#implement an ADT and its all operations

def push(stk ,itm):

stk.append(itm)

print("element to be inserted")

print(stk)

def pop(stk):

e=stk.pop()

print("popping elements:",e)

def peek(stk):

print("the element at peek:",stk[-1])

def display(stk):

print("stack element:",stk)

def isempty(stk):

if len(stk)==0:

print("stack isempty")

else:

print("stack contains",len(stk),"elements")

stack=[]

while True:

print("----- stack opration------")

print("1.PUSH")

print("2.POP")

print("3.PEEK")

print("4.DISPLAY")

print("5.ISEMPTY")

print("6.EXIT")

ch=int(input("Enter your choice:"))

if ch==1:

item=int(input("Enter element:"))

push(stack,item)

if ch==2:

pop(stack)

if ch==3:

peek(stack)

if ch==4:

display(stack)

if ch==5:

isempty(stack)

if ch==6:

break

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*output\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

=============== RESTART: C:/Users/cbkpc/Desktop/s2.py =============== ---- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:10

element to be inserted

[10]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:2

popping elements: 10

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:20

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:30

element to be inserted

[30]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:40

element to be inserted

[30, 40]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:2

popping elements: 40

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:10

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:5

stack contains 1 elements

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:4

stack element: [30]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:10

element to be inserted

[30, 10]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:20

element to be inserted

[30, 10, 20]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:30

element to be inserted

[30, 10, 20, 30]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:4

stack element: [30, 10, 20, 30]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:3

the element at peek: 30

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:1

Enter element:300

element to be inserted

[30, 10, 20, 30, 300]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:4

stack element: [30, 10, 20, 30, 300]

----- stack opration------

1.PUSH

2.POP

3.PEEK

4.DISPLAY

5.ISEMPTY

6.EXIT

Enter your choice:6