Java Objects Part 2 Notes

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1 constants

- Are named *IN_CAPITALIZED_SNAKE_CASE*

- Can be done using *static* keyword

- Allows variables and methods to be exposed without instantiation

```java
public class PezDispenser {
    public static final int MAX_PEZ = 12; // <- 1. static declared here :)
        ...
}
```
Listing 1: lesson_1/PezDispenser.java

```java
import java.io.Console;

public class Example {
    public static void main(String[] args) {
            ...
            System.out.printf("FUN FACT: There are %d PEZ allowed in every dispenser\n", PezDispenser.MAX_PEZ); // 2. <- And is used here :)
            ...
        }
    }
```
Listing 2: lesson_1/Example.java

Notes:

- Files can be compiled and displayed by typing *javac Example.java && java Example* in terminal

2 Exercise 1

- Solution included in *exercise_1.java*

3 Filling the Dispenser

- *void* keyword means nothing is returned at the end of a method

```
1   public class PezDispenser {
2       public void fill() { // <- This little guy here :)
3           this.pezCount = MAX_PEZ;
4           System.out.printf("The current count of delicious PEZ is %
    d\n", this.pezCount);
5       }
6   }
7
```

Listing 3: lesson_3/PezDispenser.java

```
1   import java.io.Console;
2
3   public class Example {
4       public static void main(String[] args) {
5           ...
6           dispenser.fill(); // <- 2. Is used like this
7
8       }
9   }
10
```

Listing 4: lesson_3/Example.java

Notes:

- Files can be compiled and displayed by typing *javac Example.java && java Example* in terminal
- Always start with private methods, and turn to public when needed.

4 Exercise 2

- Solution included in *exercise_2.java*

5   Abstraction at Play

- *Golden Rule* Don't make users understand object internally

    - Simple questions such as 'is it empty?' is sufficent

```
1    public class PezDispenser {
2        public boolean isEmpty() { // <- This little guy here :)
3            return this.pezCount == 0;
4        }
5
6        ...
7    }
8
```

Listing 5: lesson_5/PezDispenser.java

```
1    import java.io.Console;
2
3    public class Example {
4        public static void main(String[] args) {
5            ...
6            if (dispenser.isEmpty()) {
7                System.out.printf("Dispenser is empty"); // <- 2. with
     this little fellow here
8            }
9
10           ...
11           if (!dispenser.isEmpty()) {
12               System.out.printf("Dispenser is full\n"); // <- 3. and
     this guy as well
13           }
14
15       }
16   }
17
```

Listing 6: lesson_5/Example.java

Notes:

- Files can be compiled and displayed by typing *javac Example.java && java Example* in terminal