VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI-590 018, KARNATAKA

ASSIGNMENT

ON

"APPLICATION DEVELOPMENT USING PYTHON"

Submitted by

SYED FARHAN	4BD20CS104
NIKIL B S	4BD20CS062

PROJECT GUIDE

Prof. GANGAMMA H M.tech,
Assistant Professor,
Department of CS&E,
B.I.E.T, Davanagere

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Department of Computer Science and Engineering

Bapuji Institute of Engineering and Technology

Davanagere-577004

Bapuji Educational Association (Regd.)
Bapuji Institute of Engineering and Technology, Davangere-577004

Vision and Mission of the Institute

Vision

"To be a centre of excellence recognized nationally internationally, in distinctive areas of engineering education and research, based on a culture of innovation and invention."

Mission

"BIET contributes to the growth and development of its students by imparting a broad based engineering education and empowering them to be successful in their chosen field by inculcating in them positive approach, leadership qualities and ethical values."

Vision and Mission of the Computer Science and Engineering Department

Vision

"To be a centre-of-excellence by imbibing state-of-the-art technology in the field of Computer Science and Engineering, thereby enabling students to excel professionally and be ethical."

Mission

1.	Adapting best teaching and learning techniques that cultivates Questioning and Reasoning culture among the students.
2.	Creating collaborative learning environment that ignites the critical thinking in students and leading to the innovation.
3.	Establishing Industry Institute relationship to bridge skill gap and make them industry ready and relevant.
4.	Mentoring students to be socially responsible by inculcating ethical and moral values.

Program Educational Objectives (PEOs):

PEO1	To apply skills acquired in the discipline of computer science and engineering for solving Societal and industrial problems with apt technology intervention.
PEO2	To continue their carrier ion industry /academia or pursue higher studies and research.
PEO3	To become successful entrepreneurs, innovators to design and develop software products and services that meets societal, technical and business challenges.
PEO4	To work in the diversified environment by acquiring leadership qualities with effective communication skills accompanied by professional and ethical values.

Program Specific Outcomes (PSOs):

PSO1	Analyse and develop solutions for problems that are complex in nature but applying the knowledge acquired from the core subjects of this program.
PSO2	To develop secure, scalable, resilient and distributed applications for industry and societal Requirements.
PSO3	To learn and apply the concepts and contract of emerging technologies like artificial intelligence, machine learning, deep learning, big-data analytics, IOT, cloud computing etc for any real time problems.

Course Learning Objectives:

- Learn the syntax and semantics of Python programming language.
- Illustrate the process of structuring the data using lists, tuples and dictionaries.
- Demonstrate the use of built-in functions to navigate the file system.
- Implement the Object Oriented Programming concepts in Python.
- Appraise the need for working with various documents like Excel, PDF, Word and Others.

Course Outcomes:

- Demonstrate proficiency in handling of loops and creation of functions.
- Identify the methods to create and manipulate lists, tuples and dictionaries.
- Discover the commonly used operations involving regular expressions and file system.
- Interpret the concepts of Object-Oriented Programming as used in Python.
- Determine the need for scraping websites and working with CSV, JSON and other file formats.

1.Model the real world things using data stucture.

Tic-Tac-Toe Board

This article discusses how to use data structures to model real-world objects.

Python is an ideal language to use when creating a tic-tac-toe board game. This article will take you through the entire process, from setting up the game board and establishing the winning conditions to implementing the game logic and writing the code for the game. We'll also discuss how to handle user input, how to display the game board, and how to provide a player with feedback. By the end of this article, you'll have the skills and knowledge you need to create a fully functional tic-tac-toe game in Python.

Implementation Code:

```
theBoard = {'top-L': ' ', 'top-M': ' ', 'top-R': ' ', 'mid-L': ' ', 'mid-M':' ','mid-R':' ', 'low-L':' ', 'low-M':' ', 'low-R':' '}
def printBoard(board):
    print (board['top-L'] + '|' + board['top-M'] + '|' + board['top-R'])
    print('-+-+-')
    print (board['mid-L'] + '|' + board['mid-M'] + '|' + board['mid-R'])
    print('-+-+-')
    print (board['low-L'] + '|' + board['low-M'] + '|' + board [ 'low-R'])
turn = 'X'
for i in range(9):
    printBoard(theBoard)
    print('Turn for ' + turn + '. Move on which space?')
    move =input()
    theBoard[move] = turn
    if turn == 'X':
        turn ='0'
    else:
        turn ='X'
printBoard(theBoard)
```

OUTPUT:

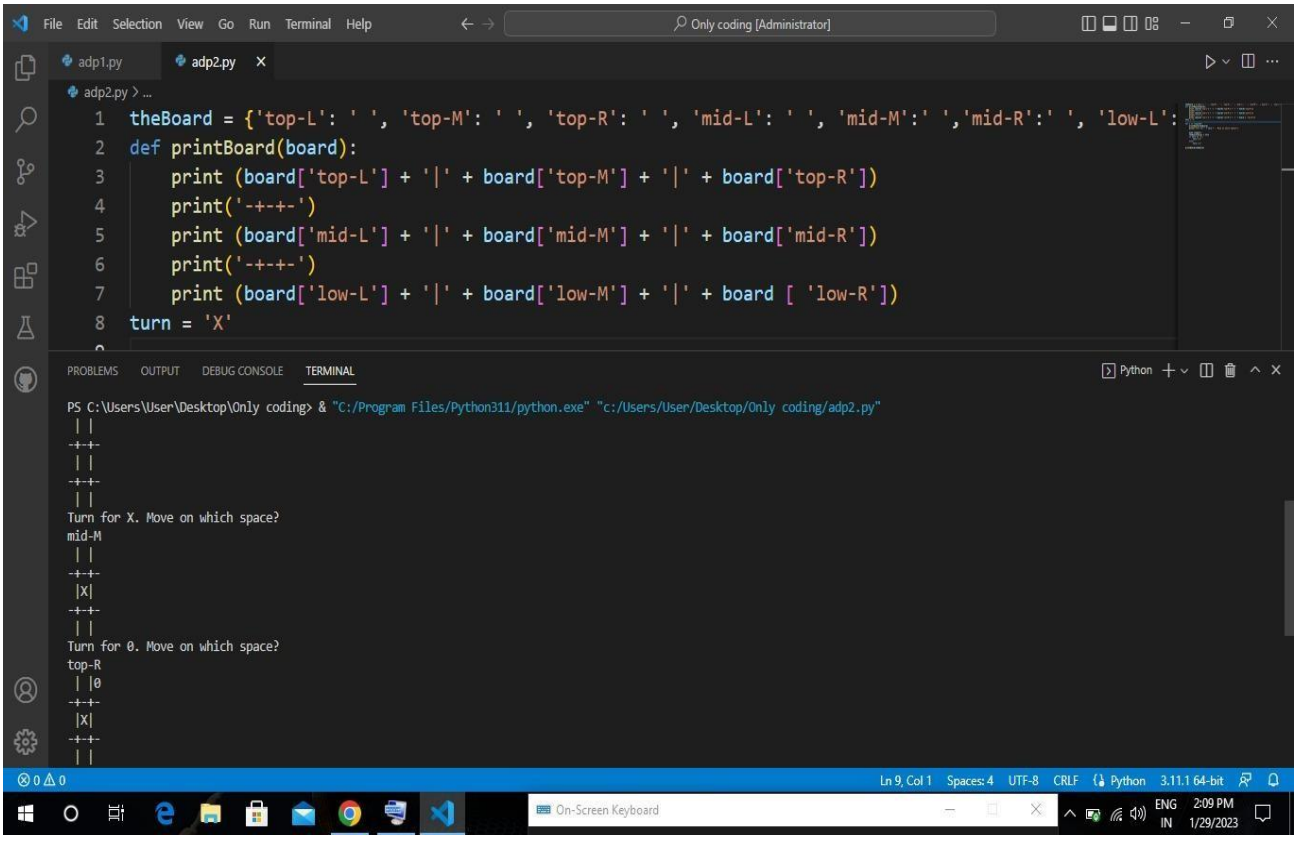

Fig.1: Output of Tic-Tac-Toe

2. Password locker:

This project is a python application that manages login and signup credentials of a person for various accounts i.e. username and passwords for each account. It also stores the passwords and generates a unique password for a user if they do not want to generate new passwords by themselves.

To create an account for the application or log into the application.Store my existing acounts login details for various accounts that i have registered for.

Generate new password for an account that i haven't registered for and store it with the account name.Delete stored account login details that i do now want anymore.

Copy my credentials to the clipboard.

Implementation Code:

```
#!python3
PASSWORDS = {'email':'syedrihan223@gmail.com',
        'blog':'Syed','luggage':'1234'}
import sys,pyperclip
if len(sys.argv)<3:
   print('Usage: py pw.py [account] - copy account password')
   sys.exit()
account = sys.argv[1]
if account in PASSWORDS:
   pyperclip.copy(PASSWORDS[account])
   print('Password for'+account+'copied to clipboard.')
else:
   print('There is no account named'+account)
```

OUTPUT:

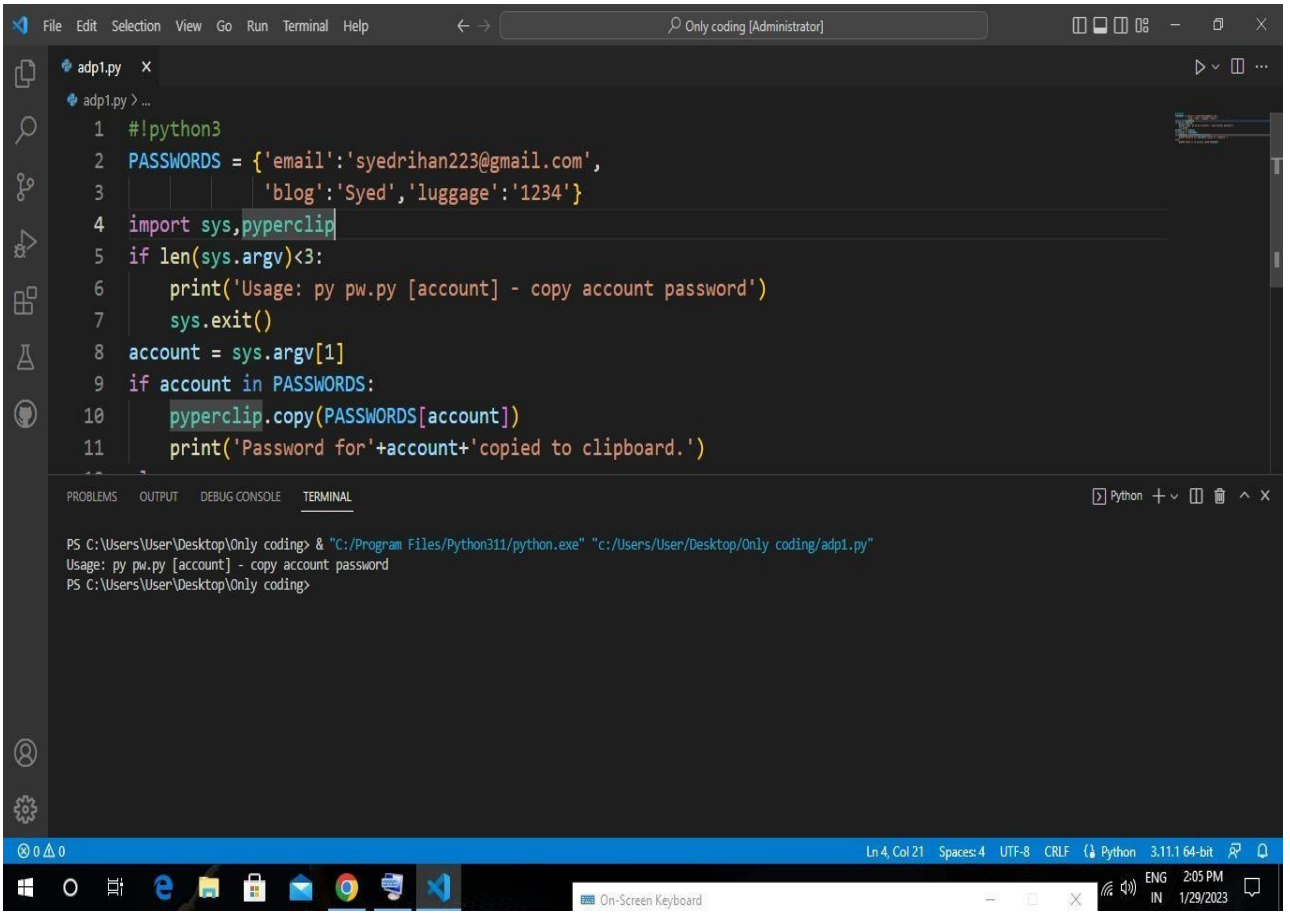

Fig.2: Output of Password Locker

3. Adding bullets to the wiki mark up:

When we have a really large list of text that we want to add a star in front of it, Or letssay after editing a Wikipedia article, We want to add bullet points in front of all the new lines. Doing this by cursor and keyboard will take much useless time and effort. So, We wanted to Automate this by using Python and this script does exactly that for you.Copy text which you want to edit Run WikiMarkup.py Modified text will automatically be copied to clipboard. Wiki markup is a great way to add structure, formatting, and features to text. One of the most commonly used features of wiki markup is the ability to add bullet points. In this article, we'll discuss how to add bullet points to wiki markup using a few different methods. We'll also discuss the advantages of using bullet points, as well as other common uses for wiki markup. After reading this article, you should have a better understanding of how to add bullet points to wiki markup and how to use wiki markup more effectively.

Implementation Code:

```
#! python3

# WikiMarkup.py - Add bullet point before lines in editing Wiki Article import
pyperclip text = pyperclip.paste() #Separate lines and add stars lines =
text.split('\n')
#Loop through all indexes in the "lines" list
#Add star to each string in "lines" listfor i in
range(len(lines)):
lines[i] = '* '+lines[i]

text = '\n'.join(lines) pyperclip.copy(text)
```

OUTPUT:

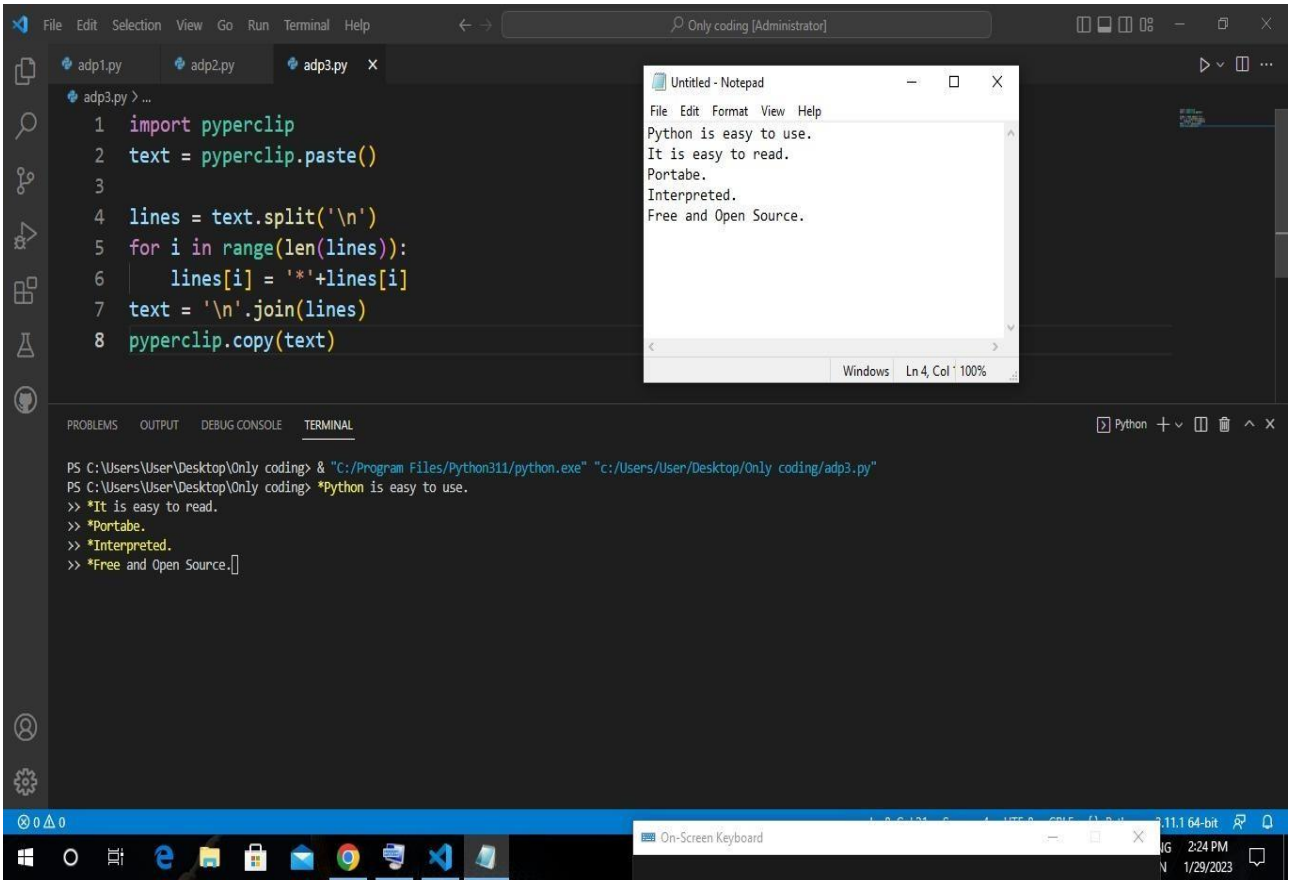

Fig.3: Output of Adding bullets to the wiki mark up