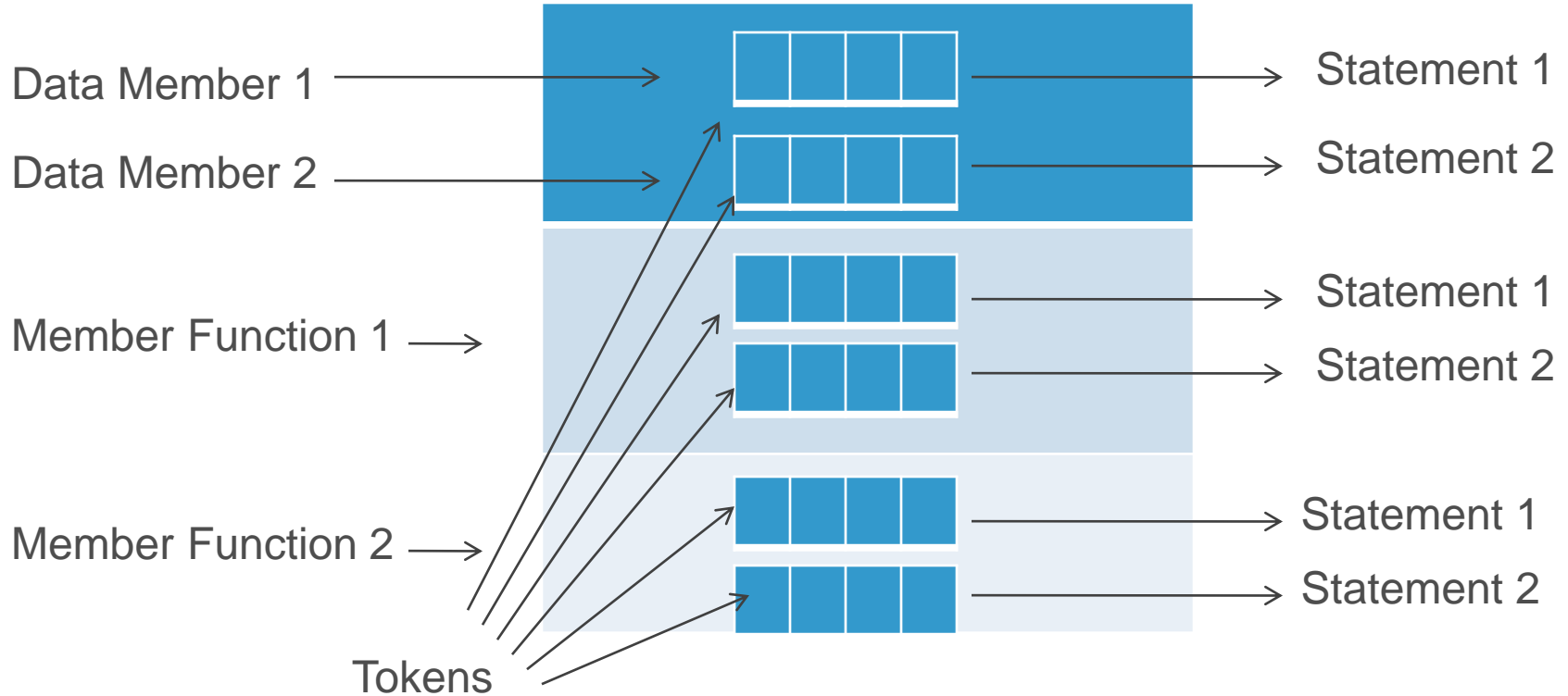# Java Tokens

By

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Java Program Basics

- ✓ Java Program is basically a collection of Classes
- ✓ Class is a collection of Data Members and Member functions
- ✓ Data Members are declared and Initialized
- ✓ Member functions are declared and defined
- ✓ Member functions are used to access Data Members
- ✓ The main method is defined within a class

Java Program Basics

- ✓ Statements are used to declare and define Data members and member functions
- ✓ Declarative, executable and non-executable statements are available in Java
- ✓ Statements may contain Expressions
- ✓ Java Tokens are the Smallest Individual units in a Program
- ✓ Java Tokens are created using Characters
- ✓ Java Tokens are recognized by javac

Class

Data Member 1 ⟶ ⟶ Statement 1

Data Member 2 ⟶ ⟶ Statement 2

Member Function 1 ⟶

⟶ Statement 1

⟶ Statement 2

Member Function 2 ⟶

⟶ Statement 1

⟶ Statement 2

Tokens

Character Set

- ✓ Unicode Character set
- ✓ 16 bit coding system accepted by the world
- ✓ 34000 characters are available
- ✓ 24 Languages are considered
- ✓ ASCII character set is the Subset of Unicode Character set

Java Tokens

- ✓ Keywords
- ✓ Identifiers
- ✓ Literals
- ✓ Operators
- ✓ Separators

50 Key words

abstract	assert	boolean	break
byte	case	catch	char
class	const	continue	default
do	double	else	enum
extends	final	finally	float
import	instanceof	int	interface
long	native	new	package
private	protected	public	return
short	static	strictfp	super
switch	synchronized	this	throw
throws	transient	try	void
volatile	while		

Identifiers

- ✓ User defined
- ✓ Names for Variables, Methods, Classes, Objects, Labels, Packages and Interfaces
- ✓ They can have Alphabets, Digits, Underscore, Dollor sign
- ✓ They must not start with Digits
- ✓ They are Case Sensitive
- ✓ They can be of any Length

Conventions

✓ Names of all Public methods and Instance variables leads with Lower Case

✓ Examples
   ✓ average
   ✓ sum

Conventions

- ✓ When more than one words are used, the Second and Subsequent words must have leading Uppercase

- ✓ Examples
  - ✓ averageSalary
  - ✓ firstDayOfMonth

Conventions

- ✓ All Private and Local variables are lowercase
- ✓ Can be combined with Underscore

- ✓ Examples
  - ✓ base_length
  - ✓ marks

Conventions

- ✓ All Classes and Interfaces starts with Uppercase letters and each Subsequent word starts with Uppercase

- ✓ Examples
  - ✓ Student
  - ✓ MotorCycle

Conventions

- ✓ Variables for Constant Values use All Uppercase Letters and Underscore between them

- ✓ Examples
  - ✓ TOTAL
  - ✓ MAX_SCORE

Literals

- ✓ Sequence of Characters (Digits, Characters, and other Characters that represents constant values to be stored in Variables
- ✓ Integer Literals
- ✓ Floating Point Literals
- ✓ Character Literals
- ✓ String Literals
- ✓ Boolean Literals

Operators and Separators

- ✓ Operators
  - ✓ Symbols take one or more arguments for manipulation
- ✓ Separators
  - ✓ Symbols used to indicate where group of code are divided and arranged
  - ✓ ( )   { }   [ ]   ;   ,   .

Thank you