

Assignment -2

Python Programming

Assignment Date	16 November 2022
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Maximum Marks	2 Marks

Question-1:

Python program to do arithmetical operations in IDLE

Solution:

```
# Store input numbers:
num1 = input('Enter First Number: ')
num2 = input('Enter Second Number: ')
# Add two numbers
sum = float(num1) + float(num2)
# Subtract two numbers
min = float(num1) - float(num2)
# Multiply two numbers
mul = float(num1) * float(num2)
#Divide two numbers
div = float(num1) / float(num2)
# Display the sum
print('The Sum of {0} and {1} is {2}'.format(num1, num2, sum))
# Display the subtraction
print('The Subtraction of {0} and {1} is {2}'.format(num1, num2, min))
# Display the multiplication
print('The Multiplication of {0} and {1} is {2}'.format(num1, num2, mul))
# Display the division
print('The Division of {0} and {1} is {2}'.format(num1, num2, div))
```

```
// C Program to Enter Two Numbers and Perform All Arithmetic Operations
#include <stdio.h>

int main() {
    int p, q;
    int sum, sub, mul, mod;
    float div;

    // it will take two integer numbers
    printf("Enter any two positive integer numbers:\n");
    scanf("%d%d", &p, &q);

    // It will perform all arithmetic operations
    sum = p + q;
    sub = p - q;
    mul = p * q;
    div = (float)p / q;
    mod = p % q;

    // It will print the final output of the program
    printf("\n");
    printf("Addition of      %d + %d = %d\n", p, q, sum);
    printf("Subtraction of    %d - %d = %d\n", p, q, sub);
    printf("Multiplication of %d * %d = %d\n", p, q, mul);
    printf("Division of        %d / %d = %f\n", p, q, div);
    printf("Modulus of          %d %% %d = %d\n", p, q, mod);

    return 0;
}
```

```
ca. Command Prompt

Enter first number: 10
Enter first number: 4
The sum of 10 and 4 is 14.0
The subtraction of 10 and 4 is 6.0
The multiplication of 10 and 4 is 40.0
The division of 10 and 4 is 2.5
The modulus of 10 and 4 is 2.0
The exponent of 10 and 4 is 10000.0
```

Output for arithmetical operators

Question-2:

Python program to check prime number using SPYDER

Solution:

A default function for Prime checking conditions

```
def PrimeChecker(a):
```

Checking that given number is more than 1

```
if a > 1:
```

Iterating over the given number with for loop

```
for j in range(2, int(a/2) + 1):
```

```

# If the given number is divisible or not
if (a % j) == 0:
    print(a, "is not a prime number")
    break
# Else it is a prime number
else:
    print(a, "is a prime number")
# If the given number is 1
else:
    print(a, "is not a prime number")
# Taking an input number from the user
a = int(input("Enter an input number:"))
# Printing result
PrimeChecker(a)

```

```

1  n = 10
2  count=0
3  answer=[]
4  print("First ten prime no program in Python")
5  for i in range(1,n+1):
6      for j in range(2,n+1):
7          if i % j == 0:
8              count+=1
9          if count == 1:
10             answer.append(i)
11         count=0
12     print(answer)

```

```

C:\Python33\pro>python prime_number.py

Enter number to find whether it is prime or not:125

Given number 125 is not a prime number

C:\Python33\pro>python prime_number.py

Enter number to find whether it is prime or not:7

Given number 7 is a prime number

C:\Python33\pro>

```

Question-3:

Create a webpage using python

Solution:

HTML Code

```
<!DOCTYPE html>

<html>

<head>

<style>

h1 {text-align: center;}

h3 {text-align: center;}

body {

background-image:url('image.jpg');

background-repeat:no-repeat;

background-size:cover;

}

<title>Home Page</title>

</style>

</head>

<body>

<h1>PERSONAL EXPENSE TRACKER</h1>

<h3>Personal finance management is an important part of people's lives. However, everyone does not have the knowledge or time to manage their finances in a proper manner. And, even if a person has time and knowledge, they do not bother with tracking their expenses as they find it tedious and time-consuming. Now, you don't have to worry about managing your expenses, as you can get access to an expense tracker that will help in the active management of your finances.</h3>

<h2>Understanding an Expense Tracker</h2>

<p>Also known as expense manager and money manager, an expense tracker is a software or application that helps to keep an accurate record of your money inflow and outflow. Many people in India live on a fixed income, and they find that towards the end of the month they don't have sufficient money to meet their needs. While this problem can arise due to low salary, invariably it is due to poor money management skills. People tend to overspend without realizing, and this can prove to be disastrous. Using a daily expense manager can help you keep track of how much you spend every day and on what. At the end of the month, you will have a clear picture where your money is going. This is one of the best ways to get your expenses under control and bring some semblance of order to your finances.</P>

<h2>Types of Expense Managers</h2>

<p>Today, there are several expense manager applications in the market. Some are paid managers while others are free. Even banks like ICICI offer their customers expense tracker to help them out. Before you decide to go in for a money manager, it is important to decide the type you want. If you are looking for something simple, you need to stay away from complex applications that have a steep learning curve. You will get frustrated and not use the
```

tracker. On the other hand, if you are looking for a feature-laden application that handles all your expenses and finances seamlessly, going in for a simple app will be useless, as it will not have the features you are looking for. Money managers can be divided into two categories. They are:

- Simple applications that are quick and allow you to manage and track your personal expenses
- Complex applications that allow you to manage multiple user accounts and can be integrated with your credit cards, debit cards and bank accounts. These apps are for individuals who have a lot of money outflow or businesses that want to keep track of their employees' expenses

Python Code:

```
from flask import Flask, redirect, url_for, render_template
```

```
app = Flask(__name__)
```

```
@app.route("/")
```

```
def home():
```

```
    return render_template("index.html")
```

```
if name == "__main__":
```

```
    app.run()
```

```
from bs4 import BeautifulSoup
import requests
import os, os.path, csv

listingsurl = "http://www.espn.com/college-sports/football/news/ranking/2016/college-football/rankings/_/sportId/234/class/2016/s"

response = requests.get(listingsurl)
soup = BeautifulSoup(response.text, "html.parser")

listings = []
for rows in soup.find_all("tr"):
    if ("address" in rows["class"]) or ("reverse" in rows["class"]):
        name = rows.find("td", class_="name").a.get_text()
        hometown = rows.find_all("td")[1].get_text()
        school = hometown[hometown.find(",")+1:]
        city = hometown[hometown.find(",")+1:]
        position = rows.find_all("td")[2].get_text()
        grade = rows.find_all("td")[3].get_text()

        listings.append([name, school, city, position, grade])

with open("footballers.csv", "a", encoding="utf-8") as towrite:
    writer = csv.writer(towrite)
    writer.writerow(listings)

print("ESPN College Football Rankings fetched.")
```



Output of Webpage