CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY FACULTY OF TECHNOLOGY AND ENGINEERING

Chandubhai S. Patel Institute of Technology

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

```
##
# Jekeel Shah 20CS080
# Practical 8
# #

# Creating a stack
def create_stack():
  stack = []
  return stack

def check_empty(stack):
  return len(stack) == 0

# Push operation
def push(stack, item):
  stack.append(item)
  print('Pushed element',item,'into the stack!')

# Pop operation
def pop(stack):
  if (check_empty(stack)):
    return "Stack is empty! :("
  return stack.pop()

stack = create_stack()
print('Enter number of elements to be pushed into the stack: ',end=' ')
count = int(input())
print()

for  i  in range(count):
    print('Enter data for element',i+1,': ',end=' ')
    data = int(input())
```

```
    push(stack,str(data))
    print()

print()
print("Popped element: " + pop(stack))
print()
print("Stack after Pop operation : " + str(stack))
print()
print('Prepared by Jekeel Shah 20CS080')
print('Thank you! :)')
```

OUTPUT

```
Enter number of elements to be pushed into the stack:  4

Enter data for element 1 :  10
Pushed element 10 into the stack!

Enter data for element 2 :  20
Pushed element 20 into the stack!

Enter data for element 3 :  30
Pushed element 30 into the stack!

Enter data for element 4 :  40
Pushed element 40 into the stack!


Popped element: 40

Stack after Pop operation : ['10', '20', '30']

Prepared by Jekeel Shah 20CS080
Thank you! :)
PS E:\Charusat 2020-24\Sem 4>
```

Github Repository link:
https://github.com/JekeelShah-20CS080/Programming_in_Python.git