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| --- | --- |
| **Total Marks:** | **7.5** |
| **Obtained Marks:** |  |

**DATA STRUCTURE**

**AND**

**ALGORITHM**

**Lab Report # 05**

**Submitted To: Mam Tehreen**

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**Submitted By**: **Hammad Qureshi**  .

**Reg. Numbers: 2112114**

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**Question no 1:**

**Task 1: Modify the data type in the array stack code-block in order to be accepting char type  
of data. Make required changes accordingly.  
Task 2: Create a function to delete a complete stack and add this function into the above Link List code-block.**

**Code:**

|  |
| --- |
| #include <iostream>  using namespace std;  #define SIZE 10  class stack {  char stackData[SIZE]; // holds the stack  int topOfStack; // index of top-of-stack  public:  stack() { topOfStack = 0; }  void push(char ch)  {  if(topOfStack==SIZE) {  cout << "Stack is full\n";  return;  }  stackData[topOfStack] = ch;  topOfStack++;  }  char pop()  {  if(topOfStack==0) {  cout << "Stack is empty\n";  return 0; // return null on empty stack  }  topOfStack--;  return stackData[topOfStack];  }  };  int main()  {  stack stackObject1, stackObject2;  int i;  stackObject1.push('a');  stackObject1.push('x');  stackObject1.push('b');  stackObject2.push('y');  stackObject2.push('c');  stackObject2.push('z');  for(i = 0; i <3; i++)  cout << "Pop stackObject1: " << stackObject1.pop() << endl;  for(i = 0; i <3; i++)  cout << "Pop stackObject2: " << stackObject2.pop() << endl;  return 0;  } |

**CONSOLE SCREEN:**

