CA463 Concurrent Programming

In-Class Exercise 1

Semaphores

Ernie and Bert work in a cafe that specialises in a soup and sandwich combination.

Ernie makes two rounds of sandwiches while simultaneously Bert makes two bowls of soup. When the sandwiches and soup are ready Ernie and Bert each, at the same time, serve a soup and sandwich combination to a customer. These actions are repeated throughout the day.

[Note: Ernie cannot serve until Bert has made the soup and Bert cannot serve until Ernie has made the sandwiches.]



process Bert do true // Bert makes soup // SYNCH 2; // Bert delivers // od end

Provide variable declarations (including any initialization) and code for SYNCH 1 and SYNCH 2 using <u>semaphores</u> so that the above algorithm behaves correctly.