Session-2 Lab

1. Write a Java program that demonstrates the following operations on a HashSet:

● Create a HashSet of integers.

● Add the numbers 5, 10, 15, 20, and 25 to the set. ● Display the elements of the set.

● Check if the set contains the number 10.

● Remove the number 15 from the set.

● Display the size of the set.

2. Write a Java program to simulate the "Hot Potato" game using a queue. In this game, players stand in a circle and pass a potato (or any other object) while music plays. When the music stops, the player holding the potato is out.

● Create a queue to represent the circle of players.

● Enqueue player names.

● Dequeue players one by one and enqueue them again to simulate passing the potato.

● Repeat the dequeue and enqueue process, simulating the music stopping and players being eliminated until only one player remains.