**Topic 3: Methods with Parameters**

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**Void method with parameter**

Just like the methods we learned about in Week 8, Java methods can have **parameters**, which are a comma separated list of data types and variable names. For example, here is a void method that takes one parameter to display a welcome message for our random number guessing game.

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| **public static void displayMessage(String userName){**  **System.out.println("Welcome to the Random number guessing game, " + userName + "!");**  **System.out.println("Try your luck at guess the number.");**  **}** |

In the IDE it looks like the following:

**![A screenshot of a cell phone

Description automatically generated]()**

[**Passing Arguments Void Method**](https://dmacc.blackboard.com/webapps/assignment/uploadAssignment?content_id=_3812343_1&course_id=_69150_1&group_id=&mode=view)

Let's change our method to accept parameters. You must change main call the method by passing variables into it, the variables will need to be declared in main.

* 1. Write a method, called **printLucky**that prints a string. Make the string from a string representing your name and a number representing your lucky number, both are values that you must pass to the method from main.
  2. Create the variables to pass in main. Call the method from main.

Run and test it. Submit your .java file.

This is worth 10 points.

**Methods with a return type and parameters**

Now we can combine a return type and parameters in a single method. Here is an example of a method signature.

**public static String userName(String name, int age)**

An example of the method declaration, with the header and body that returns a String and accepts a String and a number:

|  |
| --- |
| **public static String userName(String name, int age)** {  **String userName;**  **userName = name + age;**  **return userName;**  } |

[**Passing Arguments Return Method**](https://dmacc.blackboard.com/webapps/assignment/uploadAssignment?content_id=_3812351_1&course_id=_69150_1&group_id=&mode=view)

Let's create a method that has parameters.

* 1. Write a method, called **returnHours**that returns a string. Make the string from a string representing your name and a number representing the hours you spend sleeping, both are values that you pass in from the main.
  2. Create the variables to pass into the method call in main. Call the method and print the return value in main. Run and test it.

Submit your .java file.

This is worth 10 points.