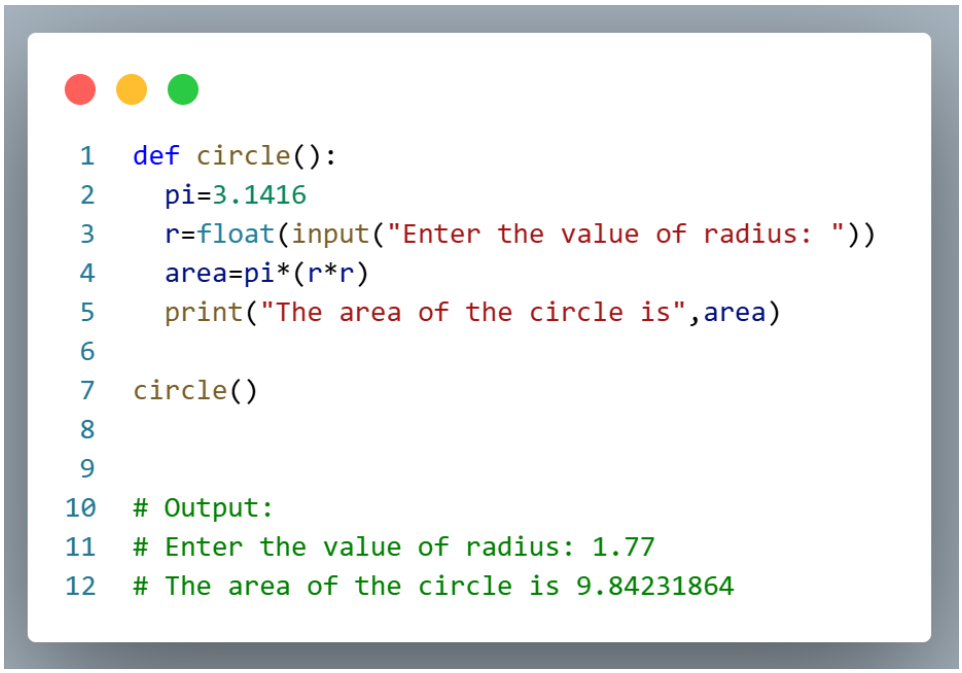
1. Expriment Name : write a program by using function to calculate the area of circle.

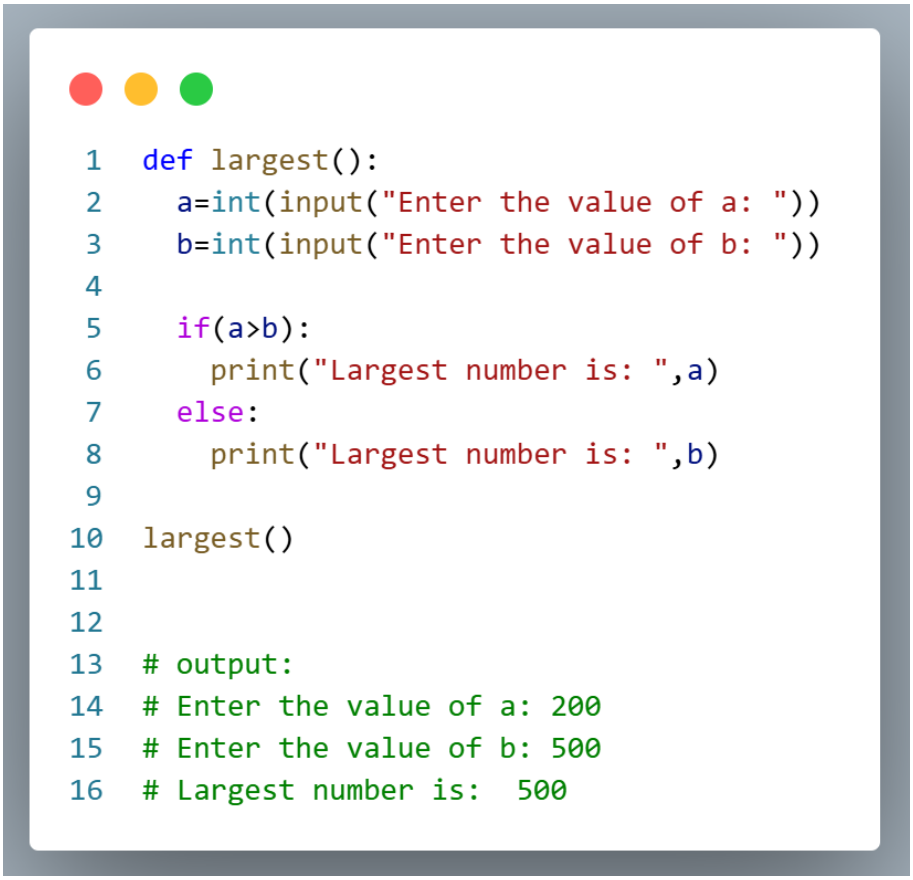


```python
def circle():
  pi=3.1416
  r=float(input("Enter the value of radius: "))
  area=pi*(r*r)
  print("The area of the circle is",area)

circle()


# Output:
# Enter the value of radius: 1.77
# The area of the circle is 9.84231864
```

2. Expriment Name : write a program by using function to find the largest number.



```python
def largest():
  a=int(input("Enter the value of a: "))
  b=int(input("Enter the value of b: "))

  if(a>b):
    print("Largest number is: ",a)
  else:
    print("Largest number is: ",b)

largest()


# output:
# Enter the value of a: 200
# Enter the value of b: 500
# Largest number is:  500
```

3. Expriment Name : Write a program by using function to find the root of quadric equation.

```python
def quadric_equation():
  a=int(input("Enter the value of a: "))
  b=int(input("Enter the value of b: "))
  c=int(input("Enter the value of c: "))
  D=(b*b-4*a*c)
  if(D>0):
    r1=(-b+D**0.5)/(2*a)
    r2=(-b-D**0.5)/(2*a)
    print("The values of roots are: r1=",r1,"and r2=",r2)
  elif(D==0):
    r1=-b/(2*a)
    print("The value of root is: r1=",r1)
  else:
    print("The roots are imaginary")

quadric_equation()


# Output:
# Enter the value of a: 5
# Enter the value of b: 10
# Enter the value of c: 3
# The values of roots are: r1= -0.3675444679663241 and r2= -1.632455532033676
```

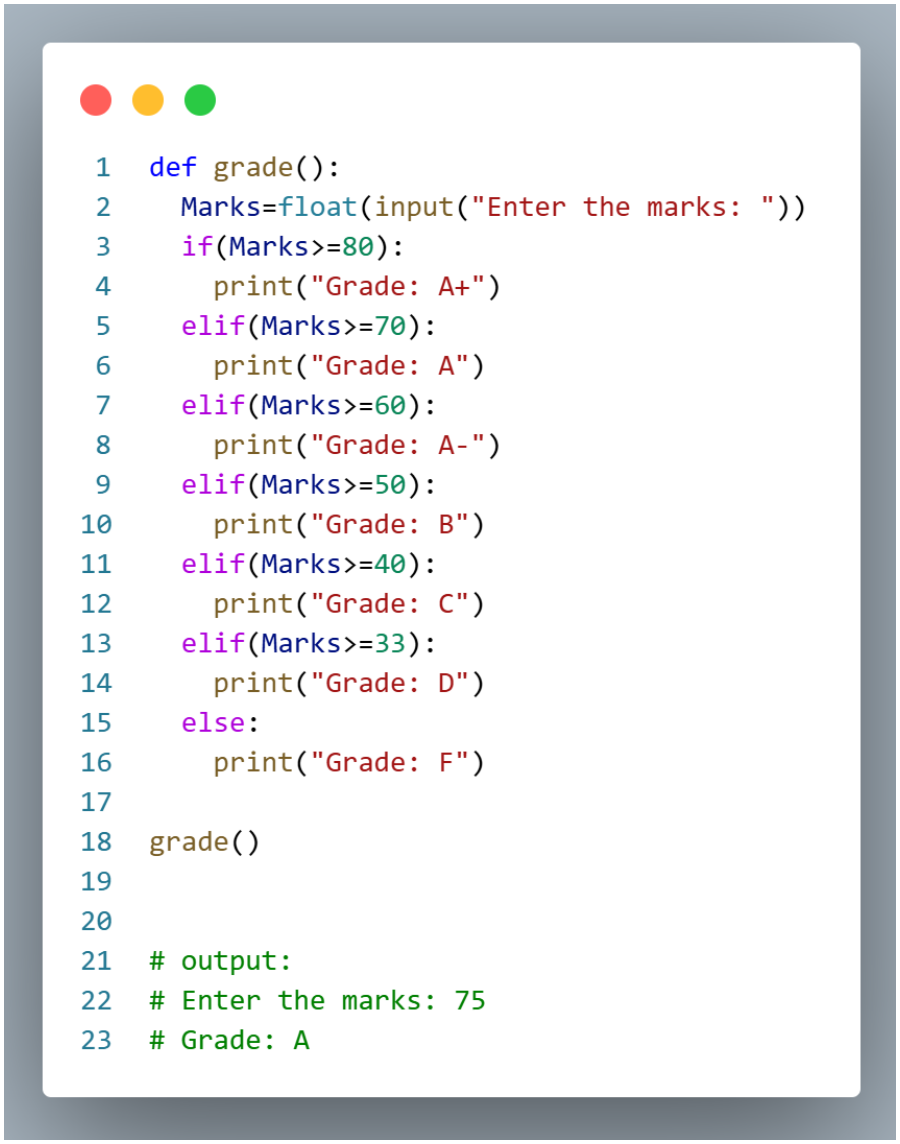
4. Expriment Name : Write a program by using function to find the area of Triangle.

```python
def quadric():
  import math
  a=int(input("Enter the value of a: "))
  b=int(input("Enter the value of b: "))
  c=int(input("Enter the value of c: "))
  if(a+b>c) and (b+c>a) and (c+a>b):
    s=(a+b+c)/2
    area=math.sqrt(s*(s-a)*(s-b)*(s-c))
    print("The area of the triangle is:",area)
  else:
    print("The triangle is not valid")

quadric()


# Output:
# Enter the value of a: 20
# Enter the value of b: 30
# Enter the value of c: 25
# The area of the triangle is: 248.03918541230536
```

5. Write a program by using function to calculate the grade of the student.



```python
def grade():
  Marks=float(input("Enter the marks: "))
  if(Marks>=80):
    print("Grade: A+")
  elif(Marks>=70):
    print("Grade: A")
  elif(Marks>=60):
    print("Grade: A-")
  elif(Marks>=50):
    print("Grade: B")
  elif(Marks>=40):
    print("Grade: C")
  elif(Marks>=33):
    print("Grade: D")
  else:
    print("Grade: F")

grade()


# output:
# Enter the marks: 75
# Grade: A
```