# Topic 6: 6. Construct a C program to implement pre-emptive priority scheduling algorithm.

#include <stdio.h>  
  
int main() {  
 int n, time = 0, smallest;  
 int at[10], bt[10], pr[10], rt[10], remain;  
 scanf("%d", &n);  
 remain = n;  
 for (int i = 0; i < n; i++) {  
 scanf("%d%d%d", &at[i], &bt[i], &pr[i]);  
 rt[i] = bt[i];  
 }  
 while (remain != 0) {  
 smallest = -1;  
 for (int i = 0; i < n; i++) {  
 if (at[i] <= time && rt[i] > 0) {  
 if (smallest == -1 || pr[i] > pr[smallest])  
 smallest = i;  
 }  
 }  
 if (smallest == -1) {  
 time++;  
 continue;  
 }  
 rt[smallest]--;  
 if (rt[smallest] == 0) {  
 remain--;  
 }  
 time++;  
 }  
 return 0;  
}