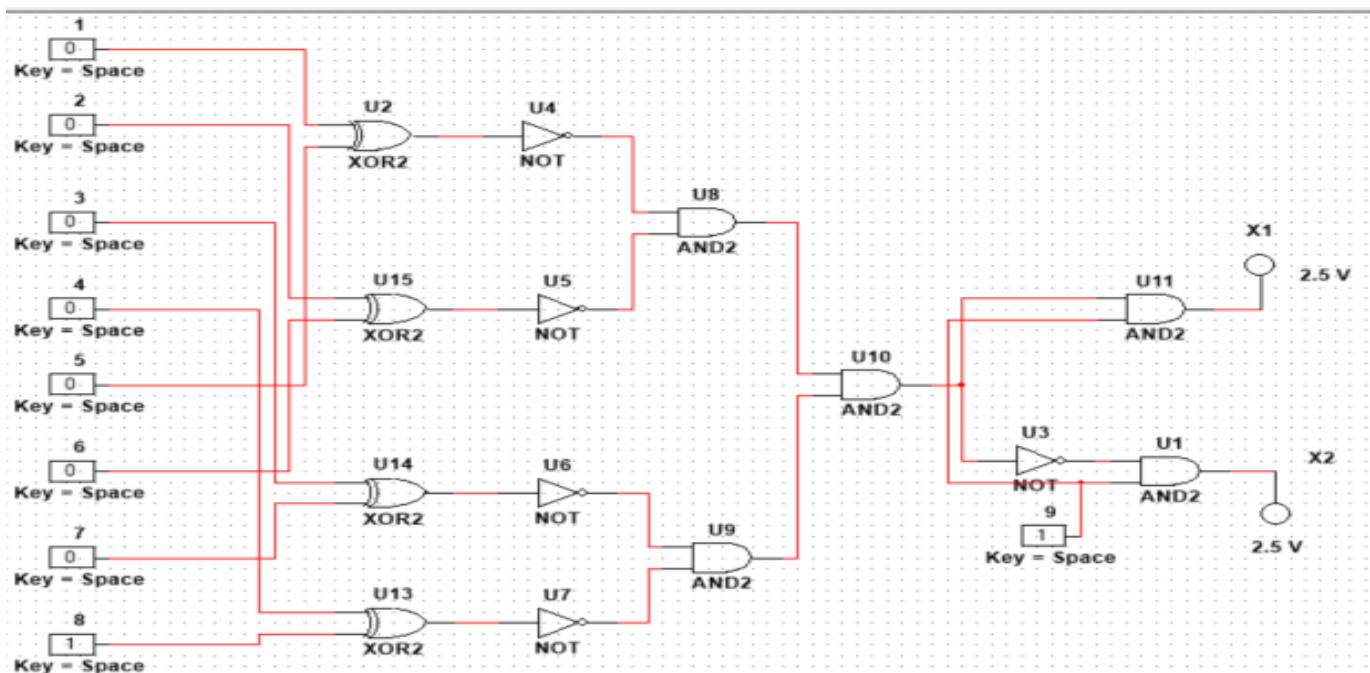
PROJECT TIMELINE (GANTT CHART):
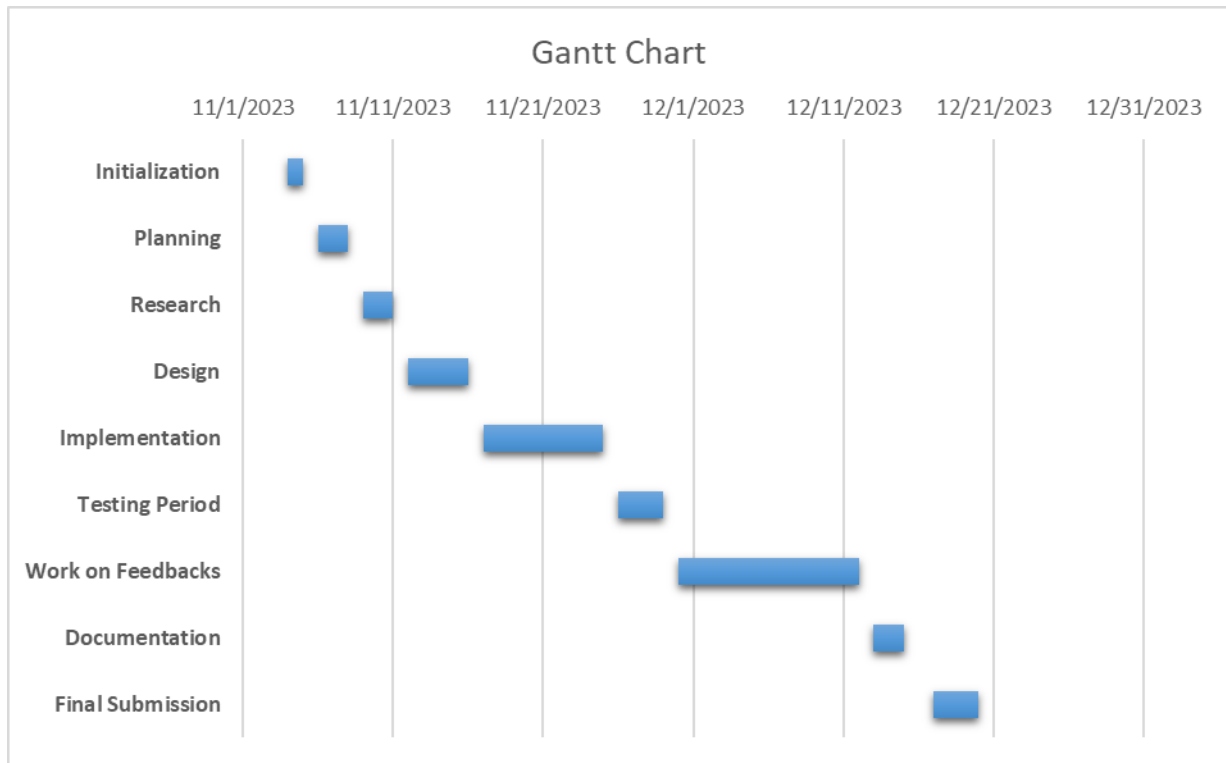
REFERENCES:

[1] **A Study of Password Security Factors among Bangladeshi Government Websites**(December 2020**) Adil Ahmed Chowdhury** Leading University, **Md. Sadek Ferdous** BRAC University. [Accessed: 07-09-2020]. [Online]. Available:
https://www.researchgate.net/publication/346614538_A_Study_of_Password_Security_Factors_among_Bangladeshi_Government_Websites
[2] L. Arezina. (2019, 19 November) Password statistics for 2020.[Accessed: 07-09-2020]. [Online]. Available: https://dataprot.net/statistics/password-statistics/
[2] D. V. Klein, "Foiling the cracker: A survey of, and improvementsto, password security," in Proceedings of the 2nd USENIX SecurityWorkshop, 1990, pp. 5–14.
[3] M. Raza, M. Iqbal, M. Sharif, and W. Haider, "A survey of passwordattacks and comparative analysis on methods for secure authentication,"World Applied Sciences Journal, vol. 19, no. 4, pp. 439–444, 2012.
[4] P. Hoonakker, N. Bornoe, and P. Carayon, "Password authenticationfrom a human factors perspective: Results of a survey among end-users,"in Proceedings of the Human Factors and Ergonomics Society AnnualMeeting, vol. 53, no. 6. SAGE Publications Sage CA: Los Angeles,CA, 2009, pp. 459–463.

FACULTY USE ONLY

COMMENTS BY THE COURSE TEACHER:

COURSE TEACHER'S NAME   COURSE TEACHER'S SIGNATURE   DATE

GROUP MEMBERS:

(Maximum 6 students are permitted to carry out a single Project. However, depending on the capability of the students, 4 students may be allowed but not less than that)

NAME: LIDA KHAN MUKTI **ID:** 22-47000-1 **PROGRAM:** CSE **EMAIL:** lidakhan1971@gmail.com	**NAME:** MD. JAHID HASAN **ID:** 22-47010-1 **PROGRAM:** CSE **EMAIL:** jahid.hasan1217@gmail.com
NAME: FARJANA YESMIN OPI **ID:** 22-47018-1 **PROGRAM:** CSE **EMAIL:** farjanaopi11@gmail.com	**NAME:** MD. ABU TOWSIF **ID:** 22-47019-1 **PROGRAM:** CSE **EMAIL:** towsif1528@gmail.com
NAME: NAZIM-E-ALAM **ID:** 22-47047-1 **PROGRAM:** EEE/COE/CSE **EMAIL:** nazimriyadh001@gmail.com	**NAME**: ………………………………………………… **ID**……………………………… **PROGRAM:** EEE/COE/CSE **EMAIL:**
REMARKS (for OFFICE use only)	

Course Outcome Mapping with the Course Project Proposal:

COs/CLOs	Details	K	P	A	Assessed Program Outcome Indicator	BNQF Indicator	Assessment Techniques
CO1	Apply proper information and concepts of different logic gates, digital ICs, transistors, and timers to implement logical circuits considering a wide range of conflicting requirements.	K3	P1, P2, P6		P.a.3.C3	FS.1	Course Project Proposal Form

Course Name:	Digital Logic and Circuits Lab	**Course Code:**	EEE 3102
Semester:	Spring 2022-2023	**Section:**	L
Faculty Member:	NUZAT NUARY ALAM		

Course Project Title:	PASSWORD SECURITY SYSTEM
Project Group No.	07

SL	Student ID #	Student Name	Obtained Marks
1.	22-47000-1	LIDA KHAN MUKTI	
2.	22-47010-1	MD. JAHID HASAN	
3.	22-47018-1	FARJANA YESMIN OPI	
4.	22-47019-1	MD. ABU TOWSIF	
5.	22-47047-1	NAZIM-E-ALAM	
6.			

Assessment Materials and Marks Allocation:

COs	Assessment Materials	POIs	Marks
CO1	Course Project Proposal form	**P.a.3.C3**	20

Assessment Rubrics

COs-POIs	Excellent [17-20]	Proficient [13-16]	Good [9-12]	Acceptable [5-8]	Unacceptable [1-4]	No Response [0]	Secured Marks
CO1 P.a.3.C3	The survey developed as a process for complex engineering problems considering a wide range of conflicting requirements and implementation process is clear and challenging for future project implementation.	The survey developed as a process for complex engineering problems considering a wide range of conflicting requirements but the conflicting requirements are less in number and implementation process is clear and challenging for future project implementation.	The survey developed as a process for complex engineering problems considering a wide range of conflicting requirements but the conflicting requirements are less in number and implementation process is not so clear but seems challenging for future project implementation.	The survey developed as a process for complex engineering problems considering a wide range of conflicting requirements but the conflicting requirements are fewer in number and implementation process is not so clear and seems less challenging for future project implementation.	The survey developed as a process for complex engineering problems considering a wide range of conflicting requirements but the conflicting requirements are very few in number and implementation process is not clear at all and seems impractical for future project implementation.	No Response	
Comments						**Total marks (20)**	