

Practice Problems 6.2

ArrayLists

DECLARING ARRAYLISTS

Similar to the questions in Practice Problems 6.1, declare the following ArrayLists with an appropriate data type. Problem 6 gives you the data type.

- | | | | |
|---------------|--|----------------|---|
| 1) chptrPages | <u><code>ArrayList <int> chptrPages;</code></u> | 4) flipWins | <u><code>ArrayList <int> flipWins;</code></u> |
| 2) bkPrices | <u><code>ArrayList <double> bkPrices;</code></u> | 5) pssbleChars | <u><code>ArrayList <char> pssbleChars;</code></u> |
| 3) bkTitles | <u><code>ArrayList <String> bkTitles;</code></u> | 6) lot, Car | <u><code>ArrayList <boolean> lot;</code></u> |

INITIALIZING ARRAYLISTS

Similar to the questions in Practice Problems 6.2, initialize the ArrayLists from the DECLARING ARRAYLIST section.

- | | |
|--|---|
| 1) <u><code>chptrPages = new ArrayList<int>();</code></u> | 4) <u><code>flipWins = new ArrayList<int>();</code></u> |
| 2) <u><code>bkPrices = new ArrayList<double>();</code></u> | 5) <u><code>pssbleChars = new ArrayList<char>();</code></u> |
| 3) <u><code>bkTitles = new ArrayList<String>();</code></u> | 6) <u><code>lot = new ArrayList<boolean>();</code></u> |

USING AN ARRAYLIST

Write a program that uses ArrayLists to find the sum and average of 2, 3, 5, 7, 8, and 9. Do not prompt the user for numbers. You are given the main method, write the methods that allow it to work.

```
public static void main(String[] args) {
    //Get the values in the ArrayList
    ArrayList<Integer> nums = getValues();

    //Sum the values in the ArrayList
    int sum = findSum(nums);

    //Get the average of the values
    double avg = findAvg(sum, 6.0);

    //Display the numbers with their average
    System.out.print("The average of ");
    for(int i = 0; i < 5; i++){
        System.out.print( nums.get(i) + ", ");
    }
    System.out.print("and " + nums.get(5) + " is " + avg);
    System.out.println(".");
}
```

Add your work below:

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```
public static int getValues() {
    ArrayList <int> nums;
    nums = new ArrayList<int>();
    nums.add(2,3,5,7,8,9);
    return nums;
}
public static int findSum(int nums) {
    int sum = nums;
    sum += array[nums];
    return sum;
}
public static double findAvg(int sum) {
    int average = sum/6;
    return average;
}
```