07/03/24

EXPERIMENT 5 (D)
PRIORITY SCHEDULING

AIM
Implement CPU scheduling program - Priority scheduling

ALGORITHM
STEP 0: START

STEP 1: Define a structure process with variables to store information such as process number (no), arrival time (at), burst time (bt), completion time (ct), start time (st), priority (pr), turnaround time (tt) and waiting time (wt)

STEP 2: Declare variables n for number of processes. Set i & j for loop counters. wt[10] and tat[10] as arrays to store waiting time & turnaround time. avgwt & avgtt to store average waiting time & average turnaround time

STEP 3: User is prompted to enter the number of processes (n). Arrival time, burst time and priority of each process is

entered and stored in 'p' array of structures

STEP 4: Implement simple bubble sort algorithm to sort process based on priority in ascending order

STEP 5: Iterate through the processes:
- If it's the first process or arrives after completion of previous process, set its start time (st) and completion time (ct) accordingly.
- Otherwise, set start time (st) as completion time of the previous process
- Calculate the average waiting time & average turnaround time.

STEP 6: Print a table displaying process number, arrival time, burst time, priority, completion time, turnaround time and waiting time for each process.

STEP 7: Print the average waiting time & the average turn around time.

STEP 8: Print the Gantt chart, representing the execution order of processes over time.