# Halil İbrahim ÖZTÜRK – 14467071268

# HOMEWORK 1

# Only comment about the difficulties that you meet.  How do you solve it? Solve it?

Static import only from classes and interfaces.

I think it needs classes and libraries which is belong it.

I can not run the code

Package name was not correct. And it corrected.

No main classes found.

Solved – I used jawa with ant – jawa application insted of java with maven

and created main class automatically.

I got so many compile errors after the running the code

Project and class names must be the same . And it corrected.

I got this error:

Error: Main method not found in class fraction.Fraction, please define the main method as:

public static void main(String[] args)

or a JavaFX application class must extend javafx.application.Application

C:\Users\halilibrahim\AppData\Local\NetBeans\Cache\12.1\executor-snippets\run.xml:111: The following error occurred while executing this line:

C:\Users\halilibrahim\AppData\Local\NetBeans\Cache\12.1\executor-snippets\run.xml:68: Java returned: 1

In the Java programming language, every application must contain a main method whose signature is:

public static void main(String[] args){

I noticed that all errors, these two scripts connected to each other, are giving compile errors because they are linked and take some data from them, and I run them after creating the two scripts. the code worked without errors

# What is keyword static and why do we use it?

In Java, static keyword is mainly used for memory management. It can be used with [variables](https://www.edureka.co/blog/java-tutorial/" \l "variables" \t "_blank), methods, blocks and nested [classes](https://www.edureka.co/blog/java-tutorial/" \l "obj" \t "_blank). It is a keyword which is used to share the same variable or method of a given class. Basically, static is used for a constant variable or a method that is same for every [instance of a class](https://www.edureka.co/blog/instance-variable-in-java/" \t "_blank). The main method of a class is generally labeled static.

In order to create a static member (block, variable, method, nested class), you need to precede its declaration with the keyword *static*. When a member of the class is declared as static, it can be accessed before the objects of its class are created, and without any object reference.

In Java programming language, static keyword is a non-access modifier and can be used for the following:

Static block

Statick variable

Statick method

Static classes

# Did you understand the usage of static?

Yes.

# If you use public for "num" and "den" members instead of private, did code work? Explain why?

Yes it Works . because public has more accessibility and this num and den are taking just one place ; Fraction.java

# If you use private instead of public while defining constructors (Fraction) did code work? Explain why?

No it does not work because of many compile errors .

Because , Lecture1Fraction.java contains static keywords and use constructors from Fractions.java  
  
for example this code : import static fraction.Fraction.add;

Private means this used by just this class , not interclasses.

# What didn't you understand? Comment it...

I didn’t understand return and this functions .

# What and where are the OOP properties that you see in the code? (Polymorphism, Abstraction, Inheritance, Encapsulation)

**Inheritance:** Lecture1Fraction class contain properties of Fraction

**Encapsulation:** Encapsulation is the procedure of covering up of data and functions into a single

Unit.

For example num and den datas ;

public Fraction(int num, int den){

this.num = num;

this.den = den;

}

**Polymorphism:**

public Fraction(int num, int den){ method 1

this.num = num;

this.den = den;

}

public Fraction(int n){ method 2

this(n,1);

}