

CE 221 – STACK LAB

Download *Node.java*, *MyStack.java*, *MyStackFacilities.java* and *Main.java*, from <http://homes.ieu.edu.tr/tunay>. Create a Java Project, put all downloaded Java files in the same package.

1. Initialize a *MyStack* object.
2. Push the letters in your first name one by one using ***push(String)*** function in such order that when ***printElements()*** is called your name will be printed out.
3. Print out the elements in the stack using ***printElements()*** function.
4. Write a function named ***void empty()*** in the *MyStack* class which removes (pops) each element in the stack. Use ***empty()*** function to empty your stack.
5. Write a function named ***boolean matchParanthesis(String word)*** in the *MyStackFacilities* class which takes a string as an input and returns true if the parentheses () [] { } in the given string matches. Otherwise, it returns false.
 - **EX:** True: {123abc}, {(abc)(123)}, [defg{abc}(d)]
 - **EX:** False: {123, abcd}, (de)}abc
 - **You suppose to use MyStack object (st) in the MyStackFacilities class to solve this problem.**
6. Initialize a *MyStackFacilities* object and test the following strings using ***matchParanthesis(String)*** function:
 - a. {123abc}
 - b. (de)}abc
 - c. [defg{abc}(d)]
7. Submit *Node.java*, *MyStack.java*, *MyStackFacilities.java* and *Main.java* to ce221ieu@gmail.com. No project files, no .class files, just .java files. Your subject must be **StackLab_Friday_Your_Name**. If you are in a group, specify the group members in the mail body. Single submission per group, **do not** submit same submission for each group member.

Grading

- 1) If you work alone, your submission will be graded over 120 points.
- 2) If you work as a group up to three people, your submission will be graded over 100 points.
- 3) If you work as a group up to four people, your submission will be graded over 90 points.
- 4) If you work as a group up to five people, your submission will be graded over 70 points.
- 5) Groups more than five people are not allowed.
- 6) Any obvious similarities between two groups or individuals will be considered as cheating and all group members will get 0 as their grades.
- 7) Please consider that cheating is also a disciplinary matter.