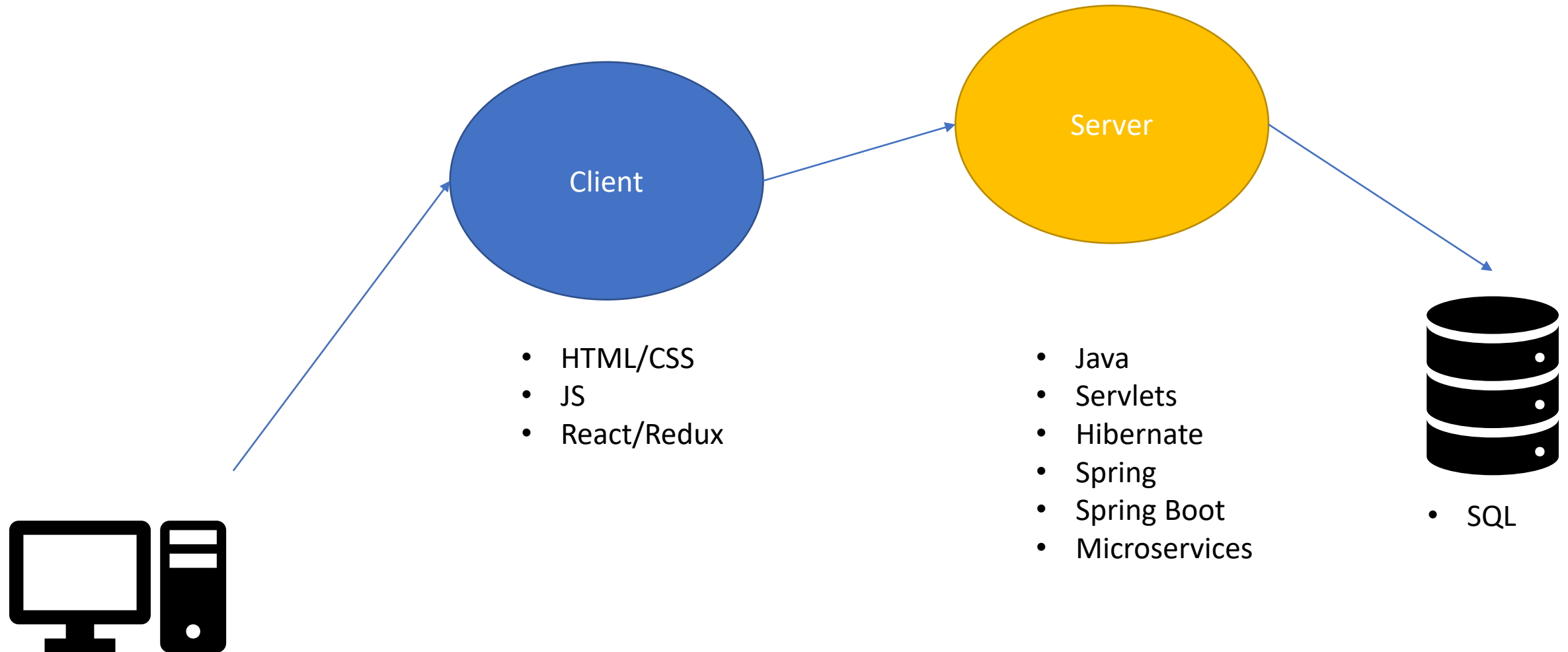


Week1 Java

What Problem Does Java Solve?

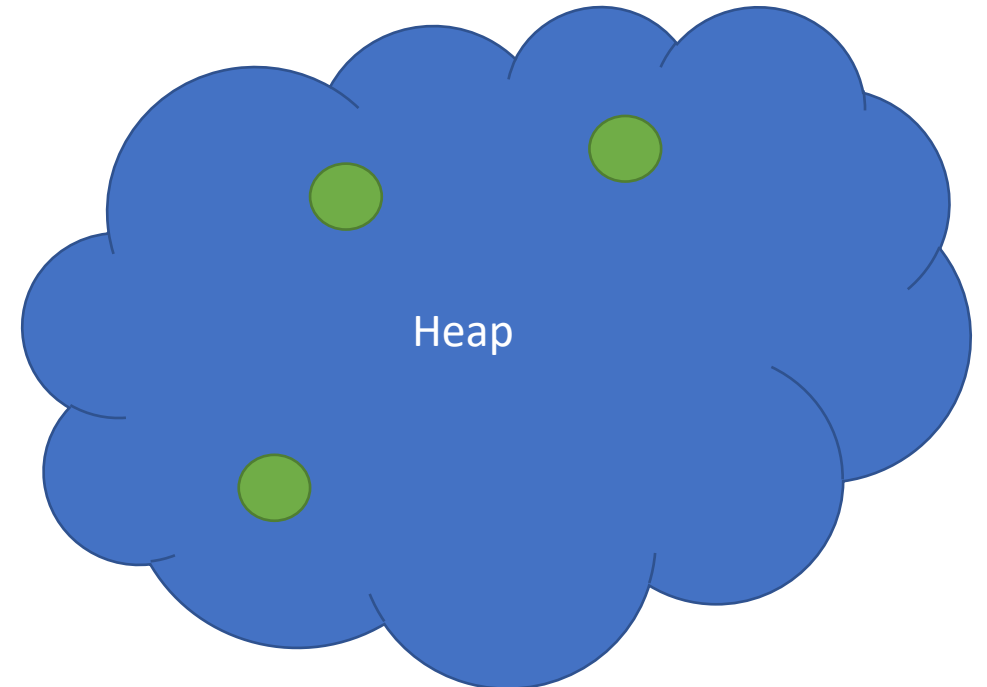
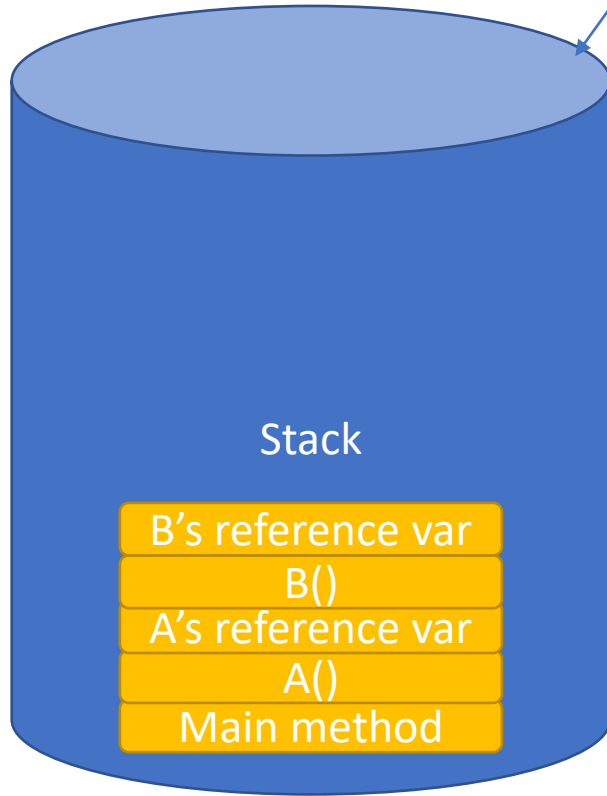
- 1995
- Java is trying to solve the following problems of its predecessors:
 - Memory issues (memory leaking, memory management)
 - GC, Automatic GC, No Pointers (Java Allocates Memory for you)
 - Managing multiple lines of execution
 - Multi-threading, synchronization
 - Platform dependence (having to account for the same program running in different platforms)
 - Platform independence, WORA, JVM
 - Having to start from scratch (writing your own libraries and dependencies)
 - Java provided libraries, Java Community, Java APIs
 - Procedural Programming
 - OOP

Full Stack Application ← this is the goal?



Stack vs Heap

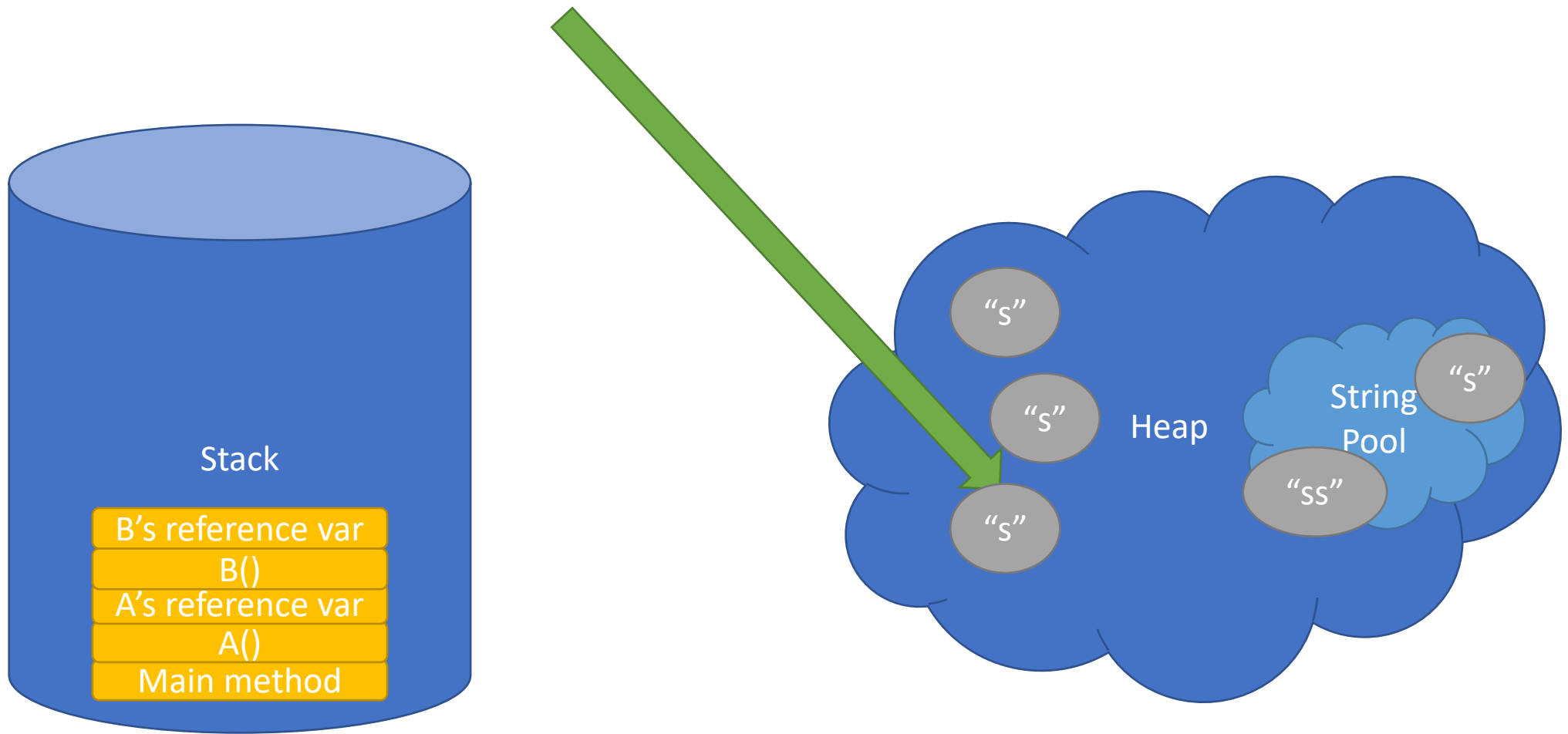
```
BankAccount bankAccount = new BankAccount();
```



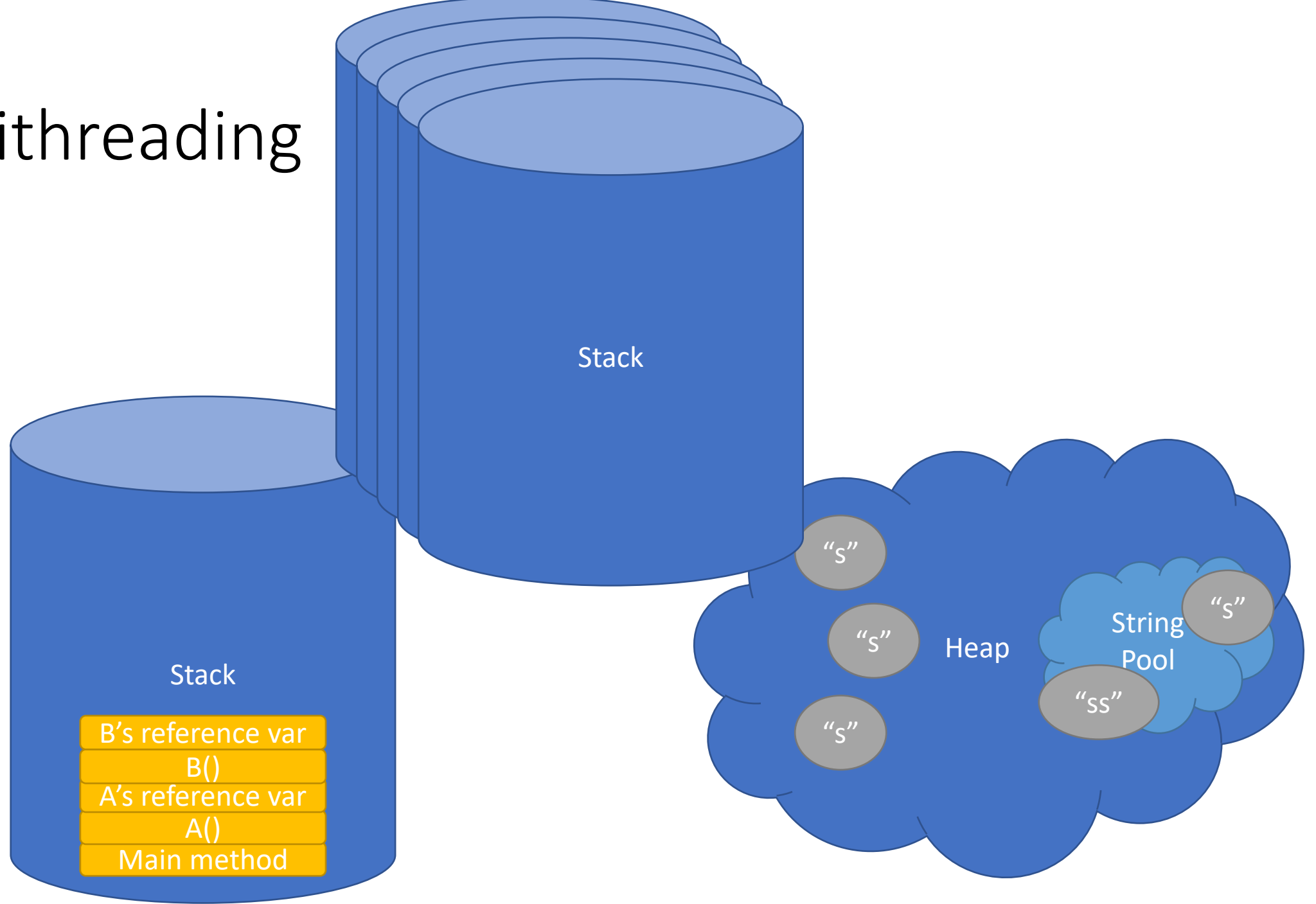
String Pool

```
String s1 = "s";  
String s2 = "s";  
String s1 = "ss";  
String s3 = new String("s");  
// the following is run 10x  
String s4 = new String("s");
```

```
System.gc();
```



Multithreading



What are we building?

- Pirates!
 - Ships
 - Role
 - Treasure

