

ΕΠΤΑΣΙΑ 3 ΜΕ CCR

global μεταβλητές: waitingPassengers, ridingPassengers, trainCapacity, isriding

Τρενάκι:	Επιβατης:
<pre> isriding = -1 while(1){ CCR_EXEC(treno,(isriding == -10),); //ride for(i=0; i<=trainCapacity; i++){ CCR_EXEC(treno, 1, isriding = i); } CCR_EXEC(treno,(ridingPassengers==0), isriding = -1); } </pre>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Enter: <pre> CCR_EXEC(treno,1, waitingPassengers++); CCR_EXEC(treno,(ridingPassengers<trainCapacity && isriding == -1),\ waitingPassengers--;\ ridingPassengers++;\ seat = ridingPassengers;\ if(ridingPassengers==trainCapacity){\ isriding = -10;\ }\); return(seat); </pre> </div> <pre> Seat = enter(); CCR_EXEC(treno, (isriding==seat),\ ridingPassengers--;\); </pre>

CCR

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int num_q=0; int inloop = -1; int enter=0;
pthread_mutex_t mtx, mtx_q;    init(mtx,1);  init(mtx_q,1);
pthread_cond_t cond_q;

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Είσοδος:	Εξοδος:
<pre> mutex_lock(&mtx);\ mutex_lock(&mtx_q);\ while ((!cond) enter) {\ num_q++;\ if (inloop >= 0){\ inloop++;\ if(inloop==num_q (inloop==num_q+1&& enter)){\ inloop = -1;\ enter=0;\ mutex_unlock(&mtx);\ }\ } else{\ num_q--;\ cond_signal(&cond_q);\ } }\ else{\ mutex_unlock(&mtx);\ }\ cond_wait(&cond_q,&mtx_q);\ }\ body;\ </pre>	<pre> body;\ if(num_q > 0){\ num_q--;\ if(inloop>=1){\ enter=1;\ }\ else{\ inloop=0;\ }\ cond_signal(&cond_q);\ mutex_unlock(&mtx_q);\ }\ else{\ inloop= -1;\ mutex_unlock(&mtx_q);\ mutex_unlock(&mtx);\ }\ } </pre>

