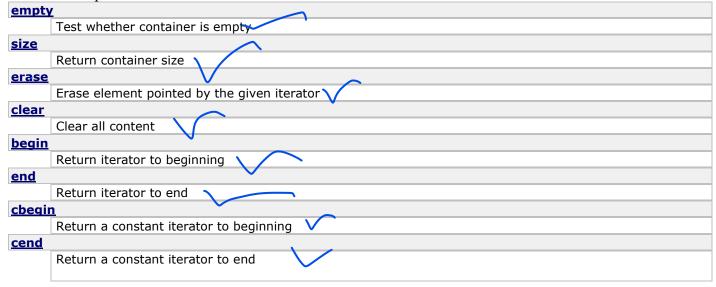
## Gebze Technical University Department of Computer Engineering CSE 241/505

## Object Oriented Programming Fall 2022 Homework # 6 Iterators

Due date: Jan 5th 2023

In this homework, you will convert our templated PFArray class to a class below

- Your class will be fully dynamic, no limits for array size as long as there is memory
- It throws appropriate exceptions for errors
- It implements the all the iterator functions as described below



- It will keep their data using dynamic memory techniques with shared\_ptr STL pointers. Do not use regular pointers or STL container classes as data members.
- It should implement move semantics functions.
- The returned iterators should implement iterator operators such as \*, ->, ++, --, =, and ==.
- Your classes should be compatible with range based for loop, std::find, std::for\_each and std::sort.

Write your driver program to test the all the class functions. Do not forget to test the compatibility with all std algorithms.

## Notes

- Use separate header and implementation files for each class.
- Use name spaces.
- Do not forget to define and test exceptions.
- Submit your source file and makefile