

# Introduction to Java

# A brief history

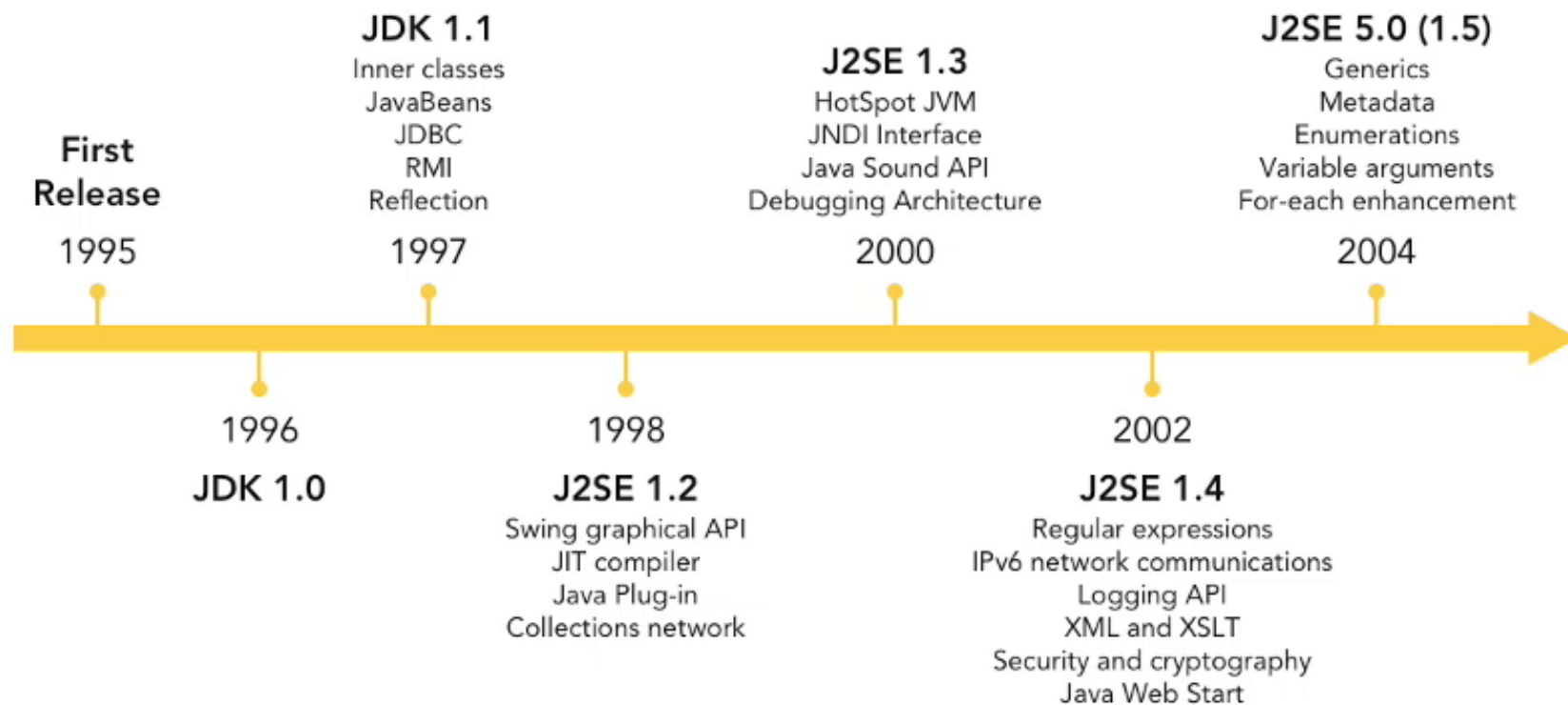
- Java is a general-purpose programming language that is class-based and object-oriented
- Write once, run anywhere (WORA)
- James Gosling, Mike Sheridan, and Patrick Naughton initiated the Java language project in June 1991
- Released in 1995 as a core component of Sun Microsystems' Java platform
- Oracle Corporation's acquired Sun Microsystems in 2009–10
- April 2, 2010, James Gosling resigned from Oracle.
- January 2016, Oracle announced that JRE based on JDK 9 will discontinue the browser plugin

# Five primary goals of the Java language

- 1.It must be simple, object-oriented, and familiar.
- 2.It must be robust and secure.
- 3.It must be architecture-neutral and portable.
- 4.It must execute with high performance.
- 5.It must be interpreted, threaded, and dynamic.

# Feature History

## HISTORY OF JAVA



# State Vs Behaviour

State	Behaviour
Name, Age, Gender, Height, Weight	Walk, Talk, Think
Color, Price, Weight	???
Price, Weight, SAR	Call, Display, Play Music
Color, Price, Weight, Mileage	Unlock Door, Accelerate, Break, Blow Horn

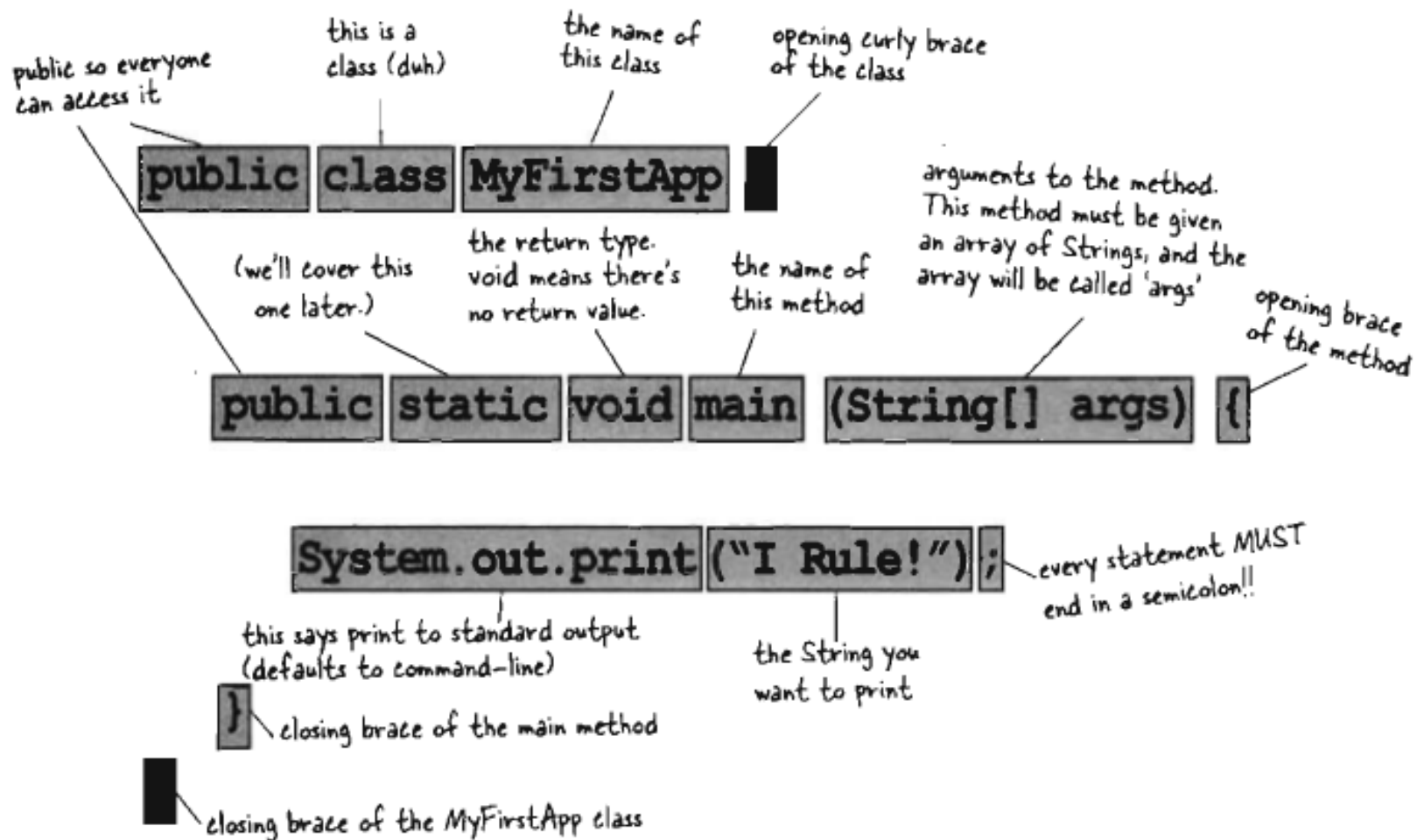
# Source - Class - Method

**Source:** A source code file (with the .java extension) holds one class definition. The class represents a piece of your program, although a very tiny application might need just a single class. The class must go within a pair of curly braces.

**Class:** A class has one or more methods. In the Dog class, the bark method will hold instructions for how the Dog should bark. Your methods must be declared inside a class (in other words, within the curly braces of the class).

**Method:** Within the curly braces of a method, write your instructions for how that method should be performed. Method code is basically a set of statements, and for now you can think of a method kind of like a function or procedure

# Anatomy of Main Class



# Quick Understanding Test

int size = 17	
String name = "John Doe";	
Cat myCat = new Cat(name, size);	
int x = size - 5;	
if (x < 15) myCat .feedMilk(8);	
while (x > 3) { myCat.play ("Toy Mouse") ; }	



# Statements

```
int x = 3;
```

```
String name = "Corona";
```

```
x = x * name;
```

```
System.out.print("x is " + x);
```

```
double d = Math.random();
```

```
System.out.print("d is " + d);
```

# Conditionals

```
int time = 22;  
if (time < 10) {  
    System.out.println("Good morning.");  
} else if (time < 20) {  
    System.out.println("Good day.");  
} else {  
    System.out.println("Good evening.");  
}
```

# Assignment

- Create a program to generate random number
- Based on some condition using this random number print a song
- Bonus points if the same operation is done multiple times in a loop