Bhilai Institute of Technology, Durg.

Department of Computer Science and Engineering

PYTHON WITH DJANGO LAB 102393CS CRN:A27

Date : 19/09/2022

Experiment No: 1.1

Aim:

WAP to use eval() to evaluate an arithmetic expression as a string input from user

Code:

```
a = eval(input("Enter arthematic statement :"))
print(a)
```

Output:

```
Enter arthematic statement :2+3
5
```

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Experiment No: 1.2

Aim:

WAP to calculate area of rectangle, square, circle and triangle. Take necessary inputs from user.

Code:

```
import math as m
l_rect = float(input("enter length of rectangle :"))
b_rect = float(input("enter bredth of rectangle :"))
area_of_rectangel = l_rect*b_rect
a_square = float(input("enter a side of square :"))
area_of_square = a_square**2
r_circle = float(input("enter radius of circle :"))
area_of_circle = (m.pi * r_circle*r_circle)
base = float(input("enter base of triangle :"))
height = float(input("enter height of triangle:"))
area_of_triangle = (1/2 * base * height)
print("""
    area of rectangle = {}
    area of squre= {}
    area of circle={}
    area of triangle={}""".format(area_of_rectangel, area_of_square, area_of_circle, area_of_triangle)
```

Output:

```
enter length of rectangle :10
enter bredth of rectangle :12
enter a side of square :4
enter radius of circle :6
enter base of triangle :12
enter height of triangle:15

    area of rectangle = 120.0
    area of squre= 16.0
    area of circle=113.09733552923255
    area of triangle=90.0
```

Experiment No: 1.3

Aim:

WAP for height taken in cms then covert into feet and inches.(1 foot=12 inches and 1 inch=2.54 cm)

Code:

```
height = float(input("Enter your height(in cms) : "))
height_in_inches = height/2.54
height_in_feet = height_in_inches/12
print('''
    height in inches = {}
    height in feet = {}'''.format(height_in_inches, height_in_feet))
```

Output:

```
Enter your height(in cms) : 333

    height in inches = 131.10236220472441
    height in feet = 10.925196850393702
```

Experiment No: 1.4

Aim:

Accept as input the basic salary of a person. His dearness allowance (DA) is 40% of the basic salary and the house rent allowance (HRA) is 20% of the basic salary. Calculate and show the Gross salary

Code:

```
def cal(base_salary, DA, HRA):
    gross_salary = base_salary+DA+HRA
    return gross_salary


basesalary = float(input("enter your base salary :"))
da = 40*basesalary/100
hra = 20*basesalary/100

grossalary = cal(basesalary, da, hra)
print(grossalary)
```

Output:

```
enter your base salary :25000
40000.0
```

Experiment No: 1.5

Aim:

Accept as Input the marks obtained by a student in 5 subjects. Show the Aggregate marks and Percentage marks.

Code:

```
total_marks = 0
for i in range(5):
    mark = float(input("Enter marks on subject:"))
    total_marks += mark
print("aggregate marks :{} \n percentage : {}".format(
    (total_marks/5), total_marks/500 * 100))
```

Output:

```
Enter marks on subject:99
Enter marks on subject:98
Enter marks on subject:78
Enter marks on subject:90
Enter marks on subject:89
aggregate marks :90.8
 percentage : 90.8
```

Experiment No: 1.6

Aim:

Write a program to read age from keyboard and print whether the person is child,adult or elderly.

Code:

```
age = int(input("enter your age :"))
if (age < 18):
    print("you are a child")
elif (age >= 18 and age <= 35):
    print("you are adult")
elif (age > 35):
    print("You are elderly")
```

Output:

```
enter your age :22
you are adult
```

Experiment No: 1.7

Aim:

WAP to find whether a given no is even or odd.

Code:

```
a = int(input("Enter any number :"))
if (a % 2 == 0):
    print(a, "is even")
else:
    print(a, "is odd")
```

Output:

```
Enter any number :4
4 is even
```

Experiment No: 1.8

Aim:

WAP to find whether a given number is -ve , +ve or zero

Code:

```
a = eval(input("Enter any number"))
if (a > 0):
   print(a, " is +ve")
elif (a < 0):
   print(a, "is -ve")
else:
   print(a, " is zero")
```

Output:

```
Enter any number-2
-2 is -ve
```

Experiment No: 1.9

Aim:

WAP to find the greatest of 2 numbers taking input from user

Code:

```
a = int(input("enter first number :"))
b = int(input("enter second number :"))
if (a > b):
    print(a, " is greater than ", b)
elif (a < b):
    print(b, " is greater than ", a)
else:
    print("both numbers are same")
```

Output:

```
enter first number :7
enter second number :9
9  is greater than  7
```

Experiment No: 1.10

Aim:

WAP to find the smallest of 3 numbers taking input from user

Code:

```
a = int(input("enter 1st number :"))
b = int(input("enter 2nd number :"))
c = int(input("enter 3rd number :"))
if (a < b):
    if (a < c):
        print(a, "is smallest")
    else:
        print(c, "is smallest")
else:
    if (b < c):
        print(b, "is smallest")
    else:
        print(c, "is smallest")
```

Output:

```
enter 1st number :7
enter 2nd number :9
enter 3rd number :22
7 is smallest
```