

JAVA BEGINNERS SESSION

TOPICS COVERED

Tools overview

Introduction to Java

Data types

Operators

Conditionals

INSTALLATION

- Install Eclipse
- Install Java
- Download project from Github

Instructions to install Eclipse, Java & Git

OVERVIEW OF THE TOOLS

Eclipse IDE

GIT

JAVA PROGRAMMING LANGUAGE

An object-orientated language

Java is HUGE!

Used in commercial software all over the
world

A CLOSER LOOK AT JAVA

- A simple Java program

```
public class Badger {  
  
    /*  
     * This is a comment block - add some descriptive about your code here!  
     */  
    public static void main(String[] args) {  
        System.out.println("I am a badger!");  
    }  
}
```

- Output:

```
I am a badger!
```

VARIABLES

```
int clientAge = 30;
```

```
float milkPrice = 1.6;
```

```
String clientName = "Ana";
```

```
System.out.println(clientName);
```

DATA TYPES

PRIMITIVES

- int - integer value (e.g 32)
- float - floating value (e.g 1.2)
- boolean - a true or false value
- char - character (e.g 'd')

DATA TYPES

NON PRIMITIVES

- String - (e.g "London")
- Array - (e.g [1,2,3])
- Classes - (e.g Person)

EXERCISE

- Write a program to store your name and age in appropriate variables. Then print both in one line. For instance print "Anna, 28".

Exercise: [data_types/NameAndAge.java](#)

Solution: [data_types/NameAndAge.java](#)

OPERATORS

Operator is a symbol used to perform operation.

- Additive (+, -)

```
double salary = 100000.0;  
double bonus = 20000.0;  
double totalCompensation = salary + bonus;
```

- Multiplicative (*,/,%)

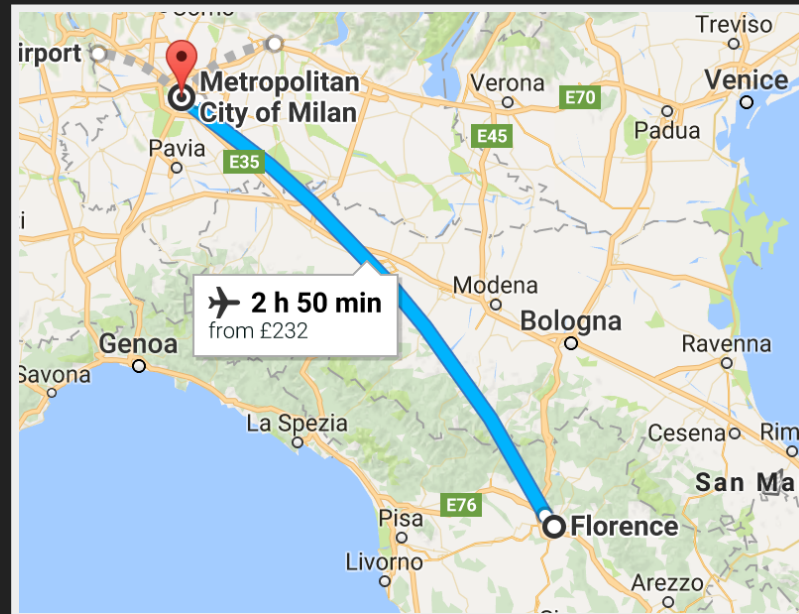
```
int numberOfOrders = 20;  
double pricePerUnit = 10;  
double totalRevenue = numberOfOrders * pricePerUnit;
```

EXERCISES

- Distance between Florence to Milan is 308km. How many miles is 308kms? Write a program to convert miles to kilometers and print it. 1mile = 1.6km. The result should be 192.5 Miles.

Exercise: [operators/MilesToKm.java](#).

Solution: [operators/MilesToKm.java](#).



CONDITIONAL STATEMENTS

- if-else statement

```
if (score > 90){  
    System.out.println("You get an A* grade.")  
}  
else if(score > 80){  
    System.out.println("You get an A grade.")  
}  
else {  
    System.out.println("You passed the exam.")  
}
```

EXERCISE

If an animal has 2 legs then it is a 'monkey'. If it has 4 legs then it is a 'donkey', otherwise it is an 'alien'. Write a program to determine the animal type by its number of legs.

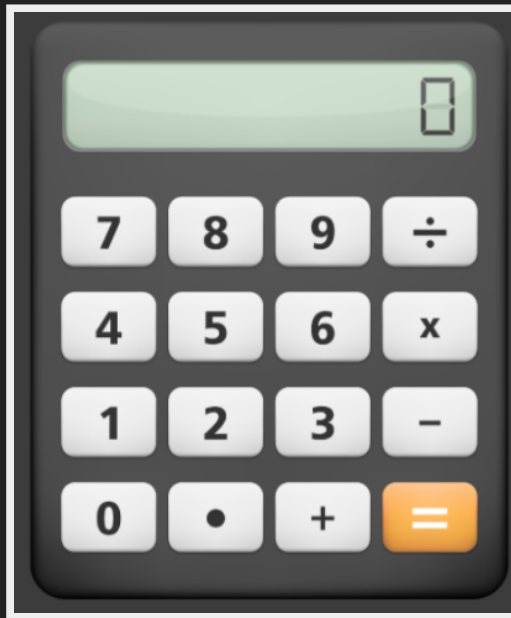
Exercise: [conditionals/AnimalTypes.java](#)

Solution: [conditionals/AnimalTypes.java](#)



HOMework

Write a program to add, subtract, multiply and divide two variables.



PUB TIME

