Assignment 1

In [2]:
```
# Ramesh's basic salary is input through the keyword.His dearness allowance is 40% of basic salary,and house re
# 20% of basic salary .Write a program to calculate his gross salary.



basic_salary=eval(input("enter the basic salary"))
dearness_allowance=0.4*basic_salary
house_rent_allowance=0.2*basic_salary
gross_salary=basic_salary+dearness_allowance+house_rent_allowance
print("gross_salary:",gross_salary)
```

```
enter the basic salary50000
gross_salary: 80000.0
```

In [4]:
```
# The distance between two cities (in km.) is input through the keyword.write a program to convert and print th
# meters and print this distance in meters,feet,inches and centimeters.



distance_in_km=float(input("enter the distance between two citizen in km"))
meters=distance_in_km*2000
feet=distance_in_km*4500.52
inches=distance_in_km*2800.30
centimeters=distance_in_km*15000
print("distance in meters of {} is {}:",format(meters))
print("distance in feet of {} is {}:",format(feet))
print("distance in inches of {} is {}:",format(inches))
print("distance in centimeters of {} is {}:",format(centimeters))
```

```
enter the distance between two citizen in km100
distance in meters of {} is {}: 200000.0
distance in feet of {} is {}: 450052.00000000006
distance in inches of {} is {}: 280030.0
distance in centimeters of {} is {}: 1500000.0
```

In [5]:
```
# Temperature of a city in fahrenheit degrees is input through the keyboard.write a program to convert this tem
# centigrade degrees.



fahrenheit=eval(input("enter the temperature in fahrenheit degrees:"))
celsuis=(fahrenheit-32)*5/9
print("fahrenheit of {} is {} degree celsuis:",format(celsuis))
```

```
enter the temperature in fahrenheit degrees:75
fahrenheit of {} is {} degree celsuis: 23.88888888888889
```

In [18]:
```
# If the marks obtained by a student in five different subjects are input through the keyboard,find out the agg
# percentage marks obtained by the student.Assume that the maximum marks that can be obtained by a student in e
# 100.



try:
    m1=eval(input("enter the student marks in 1st subject:"))
    m2=eval(input("enter the student marks in 2nd subject:"))
    m3=eval(input("enter the student marks in 3rd subject:"))
    m4=eval(input("enter the student marks in 4th subject:"))
    m5=eval(input("enter the student marks in 5th subject:"))
    total_marks=m1+m2+m3+m4+m5
    percentage_marks=total_marks/100
    print("percentage marks of all subjects {} is {}:".format(percentage_marks,total_marks/100))
    if m1>=90:
        print("the highest marks in 1st subject {} is {}:".format(m1,m2,m3,m4,m5,percentage_marks))
    elif m2>=85:
        print("the highest marks in 2nd subject {} is {}:".format(m1,m2,m3,m4,m5,percentage_marks))
    elif m3>=80:
        print("the highest marks in 3rd subject {} is {}:".format(m1,m2,m3,m4,m5,percentage_marks))
    elif m4>=95:
        print("the highest marks in 4th subject {} is {}:".format(m1,m2,m3,m4,m5,percentage_marks))
    elif m5>=35:
        print("the highest marks in 5th subject {} is {}:".format(m1,m2,m3,m4,m5,percentage_marks))
    else:
        print("fail")
except Exception as e:
    print(e)
```

```
enter the student marks in 1st subject:98
enter the student marks in 2nd subject:80
enter the student marks in 3rd subject:89
enter the student marks in 4th subject:92
enter the student marks in 5th subject:85
percentage marks of all subjects 4.44 is 4.44:
the highest marks in 1st subject 98 is 80:
```

In [10]:
```
# The length & breadth of a rectangle and radius of a circle are input through the keyboard.write a progam to c
# & peimeter of the rectangle,and the area & circumference of the circle.




import math
try:
    length=eval(input("enter the length of rectangle"))
    breadth=eval(input("enter the breadth of rectangle"))
    radius=eval(input("enter the radius of circle"))
    area_rectangle=length*breadth
    area_perimeter=2*(length+breadth)
    area_circle=math.pi*radius**2
    area_circumference=2*(math.pi+radius)
    print("area_rectangle of {} is {}:",format(area_rectangle))
    print("area_perimeter of {} is {}:",format(area_perimeter))
    print("area_circle of {} is {}:",format(area_circle))
    print("area_circumference of {} is {}:",format(area_circumference))
except Exception as e:
    print(e)
```

```
enter the length of rectangle6.5
enter the breadth of rectangle5.3
enter the radius of circle3.1
area_rectangle of {} is {}: 34.449999999999996
area_perimeter of {} is {}: 23.6
area_circle of {} is {}: 30.190705400997917
area_circumference of {} is {}: 12.483185307179586
```

In [12]:
```
# Two numbers are input through the keyboard into two locations c and d.write a program to interchange the cont


c=int(input("enter the value of c:"))
d=int(input("enter the value od d:"))
a=c
c=d
d=a
print("the value of c is{}:",format(c))
print("the value of d is{}:",format(d))
```

```
enter the value of c:50
enter the value od d:60
the value of c is{}: 60
the value of d is{}: 50
```

In [9]:
```
# If a five digit number is input through the keyboard ,write a program to reverse the number.

try:
    number=(input("enter the five_digits:"))
    if len(number) == 5 and number.isdigit():
        number = int(number)
        reversed_number=0
        last_digit=number % 10
        reversed_number=reversed_number*10+last_digit
        number=number // 10
        second_digit=number % 10
        reversed_number=reversed_number*10+second_digit
        number=number // 10
        third_digit=number % 10
        reversed_number=reversed_number*10+third_digit
        number=number  // 10
        fourth_digit=number % 10
        reversed_number=reversed_number*10+fourth_digit
        number=number  // 10
        fifth_digit=number % 10
        reversed_number=reversed_number*10+fifth_digit
        number=number  // 10
        print("enter the reversed number is {}:".format(reversed_number))
    else:
        print("please enter a valid four-digit number.")
except Exception as e:
    print(e)
```

```
enter the five_digits:54321
enter the reversed number is 12345:
```

In [2]:
```
# If a four digit number is input through the keyboard,write a program to obtain the sum of the first and last
```

```
# number.


number = input("enter a four-digit number:")
if len(number) == 4 and number.isdigit():
    number = int(number)
    first_digit = number // 1000
    last_digit = number % 10
    sum_of_digits = first_digit + last_digit
    print(f"the sum of the first and last digits is: {sum_of_digits}")
else:
    print("please enter a valid four-digit number.")
```

```
enter a four-digit number:1313
the sum of the first and last digits is: 4
```

In [4]:
```
# In a town,the percentage of men is 52.the percentage of total literacy is 48.if total percentage of literate
# total population.write a program to find the total number of literate men and women if the population of the



percentage_men=52
percentage_total_literate=48
percentage_literate_men=35
total_population=80000
total_men=(percentage_men/100)*total_population
total_women=total_population-total_men
literate_men=(percentage_literate_men/100)*total_population
illiterate_men=total_men-literate_men
illiterate_women=total_women-(percentage_total_literate/100)*total_population
print("total illiterate men is:",format(illiterate_men))
print("total illiterate women is:",format(illiterate_women))
```

```
total illiterate men is: 13600.0
total illiterate women is: 0.0
```

In [22]:
```
# A cashier has currency notes of denominators 10,50 and 100.if the amount to be withdrawn is input through the
# hundreds,find the total number of currency notes of each denomination the cashier will have to give to the wi

try:
    amount_in_hundred=eval(input("enter the amount to withdrawn in hundred:"))
    num_50=0
    num_100=0
    num_10=0
    if amount_in_hundred>0:
        if amount_in_hundred>=1:
            num_100=amount_in_hundred
            amount_in_hundred=0
        elif amount_in_hundred>=0.5:
            num_50=1
            amount_in_hundred=0.5
        else:
            num_10=1
            amount_in_hundred=0.1
        print("num of 100 is {}:",format(num_100))
        print("num of 50 is {}:",format(num_50))
        print("num of 10 is {}:",format(num_10))
except Exception as e:
    print(e)
```

```
enter the amount to withdrawn in hundred:50000
num of 100 is {}: 50000
num of 50 is {}: 0
num of 10 is {}: 0
```

In [ ]:
```

```