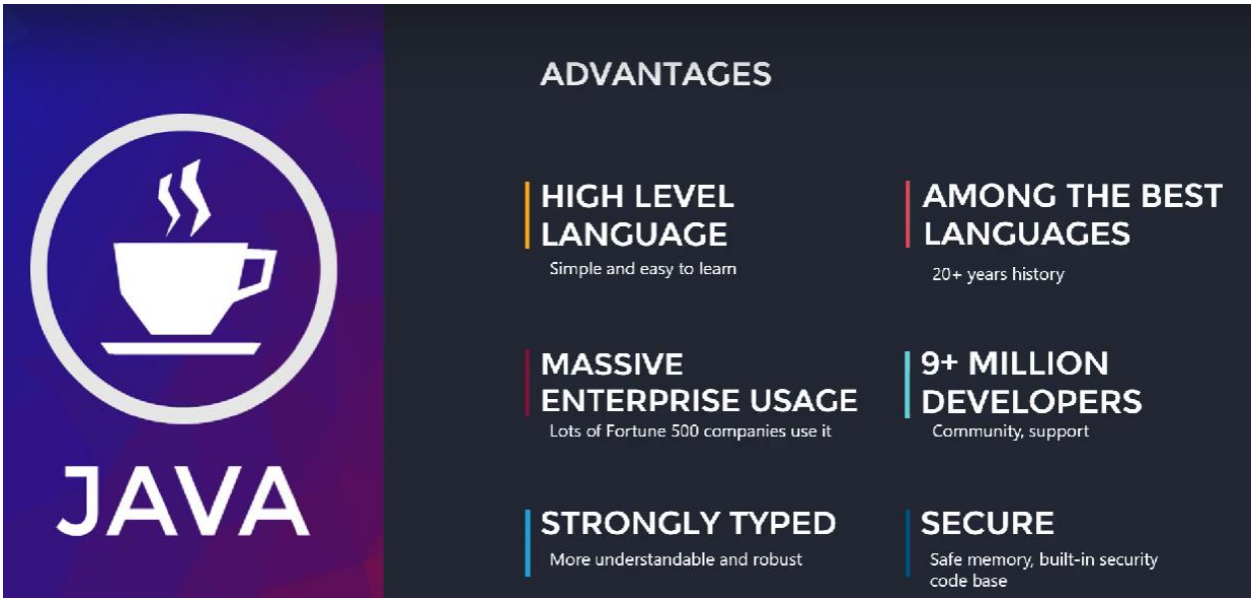
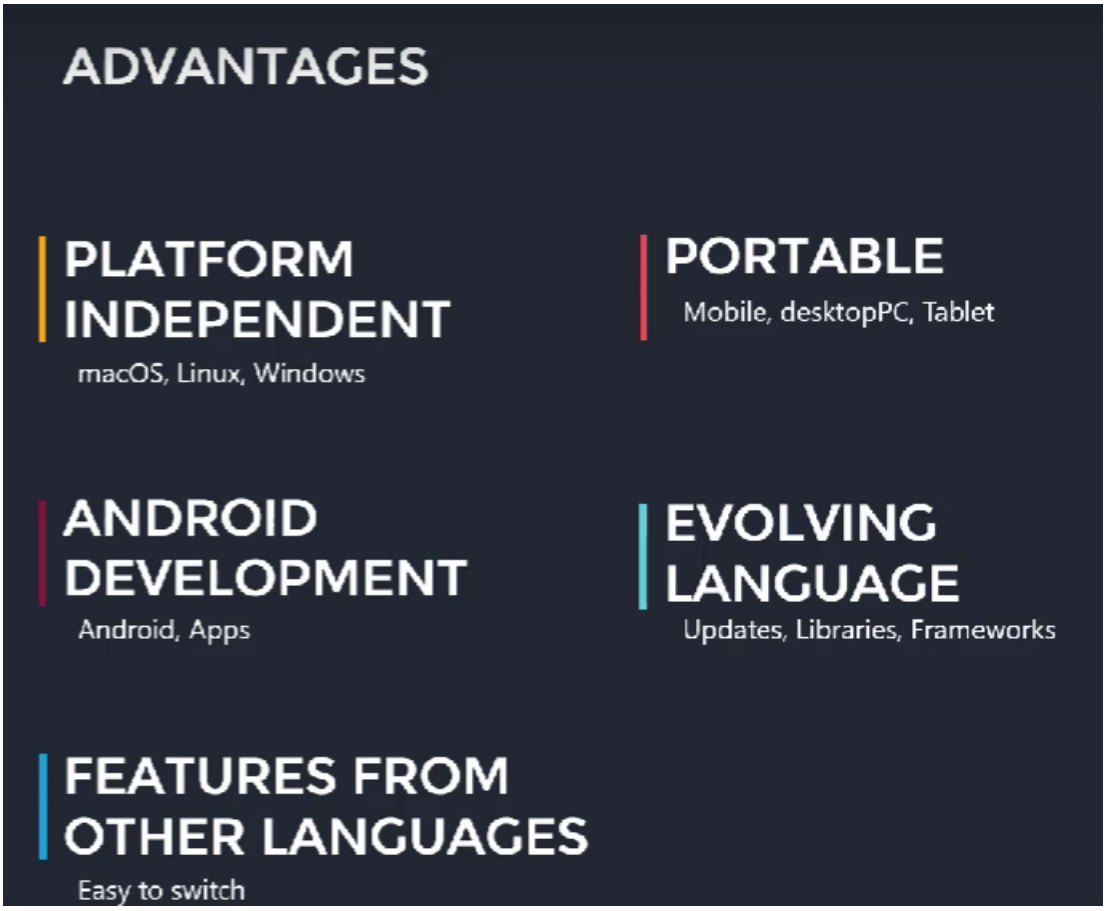

JAVA
ADVANTAGES
HIGH LEVEL LANGUAGE
Simple and easy to learn
AMONG THE BEST LANGUAGES
20+ years history
MASSIVE ENTERPRISE USAGE
Lots of Fortune 500 companies use it
9+ MILLION DEVELOPERS
Community, support
STRONGLY TYPED
More understandable and robust
SECURE
Safe memory, built-in security code base


ADVANTAGES
PLATFORM INDEPENDENT
macOS, Linux, Windows
PORTABLE
Mobile, desktopPC, Tablet
ANDROID DEVELOPMENT
Android, Apps
EVOLVING LANGUAGE
Updates, Libraries, Frameworks
FEATURES FROM OTHER LANGUAGES
Easy to switch

DISADVANTAGES

TAKES TIME TO MASTER
Easy to learn, but...

LONGER RUN-TIME
Perform worse than C/C++
But faster than Python

MEMORY USAGE
No direct memory managment

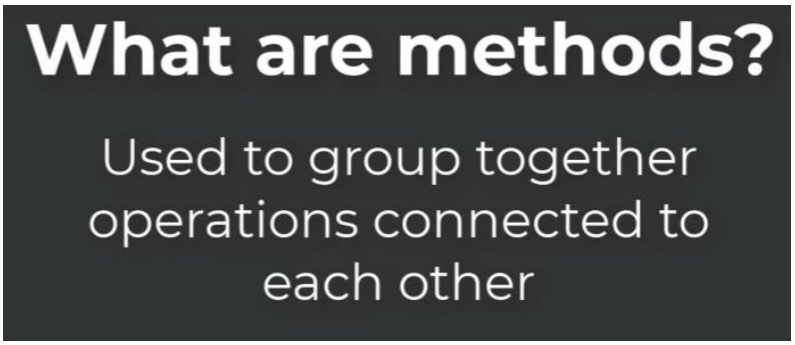
NOT A SILVER BULLET
You can't be good in everything

COURSE STRUCTURE

5	- Garbage collector - Optional - Security	HERO
4	- Streams - Databases - Networking	EXPERT
3	- Data collections - Exceptions - File handling	ADVANCED
2	- Packages - Clean Code - OOP	INTERMEDIATE
1	- First Java code - Data types - Methods	BEGINNER

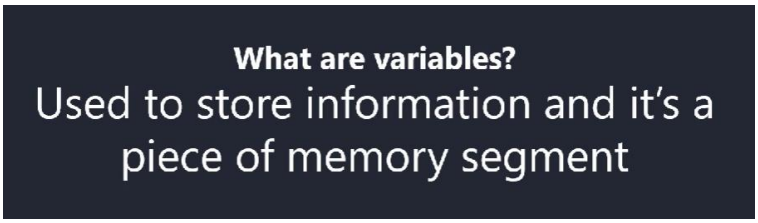
MyFirstJavaApp.java

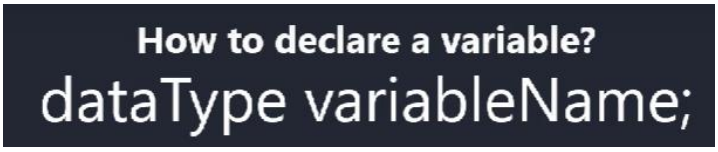
```java
package pack1;

public class MyFirstJavaApp {

    public static void main(String[] args) {
        System.out.println("Lets Enjoy Learning Java");
    }
}

```

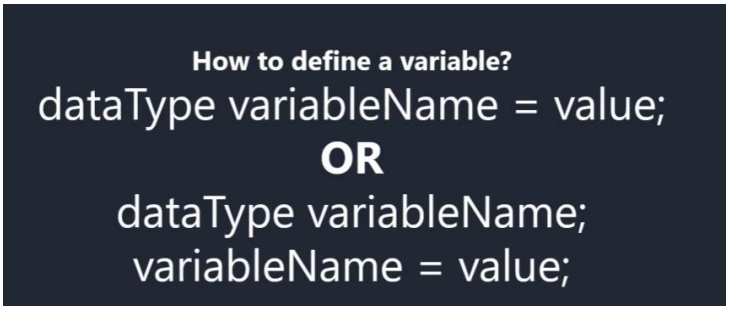


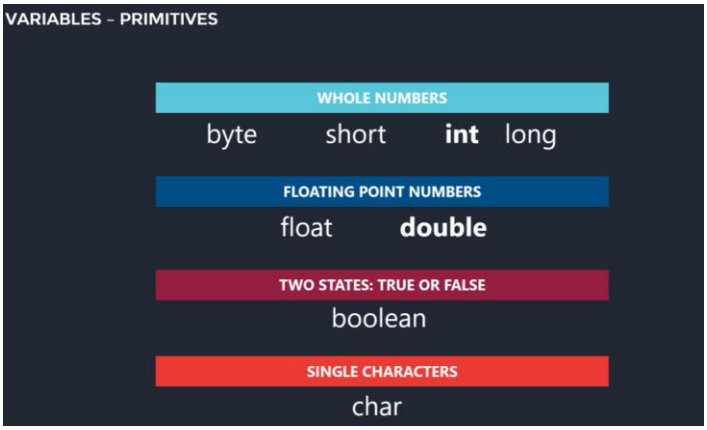
main is starting point of java program

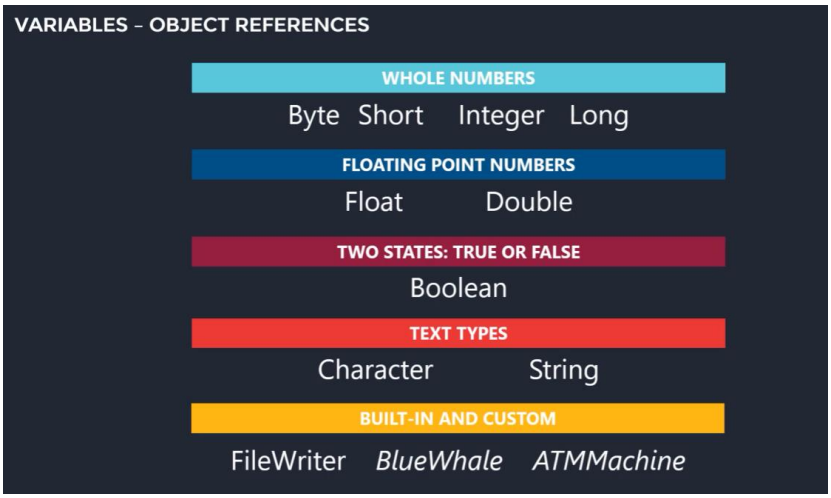
static represents that it belong to class not to objects

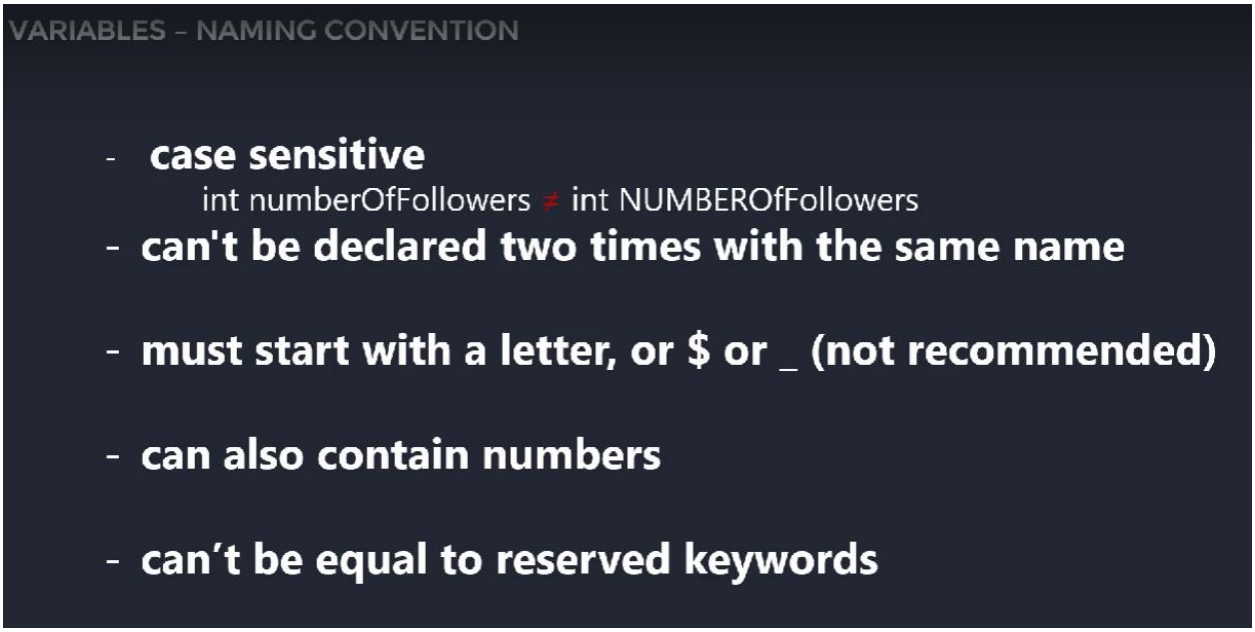







VARIABLES - PRIMITIVES
WHOLE NUMBERS
byte short int long
FLOATING POINT NUMBERS
float double
TWO STATES: TRUE OR FALSE
boolean
SINGLE CHARACTERS
char


VARIABLES - OBJECT REFERENCES
WHOLE NUMBERS
Byte Short Integer Long
FLOATING POINT NUMBERS
Float Double
TWO STATES: TRUE OR FALSE
Boolean
TEXT TYPES
Character String
BUILT-IN AND CUSTOM
FileWriter BlueWhale ATMMachine


VARIABLES - NAMING CONVENTION
- case sensitive
int numberOfFollowers ≠ int NUMBEROfFollowers
- can't be declared two times with the same name
- must start with a letter, or $ or _ (not recommended)
- can also contain numbers
- can't be equal to reserved keywords

VARIABLES – LIST OF KEYWORDS

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

VARIABLES – NAMING IN BUSINESS

- camelCase
- fully describe what the variable contains
- don't use abbreviations
- don't reuse the variable
- don't use $ or _ or numbers

DATA TYPES – PRIMITIVES - WHOLE NUMBER DATA TYPES

byte	-128 to 127
short	-32,768 to 32,767
int	-2,147,483,648 to 2,147,483,647
long	-9,223,372,036,854,775,808 to 9,223,372,036,854,775,807

DATA TYPES – PRIMITIVES - FLOATING POINT NUMBER DATA TYPES

float	6 to 7 decimal digits
double	15 decimal digits

DATA TYPES – PRIMITIVES - BOOLEAN AND CHARACTER

boolean	true or false
char	single character or ASCII value

DataType conversion:

Widening and narrowing