

# CSE310: Programming in Java

## Fundamentals of Programming in Java



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# Naming Conventions

All the letters of an identifier in Java should be in lower case  
Except:

**Class Names:** First letter of each word in the identifier should be capitalized.

**Method Names:** First letter of each word in the identifier should be capitalized except the first word.

# Identifiers

A name in a program is called an identifier.

Identifiers can be used to denote classes, methods, variables, and labels.

An identifier may be any descriptive sequence of uppercase and lowercase letters, numbers, or the underscore and dollar-sign characters.

**Example:** number, Number, sum\_\$, bingo, \$\$\_100

**Note:** Identifiers must not begin with a number.

# Keywords

Keywords are reserved identifiers that are predefined in the language.

Cannot be used as names for a variable, class, or method.

All the keywords are in lowercase.

There are 50 keywords currently defined in the Java language.

The keywords **const** and **goto** are reserved but not used.

**true**, **false**, and **null** are also reserved.

# Java Keywords

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

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# Writing Your First Java Program

```
• class MyJavaProgram
• {
•     public static void main(String args[])
•         {
•             System.out.println("Have fun in Java...");
•         }
• }
```

# Compiling and Executing Java Program

Step-1: Save your file with .java extension.

- Example: Program1.java

NOTE: If the class is public then the file name MUST BE same as the name of the class.

Step-2: Compile your .Java file using javac compiler from the location where the file is saved.

```
javac Program1.java
```

# Compiling and Executing Java Program

Step-3: Execute your java class which contains the following  
method: `public static void main(String args[]) { }`

```
java MyJavaProgram
```



# Access Specifiers

Specifier	Sub class (Same Package)	Non-Sub class (Same Package)	Sub class (Different Package)	Non-Sub class (Different Package)
public	Yes	Yes	Yes	Yes
protected	Yes	Yes	Yes	No
default	Yes	Yes	No	No
private	No	No	No	No

# Important Points

- A user defined outer class can be either public or default. We can not define a private or protected class.
- One file can have multiple classes/interfaces but out of them only one can be public.

