

linked_list Application

```
def create():
    global linked_list
    linked_list=list()
    n=int(input("How Many nodes: "))
    while n>=1:
        i=0
        el=int(input("Enter Integer Element: "))
        linked_list.append(el)
        i+=1
        n-=1
    print("linked_list Created")

def pop():
    display()
    if(len(linked_list)==0):
        print("linked_list empty")
    elif (index >=len(linked_list)):
        print("Index out of bound")
    else:
        index=int(input("\nEnter index of Element which you want to delete: "))
        linked_list.pop(index)
        display()
        print("Element deleted")

def push():
    display()
    index=int(input("\nEnter index where you want to Push New Element: "))
    size=len(linked_list)
    if (index >=size):
        print("Index out of bound")
    else:
```

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linked_list.append(0)
while(size>index):
    linked_list[size]=linked_list[size-1]
    size-=1
el=int(input("Enter element for new node: "))
linked_list[index]=el
display()
print("Element push successfully")

```

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def display():
    print("Elements of linked_list")
    print("*****")
    if(len(linked_list)==0):
        print("linked_list is Empty")
    else:
        for el in linked_list:
            print(el,end=" -> ")

```

```

def menu():
    msg=""
    *****linked_list Application*****
    Enter 1 for remove linked_list and create new linked_list
    Enter 2 for pop element from linked_list
    Enter 3 for push element in linked_list
    Enter 4 for display element of linked_list
    Enter 5 for Quit linked_list Application
    *****
    print(msg)
    option=int(input("Your Option: "))
    if(option==1):
        create()
        input()
        menu()

```

```
elif(option==2):
    pop()
    input()
    menu()
elif(option==3):
    push()
    input()
    menu()
elif(option==4):
    display()
    input()
    menu()
elif(option==5):
    quit()
else:
    print("Enter correct option")
    menu()
create()
menu()
```

Stack Application

```
def create():
    global stack
    stack=list()
    n=int(input("How Many nodes: "))
    while n>=1:
        i=0
        el=int(input("Enter Integer Element: "))
        stack.append(el)
        i+=1
        n-=1
    print("Stack Created")

def pop():
    if(len(stack)==0):
        print("stack empty")
    else:
        stack.pop()
        print("Element deleted")

def push():
    el=int(input("Enter element for new node: "))
    stack.append(el)
    print("Element push successfully")

def display():
    print("Elements of Stack")
    print("*****")
    if(len(stack)==0):
        print("Stack is Empty")
    else:
        for el in stack:
            print(el,end=" -> ")
```

```

def menu():
    msg=""
    *****Stack Application*****
    Enter 1 for remove stack and create new stack
    Enter 2 for pop element from stack
    Enter 3 for push element in stack
    Enter 4 for display element of stack
    Enter 5 for Quit Stack Application
    *****"
    print(msg)
    option=int(input("Your Option: "))
    if(option==1):
        create()
        input()
        menu()
    elif(option==2):
        pop()
        input()
        menu()
    elif(option==3):
        push()
        input()
        menu()
    elif(option==4):
        display()
        input()
        menu()
    elif(option==5):
        quit()
    else:
        print("Enter correct option")
        menu()
create()
menu()

```

Queue Application

```
def create():
    global Queue
    Queue=list()
    n=int(input("How Many nodes: "))
    while n>=1:
        i=0
        el=int(input("Enter Integer Element: "))
        Queue.append(el)
        i+=1
        n-=1
    print("Queue Created")

def pop():
    if(len(Queue)==0):
        print("Queue empty")
    else:
        Queue.pop(0)
        print("Element deleted")

def push():
    el=int(input("Enter element for new node: "))
    Queue.append(el)
    print("Element push successfully")

def display():
    print("Elements of Queue")
    print("*****")
    if(len(Queue)==0):
        print("Queue is Empty")
    else:
        for el in Queue:
            print(el,end=" -> ")

def menu():
    msg=""
    *****Queue Application*****
    Enter 1 for remove Queue and create new Queue
    Enter 2 for pop element from Queue
```

Enter 3 for push element in Queue
Enter 4 for display element of Queue
Enter 5 for Quit Queue Application

*****"

```
print(msg)
option=int(input("Your Option: "))
if(option==1):
    create()
    input()
    menu()
elif(option==2):
    pop()
    input()
    menu()
elif(option==3):
    push()
    input()
    menu()
elif(option==4):
    display()
    input()
    menu()
elif(option==5):
    quit()
else:
    print("Enter correct option")
    menu()
create()
menu()
```

#File Handling Application

```
def update():
    foia=open("student.csv","a")
    print("Hi, \"student.csv\" file ready for update")
    regno=int(input("Enter Student Reistration No: "))
    name=input("Enter Name of Student: ")
    clas=input("Enter Class & Stream/ Section: ")
    city=input("Enter City of Student: ")
    age=int(input("Enter Age of Student : "))
    rec=[regno,name,clas,city,age]
    foia.write("\n")
    foia.write(str(rec))
    print("Record Saved")
    foia.close()

def display():
    foir=open("student.csv","r")
    f=foir.read()
    print("****All Contents of student.csv file****")
    print(f)
    foir.close()

def remove_file():
    import os
    print("student.csv file will remove permanently from disk")
    choice=input("Are you sure to continue(Y/N): ")
    if(choice=='y' or choice=='Y'):
        if(os.path.exists("student.csv")):
            os.remove("student.csv")
            print("student.csv file removed")
        else:
            print("student.csv file not Found")
    else:
        menu()
```



```

def create_new():
    print("All Contents of student.csv file will delete permanently")
    choice=input("Are you sure to continue(Y/N): ")
    if(choice=='y' or choice=='Y'):
        foiw=open("student.csv","w")
        print("student.csv, file created")
        foiw.close()
    else:
        menu()

```

```

def menu():
    msg=""
    ***** File Handling Application *****
    *****File Name: student.csv *****
    Enter 1 for Create New file in disk
    Enter 2 for Add New Record in file
    Enter 3 for Dispaly Records of file
    Enter 4 for Remove the file from disk
    Enter 5 for Quit Application
    *****
    print(msg)
    op=int(input("Enter Your Option: "))
    if(op==1):
        create_new()
        input("Press Any Key to continue: ")
        menu()
    elif(op==2):
        update()
        input("Press Any Key to continue: ")
        menu()
    elif(op==3):
        display()
        input("Press Any Key to continue: ")
        menu()
    elif(op==4):
        remove_file()
        input("Press Any Key to continue: ")

```

```
    menu()
elif(op==5):
    quit()
else:
    print("Ooopss!!!, You entered Wrong Option")
    input("Press Any Key to continue: ")
    menu()
```

```
menu()
```