INFORMATION PRACTICES PROJECT SYNOPSIS

Title of the Project: Password Manager

Name of the Candidates: Abhishek Sharma and Daksh Kanotra

Name of Teacher: Kiranjit Kaur

School Name: Jodhamal Public School

Session: 2021-22

ACKNOWLEDGMENT

I would like to express my sincere gratitude to my computer teacher for her vital support, guidance and encouragement without which this project would not come forth from my side. Who helped me completing the project by giving ideas, thoughts and made this project easy and accurate.

I wish to thank my parents for their undivided support and interest who inspired me and encouraged me to go my own way, without which I would be unable to complete my project.

CERTIFICATE

This is to certify that Hotel Management Informatics Practices project is developed by Abhishek Sharma and Daksh Kanotra under my supervision combined in the session 2019-2020. The work done by them is original.

Informatics Practices Teacher

Date: _____

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Project Logbook

PROJECT NAME: _____

SCHOOL NAME: _____

YEAR/CLASS: _____

TEACHER NAME: Kiranjit Kaur

TEAM MEMBER NAMES:

1. Daksh Kanotra
2. Abhishekh Sharma

1. *Introduction:*

Too many people are lazy when it comes to password management — this should be no surprise to most of us. Since the dawn of digital authentication, users have been known to recycle passwords across accounts without a second thought. As more accounts requiring passwords have come about, and as password requirements became more stringent, it was too difficult to remember them all. So, we stuck with what we knew and changed them only when required.

This system of password management may have sufficed two decades ago, but today, passwords are a major commodity on the Dark Web. Passwords are stolen in data breaches and sold; combined with your username or email, stolen passwords can give cybercriminals the key to massive stores of both corporate and personal data. And breaches conducted with legitimate credentials are difficult to detect — so it's no wonder password theft is so popular.

So here is a solution you can store your data in password manager secure your passwords by creating them as global password and with this global password you can be surely secure that no can see your email ids and password. So, the use of **Password Manger** is very necessary in today's fast-growing world

A password manager is a computer program that allows users to store, generate, and manage their passwords for local applications and online services. A password manager assists in generating and retrieving complex passwords, storing such passwords in an encrypted database or calculating them on demand.

This Project aim at developing software that can be used for securing their email ids and passwords. This project is useful because we generally, forget our either email ids or passwords and if we note down on a diary or any other paper anyone can watch it and misuse our email ids.

It is simple and convenient for security. We have studied the existing system in detail and came up with idea and program which almost overcomes the limitations of the already existing password system.

2. *Team Role and Project Plan*

2.1 *Team Roles*

Role	Role description	Team Member Name
BACKEND MANAGER	This person is responsible for managing the method on the how the program will be designed and will make some basic components of program such as csv, theory, synopsis etc. Also, he is responsible for finalizing the project	ABHISHEK SHARMA
FRONTEND MANAGER	This person plays the most crucial role in the development of the project. He is responsible for writing the rest of code and making sure that the output is accurate and the is no problem with the program. Also, he keeps a check on backend programs	DAKSH KANOTRA

2.2 Project plan

Phase	Task	Actual start date	Actual end date	Who is responsible
Preparing for the project	Coursework, readings	**01/06/2021**	**05/06/2121**	**Abhishek Sharma**
	Set up a team folder on a shared drive	**10/06/2021**	**19/06/2021**	**Daksh Kanotra**
Defining the problem	Background reading	**20/06/2021**	**22/06/2021**	**Abhishek Sharma**
	Team meeting to discuss issues and select an issue for the project	**30/06/2021**	**07/07/2021**	**Daksh Kanotra** **Abhishek Sharma**
Brainstorming	Team meeting to generate ideas for a solution	**10/07/2021**	**15/07/2021**	**Abhishek Sharma** **Daksh Kanotra**
Designing your solution	Team meeting to design the solution	**20/07/2021**	**29/07/2021**	**Daksh Kanotra**
Collecting and preparing data	Team meeting to discuss data requirements	**30/07/2021**	**06/08/2021**	**Daksh Kanotra**
Collecting and preparing data **Prototyping**	Data collection	**10/08/2021**	**15/08/2021**	**Daksh Kanotra**
	Data preparation and labeling	**20/08/2021**	**29/08/2021**	**Abhishek Sharma**
Prototyping **Testing**	Create your application and perform the desired operations	**30/08/2021**	**10/09/2021**	**Abhishek Sharma**
	Write a program to initiate actions based on the result of your model	**11/09/2021**	**20/09/2021**	**Daksh Kanotra**

2.3 Communications plan

The Project is done only with the help of virtual meeting software called ZOOM

We usually met 9-10 days after giving tasks to each other

The teamwork was ensured by the honesty and dedication of those working in it

2.4 Team meeting minutes:

a.)

Date of meeting: 10/06/2021
Who attended: All members
Who wasn't able to attend: none

Purpose of meeting: To initialize the project.

Items discussed:
1. How to start the project
2. Who will do which work
3. Discussing new ideas to add in the project

Things to do (what, by whom, by when)
1. Daksh Kanotra would start with the coding process
2. Abhishek Sharma would initialize the csv and would transfer it to a cloud such as Google drive

b.)

Date of meeting: 10/07/2021
Who attended: All members
Who wasn't able to attend: n.a.

Purpose of meeting: To check the success of project and to ensure work is done by everyone

Items discussed:
1. How well the project is going
2. Everyone shared their work to ensure work is being equally done
3. Discussing new ideas to add in the project

Things to do (what, by whom, by when)
1. Daksh Kanotra would add some important features in the project
2. Abhishek Sharma would write the code for graph part.

c.)

Date of meeting: 10/09/2021
Who attended: All members
Who wasn't able to attend: n.a.

Purpose of meeting: To check the success of project and to ensure work will be done completely on deadline

Items discussed:
1. How to finish the project
2. Who will test the working of prototype
3. Any idea left to be added in the project

Things to do (what, by whom, by when)
1. Daksh Kanotra would start with prototype testing
2. Abhishek Sharma would finalize the code and would prepare the summery of everything done.

3. *Problem Definition*

3.1 List important local issues faced by your school or community?

The issues faced by us were:

1. We had issues in importing the csv file to our program.
2. We weren't able to put those values in a data frame.
3. We had some random syntax errors.
4. We initially faced some issues in collaboration.

3.2 Which issues matter to you and why?

The issue which mattered the most to us was our inability to import csv files, so after a lot of brainstorming, I made a script that would create a file before use, if the file already exists, it would just open it for the program for use.

3.3 Which issue will you focus on?

We would focus on making as good passwords as possible, we improved our algorithm for password generation extensively.

4. Brainstorming

4.1) Ideas

How might you use the power of Data Science using PANDAS and MATPLOTLIB to solve the users' problem by increasing their knowledge or improving their skills?

Idea #1	Make a menu and set up a system for making csv files, python's inbuilt file management system and os module is really helpful here.
Idea #2	Create a password management function, convert it into classes to aid in readability of the code.
Idea #3	Add a functionality to view passwords made earlier in the program itself.
Idea #4	Use the knowledge from Pandas to ease working with CSV files
Idea #5	Make the code more readable by adding a lot of comments in it.

4.2) Briefly summarize the idea for your solution in a few sentences and be sure to identify the tool that you will use.

The idea of the project is to use the random function to generate passwords and append them to a csv file to use them later.

This can be accomplished by using pandas and inbuilt python libraries.

5. *Data*

5.1) What data will you need for your project?

All we need is an input from the user i.e., the length of the password.

5.2) Where or how will you source your data?

Data needed	Where will the data come from?	Who owns the data?	Do you have permission to use the data?	Ethical considerations
Have	Nothing	Nobody	Yes	None
Want/Need	The length of password	The user	Yes	None
Nice to have	The password generator function	Me	Yes	None

6. Prototype

6.1) Which tool(s) will you use to build your prototype?

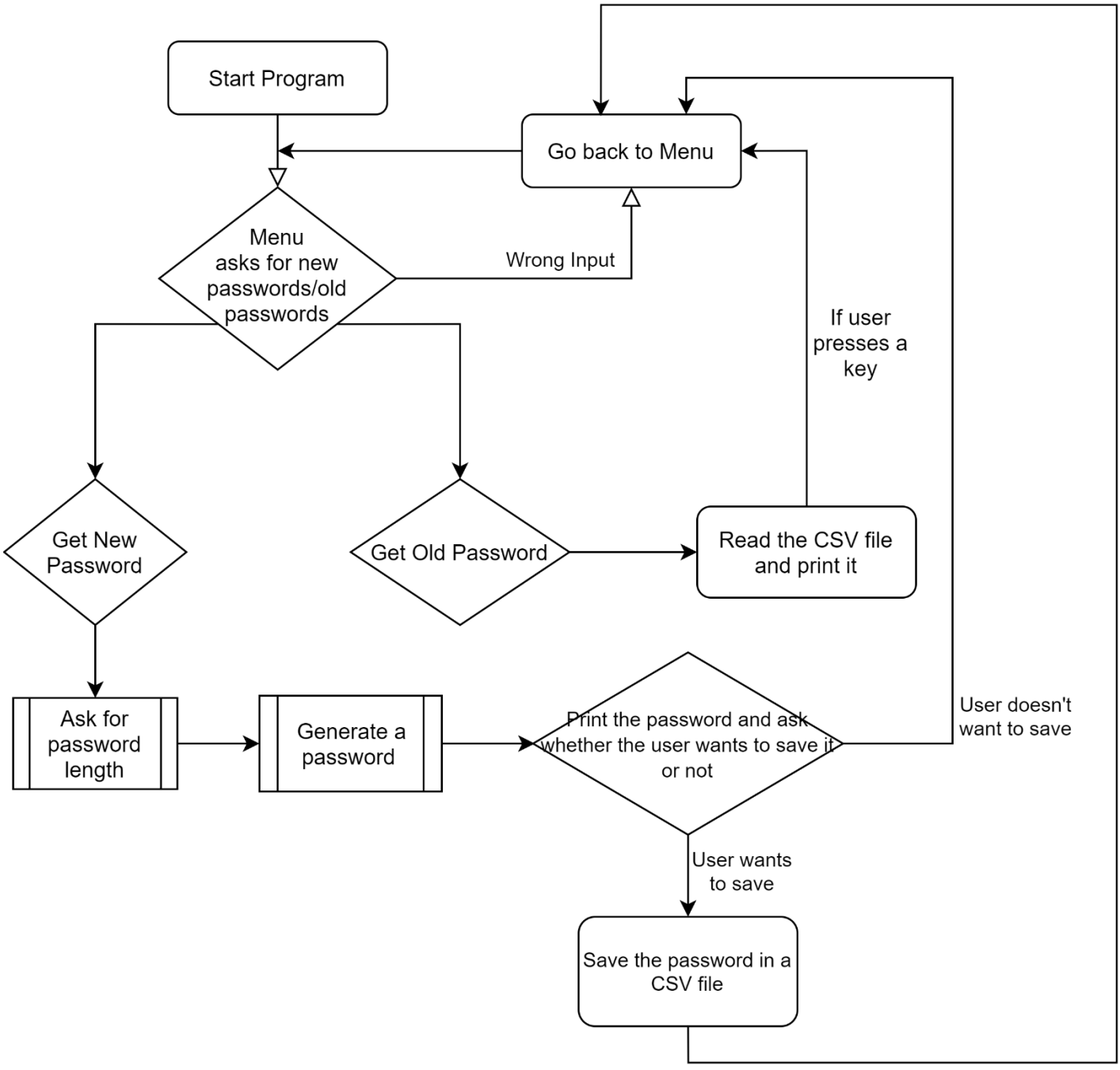
PyCharm IDE, Python, Pandas, OS, random, time, array libraries respectively.

6.2) What decisions or outputs will your tool generate and what further action needs to be taken after a decision is made?

This program would first of all ask the user whether they need to check their old passwords or if they want to make a new password.

- If the user chooses to view old passwords, nothing else needs to be done, passwords would be displayed
- If the user chooses to get a new password, the user is required to enter the password's length and whether the user wants to save it or not.

7. *Methodology/Flow Diagram of the proposed work*



8. *Hardware and Software Needed*

- Pentium 3/4/Core 2 Duo/Dual core/Pentium/i3/i5/i7, 256 MB RAM
- 2 MB free space on Hard Disk Color Monitor/LCD

- Windows/Linux/MacOS
- Python with related libraries used of Data Analysis
  - Pandas
  - Matplotlib
  - MySQL
  - NumPy

9. *References*

a. www.google.com/Python project
b. www.wikipedia.com/Python and Pandas projects
c. Class Notes.