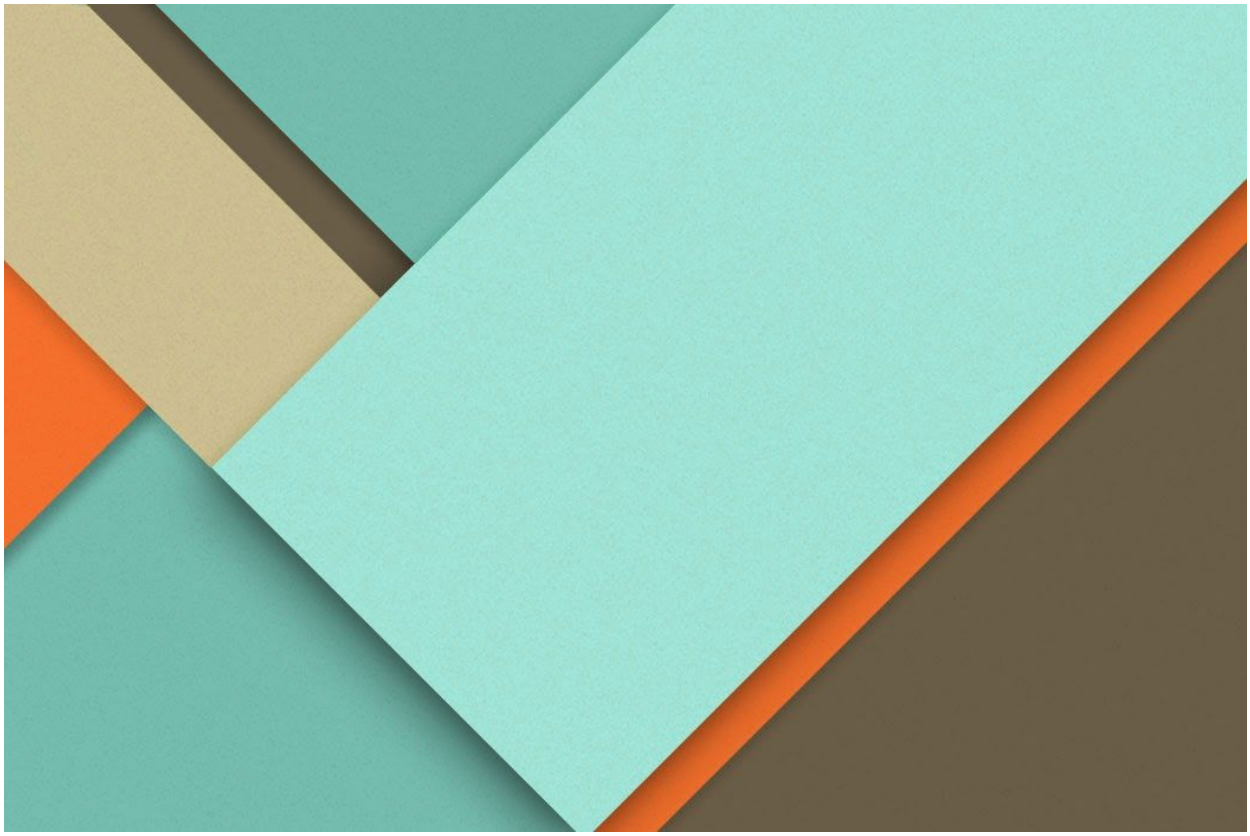

PYTHON PROJECT

2020 - 2021

NAME :: ADITYA VIKRAM SINHA
REG NO :: 11916214
ROLL :: 64
SECTION : K19PG

PASSWORD GENERATOR

END TERM REPORT

by

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Section - K19PG

Roll -64

Department of Intelligent Systems,

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NOVEMBER 2020

STUDENT DECLARATION

This is to declare that this report has been written by me. No part of the report is copied from other sources. All information included from other sources have been duly acknowledged. I aver that if any part of the report is found to be copied, I will take full responsibility for it.

DATE::27-10-2020 **Name: ADITYA VIKRAM SINHA**

PLACE:: PHAGWARA **Roll Number: 64**

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BONAFIDE CERTIFICATE

Certified that this project report "PASSWORD GENERATOR " is the bonafide work of "ADITYA VIKRAM SINHA" who carried out the project work under my supervision.

<<Signature of the Supervisor>>(Due to Covid 19, signature is exempted)

DR DHANPRATAP SINGH

Department of Intelligent Systems

School of Computer Science Engineering,

Lovely Professional University

AIM

The aim of the project is to create a password generator using python using its gui package called tkinter and its inbuilt packages of desired length defined by user .

ABOUT THE PROJECT

This project is about password generator which is created using python,this project is done by me alone as per the instructions and guidelines provided by my INT 213 teacher - Dr Dhanpratap Singh.All the parts of code are explained using comments in program also ,all the external sources which helped me are considered in the acknowledgement section.

LINK OF ORIGINAL PROJECT

https://github.com/ADITYA108VS/python

CONCEPTS USED

PYTHON

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms, and can be freely distributed.

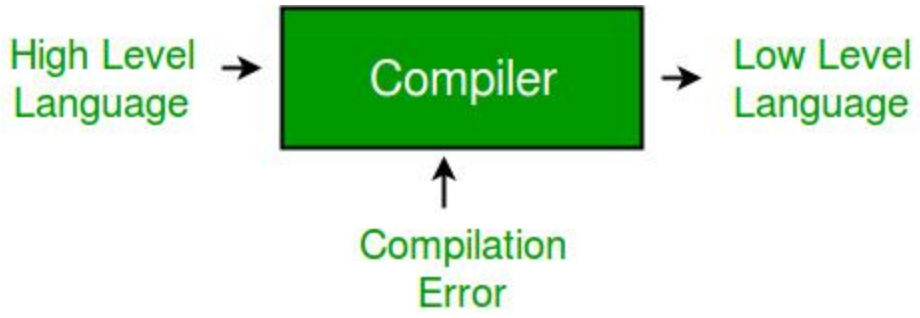
GUI (GRAPHICAL USER INTERFACE)

Stands for "Graphical User Interface" and is pronounced "gooey." It is a user interface that includes graphical elements, such as windows, icons and buttons. The term was created in the 1970s to distinguish graphical interfaces from text-based ones, such as command line interfaces. However, today nearly all digital interfaces are GUIs.In short words it refers to the visual interface by which a user operates a system.

TKINTER

The tkinter package (“Tk interface”) is the standard Python interface to the Tk GUI toolkit. Both Tk and tkinter are available on most Unix platforms, as well as on Windows systems. (Though Tk itself is not part of Python; it is maintained at ActiveState.)

COMPILER



A compiler is a special program that processes statements written in a particular programming language and turns them into machine language or "code" that a computer's processor uses.Typically, a programmer writes language statements in a language such as PYTHON or C/C++/C# one line at a time using an editor.

LIST

The list is a most versatile datatype available in Python which can be written as a list of comma-separated values (items) between square brackets. Important thing about a list is that items in a list need not be of the same type.

STRING

A string is a collection of characters .

PAPERCLIP

Paperclip is an inbuilt module of tkinter which is used to copy items to clipboard.

EXPLANATION AND WORKING

1) IMPORTING THE LIBRARIES

(PURPLE = CODE PART

DEEP BLUE =COMMENT

```
# importing the tkinter module
from tkinter import *
# importing the pyperclip module to use it to copy our generated
# password to clipboard
```

```
import pyperclip
# random module will be used in generating the random password later.
import random
```

2) ROOT WINDOW CREATING

```
# initializing the tkinter
root = Tk()

# setting the width and height of the gui
root.geometry("900x400")
```

3) FUNCTIONAL PART

```
# declaring a variable of string type and this variable will be
# used to store the password generated
passstr = StringVar()
# declaring a variable of integer type which will be used to
# store the length of the password entered by the user
passlen = IntVar()
# setting the length of the password to zero initially
passlen.set(0)
# function to generate the password
def generate():
    # storing the keys in a list which will be used to generate
    # the password
    pass1 = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j',
          'k', 'l', 'm', 'n', 'o', 'p', 'q', 'r', 's', 't',
```

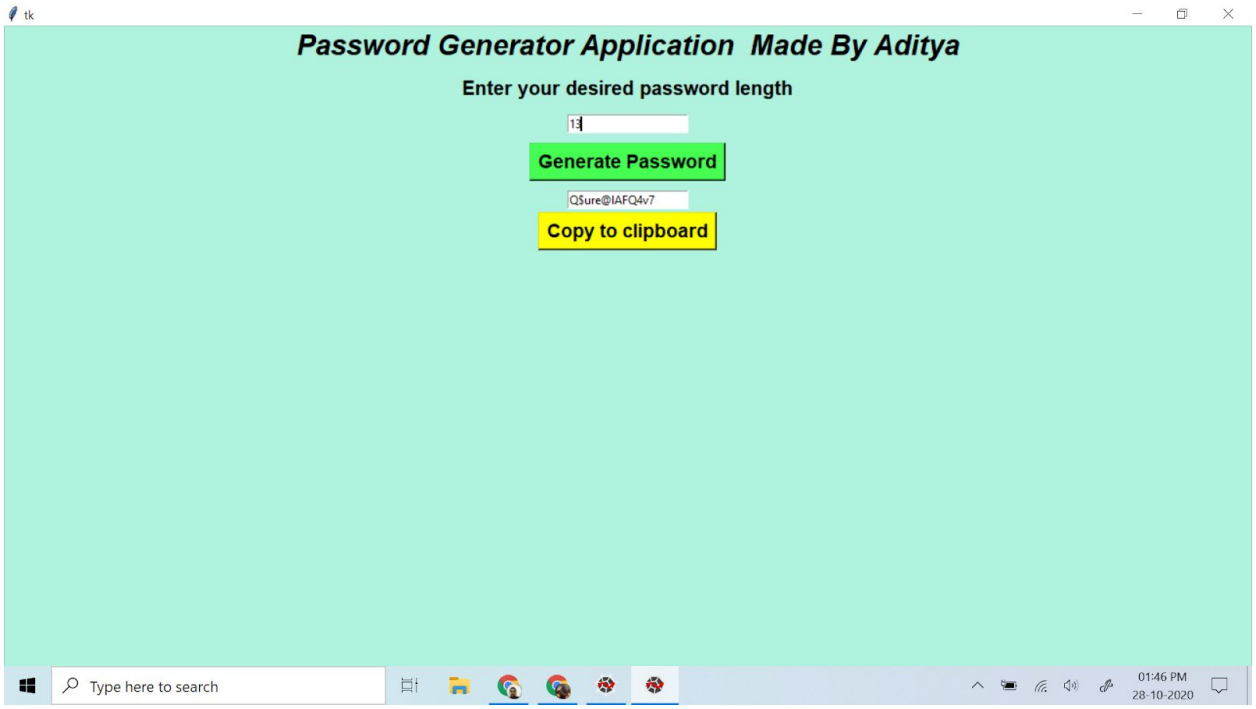
```
        'u', 'v', 'w', 'x', 'y', 'z', 'A', 'B', 'C', 'D',
        'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N',
        'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X',
        'Y', 'Z', '1', '2', '3', '4', '5', '6', '7', '8',
        '9', '0', ' ', '!', '@', '#', '$', '%', '^', '&',
        '*', '(', ')','(`)','~','&']

    # declaring the empty string
    password = " "

    # loop to generate the random password of the length entered
    # by the user
    for x in range(passlen.get()):
        password = password + random.choice(pass1)

    # setting the password to the entry widget
    passstr.set(password)

# function to copy the password to the clipboard
def copytoclipboard():
    random_password = passstr.get()
    pyperclip.copy(random_password)
```

4) GUI PART

```
# Creating a text label widget
Label(root, text="Password Generator Application  Made By Aditya", font="calibri 20
bold").pack()
```

```
# Creating a text label widget
Label(root, text="Enter your desired password length").pack(pady=3)

# Creating a entry widget to take password length entered by the
# user
Entry(root, textvariable=passlen).pack(pady=3)

# button to call the generate function
Button(root,text="Generate Password", command=generate).pack(pady=7)

# entry widget to show the generated password
Entry(root, textvariable=passstr).pack(pady=3)

# button to call the copytoclipboard function
Button(root, text="Copy to clipboard", command=copytoclipboard).pack()

# mainloop() is an infinite loop used to run the application when
# it's in ready state
root.mainloop()
```

EXECUTION



VISUAL OUTPUT OF THE PASSWORD GENERATOR:

REFERENCE

1) GEEKSFORGEEKS.
2) ZLIBRARY
3) CODESCOPE
4) MATPLOTLIB
5) W3SCHOOLS
6) TUTORIALSPOINT
7) WIKIPEDIA
8) RGB CODE FINDER
9) TKINTER OFFICIAL
10) LIBGEN.IS