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Execute 

OMiLAB Training Module 2

Conceptualisation
Design Thinking with Scene2Model

Introductory Sample
“Design Thinking for Smart Supermarkets”

Hybrid Supermarket World

- Digital Transformation enables the vast rise of online shops
→ traditional supermarkets need to find ways how to combine the physical and the digital world

Examples:

- **“Click and Collect”** e.g. from IKEA: The products are stored in a temperature-controlled zone, parting spaces for pick-up and payments possibilities are provided. An environment for the items like individual plastic bags is offered.
- **“Reserve and Collect”** from Building Centre: The products are chosen online and manually assembled in the shop. The customer gets informed when the package is ready to be picked up. There is a time interval in which the items can be ordered and picked-up. The manual cash desk is used for payment when physically picking the items up.
- **“Deliver Service”** from Super Markets: The products are ordered online and the delivery date and a time interval for delivery are provided. Payment differs based on the order size and membership discounts.

<https://www.youtube.com/watch?v=c9LH28Qmc3Y>

Setting of the Training Scenario

- A supermarket operator would like to change his offering by using digital technology and transform the physical shop into an online shop.
- **Challenges**, the supermarket operator faces:
 - Ordering: technical foundation of eShops is well advanced, but the grocery industry has its own challenges:
 - Vegetables are chosen by looks and size
 - How do you ensure that the cooling chain is not interrupted for certain products?
→ How can we transfer such shopping experiences to an online shop?
 - Assembly of the shopping cart: after the order has been placed, the shopping cart has to be filled with the ordered items
 - By a clerk? By a roboter?
 - Does the roboter move to the products? Or do the products move to the roboter?
 - How can the quality of the products be assured?
 - Delivery of the goods: a simple scenario is that the customer picks up the goods and pays when collecting the goods
 - Is the food stored in pick-up boxes? Are they locked and can only be opened by the respective customer?
 - Or is there a more advanced scenario with self-driving cars dropping of the order at the customer?

A specific case

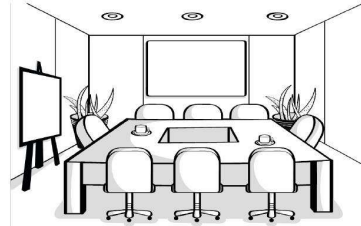
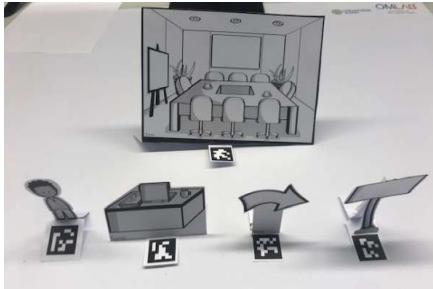
- The first scene of the training sample defines the ordering process. The customer is in his office and would like to order dinner at the supermarket.
- Set up the scene with the SAP scene figures and address the three challenges. Think about:
 - The environment
 - The customer
 - Used devices
 - Corresponding infrastructure
 - The processing order
- Import the scene to the Scene2Model tool and enrich it, e.g. with a process model.

Design Thinking setup

The design thinking setup consists of:

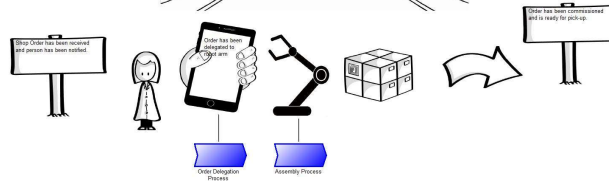
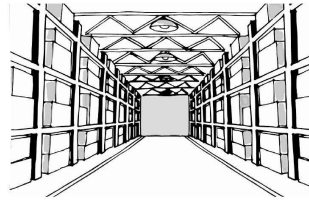
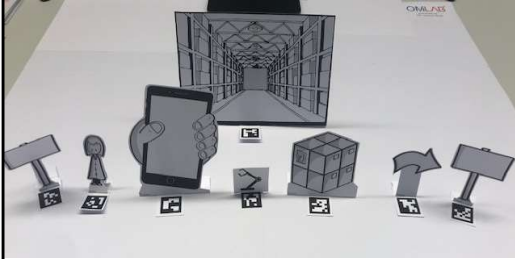
- The SAP Scenes Paper Figures, which are provided to the modelling workshops with the corresponding QR codes. It is advisable to use paper figures that can be folded to minimize the space for transportation.
- The Scene Canvas that consists of the reference tags and an empty space for the modelled scene.
- The LogiTech USB Camera that enables to stream the picture of the scenes.
- Raspberry Pi with the IoT Adapter installed and connected to the Camera for enabling the identification of the QR codes
- The Scene2Model tool environment that enables the connection to the Raspberry Pi, identifies the QR codes of the various figures, and creates the scene model.

Sample Solution – Shop Ordering



Information of the picture licenses can be found in the objects' notebooks.

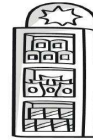
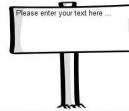
Sample Solution – Shop Order Assembly



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Information of the picture licenses can be found in the objects' notebooks.

Sample Solution – Shop Order Pickup



Information of the picture licenses can be found in the objects' notebooks.