CIASSMALE Write a C-program to simulate Real-Time CPU scheduling algorithms: Rate-Monotonic. #include <stalio. h> # define Man= processes 101 tovings and 1219 typedef struct & intarrival Time; int bunst Time of samit associa ad rain) int period; 3. Process; 2- 292 PI 592 II 192 3 1900 void schedule RM ( Process processes [ ], int n) & int hme=0; int i, i; for 11=0; 12n; 1++) \$ Processes [i] priority = processes [i] period; o e componente pel Icah jor y=0;j<n-1-1;j++)\$ 0.0.11 process temp = processes (j); priority) processes (j+1). priority) processes (j); procesces (j) = processes (j+1) processes [j+1) = temp; Print f 1" Cantt chart: \n"); for ii=0; 1<0; i++)\$ If I hime < processes [i] · auxival Time ) & L'fime = processes (i) · arrival Time ); print f-1"/yd - yd: pyd", time, time + processes [i] but

Time, i+1);

Print + (" \n");

hime + = processer [i] · burst Time;

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21 int mainus int pri; Process processes [Man-process es]; float total Utilixation Time =0; Print | 1"Enter the number of processes:"); Scant 1117.d", An); Printf ("Enterarrival time, burst time and period for each Process: \n"); for (1=0; icn; 1++)\$ Print 1" Process /d: \n", i+1); Print + 1"Arrival Time:"); Scant ("1.d", & processes [i] arrival Time); Print f 1"Burst Time:"); Scanf (" 1.0", & processes [i]. burst Time); Printf (" Period: "); Scant 1" y.d", & processes (i) period); Print ("\0");

Scholile RM (processes, n); for (1=0; 1 < n; 1++)\$ float utilization Time = (float) processes [i] burst Time) processes (i) period; totaluhlization Timet-uhlization Time;

Print + 1" Process Vid CPU utilization time: 1/2 24 \n"; i+1, ufilization Time); float average Utilization Time = total Utilization Time is Print + 1"Average CPU utiv utilization time: 1. 24 10"

average Utilization Time); returno;

Enter the number of processes: 3 Enter arrival time, burst time, and period for each process. Process 1: Arrival time: One word - would assure amoil Burst time: 5 00 0000 0000 0000 0000 10000 Period: 20 many to madering out intuiting their Arrival time: 4 though and provide 19 th 11 thing Burst time: 6 Period: 5 2(ttions) Proces 5: 11+3 agraph 2220079 1-1719 Arrival brue: 21 1 1 Committee Art 4 4021 Burst time Home of second to the fame Period:10 (" own to text of I take! Gantt charte: + wd (17 200000 18 16 16 16 1900) 4-10: P1 10-17: P2 17-22: R3 11 + 10:19 Process I (Puuliux ation time: 1.120 \ 1/1 / 410) Process 2 CPU utilization time: 0.70 Process 3 CPU utilization time: 0.25 Average CPU uhuxation time: 0:729 Julians tout the many all not more of wilder to all Motor File Constitution Times HOAF AVEROGE UBUXADOD Time = HANDERFEARER

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V . .
                                                            input
Enter the number of processes: 3
Enter arrival time, burst time, and period for each process:
Process 1:
Arrival Time: 0
Burst Time: 5
Period: 20
Process 2:
Arrival Time: 4
Burst Time: 6
Period: 5
Process 3:
Arrival Time: 2
Burst Time: 7
Period: 10
Gantt Chart:
4-10: P1 10-17: P2 17-22: P3
Process 1 CPU utilization time: 1.20
Process 2 CPU utilization time: 0.70
Process 3 CPU utilization time: 0.25
Average CPU utilization time: 0.72
```