## Practical 8

**Aim:**

**Write a Program in Python to implement a Stack Data Structure using Class and Objects, with push, pop, and traversal method.**

**Code:**

class Stack(object):

def \_\_init\_\_(self, size):

self.index = []

self.size = size

def push(self, data):

''' Pushes a element to top of the stack '''

if (self.isFull() != True):

self.index.append(data)

print("Element Pushed.")

else:

print('Stack overflow')

def pop(self):

''' Pops the top element '''

if (self.isEmpty() != True):

print("Element Poped")

return self.index.pop()

else:

print('Stack is already empty!')

def isEmpty(self):

''' Checks whether the stack is empty '''

return len(self.index) == []

def isFull(self):

''' Checks whether the stack if full '''

return len(self.index) == self.size

def stackSize(self):

''' Returns the current stack size '''

return len(self.index)

def \_\_str\_\_(self):

myString = ' '.join(str(i) for i in self.index)

return myString

def traversal(self):

print("\nTraversal :- ",self,"\n")

if \_\_name\_\_ == '\_\_main\_\_':

st = Stack(10)

st.push(10)

st.push(20)

st.push(30)

st.push(50)

st.push(40)

st.push(100)

st.push(60)

st.push(90)

st.traversal()

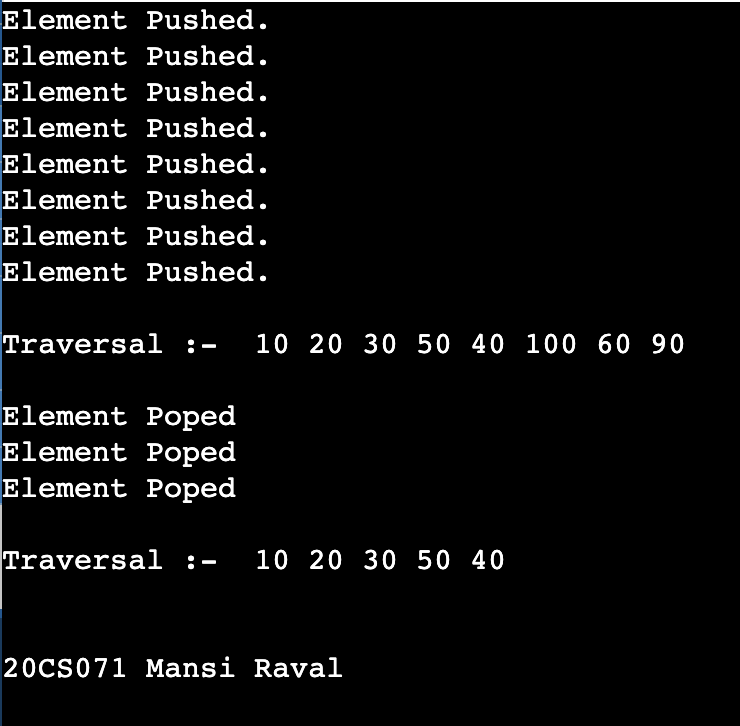
st.pop()

st.pop()

st.pop()

st.traversal()

print("\n20CS071 Mansi Raval")

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