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SWD4TF032-3004
Programming 1
Haaga-Helia University of Applied Sciences

2021.02.04

Control structures

2.1 What is wrong in the code below?

```
int i = 0;

while (1 < 10) {

 System.out.println(i);

}
```

In the while loop we have 1 instead of i, so it will be a forever while loop, also if we would like to use it like this, we have to put i++ after the print to update the variable.

2.2 What is the standard way to write a clean while loop?

First, you get the item after the the loop coming with an item which is available, in the loop it will process the item and getting the next item.

2.3 By default, the program crashes when the code line below is executed.

```
int age = Integer.parseInt("ten years");
```

Explain how we can prevent the program to crash when the code line above is executed. Assume

that we do not modify the code line.

It will be crash because the integer contains a string value, so we have to use NumberFormatException to prevent the crash.

Methods

2.4 What does passing parameters by value mean?

Because the paramter is passed by value a copy of the parameter’s value will be pased to the called method.

2.5 How does passing arrays as parameters differ from passing ints as parameters?

When we passing an array to a method, we have to pass a value which will store a copy of a reference to the array object. And also, we have to use the int[] array icon aswell.

2.6 What is the purpose of the keyword void?

The method doesn not return a value if we use void.

2.7 What does method overloading mean?

This feature allows a class to have more then one method with the same name if their arguments is different.

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Week 2 Assignment
2 (2)

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2.8 What are the two given rules of thumb for limiting the size of a method?

No lower limit on method length.

Method can be printed to one page, but if the length exceeds, we can break the method into two or more smaller methods.

2.9 What does 'method library class' mean? How does a method library class differ from a 'program

class'? What kind of benefit we can get by creating and using 'method library classes'?

Method library class stores a group of related static method. The program class just contains small pieces of functionality. Because if we use and create library's we don't have to waste our time. Like the Math method, we can easily use the Math.sqrt(number) instead knowing how can we calculate the number sqrt manually. Modularity and abstraction improved because of this.

2.10 In your program, what are the two possible ways to use a class from another namespace

(package)?

We can use all the classing from a package like java.util.* or just one class from the package which is java.util.Scanner to only just use the Scanner class.