ROUND ROBIN SCHEDULING ALGORITHM

**import java.util.Scanner;**

**public class RoundRobin {**

**public static void main(String[] args) {**

**Scanner sc = new Scanner(System.in);**

**System.out.print("Enter the number of processes: ");**

**int n = sc.nextInt();**

**int[] burstTime = new int[n];**

**int[] waitingTime = new int[n];**

**int[] turnAroundTime = new int[n];**

**int[] remainingTime = new int[n];**

**System.out.print("Enter the time quantum: ");**

**int quantum = sc.nextInt();**

**System.out.println("Enter burst time for each process:");**

**for (int i = 0; i < n; i++) {**

**System.out.print("Process " + (i + 1) + ": ");**

**burstTime[i] = sc.nextInt();**

**remainingTime[i] = burstTime[i];**

**}**

**int currentTime = 0;**

**boolean done;**

**do {**

**done = true;**

**for (int i = 0; i < n; i++) {**

**if (remainingTime[i] > 0) {**

**done = false;**

**if (remainingTime[i] > quantum) {**

**currentTime += quantum;**

**remainingTime[i] -= quantum;**

**} else {**

**currentTime += remainingTime[i];**

**waitingTime[i] = currentTime - burstTime[i];**

**remainingTime[i] = 0;**

**}**

**}**

**}**

**} while (!done);**

**for (int i = 0; i < n; i++) {**

**turnAroundTime[i] = burstTime[i] + waitingTime[i];**

**}**

**System.out.println("\nProcess\tBurst Time\tWaiting Time\tTurnaround Time");**

**int totalWaitingTime = 0;**

**int totalTurnAroundTime = 0;**

**for (int i = 0; i < n; i++) {**

**totalWaitingTime += waitingTime[i];**

**totalTurnAroundTime += turnAroundTime[i];**

**System.out.println("P" + (i + 1) + "\t\t" + burstTime[i] + "\t\t" + waitingTime[i] + "\t\t" + turnAroundTime[i]);**

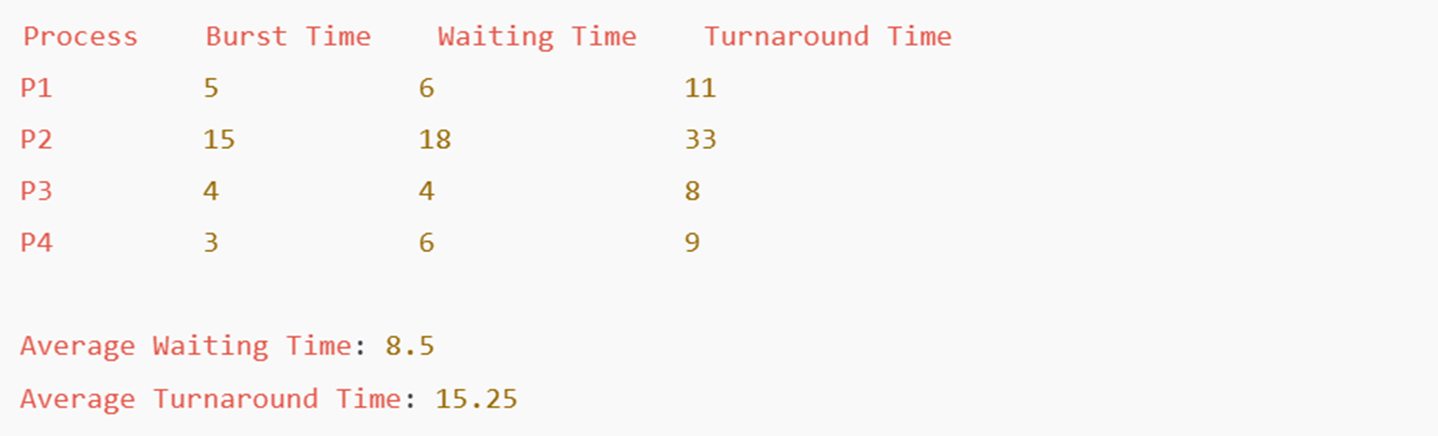
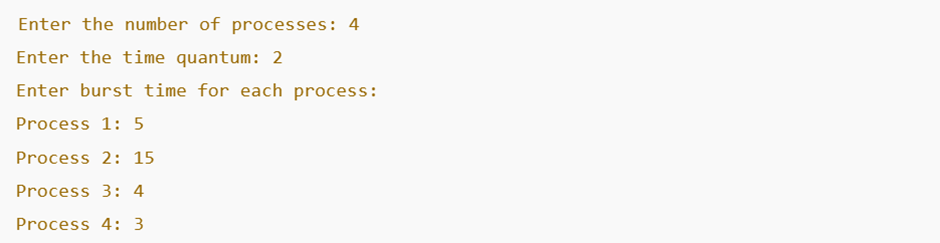
**}**

**System.out.println("\nAverage Waiting Time: " + (float) totalWaitingTime / n);**

**System.out.println("Average Turnaround Time: " + (float) totalTurnAroundTime / n);**

**}**

**}**

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