

Assignment

This assignment is the examination of this course. This means that if you finish this assignment properly you will pass the course. When you've done the assignment you can hand it in at courses.vsw.se/assignments.php. When it has been handed in it will be corrected and marked. If everything was fine with your assignment you'll pass the course. If something was wrong you'll get it back together with some feedback about it. Fix whatever that was wrong and hand it in again. You can't really fail a course since you can just hand in new versions of an assignment. Note however that if you send in too many assignments your assignment won't be prioritized when marking it. You should therefore make sure to always double check your code before sending it in.

In a shop there are five different items for the customers to buy. These do of course all have different names and different prices which can all be seen further on in this document. The user is a customer in this shop and has \$100 to buy items with.

Write a program that gives the user the ability to add the different items to their shopping basket. The user can have more than one of each type of item in the shopping basket and the user can also have more items in the shopping basket than it can afford.

There should also be an option to see what items there are in the shopping basket as well as a way for the user to remove certain items from the shopping basket.

There should finally be a option to pay for all the items and exit the shop. If the user can afford all the items the program should print how much money there's left as well as what items that were bought, then the program should exit. However, if the user can't afford the items in the shopping basket an error message should be shown and the user should remain in the shop. This allows the user to alter the content of the shopping basket before trying to pay for the items again.

The program should be easy to follow, be expandable, well documented, be able to prevent error and using methods to split up the code.

The items in the shop are shown below but you can add more if you want to.

Broken computer \$40

Cookie \$3

Unknown video game \$25

Modern art \$80

Useless button \$10

Runtime example

When your program is running it could look like the following. Note that it doesn't have to be exactly the same but it should be able to do similar things. Also note that not all parts of the program is shown in the example. Lines starting with a > means that what comes after it is input by the user and therefore not a part of the program itself.

*Welcome customer. You currently have 0 items in your shopping basket.
> What would you like to do?*

1. Add an item to the shopping basket
2. View the content of the shopping basket
3. Pay and exit the shop

> 2

Your shopping basket is empty.
What would you like to do?

1. Go back

> 1

Welcome customer. You currently have 0 items in your shopping basket.
What would you like to do?

1. Add an item to the shopping basket
2. View the content of the shopping basket
3. Pay and exit the shop

> 1

What would you like to add to your shopping basket?

1. Broken computer \$40
2. Cookie \$3
3. Unknown video game \$25
4. Modern art \$80
5. Useless button \$10
6. Go back

> 2

Cookie costs \$3. How many would you like?

> 5

Welcome customer. You currently have 5 items in your shopping basket.
What would you like to do?

1. Add an item to the shopping basket
2. View the content of the shopping basket
3. Pay and exit the shop

> 2

Items in shopping basket:
Cookie [5]

What would you like to do?

1. Remove item
2. Go back

> 1

What item would you like to remove?

1. *Cookie*
2. *Go back*

> 1

How many?

> 3

Items in shopping basket:

Cookie [2]

What would you like to do?

1. *Remove item*
2. *Go back*

> 2

Welcome customer. You currently have 3 items in your shopping basket.

What would you like to do?

1. *Add an item to the shopping basket*
2. *View the content of the shopping basket*
3. *Pay and exit the shop*

> 3

You payed \$6 for your items and therefore have \$94 left.

You bought the following items:

Cookie [2]