

Gebze Technical University
Department of Computer Engineering
CSE 241/505
Object Oriented Programming
Fall 2023
Homework # 3
Due date Jan 29th 2024
No Late Submissions Allowed!

JavaSet and **JavaVector** are two container classes that implement the **JavaContainer** interface.

The **JavaContainer** interface has the following methods

- **Add**: adds an element to the container
- **Remove**: removes a given element
- **Size**: returns the number of elements
- **getIterator**: returns an iterator object of class **Iterator** that has the following methods
 - **hasNext**: returns true if there is a next element
 - **next**: returns the next element and advances the iterator

All the classes have the following

- Overridden **ToString** method.
- Overridden **equals** method
- Uses keyword **var** in its implementation.

Your class uses a package and nicely provides javadoc comments.

Your driver code will be in a separate class. It will do the following

- Test each method at least 2 times and printing the results. Do not forget to test the constructors.
- Writes some sets to text files. Do not forget to include your saved files.

Notes:

- Do not use any Java Collection classes as your class fields.
- Do not use anything that we did not learn in the lectures unless asked.
- Check the validity of the user input.
- You should submit your work to the Teams page.
- You should also submit your PDF documentation produced by Javadoc utility.