Student   propunător: Sintea Maria            Grupa:227         Email:maria.sintea@stud.ubbcluj.ro

**Ce afiseaza urmatoarea secventa:**

package reflection;

import java.lang.reflect.Field;

class ComplexNumber{

double re, im;

public ComplexNumber() {

System.out.print("empty constructor ");

}

public ComplexNumber(double re, double im) {

System.out.print("constructor(re, im) ");

this.re = re;

this.im = im;

}

public double getRe() {

System.out.print("getRe ");

return re;

}

public void setRe(double re) {

System.out.print("setRe ");

this.re = re;

}

public double getIm() {

System.out.print("getIm ");

return im;

}

public void setIm(double im) {

System.out.print("setIm ");

this.im = im;

}

public ComplexNumber add(ComplexNumber other){

this.re += other.re;

this.im += other.im;

return this;

}

@Override

public String toString() {

return "ComplexNumber{" + "re=" + re + ", im=" + im + '}';

}

}

public class main {

public static void main(String[] args) throws ClassNotFoundException, IllegalAccessException, InstantiationException, NoSuchFieldException {

Class<ComplexNumber> taskClass = (Class<ComplexNumber>) Class.forName("reflection.ComplexNumber");

ComplexNumber task = taskClass.newInstance();

Field fieldRe = taskClass.getDeclaredField("re");

fieldRe.setAccessible(true);

fieldRe.set(task, 1.2);

fieldRe.setAccessible(false);

Field fieldIm = taskClass.getDeclaredField("im");

fieldIm.setAccessible(true);

fieldIm.set(task, 2.3);

fieldIm.setAccessible(false);

ComplexNumber newTask = new ComplexNumber(2.3, 3.1);

Class<ComplexNumber> c = (Class<ComplexNumber>) newTask.getClass();

task.add(newTask);

System.out.println("The final result: " + task);

}

}

* Variante de raspuns:

1. empty constructor setRe setIm constructor(re, im) The final result: ComplexNumber{re=3.5, im=5.4}
2. empty constructor constructor(re, im) The final result: ComplexNumber{re=3.5, im=5.4}
3. constructor(re, im) The final result: ComplexNumber{re=3.5, im=5.4}

* Justificare raspuns:

Constructorul gol se va apela in .newInstance() (linia 53), constructorul (re, im) la linia 65.

* Identificati conceptele din curs care au legatura cu grila propusa: Reflection
* **Referinte web: -**
* Dificultate: easy