Exp 9 round robin load balancer

Code

import java.util.ArrayList;

import java.util.List;

import java.util.Scanner;

public class RoundRobinLoadBalancer {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the processes separated by spaces: ");

String input = scanner.nextLine();

String[] inputArray = input.split(" ");

List<Integer> processes = new ArrayList<>();

for (String str : inputArray) {

processes.add(Integer.parseInt(str));

}

scanner.close();

int numServers = 4;

List<List<Integer>> servers = new ArrayList<>();

for (int i = 0; i < numServers; i++) {

servers.add(new ArrayList<>());

}

// Balance processes among servers using round-robin

int serverIndex = 0;

for (Integer process : processes) {

servers.get(serverIndex).add(process);

serverIndex = (serverIndex + 1) % numServers;

}

// Output the processes after balancing

for (int i = 0; i < servers.size(); i++) {

System.out.println("Server " + (i + 1) + " Processes: " + servers.get(i));

}

}

}

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Enter the processes separated by spaces: 1 2 3 4 5 6 7

Server 1 Processes: [1, 5]

Server 2 Processes: [2, 6]

Server 3 Processes: [3, 7]

Server 4 Processes: [4]

=== Code Execution Successful ===