

**GIT Department of Computer Engineering**  
**CSE 222/505 - Spring 2015**  
**Homework 03**  
**Due date: March 9, 06.00 am**

You will implement a specific list class called SpecList.

**SpecList;**

- **must extend JAVA-LinkedList**
- **has three extra procedures that perform the following tasks**
  - Appends all of the elements in the specified collection to the head of the list.  
`Boolean addAllAtHead(Collection<? extends E> c)`
  - Finds and returns intersection list (list of unique elements available in both collections)  
`List<E> getIntersectList (Collection<? extends E> c)`
  - Sorts and returns list (use cocktail sort algorithm)  
`List<E> sortList(decreasing_or_increasing)`
- **perform run time analysis of these function and add all of these in your report**

**OBJECTIVES:**

- Preparing object oriented design for the problem
- Applying error handling
- Applying inheritance
- Applying code documentation
- Applying clean code standards
- Creating javadoc documentation

**RESTRICTIONS:**

- Use maven standard Project template
- Use only LinkedList data structure
- Can be only one main class in project
- Don't use any other third part library

## GENERAL RULES:

- For any question firstly use course news forum in moodle, and then the contact TA.
- Use [maven project management tool](#). And upload maven project into moodle.
- Code the Project in Java programming language. Java must be 1.8.\* or bigger version.
- Any java IDE can be used in coding process.
- Implement all interfaces class
- Add all [javadoc](#) documentations for classes, methods, variables ...etc. All explanation must be meaningful and understandable.
- Implement [clean code standarts](#) in your code;
  - o Classes, methods and variables names must be meaningful and related with the functionality.
  - o Your functions and classes must be simple, general, reusable and focus on one topic.
  - o Use standart [java code name conventions](#).
- Register [github student pack](#) and create private project and upload your projects into github.
- Your appeals are considered over your github project process.
- You can submitting assignment one day late and will be evaluated over forty percent (%40).
- Create report which include;
  - o Your name, surname, studentid
  - o Detailed system requirements
  - o The Project usecase diagrams (extra points)
  - o Class diagrams
  - o Problem solutions approach
  - o Test cases
  - o Running command and results

## GRADING :

- No OOP design : -100
- No maven Project : -100
- No error handling : -95
- No inheritance : -95
- No javadoc documentation : -95
- No clean code standard : -95
- No report : -90
- Disobey restrictions : -98
- Your solution is evaluated over 100 as your performance.

## CONTACT :

- Teacher Assistant : Şeyma Yücer Lab – 118