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# VIRTUAL COFFEE MACHINE

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(Recruitment Test- Data processors)



Developed by:

NAVDEEP KAUR

Email: [kaurnavdeepjohal@gmail.com](mailto:kaurnavdeepjohal@gmail.com)

Contact: 0452143806

# USER GUIDE

## Introduction

Virtual Coffee Machine (VCM) is a computer operated program which has functionality similar to vending machines for dispensing coffees but in virtual environment.

It gives the user option of depositing coins of 1,2,5,10,20,50 cents or 1,2 dollars, one at time. After coin deposit, the user can choose coffee from three provided options such as Cappuccino, Latte and Decaf and dispense chosen coffee. User can also collect change anytime during the program which will be shown in least coinage breakdown.

## Procedure to use the VCM

1. Select any coin from provided coin options and then click deposit button. (you can only add one coin at a time.)
2. If you wish to add a larger amount, repeat step1.
3. Once sufficient funds are added, select any coffee from option of Cappuccino, Latte and Decaf and click "Dispense Coffee" button.
4. Once coffee is dispensed, you can make another coffee (if there is sufficient funds) or change can be collected by clicking "collect Change" button or more funds can be added.
5. However, change can be collected anytime during the process by clicking "collect Change" button.
6. If user wishes to restart the program and start from beginning in the middle of the program, this can be done by clicking "Restart" button anytime.

**VIRTUAL COFFEE MACHINE**

Please select coin of 1,2,5,10,20,50 cent or 1, 2 dollar and desposit

<input type="radio"/> 1 Cent	<input type="radio"/> 2 Cents
<input type="radio"/> 5 Cents	<input type="radio"/> 10 Cents
<input type="radio"/> 20 Cents	<input type="radio"/> 50 Cents
<input type="radio"/> 1 Dollar	<input type="radio"/> 2 Dollars
<input type="button" value="Deposit coin"/>	<input type="button" value="Restart"/>

**Coffee Options:**

Please select one

☐ \$3.50 Cappuccino   ☐ \$3.00 Latte   ☐ \$4.00 Decaf

Fig 1: Basic VCM lookout

# DEVELOPER MANUAL

## Introduction

Virtual Coffee Machine (VCM) is a computer operated program which has functionality of depositing coins, dispensing coffees and collecting change.

## Languages and environment used:

Language: - HTML, CSS, PHP.

Environment: XAMPP v3.2.2

## Main features

- Deposit coin: System can be used to deposit coins by selecting one coin option from provided radio buttons and then clicking "Deposit coin" button.
- Restart: As this is only a testing program, the restart button is used to set all the variables to its initial values and begin from start.
- Dispense coffee: The dispense coffee option is used to dispense coffee according to selected type of coffee which are Cappuccino, Latte and Decaf. If "Dispense coffee" button is clicked without choosing option, it will show an error message.
- Collect change: The option of "Change collect" can be used at anytime during the process. It will be showed in coinage breakdown and return total funds left in the system.

## Programming Algorithm for VCM:

1. Start the session and set three session variables `$_SESSION["total"]`, `$_SESSION["credit"]` and `$_SESSION["change"]`.
2. When button "Deposit coin" is clicked (for depositing funds), receive value from radio button using **method POST** and store in variable `$_SESSION["credit"]` and add to the variable `$_SESSION["total"]`.
3. When "Dispense coffee" button is clicked, check the value of `$_SESSION["total"]` is greater than chosen coffee value (Cappuccino=3.5, Latte=3 and Decaf=4).
  - If yes, then dispense coffee and subtract `$_SESSION["total"]` from Value of coffee and store is `$_SESSION["change"]`.
  - If not, then show error message of insufficient funds.
4. When "Collect change" is clicked, then breakdown the `$_SESSION["total"]` in number of 2, 1, 0.50, 0.20, 0.10, 0.05.

# Flow chart

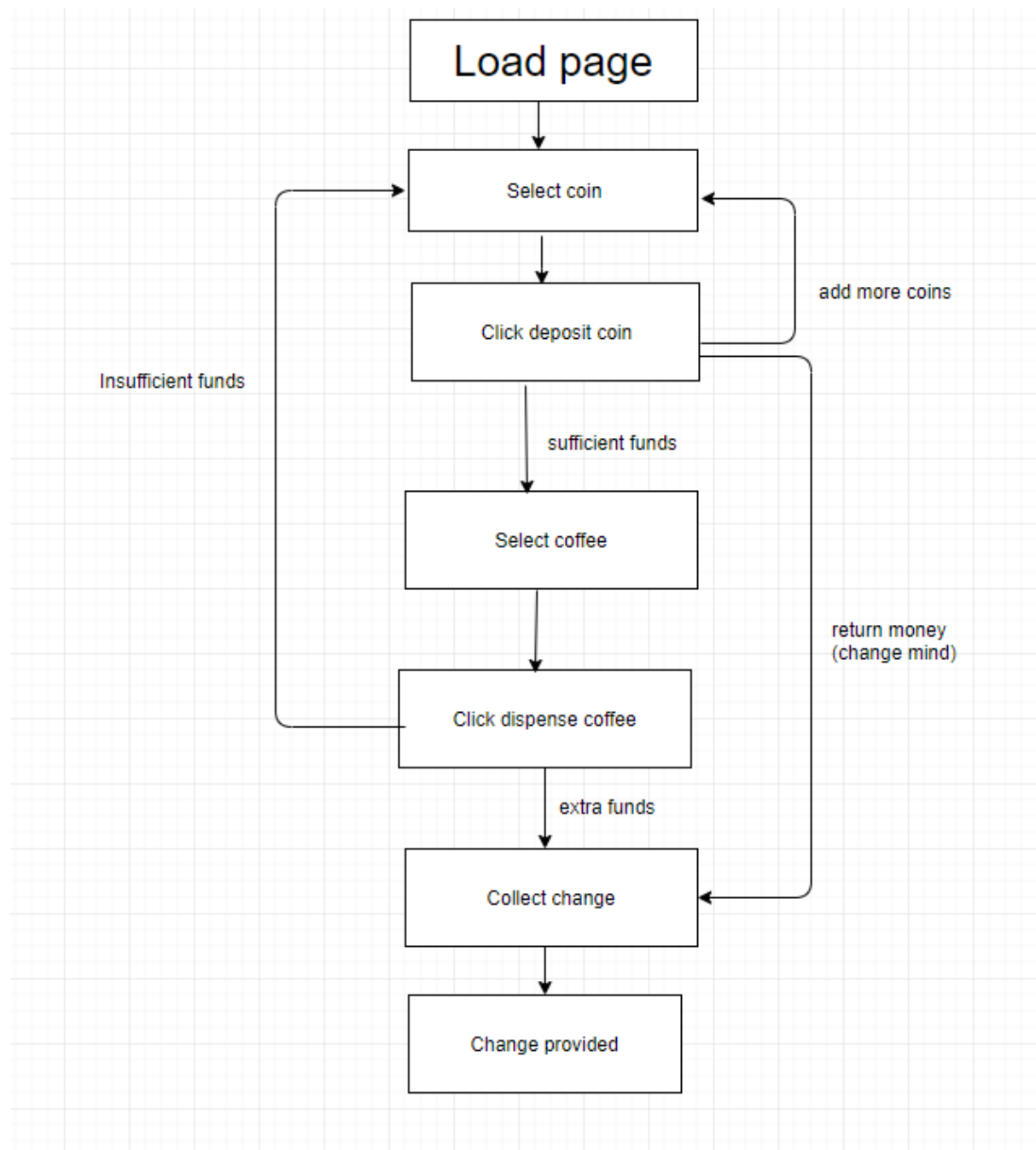


Fig 2. Flow chart of functionality of Virtual Coffee Machine.