```
#include<stdio.h>
#include<limits.h> // for INT_MAX

int i, j, n, flag, totalWT = 0, totalTAT = 0, proarr[20], noarr[20], ptr = -1;
int currentTime = 0, completed = 0, shortest = 0, minRemTime = INT_MAX;

struct process
{  int num, TR;
   int AT, BT, CT, TAT, WT;} pro[10], temp;

int main()
{  printf("Enter the Number of Processes: ");
   scanf("%d", &n);
   for (i = 0; i < n; i++)
   {  printf("Enter Process %d - Arrival Time & Burst Time: ", (i + 1));
      pro[i].num = (i + 1);
      scanf("%d", &pro[i].AT);
      scanf("%d", &pro[i].BT);
      pro[i].TR = pro[i].BT;  }

   while (completed != n)
   {  for (i = 0; i < n; i++)
      {  if ((pro[i].AT <= currentTime) && (pro[i].TR < minRemTime) && (pro[i].TR > 0))
         {  shortest = i;
            minRemTime = pro[i].TR;    }     }

      pro[shortest].TR--;
      minRemTime = pro[shortest].TR;

      if (ptr == -1 || proarr[ptr] != shortest)
      {  ptr++;
         proarr[ptr] = shortest;
         noarr[ptr] = currentTime;  }
      else
         noarr[ptr]++;
      if (minRemTime == 0)
         minRemTime = INT_MAX;
      if (pro[shortest].TR == 0)
      {
         completed++;
         pro[shortest].CT = currentTime + 1;
         pro[shortest].TAT = pro[shortest].CT - pro[shortest].AT;
         pro[shortest].WT = pro[shortest].TAT - pro[shortest].BT;
         totalWT += pro[shortest].WT;
         totalTAT += pro[shortest].TAT;     }
      currentTime++;                                }

   printf("\n\nGANTT CHART \n-----------------------------------------------------------\n");
   for (i = 0; i <= ptr; i++)
      printf("|  P%d\t", proarr[i] + 1);
   printf("|\n-----------------------------------------------------------------\n0\t");
   for (i = 0; i <= ptr; i++)
      printf("%d\t", noarr[i] + 1);
   printf("\n %15s %15s %15s %15s %15s %15s", "Process", "Arrival", "Burst", "Completion",
"TurnAround", "Waiting");
   printf("\n-------------------------------------------------------------------------");
   for (i = 0; i < n; i++)
      printf("\n        P%d %13d %15d %15d %15d %15d",
          pro[i].num, pro[i].AT, pro[i].BT, pro[i].CT, pro[i].TAT, pro[i].WT);

   printf("\n\n  Average Waiting Time      : %.2f ms", (float) totalWT / n);
   printf("\n  Average TurnAround Time    : %.2f ms", (float) totalTAT / n);
   return 0;  }
```