In [5]:
```python
toDoTasks =[]
print("Welcome to your to-do-list")
print("**************************")
userChoice=0
while userChoice !=4:
    print("Press 1 to view your to do list")
    print("Press 2 to add new task to your list")
    print("Press 3 to remove an existing task")
    print("Press 4 to exit")
    userChoice= int(input("Choose what do you want to do:"))
    if userChoice ==1:
        if len(toDoTasks)==0:
            print("Empty task list")
        else:
            for i in range(len(toDoTasks)):
                print(f"{i+1}: {toDoTasks[i]}")
        yesOrNo=input("Enter y to continue and n to exit: ")
        if yesOrNo in ["n","N"]:
            userChoice=4
    elif userChoice==2:
        print("Enter the task in this format: ")
        task=input("Date/Time - Task")
        toDoTasks.append(task)
        yesOrNo=input("Enter y to continue and n to exit: ")
        if yesOrNo in["n","N"]:
            userChoice=4
    elif userChoice==3:
        print("Your current to do list looks like this:")
        if len(toDoTasks)==0:
            print("Empty task list")
        else:
            for i in range(len(toDoTasks)):
                print(f"{i+1}:{toDoTasks[i]}")
        taskDelete=int(input("Enter the number written in front of the task
        toDoTasks.pop(taskDelete-1)
        print("1 task deleted")
        yesOrNo=input("Enter y to continue and n to exit: ")
        if yesOrNo in ["n","N"]:
            userChoice=4
```

```
Welcome to your to-do-list
**************************
Press 1 to view your to do list
Press 2 to add new task to your list
Press 3 to remove an existing task
Press 4 to exit
Choose what do you want to do:1
Empty task list
Enter y to continue and n to exit: y
Press 1 to view your to do list
Press 2 to add new task to your list
Press 3 to remove an existing task
Press 4 to exit
Choose what do you want to do:2
Enter the task in this format:
Date/Time - Task 1 Oct, 2023 - College assignments
Enter y to continue and n to exit: y
Press 1 to view your to do list
Press 2 to add new task to your list
Press 3 to remove an existing task
Press 4 to exit
Choose what do you want to do:3
Your current to do list looks like this:
1: 1 Oct, 2023 - College assignments
Enter the number written in front of the task you want to delete:1
1 task deleted
Enter y to continue and n to exit: n
```

In [1]:
```python
#Building a simple calculator performing arithmetic operations.
def add(x,y):
    return x+y
def subtract(x,y):
    return x-y
def multiply(x,y):
    return x*y
def divide(x,y):
    return x/y
x=int(input("Enter the value of x:"))
y=int(input("Enter the value of y:"))

print("Select an operation:")
print("1.Add")
print("2.Subtract")
print("3.Multiply")
print("4.Divide")

choice=int(input("Choose operations from 1, 2, 3, 4 "))
if choice==1:
    print("x","+","y","=",add(x,y))
elif choice==2:
    print("x","-","y","=",subtract(x,y))
elif choice==3:
    print("x","*","y","=",multiply(x,y))
elif choice==4:
    print("x","/","y","=",divide(x,y))
else:
    print("Invalid input")
choice=input("Enter yes to proceed and no to terminate:")
if choice=="yes":
    print("Proceed")
else:
    print("Terminate")
```

```
Enter the value of x:243243443
Enter the value of y:344809
Select an operation:
1.Add
2.Subtract
3.Multiply
4.Divide
Choose operations from 1, 2, 3, 4 3
x * y = 83872528337387
Enter yes to proceed and no to terminate:no
Terminate
```

In [4]:
```python
import secrets
import string

letters=string.ascii_letters
digits=string.digits
specialChars=string.punctuation
allChars=letters+digits+specialChars
passlength=int(input("Enter the length of the password you want:"))
newPass=" "
for i in range(passlength):
    newPass+=secrets.choice(allChars)
print(f"Password generated: {newPass}")
```

```
Enter the length of the password you want:9
Password generated:  ^!B3]D;"f
```

In [12]:
```python
import random
boolValue=True
userScore, computerScore=0,0
while boolValue:
    print("ROCK PAPER OR SCISSORS?")
    options=["rock","paper","scissors"]
    computerChoice=random.randint(1,3)
    userChoice=int(input("Enter 1 for rock\nEnter 2 for paper\nEnter 3 for s
    if userChoice == 4:
        boolValue=False
    elif userChoice==computerChoice:
        print(f"Its a draw! You both chose {options[userChoice-1]}.")
    else:
        if userChoice==computerChoice-1:
            print(f"You lost! You chose {options[userChoice-1]} and computer
            computerScore+=1
        elif userChoice==3 and computerChoice==1:
            print(f"You lost! You chose {options[userChoice-1]} and computer
            computerScore+=1
        else:
            print(f"You won You chose {optional[userChoice-1]} and computer
            userScore+=1
if userScore>computerScore:
    print(f"CONGRATS! YOU WON THE GAME!\nYou-{userScore}:Computer-{computerS
elif userScore<computerScore:
    print(f"BETTER LUCK NEXT TIME! YOU LOST THE GAME!\nYou-{userScore}: Comp
else:
    print(f"THE GAME ENDS IN A DRAW!\nYou-{userScore} : Computer-{computerS
```

```
ROCK PAPER OR SCISSORS?
Enter 1 for rock
Enter 2 for paper
Enter 3 for scissors
Enter 4 if you want to exit the game1
Its a draw! You both chose rock.
ROCK PAPER OR SCISSORS?
Enter 1 for rock
Enter 2 for paper
Enter 3 for scissors
Enter 4 if you want to exit the game2
You lost! You chose paper and computer chose scissors.
ROCK PAPER OR SCISSORS?
Enter 1 for rock
Enter 2 for paper
Enter 3 for scissors
Enter 4 if you want to exit the game3
You lost! You chose scissors and computer chose rock.
ROCK PAPER OR SCISSORS?
Enter 1 for rock
Enter 2 for paper
Enter 3 for scissors
Enter 4 if you want to exit the game4
BETTER LUCK NEXT TIME! YOU LOST THE GAME!
You-0: Computer-2
```

```python
In [1]: contactList=[]
        newContact={}
        choice=0

        def printcontactlist():
            for i in range(len(contactList)):
                print(f"{i+1}: {contactList[i]}")
        while choice!=6:
            print("Welcome to your contact book!")
            print("Enter 1 to view the contact list\nEnter 2 to add new contact to t
            print("Enter 3 to search the contact list\nEnter 4 to update any contact
            print("Enter 6 to EXIT")
            choice=int(input("Enter your choice\n"))

            if choice==1:
                if len(contactList)==0:
                    print("No contacts in the list!")
                else:
                    print("Your contact list:")
                    printcontactList()
            if choice==2:
                contactName=input("Enter the contact name:").lower()
                contactPhone=input("Enter the phone number:")
                contactMail=input("Enter the contact E-mail:").lower()
                contactAddress=input("Enter the contact address:")
                newContact.update({"name": contactName, "phone": contactPhone, "emai
                contactList.append(newContact)
                print("New contact added!")
            if choice==3:
                search=input("Search the contact by name or number:").lower()
                for item in contactList:
                    if search in item.values():
                        print("Contact found!")
                        print(item)
            if choice==4:
                print("This is your contact list")
                printcontactlist()
                updateChoice=int(input("Enter the number in front of the contact you
                contactName=input("Enter the contact name:").lower()
                contactPhone=input("Enter the phone number:")
                contactMail=input("Enter the contact E-mail:").lower()
                contactAddress=input("Enter the contact address:")
                contactList[updateChoice - 1].update({"name":contactName, "phone": c
                print("Your updated contact list is :")
                printcontactlist()
            if choice==5:
                print("This is your contact list")
                printcontactlist()
                deleteChoice=int(input("Enter the number in front of the contact you
                contactList.pop(deleteChoice -1)
                print("Contact deleted. Your updated contact list is :")
                printcontactlist()
```

```
Welcome to your contact book!
Enter 1 to view the contact list
Enter 2 to add new contact to the list
Enter 3 to search the contact list
Enter 4 to update any contact
Enter 5 to delete any contact
Enter 6 to EXIT
Enter your choice
1
No contacts in the list!
Welcome to your contact book!
Enter 1 to view the contact list
Enter 2 to add new contact to the list
Enter 3 to search the contact list
Enter 4 to update any contact
Enter 5 to delete any contact
Enter 6 to EXIT
Enter your choice
2
Enter the contact name:Angella
Enter the phone number:8998687696
Enter the contact E-mail:mail2angella@gmail.com
Enter the contact address:B-113,f.f NewYork, U.S.A
New contact added!
Welcome to your contact book!
Enter 1 to view the contact list
Enter 2 to add new contact to the list
Enter 3 to search the contact list
Enter 4 to update any contact
Enter 5 to delete any contact
Enter 6 to EXIT
Enter your choice
6
```

In [ ]: