


# Java ArrayList example

## abstract

Java class ArrayList([java.util.ArrayList](#)) is a fast and easy to use class representing one-dimensional array. ArrayList is not synchronized. 

## compatible

- Sun Java 1.5 or higher (because this example uses **generics**)

ArrayList class provides methods for basic array operations:

add( Object o ) - puts reference to object into ArrayList

get( int index ) - retrieves object reference from ArrayList *index* position

size() - returns ArrayList size

remove( int index ) - removes the element at the specified position in this list. Shifts any subsequent elements to the left and returns the removed element

indexOf( Object o ) - finds the index in this list of the first occurrence of the specified element

clear() - removes all of the elements

Following example ask user for his/her name, and suggests him/her a vacation place.

ArrayList "myarr" is filled with resort names(add method). After user enters his name, we calculate residue of division of user's name length by myarr.size()-1 -- which is suitable as array index.

source code: Java

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.ArrayList;

public class Ex01 {

    public static void main(String[] args) throws IOException {

        BufferedReader userInput = new BufferedReader
            (new InputStreamReader(System.in));

        ArrayList<String> myArr = new ArrayList<String>();
        myArr.add("Italian Riviera");
        myArr.add("Jersey Shore");
        myArr.add("Puerto Rico");
        myArr.add("Los Cabos Corridor");
        myArr.add("Lubmin");
        myArr.add("Coney Island");
        myArr.add("Karlovy Vary");
        myArr.add("Bourbon-l'Archambault");
        myArr.add("Walt Disney World Resort");
```

```

myArr.add("Barbados");

System.out.println("Stupid Vacation Resort Adviser");
System.out.println("Enter your name:");
String name = userInput.readLine();
Integer nameLength = name.length();
if (nameLength == 0)
{
    System.out.println("empty name entered");
    return;
}

Integer vacationIndex = nameLength % myArr.size();

System.out.println("\nYour name is "+name+", its length is " +
                    nameLength + " characters,\n" +
                    "that's why we suggest you to go to "
                    + myArr.get(vacationIndex));
}
}

```

warning



- ArrayList stores **only** object references. That's why, it's impossible to use primitive data types like double or int. Use wrapper classes.
- For multi-threaded(synchronized) array class use Vector (java.lang.Vector)