

```

1 package com.publiccept;
2
3 /**
4  * Dog extends Animal
5  * "extends" keyword: inherit from a super class (=parent-class)
6  *
7  * Dog(String name, int size, int weight, int eyes, int legs, int tail, int teeth, String coat)
8  *
9  * chew()
10 * eat()
11 * walk()
12 * run()
13 * moveLegs(int speed)
14 * move(int speed)
15 */
16 public class Dog extends Animal {
17
18     // == fields ==
19     private int eyes;
20     private int legs;
21     private int tail;
22     private int teeth;
23     private String coat;
24
25
26
27
28     // == constructors ==
29     /**
30      * Dog.Dog()
31      * @param name
32      * @param size
33      * @param weight
34      * @param eyes
35      * @param legs
36      * @param tail
37      * @param teeth
38      * @param coat
39      */
40     public Dog(String name, int size, int weight, int eyes, int legs, int tail, int teeth, String coat) {
41         /* super() must be called first in the extended constructor! */
42         super(name, 1, 1, size, weight);
43         this.eyes = eyes;
44         this.legs = legs;
45         this.tail = tail;
46         this.teeth = teeth;
47         this.coat = coat;
48     }
49
50
51
52     // == override methods ==
53     /**
54      * Dog.eat()
55      * -> Override
56      */
57     @Override
58     public void eat() {
59         System.out.println("Dog.eat() called");
60         chew();
61         super.eat();
62     }
63
64
65     /**
66      * Dog.move()
67      * @param speed
68      */
69     @Override
70     public void move(int speed) {
71         System.out.println("Dog.move() called");
72         moveLegs(speed);
73         super.move(speed);
74     }
75
76
77
78     // == public methods ==
79     /**
80      * Dog.chew()
81      */
82     public void chew() {
83         System.out.println("Dog.chew() called");
84     }
85
86
87     /**
88      * Dog.walk()
89      * -> move();
90      */
91     public void walk() {
92         System.out.println("Dog.walk() called -> move(5)");
93         /**
94          * Generally, it's recommended to use move() instead of super.move():
95          * If the move()-function in the Dog-class is overridden at a later time,
96          * it's will correctly call that move() method.
97          * -> see walk() and run() examples below...

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```
98         */
99         move(5);
100     }
101
102
103     /**
104      * Dog.run()
105      * -> super.move();
106      */
107     public void run() {
108         System.out.println("Dog.run() called -> super.move(10) -> move()-override is skipped!");
109         super.move(10);
110     }
111
112
113     /**
114      * moveLegs()
115      * @param speed
116      */
117     private void moveLegs(int speed) {
118         System.out.println("Dog.moveLegs() called");
119     }
120 }
121
```