OPERATING SYSTEM MIDTERM PROJECT

PROBLEM

There is a party with 10 guests in my house. I've hired a waiter from a catering company to serve you. We have "börek", "cake" and "drink" to be consumed by my 10 guests.

(30 boreks, 15 slices of cake and 30 glasses of drink)

On the table, there are 3 trays for them, each has a capacity of 5 (5 boreks on borek tray, 5 slices of cake on cake tray and 5 glasses of drink on drink tray).

As the guests eat and drink, a waiter will fill the trays (when there is 0 or 1 left on the tray)

Every guest must eat and drink from all types of food and drink at least once.

A guest can eat max 5 boreks and drink 5 glasses of drink, but can eat only 2 slices of cake.

This will last until all food and drink is consumed.

Simulate the scheduling by implementing in C, Java or C#, showing every step that the guests and the waiter do.

SOLUTION

Main Class

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Class represents and manages a restaurant: create cooks and waiters, set them to work, and stop them to work

Fill Class

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Class represents a Cook. Method run for running thread that makes the Fill working. Method fillmeal to fill a tray.

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Method chooseGuest to generate random guest number. Method stop,stops thread that makes fill working.

Meal Class

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Class represents a Meal. Creating new Meal, description of a Meal, guestNumber of Meal to be served to. Prints meal description and Guest Number and get guest number of Meal.

Servingcounter Class

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Class represents the Serving Counter. Creating a Counting Server with empty Meal list, puts meal to Serving Counter and get Meal Serving Counter

Waiter Class

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Class represents a Waiter. Creating new Waiter with name of the Waiter and servingCounter from which Waiter takes meals. Method run for running thread that makes the Waiter working.

ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu

Stop method stop thread that makes Waiter working. Method to serve Meal and meal that is to be served.

Output

metin içeren bir resim

Açıklama otomatik olarak oluşturuldu

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