

PEP Scala (3)

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Slides & Code: KEATS

Scala Office
Hours: Thursdays 11 – 13

```
import java.util.concurrent._
import java.util.concurrent.atomic._

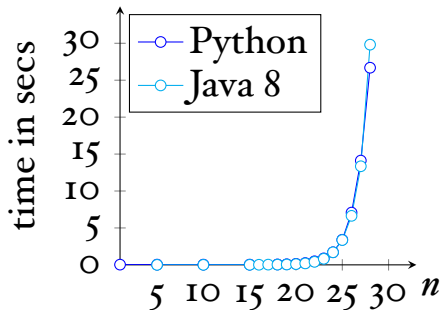
def collatz(input:Int){
    CollatzConjecture(input);
    println(count.get());
}
def collatz_max(input:Int){
    val List = new Array[Int](input)
    for (i <- 0 to input-1){
        jCollaConjecture(i);
        List(i)=count.get();
        count.set(0);
    }
    val max = new AtomicInteger();
    max.set(List(0));
    val index = new AtomicInteger();
    index.set(1);
}
```

```
    for(i<-0 to input-1){
        val temp :Int=max.get();
        if (temp < List(i)){
            max.set(List(i));
            index.set(i);
        }
    }
    println("(" + max.get() + ", " + index.get() + ")");
}
```

```
def CollatzConjecture(n: Long): Long = {
    count.incrementAndGet();
    if (n <= 1)
        1
    else if (n%2 ==0)
        CollatzConjecture(n/2);
    else
        CollatzConjecture((3*n)+1);
}
}
```

CW₃ (1 Part): Regexes

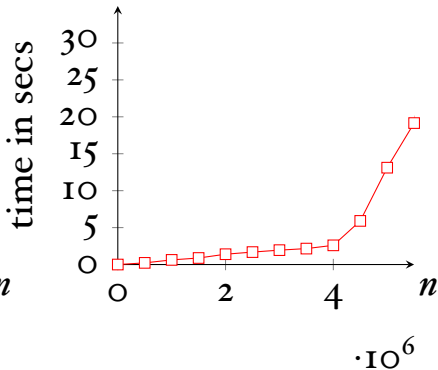
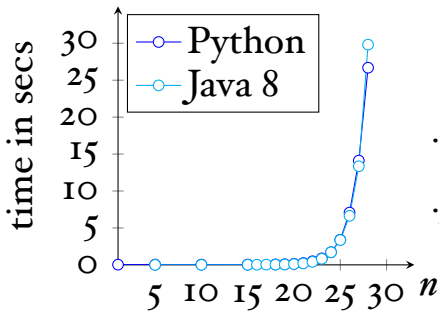
Graphs: $(a^*)^*b$ and strings $\underbrace{a \dots a}_n$



<https://vimeo.com/112065252>

CW₃ (1 Part): Regexes

Graphs: $(a^*)^*b$ and strings $\underbrace{a \dots a}_n$

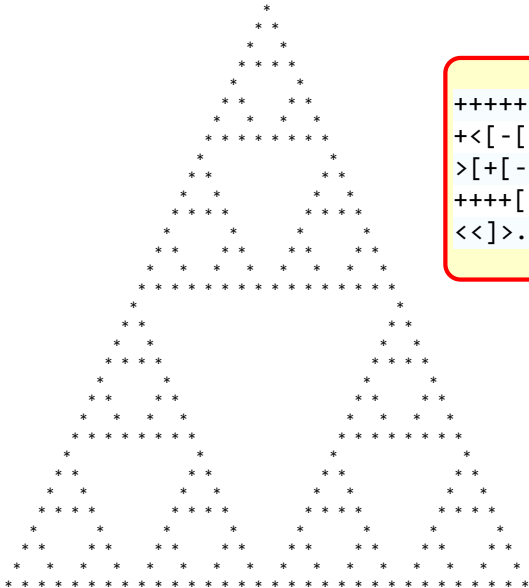


<https://vimeo.com/112065252>

Where to go on from here?

- Martin Odersky (EPFL)...he is currently throwing out everything and starts again with the dotty compiler for Scala
- Elm (<http://elm-lang.org>)...web applications with style
- Haskell, Ocaml, Standard ML, Scheme, ...

Questions?



```
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++++ [ <<++++>> - ]+<<+> . [ - ]  
<< ]> . >+ [ >> ]>+ ]
```

Marks for CW6 (Part 1 + 2)

Raw marks:

- 6%: 154 students
- 5%: 66
- 4%: 18
- 3%: 13
- 2%: 2
- 1%: 1
- 0%: 21