

# Recycling System

The local market would like an automated service that counts beverage containers with a pant and return a receipt to the costumer with the total count of cans/bottles as well as the monetary amount that should be given to the costumer when the receipt is to be redeemed.

The system you need to create - if you accept this mission (AND YOU WILL) - simulates a reverse vending machine. Such a machine is used to collect and identify used beverage containers for recycling or reuse from customers, who in return receive a monetary refund.

There are three different types of bottles or cans:

- Deposit A: Cans and bottles less than 1 liter DKK 1,00  
*Exception*
- Deposit B: Bottles of plastic 0,5 liters DKK 1,50
- Deposit C: Cans and bottles more than 1 liter DKK 3,00



The Recycling Machine System must:

1. have some information concerning each of the return types "A", "B" or "C"
2. calculate the total number of the different return items deposited
3. calculate the monetary refund
4. reset after each transaction
5. to print a receipt containing a list of the different types, total number of returned items and the total monetary refund amount for the costumer

Development:

1. find use cases – model them in a UC model
2. create UC descriptions (your choice of type)
3. model UC's in SSD (at least 2)
4. model UC's in SD (at least 2)
5. model system structure in a Class Diagram
6. build your java solution

\* Practice creating separate classes for the system.

\* Test your system and remember to create documentation within your code.

