

Assignment Questions on Java Set Interface

1. Creating and Adding Elements:

Write a Java program to create a HashSet of Double values representing various temperatures. Add five different temperatures to the set and display the contents of the set.

2. Removing Elements:

Write a Java program to create a LinkedHashSet of Character values representing different characters. Add ten different characters to the set. Remove a specific character and display the remaining elements in the set.

3. Checking Existence:

Write a Java program to create a TreeSet of Integer values representing ages of people in a group. Add five ages to the set. Check if a specific age is present in the set and display the result.

4. Iterating through a Set:

Write a Java program to create a HashSet of String values where each string represents a color. Add six different colors to the set. Use both a for-each loop and an Iterator to iterate through the set and print each color.

5. Size of a Set:

Write a Java program to create a LinkedHashSet of Double values representing various monetary amounts. Add four different amounts to the set. Display the size of the set.

6. Set Union:

Write a Java program to create two HashSet objects containing String values. The first set should include names of various fruits, and the second set should include names of various vegetables. Compute and display the union of these two sets.

7. Set Intersection:

Write a Java program to create two TreeSet objects containing String values representing different hobbies. The first set should include five hobbies, and the second set should include another set of hobbies (some of which are shared). Compute and display the intersection of these two sets.

8. Set Difference:

Write a Java program to create two HashSet objects containing Integer values. The first set should include numbers from 1 to 10, and the second set should include numbers from 5 to 15. Compute and display the difference between these two sets (elements in the first set but not in the second).

9. Subset Check:

Write a Java program to create two TreeSet objects containing String values. The first set should represent a list of primary colors, and the second set should represent a list of colors that includes primary colors and others. Check if the first set is a subset of the second set and display the result.

10. Removing Duplicates from a List:

Write a Java program to create a List of String values with some duplicate elements. Convert this list to a Set to remove duplicates and then convert it back to a List. Display the original list and the list after removing duplicates.

11. Unique Email Addresses:

Write a Java program to create a HashSet of String values where each string represents an email address. Add several email addresses to the set, including duplicates. Display the unique email addresses.

12. Library Book Categories:

Write a Java program to create a LinkedHashSet of String values representing different book categories in a library. Add categories such as Fiction, Non-Fiction, Science, and History. Display the categories in the order they were added.

13. Unique Phone Numbers:

Write a Java program to create a TreeSet of String values representing phone numbers. Add several phone numbers to the set, including duplicates. Display the phone numbers sorted in ascending order.

14. Unique Tags for Blog Posts:

Write a Java program to create a HashSet of String values representing tags used in blog posts. Add various tags to the set. Compute and display the total number of unique tags.

15. Task Management:

Write a Java program to create a TreeSet of String values where each string represents a task. Add tasks to the set, ensuring no duplicates. Display the tasks in alphabetical order.

