write c code to implement deathlock detection program. # include (sHip.h) # include (stdbool, h) # deline NUM_PROCESSES 5 # define NUM_RESOURCES 3 int available [NUM_Resources]; ind allocation [Num Resource] [Num Resource]; ind request [Num_process = 3 [Num RESOURCES]; bool deadlock Detection (int & safe Sequence) int work [NUM_ RESOURCES]; bool finish [NUM PROCESSES]; for (int := 0; iXNUM_RESOURCES; i++) { worklij = available [i]; into count so how and build while (count (NUM process ES) { bool found = false; for (int 1=0; it NUM process = s; i++){ if (1 finish (i7) f bool conProceed = true; for (: n+1'=0's' KNUM RESOURCES: Elicase sim was Start 3f (request [17[57 > wone [i7] f can Proceed = falle; break! it (can Proceed) for (int j=0; j < NUM_ RESOURCES; j++) 1 Work [i]+= allocation [i][i];

PAGE NO DATE sale Sequence (coun++)=1; binishli]= true; found = false if (!found) break; for (int i=0; i < NUM_ PRO(ESSES; i++){ if (! finish (i)) fact so astronia load printfl" Death lock detected prougs · Pild is in dead lock. Indil; return false; Printfl" No deadlock detected The System is, in a safe state In"); printf("In"); return late true in main() f Prints (" Enter the available Resource) for (in = 0) is won RESOURCES; its 2, Scanf (" /d" & available [i] Prints ("Enter Allocation Matrices") Par (: NUM. Procuse; itt for Ci=0; J(NUM RESOURCES) 3 scans ("Y.d" & allo carion []]

Printel "Enter the Request matrix: \n"); for (i= 0; i < NUM Processes; 1++) [for (j=0; j (NUM RESOURCES; j++) (2 scanf (" " d" & request (i) [i]); in safe Sequence [NUM_processes]; dead lock Detection (safe Sequence); return oso = 10 and xaid wall so the rocess Enter the available Resource rector. Enter the allocation matrix: 2 0 0 Street Laborate System Ender the Request matrix sourceile of the forther that the start of ins defendant description of the No Beadlock detected: The system is in a sate State of the survey safe sequence; PIP3 P4 PO Po instruction from the deal land of the to Mark Comment