Problem Statement -

Five philosopher dine together at the same table. Each philosopher has their own place at the table. There is a fork between each plate. The dish served is a kind of spaghetti which has to be eaten with two forks. Each philosopher can only alternately think and eat. Moreover, a philosopher can only eat their spaghetti when they have both a left and right fork. Thus two forks will only be available when their two nearest neighbours are thinking, not eating. After an individual philosopher finishes eating, they will put down both forks. The problem is how to design a regimen (a concurrent algorithm) such that no philosopher will starve; *i.e.*, each can forever continue to alternate between eating and thinking, assuming that no philosopher can know when others may want to eat or think (an issue of incomplete information).