

Bitcoin Indicator



A Kata by Fabian

Goals

- Self defined Kata to learn about everything we did
 - TDD
 - Outside-In
 - Should have Input/Output
 - Hexagonal Architecture
- Should call a real live service

Requirements

- Display Price of Bitcoin
- Indicate Green when price increased in the last 24h, Red if not

Learnings



Primitive Obsession

- Fix Primitive Obsession allows “logic” on the primitive wrapper classes

```
3 public record Price(int value) {  
4     public String toString() {  
5         return value + "-";  
6     }  
7 }
```

- It's also about the tiny magic sparks!

NPE to the rescue

```
51     @Test
52     void printLineNPE() {
53         BtcPrinterService btcPrinterService = new BtcPrinterService(
54             new Price( value: 543),
55             new Percent24h( value: 0.3f),
56             terminalProxy: null);
57
58         String printed = btcPrinterService.print(); // NPE
59
60         assertThat(printed, is( value: "543.- GREEN"));
61     }
```

- Having to mock dependencies in tests where the dependency is not relevant reveals violations of the Single-Responsibility-Rule

```
51     @Test
52     void printLine() {
53         BtcData btcData = new BtcData(new Price( value: 543), new Percent24h( value: 0.3f));
54         LinePrinter linePrinter = new LinePrinter(btcData);
55
56         String printed = linePrinter.print();
57
58         assertThat(printed, is( value: "543.- GREEN"));
59     }
```

No Unittests for Adapter/ACL

- For adapters rely only on Integration Tests, it's enough
- At least in my “big” project

Integration Tests ->



```
13
14   @Test
15     void smoke() {
16         Main.main();
17     }
18
19   @Test
20     void writeToTerminal() {
21         ITTerminalProxy terminalProxy = new ITTerminalProxy();
22         new BtcPrinterService(new CoingeckoBtcDataSource(), terminalProxy).print();
23         assertThat(terminalProxy.lastline, is(notNullValue()));
24     }
```


Demo Time

Conclusion

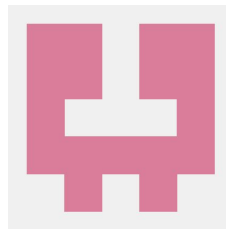
Laziness ensues

Magic happens

And it feels good

Questions?

**Thank you for your
time!**



**Find me
on
Github**

github.com/unSinn

<https://github.com/unSinn/alcor-test-doubles>