Aim :

Construct a scheduling program with C that selects the waiting process with the smallest execution time to execute next.

Algorithm :

1. Input Number of Processes: Prompt user for the number of processes.
2. Input Burst Times: For each process, prompt user for burst time and store it.
3. Sort Processes by Burst Time: Sort array of processes by burst time in ascending order.
4. Calculate Waiting Times: Compute waiting time for each process based on previous processes' burst times.
5. Calculate Turnaround Times: Calculate turnaround time for each process using its waiting time and burst time.
6. Output Process Details: Print process ID, burst time, waiting time, and turnaround time for each process.

Program & Output:

Conclusion :

In conclusion, the program effectively calculates and displays the waiting time, turnaround time, and averages for a set of processes based on user-input burst times, demonstrating fundamental principles of process scheduling in operating systems.