

CSCI-101 Programming I

Lab 6a

Name _____

In your **labs** directory, create a directory named **lab6**. In the **lab6** directory create the following files.

1. Write a generic class named **OddArrayList** that satisfies the following properties.
 1. The class has a constructor that takes an integer as an argument and initializes a field that contains an array of **Objects** whose length is equal to the value passed into the constructor.
 2. The class has a method named **add** that adds a generic element to the array at the smallest index possible. If the array is full the method throws a **AintNoRoomException**.
 3. The class has a method named **size** that returns the number of elements that have been added to the array.
 4. The class implements the **Iterable** interface. The iterator returns only the non-null elements in the list that have odd indices.
2. Write a program in a file named **Driver.java**.
 1. The program creates an instance of **OddArrayList** that can hold 10 integers, adds the values 1, 2, 3, 4, and 5 to the list, and then use the class's iterator to print the elements in the list that have odd indices.