

# Vending Machine Written Descriptions

## A. Enumerated Types

- a. Coin - This enumerated type is designed to model the different types of coins a vending machine accepts and their monetary values as integers.
- b. Snack - This enumerated type is designed to model some of the different types of snacks a vending machine might have with integers corresponding to their individual costs.

## B. Exceptions

- a. InsufficientPaymentException - A standard runtime exception with a custom message for when the user's balance does not have enough money for the selected snack.
- b. OutOfChangeException - A standard runtime exception with a custom message for when the vending machine does not have enough coins to make change for a user's purchase.
- c. OutOfStockException - A standard runtime exception with a custom message for when the vending machine no longer has enough stock of a certain item.

## C. Factories

- a. VendingMachineFactory - A class built with the factory pattern that would support creating instances for multiple different kinds of vending machines.

## D. VendingMachines

- a. Inventory - A class with useful functions for tracking item and coin quantities inside a vending machine.
- b. SnackMachine - A class that implements the VendingMachine interface for a specific type of machine revolving around buying snacks.
- c. VendingMachine - An interface that defines several functions that would exist on any vending machine.

## E. Other

- a. Main - The class where the code is run that contains the user interface in the form of console input and output.