Recorded -> 7 days

Day01,.... -> Git

CLASSPATH ->
Its a java varibale that stores the path
of the .class files

Why to seperate in 2 dirs

JVM -> Program.main(null)

System.out.println("Hello world");
System.out

Language Fundamentals
1. Rules
2. Syntax

Naming Convention
1. pascal
    -
2. camel

pascal
    - Every first letter of the word shlould be capital (identifiers)
    - eg -> Employee, AttendanceSystem
    - class,interface,enum

camel
    - Every first letter of the word should be capital except first word
    - eg - salary, totalSalary, calculateTotalSalary
    - variables,fields, method,parameters

final double PI = 3.4;
final String URL = "www.sunbeaminfo.com";

packages
 - small case

Demo01
    - src
        - Program.java
    - bin
        - Program.class   JRE

javac -d ..\bin Program.java
SET CLASSPATH = ..\bin
java Program

java Program 10 20

int main(){
}
class Program{
public static void main(String args[])
}

Datatypes
- It defines 3 things
1. nature
- type of data that we can store
- eg - Number, Letter, Word, Fractional
2. memory
- Amount of space required to store the data
3. operations
- It differnt operations that can be carried on the given data

int -> Whole Number -> 4 bytes -> Arithmetic
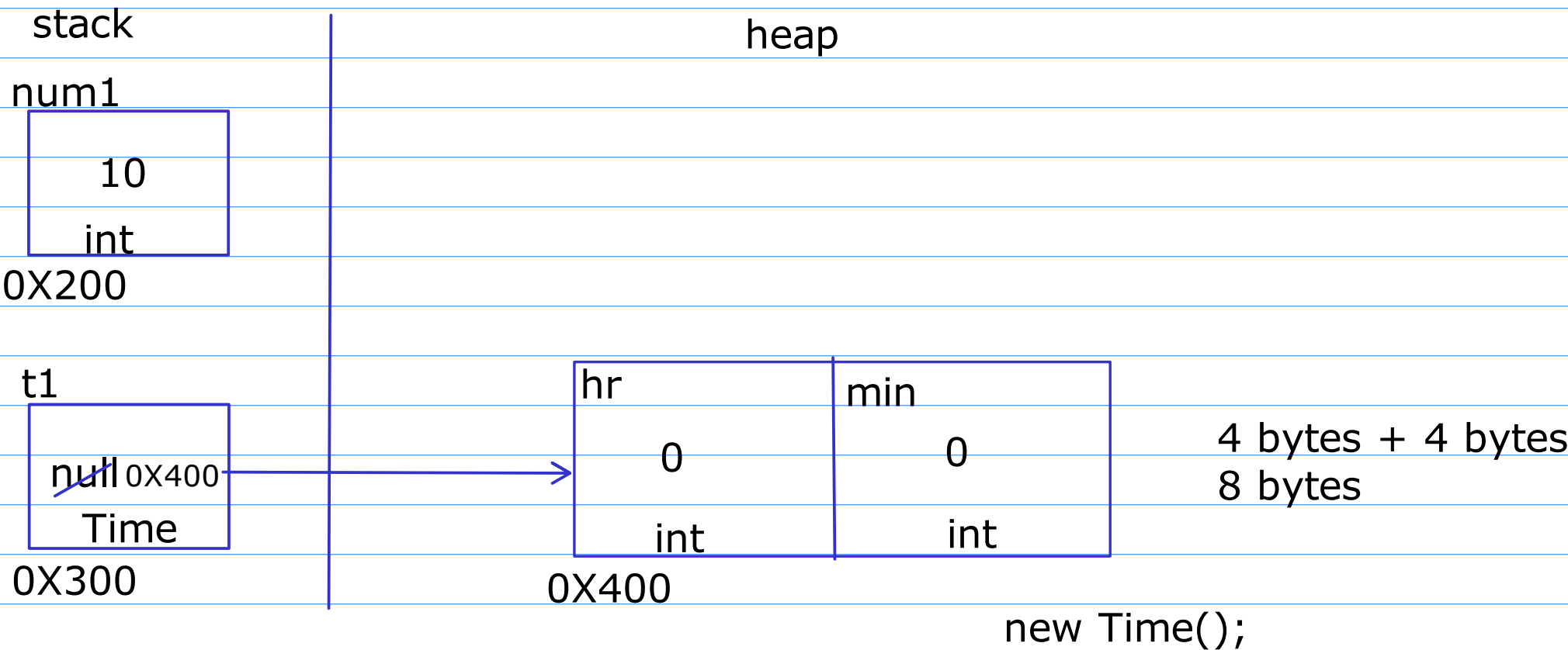
char -> letter -> 1 byte -> concatinate

double -> Whole,Fractional -> 8 bytes -> Arithmetic

Dataypes
1. Primitive Types (Value)
- Boolean : boolean (1 bit) : true or false
- Character : char (2 bytes) -> Unicode
- Integral : byte(1 byte),short(2 bytes),int(4 bytes),long(8 bytes)
- Floating-point : float(4 bytes), double(8 bytes)
2. Non Primitive Types (Reference)
- Class
- Interface
- Enum
- Array

sizeof()

int num1 = 20;

stack   heap
num1

| 10 |

int
0X200

t1   hr   min

| null 0X400 | | 0 | | 0 | 4 bytes + 4 bytes
Time   8 bytes
0X300   int   int
                 0X400
                                    new Time();
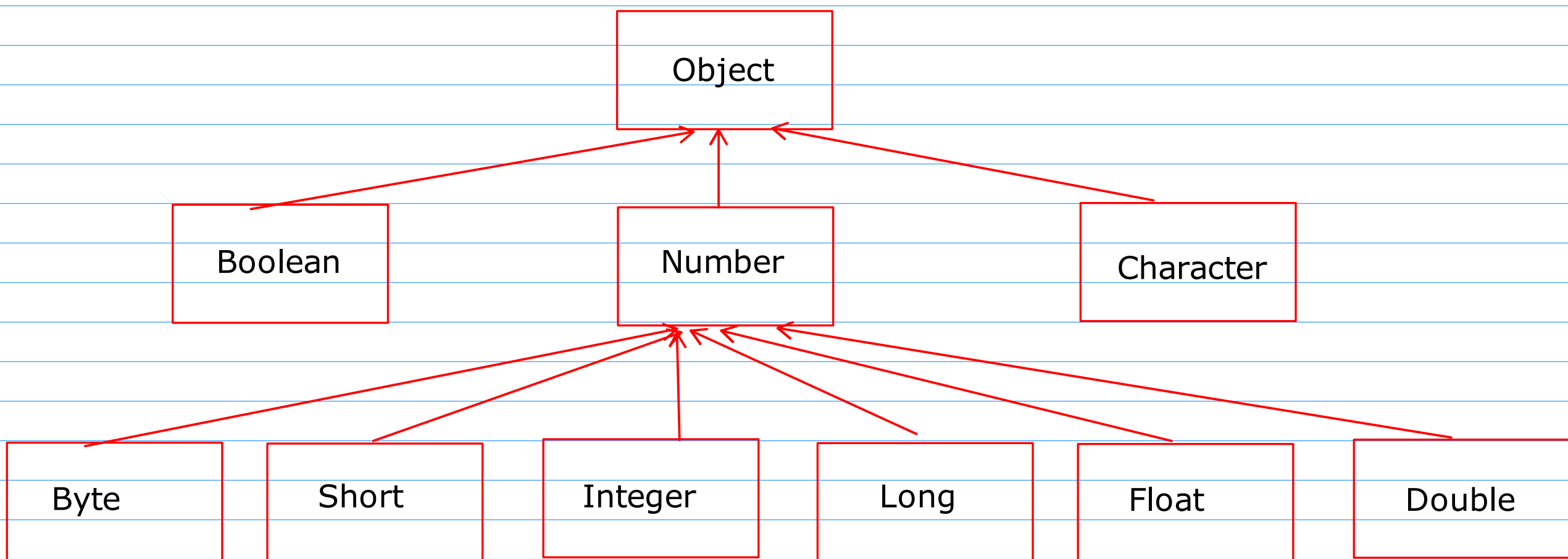
Wrapper class
- the class that is designed for ever single primitive type
- To treat the primitive types as non primitive types
- Java collection cannot be used for the primitive types
- Provides some helper methods

```
                          ┌──────────┐
                          │  Object  │
                          └──────────┘
                     ↑         ↑        ↑
        ┌──────────┐    ┌──────────┐    ┌──────────┐
        │ Boolean  │    │  Number  │    │ Character│
        └──────────┘    └──────────┘    └──────────┘
                      ↑  ↑  ↑  ↑  ↑  ↑
```

Byte	Short	Integer	Long	Float	Double

cmd line compilation and execution using src and bin
1. javac -d ..\bin Program.java
SET CLASSSPATH=..\bin
java PROGRAM

Language Fundamentals
- naming conventions (pascal, camel,)
- Datatype

Class	class Test{	new Test();
Object	int num1;	0
Reference	Time t1;	null
	}	

java Program 10 20

Wrapper class