Quiz Submissions - Quiz #3

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Attempt 1

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Submission View

You successfully submitted your quiz.

Question 1 **1 / 1 point**

HashMap allows the existence of

- a) null values
- b) null key
- ✔ c) All of the above
- d) None of the above

Question 2 **1 / 2 points**

We worked with the ArrayList collection, we looked at the HashSet collection. In what ways are these two collections similar? In what ways are they different?

Similar:
They both can do iterator

Different:
When trying to look up a value of one element, HashSet will work faster based on the key while ArrayList will go through every elements to detect the correct value.

The correct answer is not displayed for Written Response type questions.

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Similarities: HashSet and ArrayList have methods in common, e.g. add(), remove(), size(), isEmpty(). Both can be iterated over, for example with a for each loop or with a while loop and Iterator

Differences: ArrayList can store duplicates while HashSet stores only unique objects, no duplicates. ArrayList uses an index and stores items in the order in which they are added. HashSet uses an algorithm to decide where to store items, no guarantee of the order.

Question 3 **2 / 2 points**

How is the HashMap different from a HashSet? How is it similar?

Different:
+ HashMap: Can't do iterator
+ HashSet: can do iterator

Similar:
+ No order preservation
+ No index

The correct answer is not displayed for Written Response type questions.

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Differences: HashMap stores objects in pairs, key and value. It cannot be iterated over. HashSet stores individual objects, not pairs. It can be iterated over.

Similarities: The objects stored in a HashSet are unique. The keys stored in a HashMap are unique. Both use a hashing algorithm to decide where to store objects.

Question 4 **1 / 1 point**

The key to value mapping in a HashMap is a _____ mapping

- a) many to many
- b) many to one
- c) one to many
- ✓ d) one to one

Question 5 **1 / 1 point**

What will be the output of the following code?

```
import java.util.HashMap;
public class Employee {

 private String name;

public Employee(String name) {
this.name = name;
}
public String getName() {
return name;
}
public static void main(String[] args) {

HashMap<Employee,String> hm = new HashMap<Employee,String>();
Employee e1 = new Employee("Bob");
Employee e2= new Employee("Max");
hm.put(e1,"good employee");
hm.put(e2,"bad employee");
hm.put(e1,"fine employee");

System.out.println(hm.size());
}
 }
```

a) 1

✔ b) 2

c) 3

d) compiling error

Question 6 **1 / 1 point**

Which of these maintains insertion order?

1. ArrayList
2. HashSet

✔ a) Only 1

b) Only 2

c) Both 1 and 2

d) None of them

Question 7 **1 / 1 point**

Assume that the HashMap class has been imported, What is wrong with this declaration?

private HashMap<String, double> courseGrades;

HashMap does not hold primitive type

The correct answer is not displayed for Written Response type questions.

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HashMap, like all other Java collection classes (except array) stores only object types, not primitives. The data type double indicates a primitive.

Question 8 **1 / 3 points**

Assume that contactList is a hash Map that has been correctly declared and initialized to hold your friends names and email addresses. Name and email address are both String type values. Fill in the code segment below to display all your friends names and email addresses

```
public void displayContacts(){


// you code goes here


}
```

```
for (String name: friendsName.keySet()){
   System.out.println("Friend Name: "+ name +"\t" + "Email: " + hashmap.get(name));
}
```

The correct answer is not displayed for Written Response type questions.

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```
for(String contact: contactList.keySet()) {
System.out.println(" name is "+ contact + " email is "+ contactList.get(contact));
}
```

```
// OR

for(Map.Entry<String,String> contact:contactList.entrySet()) {
System.out.println(" name is "+ contact.getKey() + " email is "+ contact.getValue());
}
```

Attempt Score:9 / 12

Overall Grade (highest attempt)**:**9 / 12

Done