

FCFS:

```
import java.util.Scanner;
```

```
public class FCFS {
```

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

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

```
        int n, temp;
```

```
        float avgtat = 0, avgwt = 0;
```

```
        System.out.println("*** First Come First Serve Scheduling ***");
```

```
        System.out.print("Enter Number of Process: ");
```

```
        n = sc.nextInt();
```

```
        int process[] = new int[n];
```

```
        int arrivaltime[] = new int[n];
```

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

```
        int completionTime[] = new int[n];
```

```
        int TAT[] = new int[n];
```

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

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

```
            process[i] = (i + 1);
```

```
            System.out.print("\nEnter Arrival Time for processor " + (i + 1) + ":");
```

```
            arrivaltime[i] = sc.nextInt();
```

```
            System.out.print("Enter Burst Time for processor " + (i + 1) + ": ");
```

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

```
        }
```

```
        for (int i = 0; i < n - 1; i++) {
```

```
            for (int j = i + 1; j < n; j++) {
```

```
                if (arrivaltime[i] > arrivaltime[j]) {
```

```
                    temp = process[j];
```

```
                    process[j] = process[i];
```

```
                    process[i] = temp;
```

```
                    temp = arrivaltime[j];
```

```

        arrivaltime[j] = arrivaltime[i];
        arrivaltime[i] = temp;
        temp = burstTime[j];
        burstTime[j] = burstTime[i];
        burstTime[i] = temp;
    }
}
}
for (int i = 0; i < n; i++) {
    if (i == 0) {
        completionTime[i] = arrivaltime[i] + burstTime[i];
    } else {
        if (arrivaltime[i] > completionTime[i - 1]) {
            completionTime[i] = arrivaltime[i] + burstTime[i];
        } else {
            completionTime[i] = completionTime[i - 1] + burstTime[i];
        }
    }
}

```

```

System.out.println("\n*** First Come First Serve Scheduling ***");

```

```

System.out.println("Processor\tArrival time\tBurst time\tCompletion Time\tTurn around
time\tWaiting time");

```

```

System.out.println(
    "-----");
for (int i = 0; i < n; i++) {

```

```

    TAT[i] = completionTime[i] - arrivaltime[i];

```

```

    waitingTime[i] = TAT[i] - burstTime[i];

```

```

    avgtat += TAT[i];

```

```

    avgwt += waitingTime[i];

```

```

    System.out.println("P" + process[i] + "\t" + arrivaltime[i] + "ms\t" + burstTime[i] + "ms\t"
        + completionTime[i] + "ms\t\t" + TAT[i] + "ms\t\t" + waitingTime[i] + "ms");

```

```

    }
    System.out.println("\nAverage turn around time of processor: " + (avgtat / n)
        + "ms\nAverage waiting time of processor: " + (avgwt / n) + "ms");
    sc.close();
}
}

```

Output:

*** First Come First Serve Scheduling ***

Enter Number of Process: 4

Enter Arrival Time for processor 1:0

Enter Burst Time for processor 1: 1

Enter Arrival Time for processor 2:2

Enter Burst Time for processor 2: 3

Enter Arrival Time for processor 3:4

Enter Burst Time for processor 3: 3

Enter Arrival Time for processor 4:2

Enter Burst Time for processor 4: 1

*** First Come First Serve Scheduling ***

Processor	Arrival time	Burst time	Completion Time	Turn around time	Waiting time

P1	0ms	1ms	1ms	1ms	0ms
P2	2ms	3ms	5ms	3ms	0ms
P4	2ms	1ms	6ms	4ms	3ms
P3	4ms	3ms	9ms	5ms	2ms

Average turn around time of processor: 3.25ms

Average waiting time of processor: 1.25ms