

FFD – Test scenarios

In the following scenarios we assume that there are 3 stores (numbered 1,2,3). The map, hence, is divided into three regions.

Scenario 1 (normal flow):

Pre-conditions:

- Drivers A,B,C are in region 1.

00:00 Store 1 receives an order.

00:01 System matches drivers A,B,C by location and ranking.

00:02 Store receives drives A,B,C and filters out driver C.

00:03 Bid request is sent to drivers A,B

00:04 Drivers A,B respond with delivery bid and provide their current location and pickup time.

00:05 Driver A is chosen in automatic process by the store.

00:05 Assignment is sent to driver A.

00:10 A arrives to the store to pick-up the delivery. The store provides pick-up confirmation.

00:15 A delivers the flowers to the customer. Delivery confirmation is provided.

00:16 Ranking of A is increased by one.

Scenario 2 (no bidders)

Pre-conditions:

- Drivers E,F are in region 3.

00:00 Store 3 receives an order.

00:01 System matches drivers E,F by location and ranking.

00:02 Store receives drives E,F and accepts them.

00:03 Bid request is sent to drivers E,F.

00:04-infinity E,F do not respond.

Scenario 3 (no response from the store + F is late for delivery)

Pre-conditions:

- Drivers E,F,G,H,I,J,K are in region 3

00:00 Store 3 receives an order.

00:01 System matches drivers F,G,H,I,J,K by location and ranking (Driver E is filtered out due to his low rating).

00:02 Store receives drivers F,G,H,I,J,K .

00:03-00:05 Store doesn't respond.

00:06 Driver F is chosen by the store. Assignment is sent accordingly.

00:10 F arrives to the store. Pick-up time and pick-up confirmation are set.

00:12 While on his way to the customer, F enters area 1 and receives bid request from store 1.

00:30 F delivers the flowers to the customer while exceeding delivery time by 10 minutes. Delivery confirmation is provided.

00:31 Rank of F is decreased by one.

Scenario 4 (A is late for pick-up + A is late for delivery + Delivery confirmation is not provided)

Pre-condition:

- Driver A is in region 1.

00:00 Store 1 receives an order.

00:01 System matches driver A by location and ranking.

00:02 Bid request is sent to A.

00:03 A provides delivery bid.

00:04 Driver A is chosen by the store. Assignment is sent to A.

00:20 Driver A arrives to the store while being 6 minutes late.

00:25 While making the delivery A enters area 2 and receives bid request from store 2.

00:26 A responds with delivery bid.

00:27 Store 2 sends pick-up assignment to driver A.

00:30 A arrives in time for the pick up at store 2.

00:45 A accomplishes first assignment, and delivers the flowers to the first customer while exceeding delivery time by 15 minutes. Delivery confirmation is provided

00:55 A arrives to the second costumer in time. Delivery confirmation is not provided.

00:56 Rank of A is decreased by one.