APSIT SKILLS INTERNSHIP – PROJECT ABSTRACT

SE COMPUTER

Project Batch: B1

Team Members Names -

Team Leader: - TEJAS SHETH

Member 1: - AKSHEN DHAMI

Member 2: - PARAG PATIL

Technology Selected: Python

Project Topic Name: CHECKING WITH PROGRAM

Topic Description:

To check various Mathematical as well as Grammatical aspects and gaining their desired solutions using Python Programming Language.

Code includes functions like Printing all the Prime Numbers between a certain range, along with determining whether a given Number is Even or Odd and thus Printing out an appropriate message to the User. The code also includes a program to determine whether a Number is Prime or Composite, taking the input from the User. This program also checks whether the letter inputted by the User is a Vowel or not, this is the Grammatical Aspect of the code. Finally, the program also lets the user play a Small Guess the Number Game with Multiple Levels of Difficulty.

Workflow:

The approach we are using here is a Menu-Driven Methods where we will give a menu on the initial page with multiple choices –
1. Print all Prime Numbers between desired range.
2. Find if Number is Odd or Even.
3. Find if Number is Prime or Composite.
4. Find if Letter is Vowel or Not.
5. Write a Python Game to Guess the correct number.

This Menu-Driven Page will Direct the user to the desired option.

1. Print all Prime Numbers between desired Range.
    a. 2 Inputs Expected – Start and End.
    b. This Program will appropriately print out all of the prime numbers in the range of Start to End.
    c. The User can Enter '-1' to Return to the Main Menu.

2. Find if Number is Odd or Even.
    a. This program will print out appropriate message when the user will input any value.
    b. For every Negative number except -1, the code will output

'Neither Odd nor Even' and for every Positive number, the code will output either 'Odd' or 'Even'

c. It will also prompt the user to enter only Integers if he enters anything else.

d. The User can Enter '-1' to Return to the Main Menu.

3. Find if Number is Prime or Composite.

a. This program will print out appropriate message when the user will input any value.

b. For every Negative number except -1, the code will output 'Neither Prime nor Composite' and for every Positive number, the code will output either 'Prime or 'Composite'

c. It will also prompt the user to enter only Integers if he enters anything else.

d. The User can Enter '-1' to Return to the Main Menu.

4. Find if Letter is Vowel or Not.

a. This program will print out appropriate message when the user will input any value.

b. For Input with more than 1 alphabet or anything other than letters, the code will output '1 alphabet expected', otherwise the code will output either 'Vowel' or 'Consonant' depending on the Input.

c. The User can Enter '-1' to Return to the Main Menu.

5. Write a Python Game to Guess the correct number.

a. This program will print out an appropriate message when the user will input any value.

b. For every value entered, the code will output 'appropriate message' and Hints. It will also prompt the user to enter only Integers if he enters anything else.

c. The User can Enter '-1' to Return to the Main Menu.

For every Program, a common 'BACK' option will be provided in case the user wants to go back to the Menu-Driven page and choose any other option.

Flowchart: -

CHECKING WITH PROGRAMMES

Prime Numbers Between any Range.	Find whether given number is Even / Odd	Find whether given number is Prime / Composite	Test whether letter is Vowel / Consonant	Python Game to Guess the correct number.
Test Data: Start = 5 End = 20 Output = 5,7,11,13,17,19.	Output: - Enter a no: 50 It's an Even Number.	Output: - Enter a no: 86 It's a Composite Number.	Output: - Enter: U It's a Vowel.	**Test Data:** Guess = 54 High But Close Number is -> 51