

# Java Programming for Beginners

## Lab Exercise 4

### Answer Key

1) The **String** class provides us with the *toCharArray()* method which allows us to get an array of characters from a String object. For example:

```
char[] c = "Hello".toCharArray();
```

Using this knowledge, write Java code which will accept only words containing no vowels.

SOLVED IN ATTACHED JAVA CLASS FILE

2) In Java programming, **lists** allow us to easily manage collections of changing sizes. Write an infinite loop which will prompt a user for an integer value to add to an **ArrayList<Integer>**. After each value is added, print out the sum of all numbers in the list. (Hint: **ArrayLists** don't support primitive types, so use the **Integer** class instead. It works very similarly to **int**.)

SOLVED IN ATTACHED JAVA CLASS FILE

3) Just as we can create multi-dimensional arrays, Java also allows us to nest other data structures. How might you declare a dictionary of lists, each indexed by a **String** "name"?

```
Dictionary<String,ArrayList<Integer>> mapOfLists;
```

