

I. Units

1. **Currency** – initial currency – euro

2. **Money** – coins –

2.1. euro cent – 5, 10, 20, 50;

2.2. euro 1, 2

3. **Vending machine**

3.1. Type -

1. Product readiness

- for ready to use products

- making -

2. Temperature

- room

- cooling

- freezing

3.2. Capacity – $T * S * P$

1. For ready to use products

- number of trays - T

- number of slots - S

- number of products pre-slot – P

3.2. States -

- ready -

- waiting – for product choosing / money entering

- working / delivering

- error -

3.3. Operations -

3.3. 1. Operations that is related to actions

- Insert money

- Choose product and options if there is any
- Return money
- Delivering a product

3.3. 2. User operations -

- insert money
- pressing control buttons for choosing and to start the process

3.3. 3. Internal operations in addition to main

- money - check for availability in received money, receive, check money type, return, check for enough amount of money for return
- product – check for availability, let go,
- temperature – if needed

NOTES:

For the project it will be used VM for ready to deliver products. The VM tray will receive only coins.

4. Inventory –

Initial state - products for three types of VM

5. Products -

They will be classified based of the type of VM

II. Structure

1. Objects

1. 1. **VM** – plain object

Props - Id, name, type, trays, slots, slot_capacity / capacity_type2 /

Name in app – book, cold drink, combo

1.2. **Product** - plain object

Props - **Id, name, brand, type, vmIds, tag, price, code**

Type – ready, making

1.3. Money – pieces

1. 4. Money - currency

1. 4. Inventory products – array of Products – ids Products

1. 5. Inventory VM – array of VM – ids VM

Enums VM type, product type

2. Interface units VM

2.1. VM money tray

2. 2. VM storefront

2. 3. VM displaying the current state

2. 4. VM control slot

2. 5. VM add products

2. 6. Tray for getting product



III. CRUD operations

1. For product
2. For VM
3. Interface list module for displaying PR/VM, insert, delete, edit

In control slot

- When Enter is pressed – return change and deliver a product
- When Reset is pressed – return change

Product code – two digit

Steps:

To start the process it is required ready state and amount of received money equal to zero

1. Step 1

1. 1. Enter money –

Time for waiting money and product code number – 5 min. Stop receiving money when the delivery button is pressed in control slot. Should we have a limit?

- 1.2. Enter code

2. Step 2

2. 1. Return change
- 2.2. Deliver product

3. Step 3

Return to ready state