

Exercise - Model Overall Order Status. E-Pizza

Context

We as developers of the best consulting company received a project from the world-wide known company E-Pizza GmbH producing and delivering pizza in the area of Hamburg.

According to the specification for this project, we need introduce changes to an existing online pizza-shop to give E-Pizza GmbH an opportunity to really bring pizza to every home.

Business development team of E-Pizza GmbH requested extension of supported methods of payment for pizza online shop.

Additionally to the existing payment method "Pay online with Paypal", another one - "Cash on delivery" - need to be supported.

Given

It is agreed with business analysts, that overall Order Status must be calculated based on statuses of underlying processes of *Delivery* and *Payment*.

Known statuses of *Payment* processes:

- **PENDING**
- **PAID**
- **FAILED**

Known statuses of *Delivery* processes:

- **PENDING**
- **SHIPPED**
- **DELIVERED**
- **FAILED**

Newly created order has process *Payment* and *Delivery* initialised with **PENDING** statuses. Status of each process can be changed independently.

Supported use cases

Payment Status

- Client ordering pizza online requesting "Cash on delivery" payment method. Payment process of newly created order is initialised with **PENDING** status. Once the pizza delivered and delivery boy gets cash - Payment status is set to **PAID**.

- Client ordering pizza online paying with his Paypal account. Payment process of newly created order is initialised with **PENDING** status. After payment is executed and confirmed by Paypal - Payment status is set to **PAID**. In case of problems during an online payment status is set to **FAILED**.

Delivery Status

- Client ordering pizza online. Delivery process of newly created order is initialised with **PENDING** status. When pizza is baked and handed over to a delivery service, delivery process status is set to **SHIPPED**. As soon as delivery service delivers pizza to the client, delivery process status is updated to **DELIVERED**. In case delivery is not possible due to any reason **FAILED** status is set to delivery process.

Overall Status

- Client would like to be informed when the pizza will be delivered;
- Employee of E-Pizza GmbH would like to see all unpaid orders;
- Delivery service would like to see which orders are ready for delivery.

The Task

Please model Overall Order Statuses which should be calculated based on statuses of underlying processes of Delivery and Payment.

Using whiteboard present results of your modelling to the team. Your proposal will be the basis for a team discussion. After deciding on the model

to implement we will go into a pair programming session trying to implement the model in our real order service.