

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 {  
  
    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 (*,/,%)

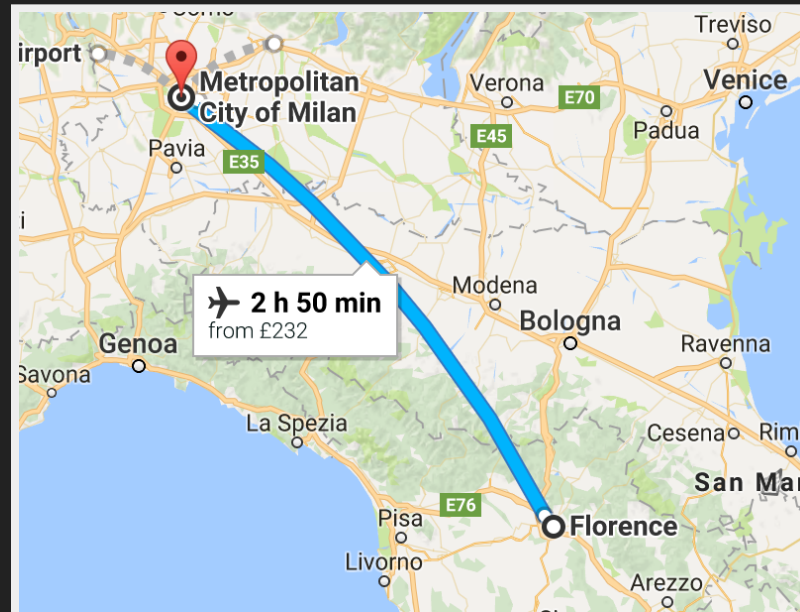
```
int numberOfOrders = 20;  
double pricePerUnit = 10;  
double totalRevenue = numberOfOrders * pricePerUnit;
```

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](#).



EXERCISE

From recent poll in USA, 2000 voters favoured Trump while 3000 voters favoured Clinton. Calculate percentage voters favouring Clinton. The answer should be 60%.

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

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



CONDITIONAL STATEMENTS

- if-else statement

```
if(condition){  
    // Do something if condition is true  
} else {  
    // Do something if condition is NOT true (false)  
}
```

EXERCISE

You can tell age of a kitten by examining its eyes. If its eyes are closed, it is less than 14 days old. If its eyes has started to change color then it is between 6-7 weeks old. Write a program to determine age of a kitten.

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

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



CONDITIONAL STATEMENTS

- Switch statement

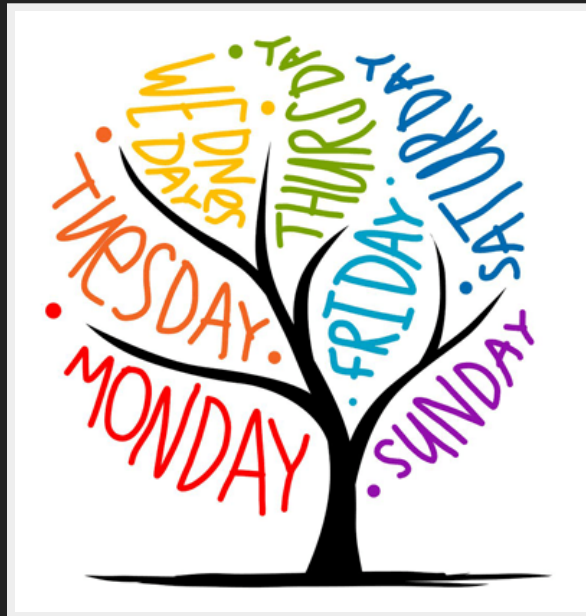
```
switch(dayOfTheWeek){  
    case "Saturday":  
        System.out.println("Hurray! It is Saturday.");  
        break;  
    case "Sunday":  
        System.out.println("Time to party!");  
        break;  
    default:  
        System.out.println("We only work on Saturday & Sunday.");  
        break;  
}
```


EXERCISE

Write a program to tell which day of the week it is. Display an appropriate message for specific day.

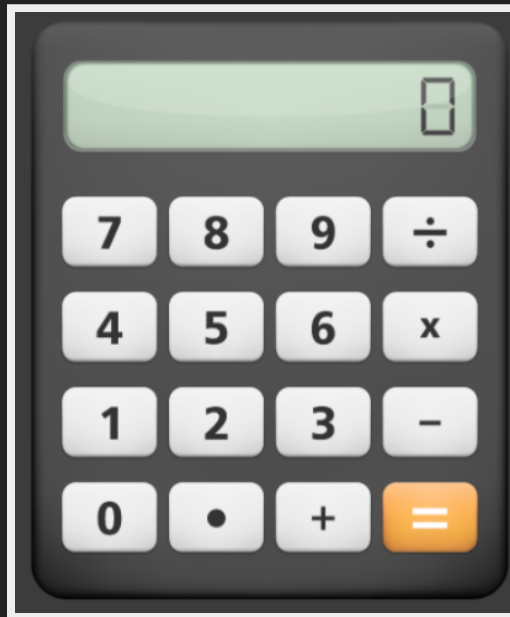
Exercise: [conditionals/DayOfTheWeek.java](#)

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



HOMework

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



PUB TIME

