Tuesday, November 2, 2021, 12:18 PM

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1. Select the ways a List differs from an array (select all that apply):

Show Results 22/23 Students Answered

A A List's length doesn't need to be declared. ✓

B You can add different data types to a List. ✗

C Elements can be easily added to and removed from the middle of a List. ✓

D You can't access a List element at a particular index. ✗

E You use a different method to retrieve the number of elements in a List. ✓

Show explanation

<T>

myList.get(5);

Lists can only hold reference types

<Integer>

myList.add(5, "Bob");

myArray.length
vs
myList.size()

for each loop in Java:

```
for (Integer myInt : myList) {
    myInt;  // gives me access to each element in the List
}
```

```
int[] myArray = new Array[5];
List<Integer> myList = new ArrayList<>();
```

To loop through an array:

```
for (int i = 0; i < myArray.length; i++){
    myArray[i];
}
```

To loop through the List:

```
for (int i = 0; i < myList.size(); i++) {
    myList.get(i);
}
```

loads all the values into the list for me

```
List <Integer> myList = new ArrayList(Arrays.asList({4, 6, 8, 1, 12, 3});
```

Write a loop that counts how many values are > 5:

```
int count = 0;

for (Integer number: myList) {
    if (number > 5) {
        count++;
    }
}
return count or System.out.println(count);
```

```
Int count =0;

for (int i = 0; i < myList.size(); i++) {
  int number = myList.get(i);
  if (number > 5) {
      count++;
  }
}
return count or System.out.println(count)
```

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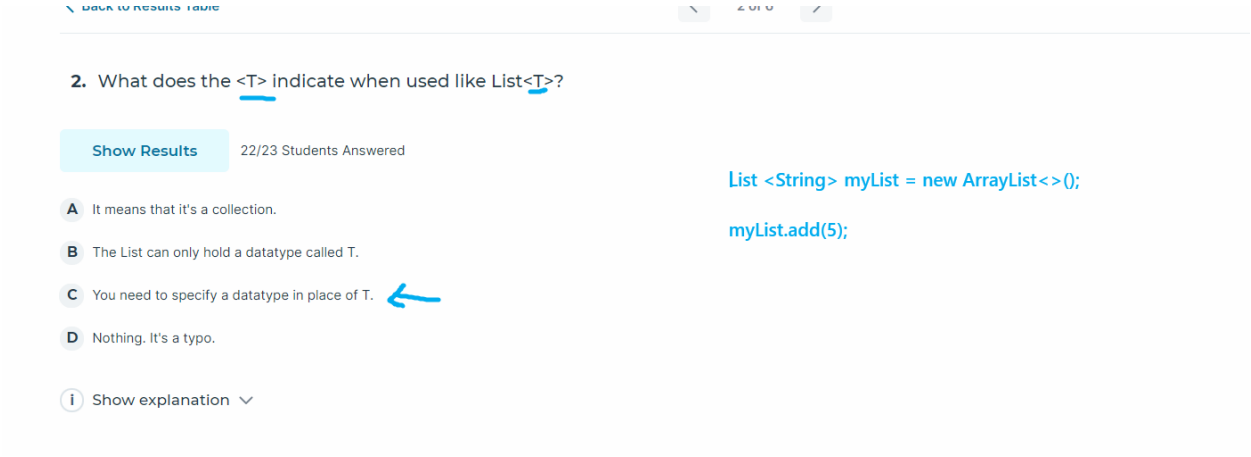

- Unordered collection — because Java we use the interface Map to the concrete class HashMap
  - Allows values to be located using user-defined keys
  - Snack machine
    - Key “a5” gets you a bag of Fritos

HashMap -- uses hashing algo to determine where in the heap to put the value.

a5