

```

class priority_queue:
    def __init__(self):
        self.items=[]
    def is_empty(self):
        return len(self.items)==0
    def push(self,data,priority):
        index=0
        while index<len(self.items) and self.items[index][1]<=priority:
            index+=1
        self.items.insert(index,(data,priority))
    def pop(self):
        return self.items.pop(0)[0]
    def size(self):
        return len(self.items)

def operations():
    p1=priority_queue()
    print("Select any one operation: ")
    print("1. Push")
    print("2. Pop")
    print("3. size")
    print("4. Exit")

    while True:
        select = input("Select -> 1/2/3/4: ")
        if select in ('1','2','3','4'):
            try:
                if select=='1':
                    n1 = int(input("enter data: "))
                    p = int(input("Enter a priority: "))
                    p1.push(n1,p)
                    print("Element pushed into queue")
                elif select=='2':
                    i2 = p1.pop()
                    print("Element popped in the queue is : ",i2)
                elif select=='3':
                    l = p1.size()
                    print("Length of priority queue is : ",l)
                else:
                    if select=='4':
                        break
            except:
                print("please enter a valid one...!")
        else:
            print("Select a Valid options...")

operations()

```



Select any one operation:

1. Push
2. Pop
3. size
4. Exit

Select -> 1/2/3/4: 1

enter data: 10

Enter a priority: 1

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Element pushed into queue
Select -> 1/2/3/4: 1
enter data: 20
Enter a priority: 2
Element pushed into queue
Select -> 1/2/3/4: 1
enter data: 90
Enter a priority: 5
Element pushed into queue
Select -> 1/2/3/4: 80
Select a Valid options...
Select -> 1/2/3/4: 1
enter data: 80
Enter a priority: 4
Element pushed into queue
Select -> 1/2/3/4: 1
enter data: 75
Enter a priority: 3
Element pushed into queue
Select -> 1/2/3/4: 3
Length of priority queue is : 5
Select -> 1/2/3/4: 2
Element popped in the queue is : 10
Select -> 1/2/3/4: 2
Element popped in the queue is : 20
Select -> 1/2/3/4: 3
Length of priority queue is : 3
Select -> 1/2/3/4: 4
```

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