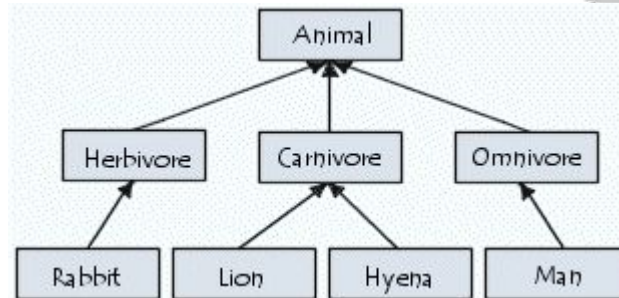
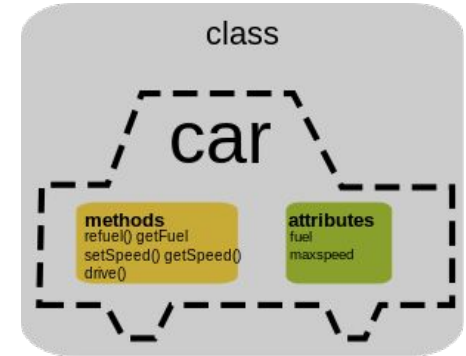

Implementing Some Object-Oriented Concepts using Scala

Mojia Shen and Zarin Bhuiyan

Goals

1. Classes
2. Objects
3. Inheritance



Our Approach Part 1

(class A (field 1) (method x))

(class B inherits A (field 3) (method2 y))

class table structure:

Class Name	Fields	Methods
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Part 2

(class A, (field x), (method (+ x 1)))

(define obj (new A))

Part 3

(class Adder (x y) , (field x) , (method z (+ z 1)))

(define a (new Adder 1 2))

(a . field)

(a . method 2)

class table structure:

Class Name	Arguments	Fields	Methods
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Demo: Example 1

```
(class Adder (x y) , (field x) , (method (z) (+ z 1)))
```

```
(define a (new Adder 1 2))
```

```
(a . field)
```

```
(a . method 2)
```

Demo: Example 2

```
(class Adder2 (x y) , (field1 x) (field2 y) (field3 100), (method1  
(z) (+ z 1)) (method2 (q) (* q 2)))
```

```
(define b (new Adder2 1 2))
```

```
(b . field1)
```

```
(b . field2)
```

```
(b . method1 2)
```

```
(b . method2 2)
```

Demo: Example 3

```
(class Adder1Child inherits Adder (a b) , (field a) , (method2 (r  
(+ r 1)))
```

```
(define c (new Adder1Child 3 4))
```

```
(c . field)
```

```
(c . method2 3)
```

Demo: Example 4

(class Adder2Child inherits Adder2 (x y) , (field1 77) (field3 y),
(method1 (r) (+ r 5)))

(define d (new Adder2Child 10 20))

(d . field3)

(d . field2)

(d . method1 5)

(d . method2 50)

Deep Dive...

Class table

SEClass

SEClassInherit

Create new object

Field and method

Future Work

Methods that use parameters from when the user defines the object

(class Adder (x y) , (field x) , (method (z) (+ y z)))

Thank you!

