Write a c-program to simulate Real - Time CPU scheduling algorithm farriest deadline - first. #include Latdio.b> # include Zstdlib.h> typedef struct & int execution: int execution copy; 3 Tacks; int min (Task + tasks, int n); void update - execution copy (Tack . * tacks, intn); Void execute -tack I Tack * tasks, int task = id, int times; int main () into timer=0; float CP4-ubilization; Print | 1"Enter number of tacks:"); Scant (" 10", & n); Tack * tasks = malloc (n * sixe of (Task)); for (int i=0; i<n; i++) \$ Print f 1" Enter task yed parameters: (n'); i+1); Printy ("Execution time:"); Scant (" Y.d", & tasks (i) execution); Print + 1" Deadline time: "); Scanf (117.0", & tasks (i) deadline); tacks [1) execution copy=0; CPU utilization=0; for (int 1=0; i<n; f++) and I see I raim toll CPU-utilization += (float) task [i] execution) (float) tasks [i) deadline;

Printy ("CPU utilization: 1. + \n", cPU-utilization). if upu-utivation <1) Print f 1" Tasks can be scheduled. \0"); Print + 1" schedule isn't teasible. \0"); int(active - task -id = = -1) {and nave to Print f 1" / d Ide D" pimer) 3 Harry to else \$ (ata), itsel + asot and die execute - task (fasks, active - task - id, timer); it Hock's [active - tack - 1d] execution-copy == 0)s update-execution-copy (tacks, active-tack-1d); times ++; int all-completed=1; and middle use tout tor lintico; ian; i++> (110 12+14" 1++10) i'f Itask s (i). execution-copy >0) {11 +ans all-completed=0001 sound = 23201 4 330T break; if call completed) for a soul of interior break; tree (tasks); return 0; int min (Task * tasks, Potn) & int min - deadline = __INT_MAXint tack rd=-1 gamme and source !



for Unt 1=0,160;1++18 if Hack (1) execution copy of a lack (i) deading min-dondline) & min-deadifue : tasts (i) deadifue; tack - 10 = 9: return tock -id: tasks [n) execution copy track + tasks, intn) & Void execute -tack lack * tacks, fortrack id, lottiment tacks [tack - id] execution - copy - - ; Print I'' d Tosk /d (p', timen, talk-id+1); output. Enter number of tasks: 2 Enter Task I parameters: Execution time: 25 Deadline time: 50 Enter Task 2 parameters: Execution time: 30 deadline time: 75 CPU utilization: 0.900000 tacks can be scheduled. P2 P1 P1 P1 P1 P2 P2 P1 P1 P1 P1 P1 P5 P5 10/10 701(80 90 50 60

Enter number of tasks: 2 Enter Task 1 parameters: Execution time: 25 Deadline time: 50 Enter Task 2 parameters: Execution time: 30 Deadline time: 75 CPU Utilization: 0.900000 Tasks can be scheduled. 0 Idle