

ArrayList Lab

1) Consider the following code segment.

```
ArrayList<String> numbers = new ArrayList<String>();  
numbers.add("one");  
numbers.add("two");  
numbers.add(0, "three");  
numbers.set(2, "four");  
numbers.add("five");  
numbers.remove(1);
```

- a) What are the contents of `numbers` after execution?
- b) Can I add `numbers.add(15)` to the end?
- c) If I change the first line to
`ArrayList numbers = new ArrayList();`
Would b) work now? Does the rest still work too?
- d) What are the pros and cons of using a parameterized `ArrayList`?

- 2) Write code to:
- a) create an `ArrayList`, call it `a1`.
 - b) add integers 0 through 9 to `a1` (use a loop)
 - c) remove all odd numbers from `a1`
 - d) print out all remaining items in `a1`

- 3) Given a `String` array `words`, write code to insert only the strings longer than three letters in `words` into an `ArrayList` called `longWords`. For example, if the contents of `words` are as shown below, then `longWords` should contain "subway1", "computer", "fish".

```
String[] words = {"subway", "cat", "computer", "fish",  
"fee", "ox"};
```

- 4) Write a function `int count(ArrayList<String> lst, String str)`, which returns the number of times `str` appears in the `lst`.