

// program to simulate CPU Scheduling Algorithms: FCFS and SJF: (Using Switch Case):-

```
import java.util.*;
public class Main{
    public static void main(String args[]){

        int wt[],proc[],tat[],bst[],n,i,j,total=0;

        Scanner sc= new Scanner(System.in);

        System.out.println("Page scheduling MENU: ");

        System.out.println(" 1. Using FCFS?");
        System.out.println(" 2. Using SJF?");
        System.out.print("Your Choice==> ");
        int x= sc.nextInt();

        System.out.print("\nNo. of processes: ");
        n=sc.nextInt();
        proc = new int[n];
        wt=new int[n];
        bst=new int[n];
        tat= new int[n];

        switch (x){
        case 1:
            System.out.println("Enter Cpu time: ");
            for(i=0;i<n;i++){
                System.out.print(" Process["+(i+1)+"]: ");
                bst[i]=sc.nextInt();
                proc[i]=i+1;
            }
            wt[0]=0;
            for(i = 1;i<n;i++){
                wt[i]=0;
                for(j=0;j<i;j++){
                    wt[i]+=bst[j];
                    total+=wt[i];
                }
            }
            System.out.println("\nProcess\t\tBT\tWT\tTAT");
            System.out.println("-----");
            for(i=0;i<n;i++){
                tat[i]=wt[i]+bst[i];
                System.out.println("Proc["+proc[i]+"]\t\t"+bst[i]+" \t"+wt[i]+" \t"+tat[i]);
            }

        case 2:
            System.out.println("Enter Cpu time: ");
            for(i=0;i<n;i++){
                System.out.print(" Process["+(i+1)+"]: ");
                bst[i]=sc.nextInt();
                proc[i]=i+1;
            }
            for(i=0;i<n;i++){
                int pp=i;
                for(j=i+1;j<n;j++){
                    if(bst[j]<bst[pp])
                        pp=j;}

                int temp=bst[i];
                bst[i]=bst[pp];
                bst[pp]=temp;
            }
        }
    }
}
```

```

temp=proc[i];
proc[i]=proc[pp];
proc[pp]=temp;
}
wt[0]=0;
for(i = 1;i<n;i++){
wt[i]=0;
for(j=0;j<i;j++){
wt[i]+=bst[j];
total+=wt[i];
}
}
System.out.println("\nProcess\t\tBT\tWT\tTAT");
System.out.println("-----");
for(i=0;i<n;i++){
tat[i]=wt[i]+bst[i];
System.out.println("Proc["+proc[i]+"]\t\t"+bst[i]+" \t"+wt[i]+" \t"+tat[i]);
}
}
}
}

```