Forever Loops

So far, we've learned branches

Branches allow us to choose which segments of code to run and skip

But as of now, branches only run once!

What if we wanted to print out your name 5 times?

```
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
```

What if we wanted to print out your name 10 times?

```java
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
```
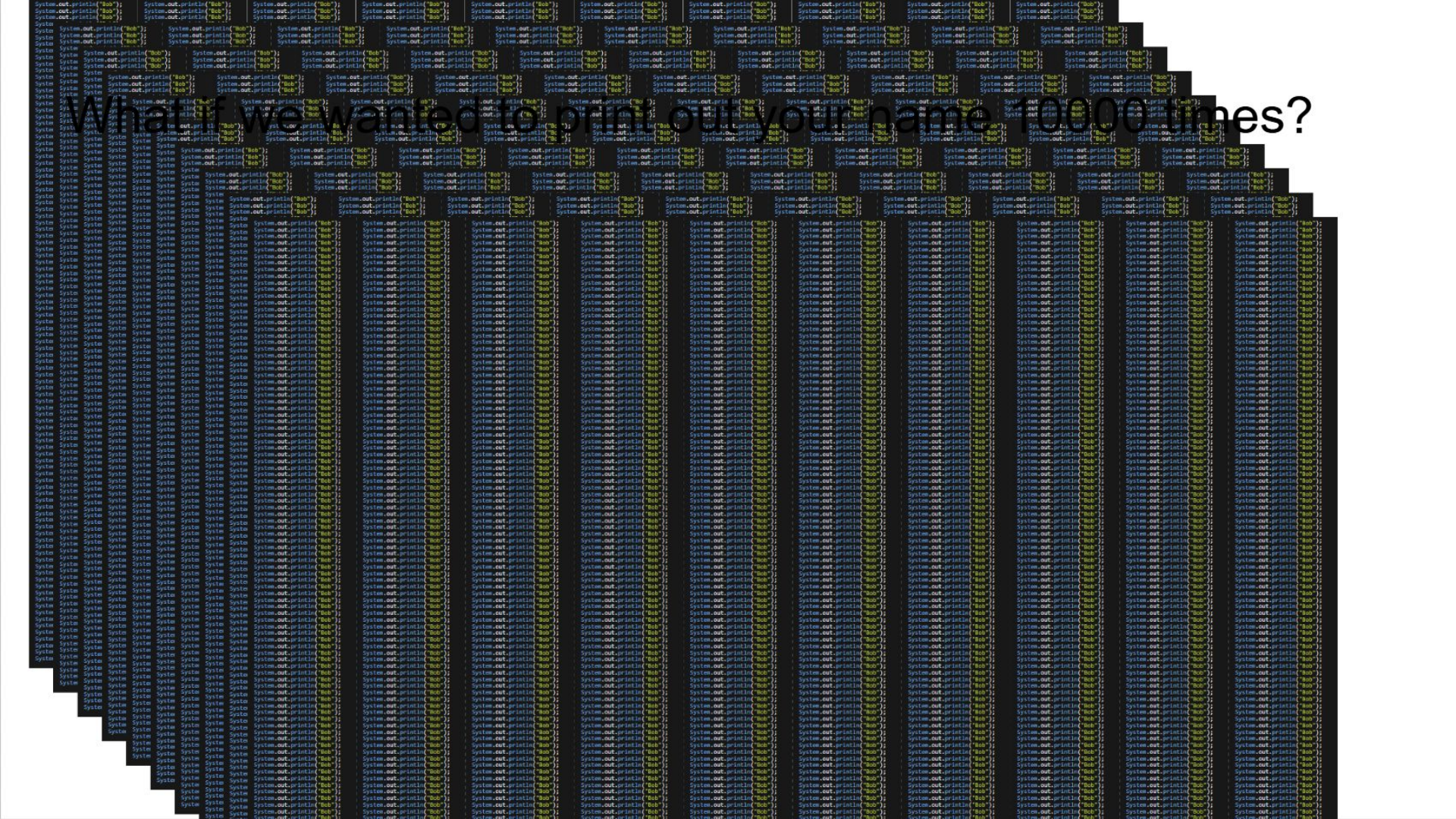
What if we wanted to print out your name 100 times?

```
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
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System.out.println("Bob");
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System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
System.out.println("Bob");
```

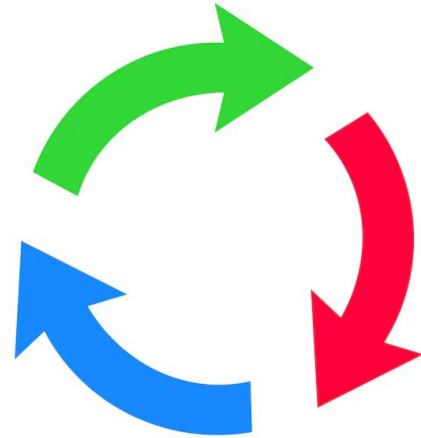# What if we wanted to print out your name 1000 times?

What if we wanted to print out your name 10000 times?

ame 10000 times?

Let's learn how to repeat something forever!

1. Based on a condition
2. Continue looping
3. Until condition is broken

Notice an if statement

Must be a boolean!

```
if(condition){

}
```

Welcome a while loop

Must be a boolean!

Must be a boolean!

```
if(condition){


}
```

```
while(condition){


}
```

These have the exact same structure.

An if statement runs once based on a condition,
loops run forever until a condition is false

So let's repeat printing a name!

```java
while(true){
    System.out.println("Bob");
}
```

This says,
"while true, print out "Bob"

This never ends. It repeats the action forever.
This is called a "Forever Loop"

Lab: Forever Loop

Generate and print out random integers between 1 and 1000 forever!!!