

ASSIGNMENT 3

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Course name: Python AI ML

Date: 01-06-2022

QUESTION 1

Q1) Write a program to display a menu for calculating area of a circle OR perimeter of a circle.

Sample Input 1:

```
Enter radius of the circle : 2.5
1. Calculate Area
2. Calculate Perimeter
Enter your choice (1 or 2) : 1
Area of circle with radius 2.5 is 19.6349375
```

Sample Input 2:

```
Enter radius of the circle : 2.5
1. Calculate Area
2. Calculate Perimeter
Enter your choice (1 or 2) : 2
Perimeter of circle with radius 2.5 is 15.70795
```

Code:

```
r=float(input("enter radius of circle:"))
print("1.calculate area")
print("2. calculate perimeter")
choice=int(input("enter your choice (1 Or 2):"))
if choice==1:
    area=3.14*r*r
    print("area of the circle with radius",r,"is",area)
elif choice==2:
    perimeter=2*3.14*r
    print("perimeter of the circle with radius",r,"is",perimeter)
else:
    print("u entered invalid choice")
```

Output:

```
] r=float(input("enter radius of circle:"))
print("1.calculate area")
print("2. calculate perimeter")
choice=int(input("enter your choice (1 Or 2):"))
if choice==1:
    area=3.14*r*r
    print("area of the circle with radius",r,"is",area)
elif choice==2:
    perimeter=2*3.14*r
    print("perimeter of the circle with radius",r,"is",perimeter)
else:
    print("u entered invalid choice")
```

```
enter radius of circle:2.5
1.calculate area
2. calculate perimeter
enter your choice (1 Or 2):1
area of the circle with radius 2.5 is 19.625
```

```

r=float(input("enter radius of circle:"))
print("1.calculate area")
print("2. calculate perimeter")
choice=int(input("enter your choice (1 Or 2):"))
if choice==1:
    area=3.14*r*r
    print("area of the circle with radius",r,"is",area)
elif choice==2:
    perimeter=2*3.14*r
    print("perimeter of the circle with radius",r,"is",perimeter)
else:
    print("u entered invalid choice")

```

```

enter radius of circle:2.5
1.calculate area
2. calculate perimeter
enter your choice (1 Or 2):2
perimeter of the circle with radius 2.5 is 15.700000000000001

```

QUESTION 2

Perimeter of circle with radius 2.5 is 15.70795

Q2) Program to find the multiples of a number (the divisor) out of given 5 numbers.

```

Enter five numbers below
First number : 185
Second number : 3450
Third number : 1235
Fourth number : 1100
Fifth number : 905
Enter divisor number : 15
Multiples of 15.0 are :
3450.0
1 multiples of 15.0 found

```

Code1:

```
print("enter five numbers below:")
a=float(input("first number:"))
b=float(input("second number:"))
c=float(input("third number:"))
d=float(input("fourth number:"))
e=float(input("fifth number:"))
div=float(input("enter divisor number:"))
count=0
print("multiples of",div,"are:")
if(a%div==0):
    print(a,sep=' ')
    count+=1
if(b%div==0):
    print(b,sep=', ')
    count+=1
if(c%div==0):
    print(c,sep=', ')
    count+=1
if(d%div==0):
    print(d,sep=', ')
    count+=1
if(e%div==0):
    print(e, sep=' ')
    count+=1
print(count,"multiples of",div,"are found")
```

Output 1:

```
: print("enter five numbers below:")
a=float(input("first number:"))
b=float(input("second number:"))
c=float(input("third number:"))
d=float(input("fourth number:"))
e=float(input("fifth number:"))
div=float(input("enter divisor number:"))
count=0
print("multiples of",div,"are:")
if(a%div==0):
    print(a,sep=' ')
    count+=1
if(b%div==0):
    print(b,sep=', ')
    count+=1
if(c%div==0):
    print(c,sep=', ')
    count+=1
if(d%div==0):
    print(d,sep=', ')
    count+=1
if(e%div==0):
    print(e, sep=' ')
    count+=1
print(count,"multiples of",div,"are found")
```

```
enter five numbers below:
first number:185
second number:3450
third number:1100
fourth number:1235
fifth number:905
enter divisor number:15
multiples of 15.0 are:
3450.0
1 multiples of 15.0 are found
```

code 2:

```
print("enter five numbers below:")
a=float(input("first number:"))
b=float(input("second number:"))
c=float(input("third number:"))
d=float(input("fourth number:"))
e=float(input("fifth number:"))
div=float(input("enter divisor number:"))
l=[a,b,c,d,e]
l1=[]
count=0
for i in l:
    if (i%div==0):
        l1.append(i)
        count+=1
print(count,"multiples of",div,"are found")
print("multiples of",div,"are:",l1)
```

output 2:

```
: print("enter five numbers below:")
a=float(input("first number:"))
b=float(input("second number:"))
c=float(input("third number:"))
d=float(input("fourth number:"))
e=float(input("fifth number:"))
div=float(input("enter divisor number:"))
l=[a,b,c,d,e]
l1=[]
count=0
for i in l:
    if (i%div==0):
        l1.append(i)
        count+=1
print(count,"multiples of",div,"are found")
print("multiples of",div,"are:",l1)
```

```
enter five numbers below:
first number:185
second number:3450
third number:1100
fourth number:1235
fifth number:905
enter divisor number:15
1 multiples of 15.0 are found
multiples of 15.0 are: [3450.0]
```

QUESTION 3

Q3) Write a program to create a basic calculator

Code:

```
a=int(input("enetr a value:"))
b=int(input("enetr b value:"))
op=input("enetr any operator:")
if (op=='+'):
    print("the sum is",a+b)
elif (op=='-'):
    print("the subtraction is",a-b)
elif (op=='*'):
    print("the multiplication is",a*b)
elif (op=='/'):
    print("the division is",a/b)
elif (op=='%'):
    print("the remainder is",a%b)
elif (op=='-'):
    print("the subtraction is",a-b)
elif (op=='^'):
    print("the power is",a^b)
elif (op=='//'):
    print("the quotient is",a//b)
else:
    print("enter valid operator")
```

Output:

```
: a=int(input("enetr a value:"))
b=int(input("enetr b value:"))
op=input("enetr any operator:")
if (op=='+'):
    print("the sum is",a+b)
elif (op=='-'):
    print("the subtraction is",a-b)
elif (op=='*'):
    print("the multiplication is",a*b)
elif (op=='/'):
    print("the division is",a/b)
elif (op=='%'):
    print("the remainder is",a%b)
elif (op=='-'):
    print("the subtraction is",a-b)
elif (op=='^'):
    print("the power is",a^b)
elif (op=='//'):
    print("the quotient is",a//b)
else:
    print("enter valid operator")
```

```
enetr a value:15
enetr b value:2
enetr any operator:%
the remainder is 1
```



```
a=int(input("enetr a value:"))
b=int(input("enetr b value:"))
op=input("enetr any operator:")
if (op=='+'):
    print("the sum is",a+b)
elif (op=='-'):
    print("the subtraction is",a-b)
elif (op=='*'):
    print("the multiplication is",a*b)
elif (op=='/'):
    print("the division is",a/b)
elif (op=='%'):
    print("the remainder is",a%b)
elif (op=='-'):
    print("the subtraction is",a-b)
elif (op=='**'):
    print("the power is",a**b)
elif (op=='//'):
    print("the quotient is",a//b)
else:
    print("enter valid operator")
```

```
enetr a value:2
enetr b value:3
enetr any operator:^
enter valid operator
```

THE END