

Requirements

- A working vending machine that accepts payment from a card, dispenses an item and deducts the item's cost from the card's balance.
- A terminal that accepts cash from the user and converts it to points on the card at the ratio of 2 credits per \$1.
- The terminal reads the card, and then the user can: check the card balance (along with their card #), print out the balance, and transfer credits to a different card.
- -At the time of the transaction, the terminal will read the card, ask for a selection, pull the selected food from the machine, and dispense it.

-If the balance is insufficient, the transaction will be declined, the user will be notified, and no credits will be deducted.

- If the balance is sufficient, the item will be dispensed
- At the end of the transaction, print: card#, item purchased, and the balance.
- A card offers limited storage
- A card has a specific card#
- A card has a balance of credits

Designing a Plan

- Card
 - Card #
 - Current Credit balance
 - Balance can never be negative
- Terminal
 - Accepts \$ and converts to credits (2pts/\$1)
 - Money is accepted as a whole number.
 - Can print out card balance + card #
 - Transfer balance between 2 cards
 - Display current VendingInventory
 - Grabs the selected item from the inventory
 - If the card balance is 0, do not dispense item, notify the user, and do not deduct any credits
 - Prints out card#, card balance, # of remaining inventory of purchased item
- TerminalCalculations
 - Adds, subtracts balance to/from the card based on the type of transaction
- VendingInventory
 - Intakes a selection from the terminal
 - Stores a collection of food items
 - Each food item will have a set price
 - The vending machine will keep track of the # of food items it has in stock
 - If the stock for a specific item goes to 0, notify the user (this should probably happen in the terminal)

Testing

Instantiate 2 cards and whatever other objects might be necessary to test your program.

- Load credits onto each card
 - Card for user 1 loaded with 100 credits
 - Card for user 2 loaded with 120 credits
- Purchase a bunch of items using both cards.
 - Card for user 1 purchased several items (Chips, Cookies, Water, Soda, and Granola Bar)
- Transfer the balance of credits from Card 1 to Card 2.
 - 60 credits from card for user 1 transferred to Card 2, making new balance for card 2 - 140.
 - 60 credits from card for user 2 transferred to card 1, making new balance for card 1 - 100

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Implementing the Plan

-All fields must be private.

Card:

```
private static Integer cardNumberIndex = 1;
private Integer cardNumber;
private Integer balance;
Create parameterized constructor for Card (Integer
Balance)
Create constructors for getCardNumber, getBalance and
setBalance
```

Inventory:

Properties:

```
VendingItemsEnum name, Integer price, Integer
stockChips, Integer stockCookies, Integer
stockGranolaBars, Integer stockWater, Integer stockSoda
Create parameterized constructor for Inventory
(VendingItemsEnum name, Integer price)
Create constructors for getName, getPrice, loadStock,
getStockChips, getStockCookies, getStockWater,
getStockSoda, getStockGranolaBars, purchaseChips,
purchaseCookies, purchaseGranolaBars, purchaseWater,
and purchaseSoda
```

Vending Items ENUM:

```
CHIPS, COOKIES, WATER, SODA, GRANOLA_BARS
```

	<p>Main (Terminal)</p> <p>Scanner for user input</p> <p>Main (Class) Create instance of using the Card class cardForUser1 and cardForUser2</p> <p>Methods created for the following addCredits transferCredits checkBalance makePurchase (utilize switch statements for the 5 items loaded into the vending machine) Start (starting point for the vending machine using switch statements for each method created to operate the vending machine)</p>
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