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

1. **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

2. **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!

3. 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 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]);
          }
     }
}
```