```java
//SJF -Preemptive
import java.util.Scanner;
public class SJFPreemptive {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter number of processes:");
      int n = sc.nextInt();
      int pid[] = new int[n];
      int at[] = new int[n];
      int bt[] = new int[n];
      int ct[] = new int[n];
      int tat[] = new int[n];
      int wt[] = new int[n];
      int bttt[] = new int[n];
      float atat = 0;
      float awt = 0;
      for (int i = 0; i < n; i++) {
         System.out.println("Enter the process id:");
         pid[i] = sc.nextInt();
         System.out.println("Enter the Arrival time:");
         at[i] = sc.nextInt();
         System.out.println("Enter the Burst time:");
         bt[i] = sc.nextInt();
         bttt[i] = bt[i];
      }
      int F[] = new int[n];
      for (int i = 0; i < n; i++) {
         F[i] = 0;
      }
      int st = 0;
      int total = 0;
      while (true) {
         int min = Integer.MAX_VALUE;
         int c = n;

         if (total == n)
            break;

         for (int i = 0; i < n; i++) {
            if (at[i] <= st && F[i] == 0 && min > bt[i]) {
               min = bt[i];
               c = i;
            }
         }
         if (c == n) {
            st++;
         } else {
            bt[c]--;
```

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            st++;
            if (bt[c] == 0) {
               ct[c] = st;
               total++;
               F[c] = 1;
            }
          }
      }
      for (int i = 0; i < n; i++) {
         tat[i] = ct[i] - at[i];
         wt[i] = tat[i] - bttt[i];
         atat += tat[i];
         awt += wt[i];
      }
      System.out.println("PID\tAT\tBT\tCT\tTAT\tWT");
      for (int i = 0; i < n; i++) {
         System.out.println(pid[i] + "\t" + at[i] + "\t" + bttt[i] + "\t" + ct[i] + "\t" + tat[i] + "\t" + wt[i]);
      }
      System.out.println("Average TAT and WT are: ");
      System.out.println("ATAT = " + (atat / n) + "\t" + "AWT = " + (awt / n));
      sc.close();
   }
}
```

OUTPUT:-

```
Enter number of processes:
3
Enter the process id:
1
Enter the Arrival time:
5
Enter the Burst time:
7
Enter the process id:
2
Enter the Arrival time:
8
Enter the Burst time:
4
Enter the process id:
3
Enter the Arrival time:
0
Enter the Burst time:
6
PID     AT      BT      CT      TAT     WT
1       5       7       17      12      5
2       8       4       12      4       0
3       0       6       6       6       0
Average TAT and WT are:
ATAT = 7.3333335        AWT = 1.6666666
```