

# DIGIMAKER

Programming for young Makers

Topic:

## List

## Currency Converter



A **list** is used for storing data, just like a variable. However, a variable can store only one piece of data at a time in a named location, a list can store many.

## Utility to convert from Aussie Dollar to another country currency

### GET READY

- Get project:** Click on "Code" and then click save

```
Currency Conversion App
1 - US Dollar
2 - British Pound
3 - Euro

Enter Amount: 50
Convert to: 2
50 in Aussie $ = 25.5 in British Pounds
```

### ADD YOUR CODE

- Main Program:** Calculate converted amount. Use IF conditions – to check if choice = 1, print conversion in US dollars  
if choice = 2, print conversion in British Pounds

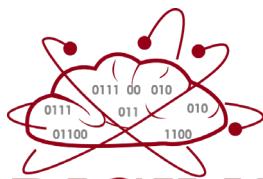
```
convAmt = amt * currency[ch];
if (ch == 1)
    System.out.println(amt + " in Aussie $ = " + convAmt + " in
US Dollars");
else if (ch == 2)
    System.out.println(amt + " in Aussie $ = " + convAmt + " in
British Pounds");
else if (ch == 3)
    System.out.println(amt + " in Aussie $ = " + convAmt + " in
Euro");
input.close();
```

### TRY IT OUT!

- Click on Save.** Click on Run.

### Errors?

Try to find clues in the error message.



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## CHALLENGES! 😊



### OPTIONS MENU

Show options menu as follows:

- Currency Conversion App
- 1 - US Dollar
- 2 - British Pound
- 3 - Euro

Hint: use

```
System.out.println()
```

### Fun Fact!

Lists (aka arrays) let us deal with multiple values of the same kind by using only one variable!



### ADD NEW CURRENCIES

Add 3 new currencies, 'NZ Dollar', 'Japanese Yen', 'Chinese Yuan'

Hint: Use [www.xe.com](http://www.xe.com) to find the conversion rate



### OPTIONS CHECK

If user enters number other than 1 to 4, show message 'Wrong choice'



### BINGO! – NEW PROJECT

Generate a list of 10 random numbers (between 1 and 100). Ask the player to guess a number. Check if the players guess is in the list

### TEST YOURSELF!

What does this code print?

```
import java.util.ArrayList;
public class Main{
    public static void main(String[] args) {
        int marks[] = new int[4];
        for(int i=0;i<4; i++) {
            marks[i] = (int)(Math.random() * 100);
            System.out.println(marks[i]);
        }
    }
}
```