ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ

BİLGİSAYAR MÜHENDİSLİĞİ

Nesneye Dayalı Analiz ve Tasarım Dersi

Proje Adı:

Lokanta Sipariş sistemi (Restaurant Ordering System : ROSys)

Rapor 4:

System Sequence Diagrams; State Machine Diagrams; Operation Contracts

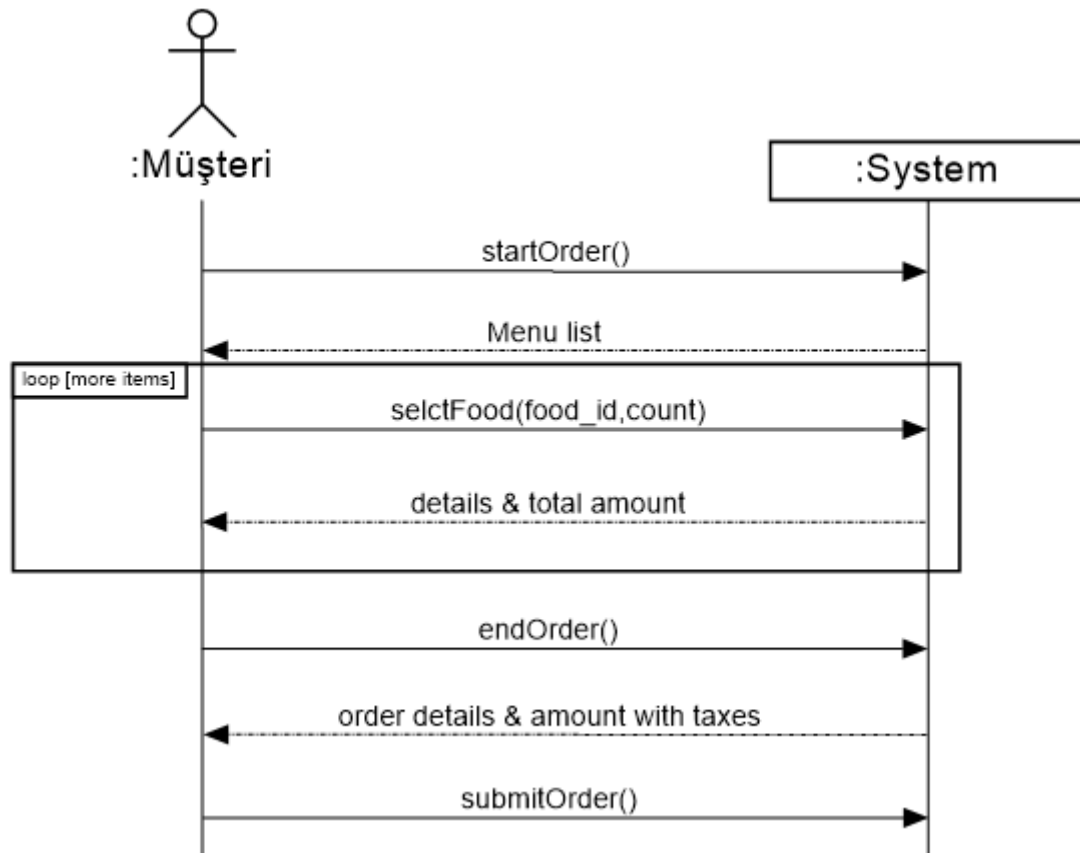### Grup No: 06

Grup Adı: Firestone

Grup Üyeleri:

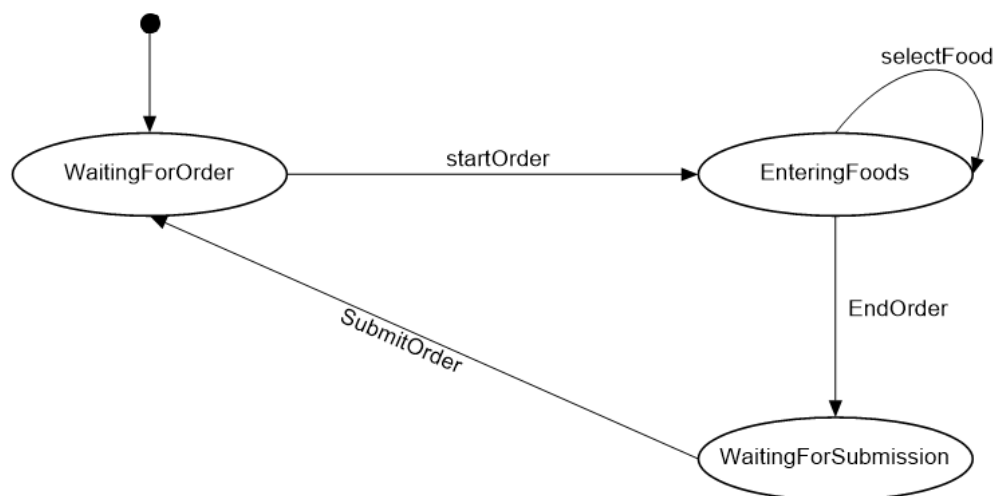**Amer Sawan (130401073)**

Abdoul Karim Touré (130401078)

DANIŞMAN: Yrd. Doç. Dr. Ali Murat Tiryaki

Use Case 1 : Placing order

1- System Sequence Diagram

2- State Machine Diagram

3- Operation Contracts

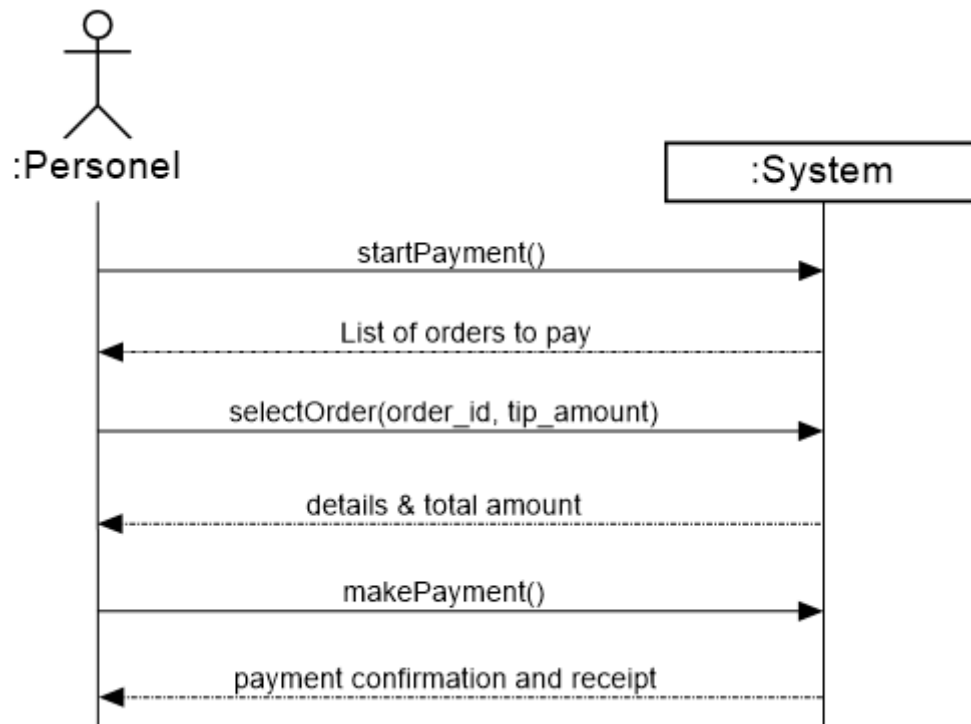| Contract CO1: startOrder	
Operation	startOrder()
Cross References	Use Case : Placing order
Preconditions	none
Postconditions	- An Order instance was created with name (o). - (o) was associated with the currently logged in customer instance.

Contract CO2: selectFood	
Operation	selctFood(food_id, count)
Cross References	Use Case : Placing order
Preconditions	There is an order underway.
Postconditions	- A FoodLineItem instance was created with name (fli). - (fli) was associated with the current order. - (fli) was associated with Food, based on food_id match. - (fli.count) became count (which came from parameters)

Contract CO3: endOrder	
Operation	endOrder()
Cross References	Use Case : Placing order
Preconditions	There is an order underway.
Postconditions	- The current underway order item's isCompleted attribute became true.

Contract CO4: submitOrder	
Operation	submitOrder ()
Cross References	Use Case : Placing order
Preconditions	There is an order underway.
Postconditions	- The current underway order item's isSubmitted attribute became true.

Use Case 2: Process Payment

1- System Sequence Diagram
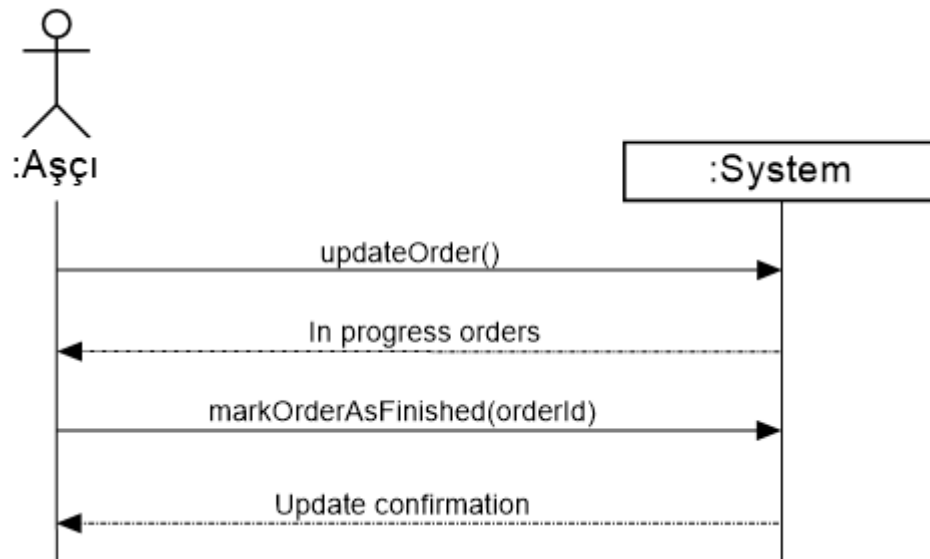

2- State Machine Diagram
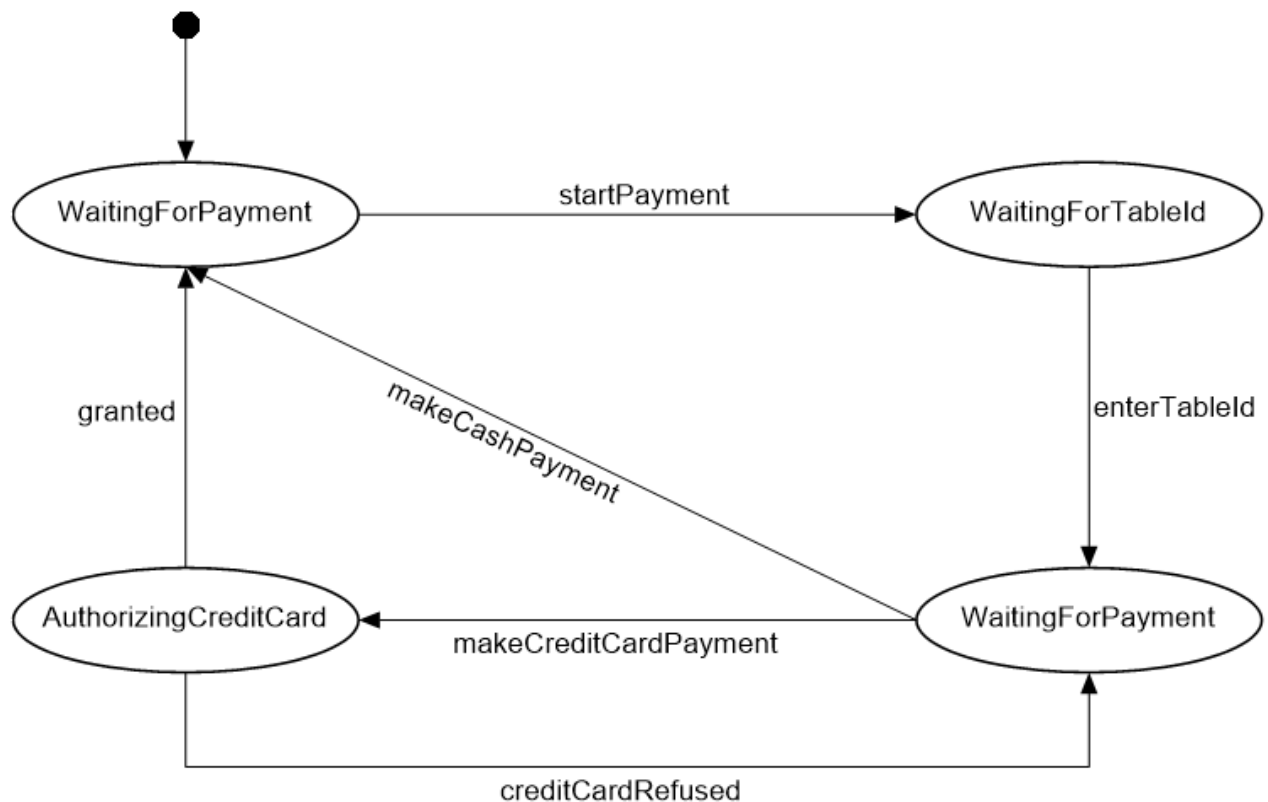
3- Operation Contracts

Contract CO1: startPayment	
Operation	startPayment()
Cross References	Use Case : Process Payment
Preconditions	none
Postconditions	- A Payment instance was created with name (p).

| Contract CO2: selectOrder	
Operation	selectOrder(order_id, tip_amount)
Cross References	Use Case : Process Payment
Preconditions	There is payment underway with name (p)
Postconditions	- The current payment was associated with order instance, based on order_id - p.tip_amount attribute became equals to tip_amount (parameter)

Contract CO3: makePayment	
Operation	makePayment()
Cross References	Use Case : Process Payment
Preconditions	There is payment underway with name (p)
Postconditions	- p.isCompleted became true - the current order attached to the payment p became associated with the Ledger instance.

Use Case 3 <u>Update Order Status to Ready</u>

1- System Sequence Diagram

2- State Machine Diagram
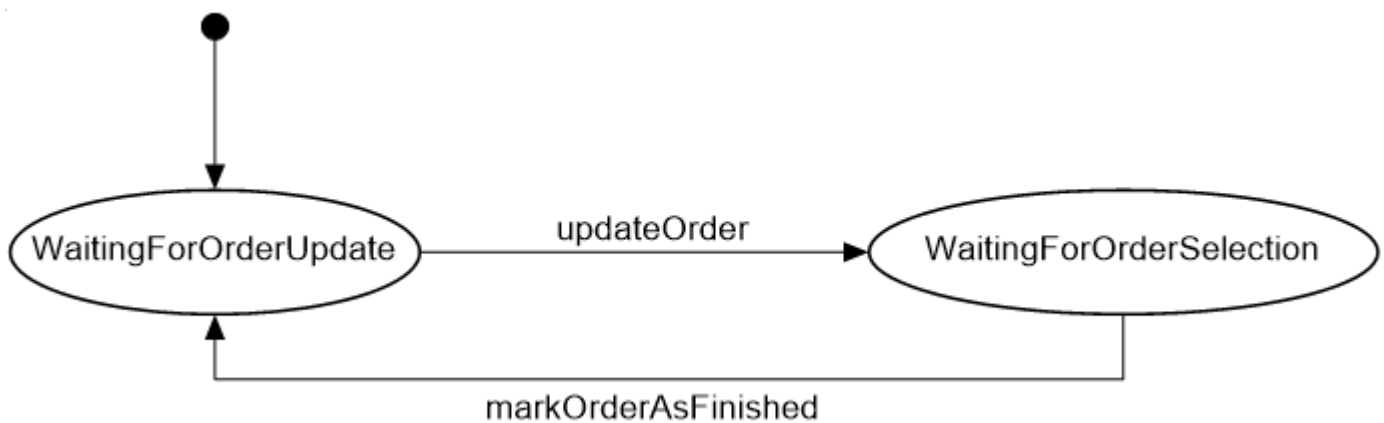
3- Operation Contracts

Contract CO1: updateOrder	
Operation	makePayment()
Cross References	Use Case : Process Payment
Preconditions	None
Postconditions	None

Contract CO2: markOrderAsFinished	
Operation	markOrderAsFinished(orderId)
Cross References	Use Case : Process Payment
Preconditions	None
Postconditions	- The order instance (o) that has o.id equals to oderId is updated so o.Status became "Finished"