

CS 21 Introduction to Java Programming.

Project 2:

1. If you are a programmer to write a program to help a supermarket named HappySaver. HappySaver does not allow customer to pay by bills over \$100. So, the most valuable bill notes acceptable by HappySaver is \$100 bill. (All other customers may use credit card or check.)
2. Now, you will write a program to accept a payment amount **payment** and $0 < \text{payment} \leq 100$.

So, the first part of the program, you assign payment variable a certain value.
For example,

```
int payment = 60; // use integer because the bills are whole number
```

Then, you assign a value for the price, **price** must be smaller than **payment**.

For example,

```
double price = 25.32;
```

3. Step 3, you need to calculate the change.

```
double change = payment - price.
```

4. The last steps:

Calculate how many 20 dollar bills, 10 dollar bills, 5 dollars bills, 1 dollar bills, quarters, dimes, nickels and pennies.

One important rule is:

If you can distribute the change by 20 dollar bill, you should use 10 dollar bill.

So, in our example, the change is 34.68. It is not allowed to give the customer the change of 3468 pennies.

You should give the customer 1 twenty-dollar bills, 1 ten-dollar bill, 4 dollar bills, 1 quarter, 1 nickel, and 4 pennies.

5. Write a program to automate this process.