

Week 2 Research

Prompts

1. What are the different loops Java provides us with?

There are three types of loops in Java: for, while, & do while (this does not count the “enhanced for loop”)

2. What is the syntax of one of the loops in your above answer? How and when should you use this loop? Give an example.

For Loops are good to use when you know how many times to iterate a code. It iterates until the condition is true and terminates when it is false.

Syntax: `for (int x = 0; x <= 10; x++) { loop statement};`

3. What is the syntax of another one of the loops in your above answer? How and when should you use this loop? Give an example.

While Loops: these are good when you need to iterate a condition until it is met but it is unknown how many iterations are needed.

Syntax: `while (boolean condition) { loop statement ; increment or post condition};`

```
int x= 0
```

```
while (x < 10) { System.out.println(x);    x++;};
```

4. What is the syntax of another one of the loops in your above answer? How and when should you use this loop? Give an example.

Do While Loops: these loops always execute at least once, even if the condition is not met, because the condition is checked at the end of the expression.

Syntax: `do {loop statement; post condition} while (boolean condition);`

```
do {System.out.println(x);    x++;}
```

```
while (x < 10);
```

5. What is your favorite thing you learned this week?

I enjoyed working on the practice problems. It made me think through the knowledge I learned this week and apply it. I checked my code in Eclipse to get a better understanding when I was

running into problems. The majority of the issues I had this week were adding extra {} when they were auto-added and I did not realize it.

References:

Question 1: <https://www.scaler.com/topics/java/loops-in-java/>

Questions 2-4: <https://www.geeksforgeeks.org/loops-in-java/>