Lab 02 – Variablat & tipet primitive në Java

Faza 1

// Dosja: Lab02Types

// File: TypesWarmup.java

public class TypesWarmup {

public static void main(String[] args) {

byte mosha = 17;

int popullsia = 742000;

long borxhi = 12000000000L;

float temperatura = 23.5f;

double koeficienti = 0.3333333333;

char shkronja = 'A';

boolean student = true;

final double TVSH = 0.1;

System.out.println("mosha(byte) = " + mosha);

System.out.println("popullsia(int) = " + popullsia);

System.out.println("borxhi(long) = " + borxhi);

System.out.println("temperatura(float) = " + temperatura);

System.out.println("koeficienti(double) = " + koeficienti);

System.out.println("shkronja(char) = " + shkronja);

System.out.println("student(boolean) = " + student);

System.out.println("TVSH = " + TVSH);

}

}

Faza 2

public class TypesWarmup {

public static void main(String[] args) {

int numriInt = 100;

long numriLong = numriInt;

float numriFloat = 5.75f;

double numriDouble = numriFloat;

System.out.println("Casting implicit:");

System.out.println("int -> long: " + numriInt + " -> " + numriLong);

System.out.println("float -> double: " + numriFloat + " -> " + numriDouble);

double vleraDouble = 12345.6789;

int vleraInt = (int) vleraDouble;

System.out.println("\nCasting explicit:");

System.out.println("double -> int: " + vleraDouble + " -> " + vleraInt + " // humbje pjesës decimale");

long vleraLong = 9876543210L;

int vleraIntNgaLong = (int) vleraLong;

System.out.println("long -> int: " + vleraLong + " -> " + vleraIntNgaLong + " // humbje për shkak të kapacitetit");

double vleraDouble2 = 3.141592653589793;

float vleraFloat = (float) vleraDouble2;

System.out.println("double -> float: " + vleraDouble2 + " ->");

byte b = 127;

byte bOverflow = (byte)(b + 1);

System.out.println("\nOverflow:");

System.out.println("byte b = 127; (byte)(b + 1) = " + bOverflow + ");

}

}

Faza 3

import java.util.Scanner;

public class TicketCalculator {

public static void main(String[] args) {

final double TVSH = 0.10;

final int ZBRITJE\_NX = 5;

Scanner scanner = new Scanner(System.in);

System.out.print("Shkruaj çmimin bazë (lek): ");

int cmimiBaze = scanner.nextInt();

System.out.print("A je nxënës? (true/false): ");

boolean isStudent = scanner.nextBoolean();

double tvshVlere = cmimiBaze \* TVSH;

double cmimiMeTVSH = cmimiBaze + tvshVlere;

double cmimiFinal;

if (isStudent) {

cmimiFinal = cmimiMeTVSH - ZBRITJE\_NX;

} else {

cmimiFinal = cmimiMeTVSH;

}

/

int cmimiRrumbullakuar = (int)(cmimiFinal + 0.5);

// Output i qartë

System.out.println("\nÇmimi bazë: " + cmimiBaze + " lek");

System.out.println("TVSH (10%): " + tvshVlere + " lek");

System.out.println("Ndërmjetëse me TVSH: " + cmimiMeTVSH + " lek");

if (isStudent) {

System.out.println("Zbritje nxënësi: " + ZBRITJE\_NX + " lek");

}

System.out.println("Totali për pagesë: " + cmimiRrumbullakuar + " lek");

scanner.close();

}

}

Faza 4

import java.util.Scanner;

public class TicketCalculator {

public static void main(String[] args) {

final double TVSH = 0.10;

final int ZBRITJE\_NX = 5;

Scanner scanner = new Scanner(System.in);

System.out.print("Shkruaj çmimin bazë (lek): ");

if (!scanner.hasNextInt()) {

System.out.println("Gabim: inputi duhet të jetë një numër i plotë.");

scanner.close();

return;

}

int cmimiBaze = scanner.nextInt();

if (cmimiBaze <= 0) {

System.out.println("Gabim: çmimi bazë duhet të jetë > 0.");

scanner.close();

return;

}

System.out.print("A je nxënës? (true/false): ");

boolean isStudent = false;

if (scanner.hasNextBoolean()) {

isStudent = scanner.nextBoolean();

} else {

System.out.println("Paralajmërim: input i pavlefshëm për nxënës. Supozohet false.");

scanner.next(); // konsumon inputin e pavlefshëm

}

double tvshVlere = cmimiBaze \* TVSH;

double cmimiMeTVSH = cmimiBaze + tvshVlere;

double cmimiFinal = isStudent ? cmimiMeTVSH - ZBRITJE\_NX : cmimiMeTVSH;

int cmimiRrumbullakuar = (int)(cmimiFinal + 0.5);

System.out.println("\nÇmimi bazë: " + cmimiBaze + " lek");

System.out.println("TVSH (10%): " + tvshVlere + " lek");

System.out.println("Ndërmjetëse me TVSH: " + cmimiMeTVSH + " lek");

if (isStudent) {

System.out.println("Zbritje nxënësi: " + ZBRITJE\_NX + " lek");

}

System.out.println("Totali për pagesë: " + cmimiRrumbullakuar + " lek");

scanner.close();

}

}

Faza 5

public class RangesReport {

public static void main(String[] args) {

System.out.println("byte: " + Byte.MIN\_VALUE + " .. " + Byte.MAX\_VALUE);

System.out.println("short: " + Short.MIN\_VALUE + " .. " + Short.MAX\_VALUE);

System.out.println("int: " + Integer.MIN\_VALUE + " .. " + Integer.MAX\_VALUE);

System.out.println("long: " + Long.MIN\_VALUE + " .. " + Long.MAX\_VALUE);

System.out.println("float: " + Float.MIN\_VALUE + " .. " + Float.MAX\_VALUE);

System.out.println("double: " + Double.MIN\_VALUE + " .. " + Double.MAX\_VALUE);

}

}