

Assignment : STACK

Write PUSH(City) and POP(City) methods in Python to add city and remove city considering them to act as Push and Pop operations of data structure Stack.

Write a function in python, PushEl(e) to add a new element and PopEl(e) to delete a element from a List, considering them to act as push and pop operations of the Stack data structure.

OR

Write a function in Python, Push(SItem) where , SItem is a dictionary containing the details of stationary items—{Sname:price}. The function should push the names of those items in the stack who have price greater than 75. Also display the count of elements pushed into the stack.

For example: If the dictionary contains the following data:

Ditem={"Pen":106,"Pencil":59,"Notebook":80,"Eraser":25}

The stack should contain:

Notebook Pen

The output should be: The count of elements in the stack is 2

A List contains following record of a Book :

[Book Name, Write Name, Price]

Write the following user defined functions to perform given operations on the stack named "BOOK":

- (i) Push_Rec() – To push the record containing Book name and author name of Books having price > 500 to the stack.
- (ii) Pop_Rec() – To pop the objects from the stack and display them. Also display "STACK UNDERFLOW" when there are no elements in the Stack.

OR

Write a function in Python, Push(Item) where Item is a list containing the details of Bakery Items – [[Name, Price], [Name, Price], [Name, Price]]

The function should push the names of those items in the Stack who have price less than Rs. 50. Also display the count of elements pushed into the Stack.

(A) Write a Program in Python that defines and calls the following user defined functions: Add_Book():

To accept data of new book and add to 'library.csv' file. The record of book consists book_id, book_name and book_price in form of python list.

Show_Book():

To read the records of books from 'library.csv' file and display the record of books which price is more than Rs. 500.

Write definition of a Method MSEARCH(STATES) to display all the state names from a list of STATES, which are starting with alphabet M.

For example:

If the list STATES contains ["MP", "UP", "MH", "DL", "MZ", "WB"]

The following should get

displayed MP

MH

MZ

Assignment : STACK

Write a function in Python push(S,item), where S is stack and item is element to be inserted in the stack.

OR

Write a function in Python pop(S), where S is a stack implemented by a list of items. The function returns the value deleted from the stack.

Write a function listchange(Arr) in Python, which accepts a list Arr of numbers, the function will replace the even number by value 10 and multiply odd number by 5.

Sample Input Data of the list is:

```
a=[10,20,23,45]
```

```
listchange(a,4)
```

```
output : [10, 10, 115, 225]
```

Write a function in python, PushEl(element) and MakeEl(element) to add a new element and delete a element from a List of element Description, considering them to act as push and pop operations of the Stack data structure .

Or

Write a function in Python PUSH(A), where A is a list of numbers. From this list push all even numbers into a stack implemented by using a list. Display the stack if it has at least one element, otherwise display appropriate error message

Write PushOn(Student) and Pop(Student) methods/functions in Python to add a new Student and delete a Student from a list of Student Name, considering them to act as push and pop operations of the Stack data structure.

Write a function in Python, Push(emp) where , **emp** is a dictionary containing the details of employees – {empname:salary}.

The function should push the names of those employees in the stack who have salary less than 15000. Also display the count of elements pushed into the stack.

For example:

If the dictionary contains the following data:

```
Employee ={"Sohan":20000,"Mohan":9000,"Rohan":25000,"Aman":5000}
```

The stack should contain

Mohan

Aman

The output should be:

The count of elements in the stack is 2

A list contains following record of a student:

```
[student_name, marks, subject]
```

Write the following user defined functions to perform given operations on the stack named 'status':

(i) Push_element() - To Push an object containing name and marks of a student who scored more than 75 marks in 'CS' to the stack

(ii) Pop_element() - To Pop the objects from the stack and display them. Also, display "Stack Empty" when there are no elements in the stack.

Assignment : STACK

Find the final contents of a stack on which the following operations are done.

1. Push(100)
2. Push(200)
3. Push(50)
4. Push(50)
5. Pop()
6. Push()
7. Pop(2)
8. Pop()

Consider the following operations are done on a stack. What will be the final status of the stack after all the operations are performed.

- (a) Push(True) (b) Push(False) (c) Push(10)
(d) Pop() (e) Push(50) (f) Push(70)
(g) Pop() (h) Pop()

Find the final contents of a stack that encounters the following tokens.

Assume that an operand is pushed to stack and a binary operator pops two operands from stack and pushes the result to the stack.

7,11,*,80,+,50,+

Write a function AddCustomer(Customer) in Python to add a new Customer information NAME into the List of CStack and display the information.

Write a function DeleteCustomer() to delete a Customer information from a list of CStack. The function delete the name of customer from the stack.

Write a function in python named PUSH(STACK, SET) where STACK is list of some numbers forming a stack and SET is a list of some numbers. The function will push all the EVEN elements from the SET into a STACK implemented by using a list. Display the stack after push operation.

Write a function in python named POP(STACK) where STACK is a stack implemented by a list of numbers. The function will display the popped element after function call.

Write a function in Python PUSH(Arr), where Arr is a list of numbers. From this list push all numbers divisible by 5 into a stack implemented by using a list. Display the stack if it has at least one element, otherwise display appropriate error message.

Write a function in Python POP(Arr), where Arr is a stack implemented by a list of numbers. The function returns the value deleted from the stack.

Write a function in Python PushBook(Book) to add a new book entry as book_no and book_title in the list of Books, considering it to act as push operations of the Stack data structure.

Write a function in Python PopBook(Book), where Book is a stack implemented by a list of books. The function returns the value deleted from the stack.

Assignment : STACK

Write a function in Python PUSH (Lst), where Lst is a list of numbers. From this list push all numbers not divisible by 6 into a stack implemented by using a list. Display the stack if it has at least one element, otherwise display appropriate error message.

Write a function in Python POP(Lst), where Lst is a stack implemented by a list of numbers. The function returns the value deleted from the stack

A linear stack called status contains the following information : Phone number of Employee Name of Employee Write the following methods to perform given operations on the stack status :

- (i) Push_element () To Push an object containing Phone number of Employee and Name of Employee into the stack.
- (ii) Pop_element () To Pop an object from the stack and to release the memory

Assignment : STACK