

In [3]: *#Question 1*

```
name = input("What is your name? ")
dept = input("What department do you work for? ")
salary = int(input("What is your salary? "))
years_of_service = int(input("How many years of service do you have? "))

if(years_of_service > 10):
    print(f"Thank you for your {years_of_service} years of service in the {dept} department.")
elif(years_of_service >= 6 and years_of_service <= 10):
    print(f"Thank you for your {years_of_service} years of service in the {dept} department.")
else:
    print(f"Thank you for your {years_of_service} years of service in the {dept} department.")
```

What is your name? John Smith  
What department do you work for? Accounting  
What is your salary? 90000  
How many years of service do you have? 8  
Thank you for your 8 years of service in the Accounting department. You will get a \$7200.0 bonus.

In [1]: *#Question 2*

```
name = input("What is your name? ")
dept = input("What department do you work for? ")
salary = int(input("What is your salary? "))
years_of_service = int(input("How many years of service do you have? "))
perf_rating = input("What is your performance rating? ")
bonus = 0
if(perf_rating.lower() == 'excellent'):
    bonus += 5
elif(perf_rating.lower() == 'good'):
    bonus += 2

if(years_of_service > 10):
    bonus += 10
    print(f"Thank you for your {years_of_service} years of service in the {dept} department.")
elif(years_of_service >= 6 and years_of_service <= 10):
    bonus += 8
    print(f"Thank you for your {years_of_service} years of service in the {dept} department.")
else:
    bonus += 5
    print(f"Thank you for your {years_of_service} years of service in the {dept} department.")
```

What is your name? John Smith  
What department do you work for? Accounting  
What is your salary? 90000  
How many years of service do you have? 8  
What is your performance rating? Good  
Thank you for your 8 years of service in the Accounting department. Your performance rating was: Good. You will get \$9000.0 in bonuses.

In [5]: *#Question 3*

```
a = int(input("Input one integer: "))
b = int(input("Input second integer: "))
c = int(input("Input third integer: "))
a = abs(a)
```

```

b = abs(b)
c = abs(c)
if( ( (a+b) > c ) and ( (a+c) > b ) and ( (b+c) > a )):
    if( (a == b == c) ):
        print("These three side lengths can form an equilateral triangle.")
    elif( (a==b) or (b==c) or (a==c) ):
        print("These three side lengths can form an isoceles triangle.")
    else:
        print("These three side lengths can form a scalene triangle.")
else:
    print("These three side lengths will not form a triangle.")

```

Input one integer: 6  
 Input second integer: 6  
 Input third integer: 6  
 These three side lengths can form an equilateral triangle.

```

In [3]: # Question 4
# Min Credit Score: 620
# Min Income: $45,000
# Min DTI: 43%
name = input("What is your name? ")
credit_score = int(input("What is your credit score? "))
income = int(input("What is your yearly income? "))
DTI = int(input("What is your debt to income ratio? "))

if(credit_score >= 620 and income >= 45000 and DTI <= 43):
    print("Congratulations! You qualify for a loan")

else:
    if(credit_score >= 500 and income > 75000 and DTI < 37):
        print("Congratulations! You still qualify for the loan")

    elif(income >= 35000 and credit_score >= 750 and DTI < 37 ):
        print("Congratulations! You still qualify for the loan")

    elif(DTI <= 50 and income > 75000 and credit_score > 750 ):
        print("Congratulations! You still qualify for the loan")

    else:
        print("Sorry! You did not qualify for the loan.")

```

What is your name? Roheat  
 What is your credit score? 630  
 What is your yearly income? 45000  
 What is your debt to income ratio? 43  
 Congratulations! You qualify for a loan

In [ ]: