

MARKET DESIGN DOCUMENT

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Tuesday Thursday 11:00-12:30pm
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```
Map<String, Food> FoodInventory = new Map;
Timer DeliveringTimer = new Timer;
CookAgent cook;
String name;
DeliveryState
{ RequestReceived, Processing, ReadyToDeliver, Delivered;
boolean Deliver = false;
class Delivery
{
    String food;
    int WantedAmount;
    int PossibleAmount;
    state = RequestReceived;
    Deliver(String f, int Q);
}
class Food
{
    String name;
    int Inventory;
    Food(String f, int I)
    UseFood() Inventory--;
}
List<Delivery> Deliveries;
int deliveringTime;
```

```
(NeedMore(String food, int quantity)
{
    Deliveries.addNewDelivery(food, quantity);
})
```

DATA

MESSAGES

SCHEDULE 12

ACTIONS

```
for (Delivery D: Deliveries)
    if (D.state == RequestReceived)
    {
        ProcessItem(D);
    }
    if (D.state == Processing & Deliver)
    {
        DeliverItem(D);
    }
```

```
ProcessItem(Delivery D)
{
    D.state = Processing;
    for (int i = 0; i < D.WantedAmount; i++)
    {
        FoodInventory.get(D.food).UseFood();
        D.PossibleAmount++;
        if (FoodInventory.get(D.food).Inventory == 0)
        {
            break;
        }
    }
    Cook.weCanSupply(D.food, D.possibleAmount);
    DeliveringTimer.schedule
    run
    {
        Deliver = true;
    }
}
```

```
DeliverItem(Delivery D)
{
    Deliver = false;
    D.state = Delivered;
    Cook.deliverFood(D.food, D.possibleAmount);
}
```