**Day -7 4th June 2025**

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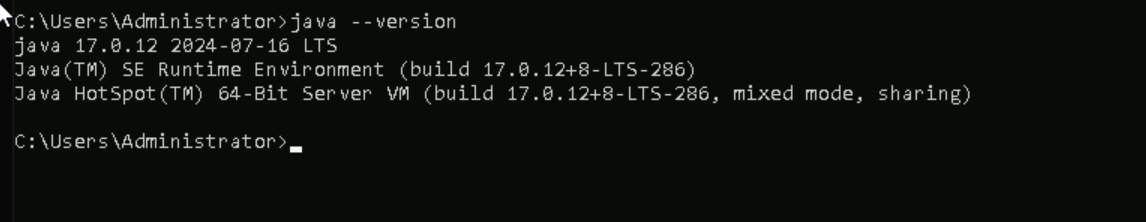
**JAVA**

|  |  |
| --- | --- |
| Java basics | Data Types, Variables, Operators, Control Statements, Loops, Arrays, Classes, Objects, |

Then check for Java version

In cmd type

Java –version



 or

Java -v

17 installed

Plz check for any of the ide’s is installed

Eclipse

Or intellij

Variable:

 The variable is a place where we store our data — temporarily … –

Data types:

Which type of value you are goinbf to store in a variable

Types

Primitive   === > String, cant create an OBJECT, int , float   ⇒ basic data types

Non primitive  ==== > CAN create an object   ⇒ derived data types

Int age = 10;  == > declaring a variable and assigning a value to it (assignment operator =)

Int  → data types

Age → variable

10 → value

Or

Int age ;   —> declaring a variable

Age = 10;  → assigning value to a variable

Float – decimal values

Operator:

Which performs operations

Operator operates on operands

X + y ======> x , y are variable also called as operands

= ====> operator

Types of operators 👍

Arithmetic operators    ===> + ,-,\*,/, % (reminder)

Logical operators   =====> and &&, or || , not !

Comparison opearations   ===>  ==

Assignment op =====> =

Bitwise ======> &, |, ^, !, >>, <<

Relational op  ====>  >,<,>=, <= , !=

Increment and decrewment op

Ternary op – : ?,            a>b?a:b     ======> if a>b — it wil return a or else b

=====================================================================================================================================================================================================================================

Psvm    ====> hit tab ====> it slould display

main() function or method

Void ===> return type (void does  ot return any value  ===> return 0)

Int===> returns int value

Float ===> returns float value

Static ===>

Static X variables (temporary)

main=====> boss ====> entry and exit point off your program.

Before a variable ===> data type

Public ====> access modifiers ===> in java ( c++ ===> access Specifiers)

Access modifiers:

They will modify the access of the variables and the methods

Public === > every one ca access

Protectded =====> only inherited memberzs cab access

Private ====> only that class of method

Default ===> by default access ===> can modify later

Parameters ====>

Method ====> with parameters (String[] args)

 and without parameters ()

Before a method ====> return type

Public static void main(String[] args)

=====>  Java Virtual Machine or the JVM calls the main() method

===> while calling the main method give some parameters

====> javac File1.java

====> javac is java compiler (translator)

====> after compiling it will create a classf ile (file1.class)

Variables:

Class =====> start with capital letter ===> the class name which consists of main method should be the nam of your program. No spaces allowed

Method ======> always start with small letters   No spaces allowed

Package is a folder

Import packages;

class  Prog1{

//body of the class

psvm(string[] argos) {

// body of the main method.

Sout  ====> tab ===> System.out.println();  || sout || sys

System.out.print(“Welcome onbroad”);   ===> keeps the cursor at he same place..

System.out.println(“Hello all good luck!!”);   ====> ln moves the cursor to the next line)

Int empid = 1001;

empid = 2001;

System.out.println(“Congratulations to $$$$ “ + empid + “on achieving the milestone”); + ===> concatenation operator

}

}

Compile and then execute ===> running the code

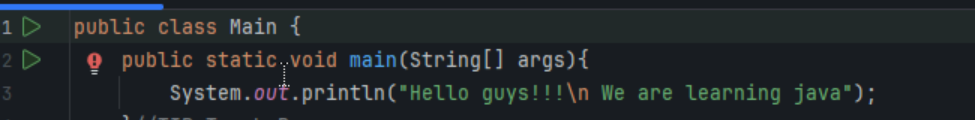
Task 1:

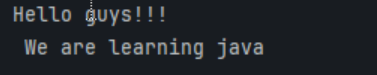
Create a code to display

“Hello guys!!!! “

“We are learning Java”

Using a single output statement…



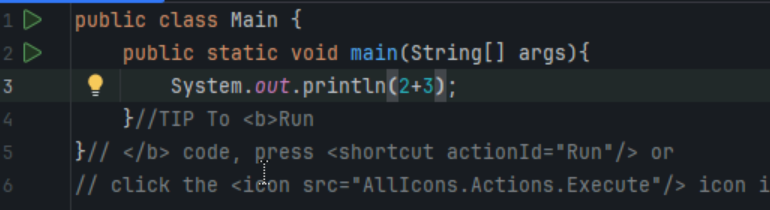


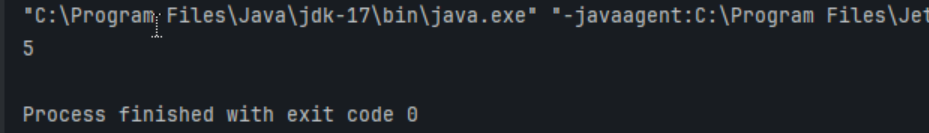
Task 002:

 Write a Program in Java to Add two Numbers.

Input: 2 3

Output: 5





Task 004:

 Create a code in which you have 4 methods add, subtract, multiply and divide (return type int) with a main [method..to](http://method..to) all all the other methods

Out put:

Main started

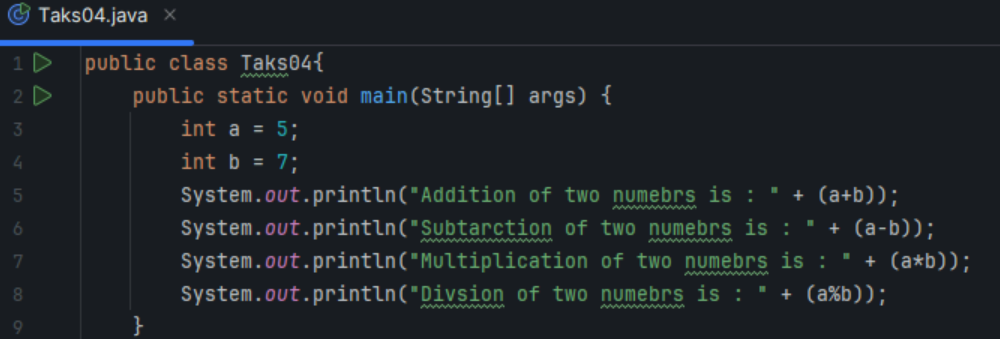
Sum of 2 numbers is …..

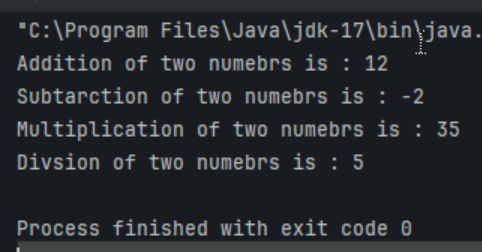
Diff of 2 numbers is —-

Product of 2 numbers ….

Division of 2 numbers is ….

Main ended

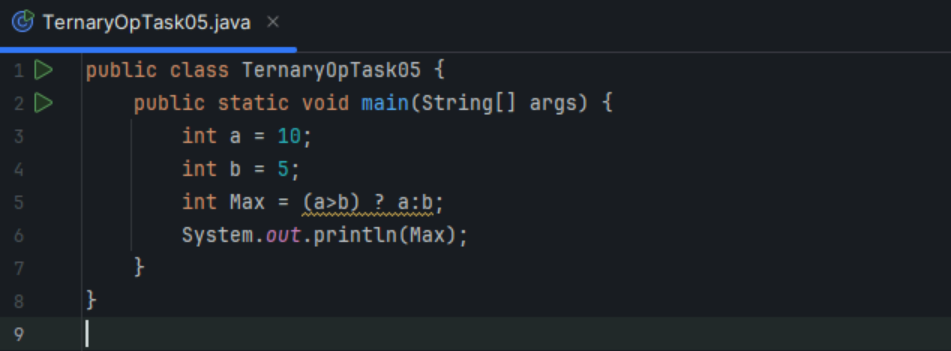


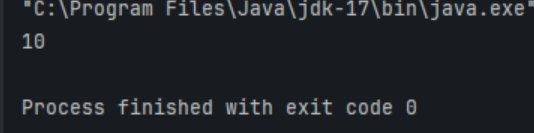


Task 005:

Write a program to check if a is greater or b.. Use ternary op

12.14 to 12.18





Task 006:

Write a program to take input from the user and display it to the user

Input:

Id : Prasunamba

Pwd: 123456789

Output:

Hi ,

Your login id is Prasuanmba

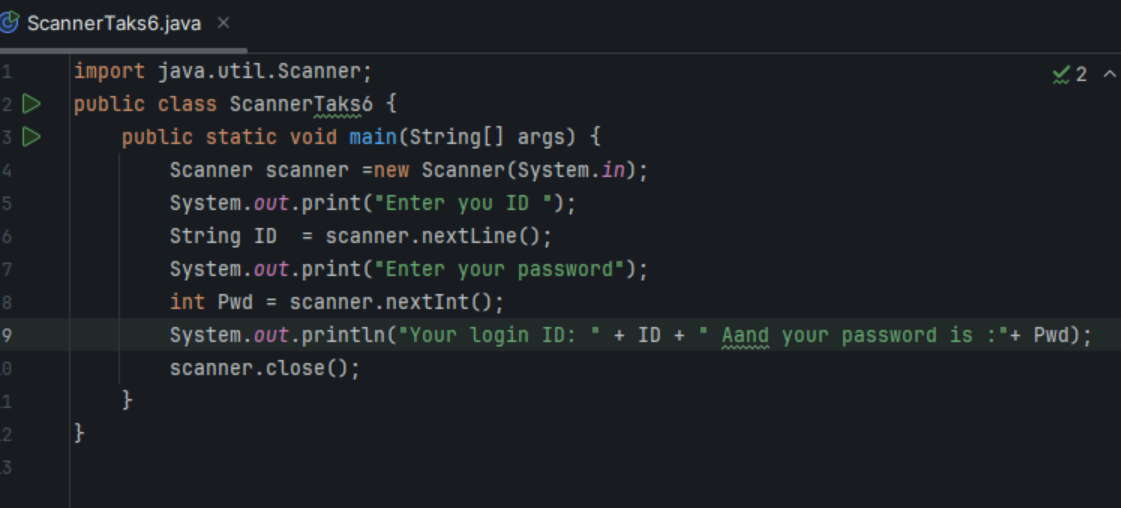
And your pwd is \*\*\*\*\*\*\*\*\*

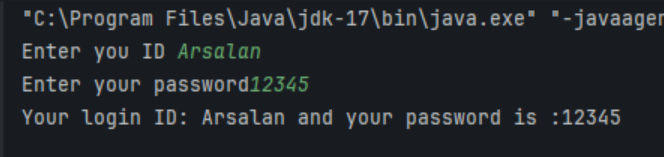
HInt :

For scanner … import java.util.scanner;

Scanner sc = new Scanner([System.in](http://system.in));

Id = sc.nexLine();





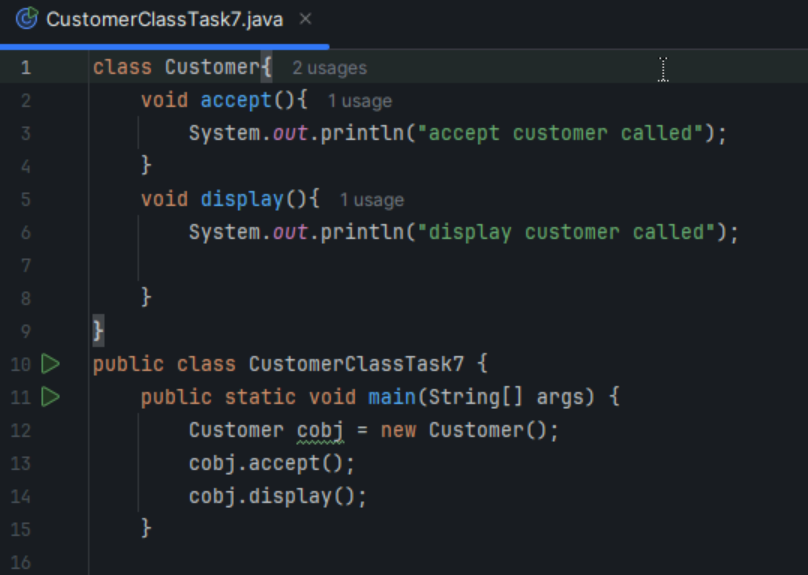
Task 007:

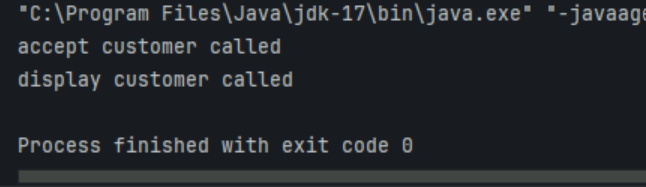
Write a program to create a class named Customer

Call the customer class in Task007 class using an object

12.27 to 12.32

Plz raise ur hands if done till here…@12.35





Task 008:

Wap to check the greater of 2 numbers

Hint:

Use if else

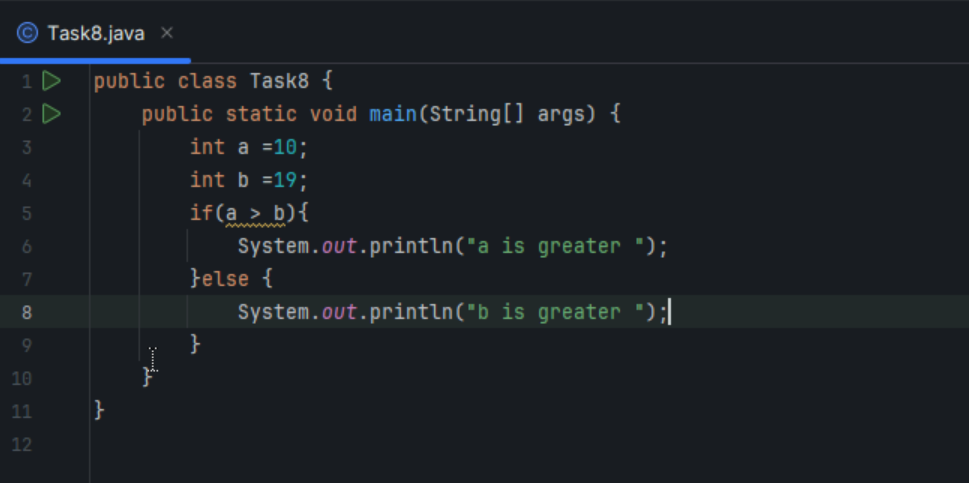
If ( num1 > num2){

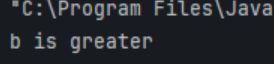
sout(“num1 is greater”);

}

Else {

sout(“num2 is greater”);



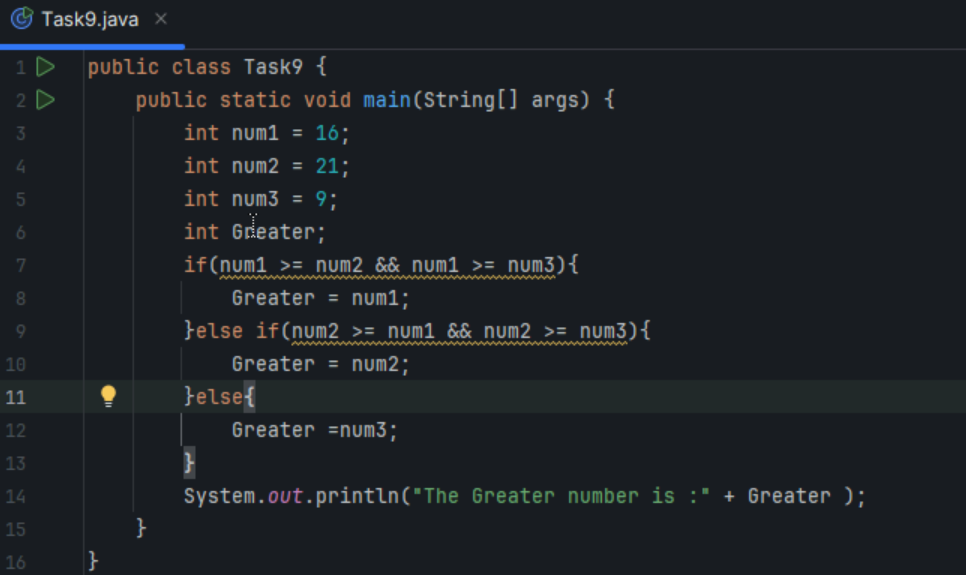


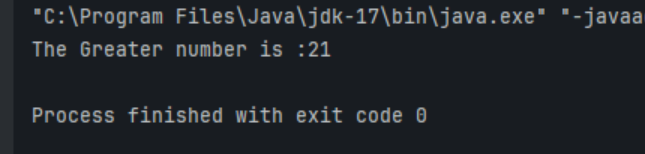
Task 009

Wap to check greater of 3 numbers

Hint 👍

Use elseif





Task 010:

Wap to check if check week days

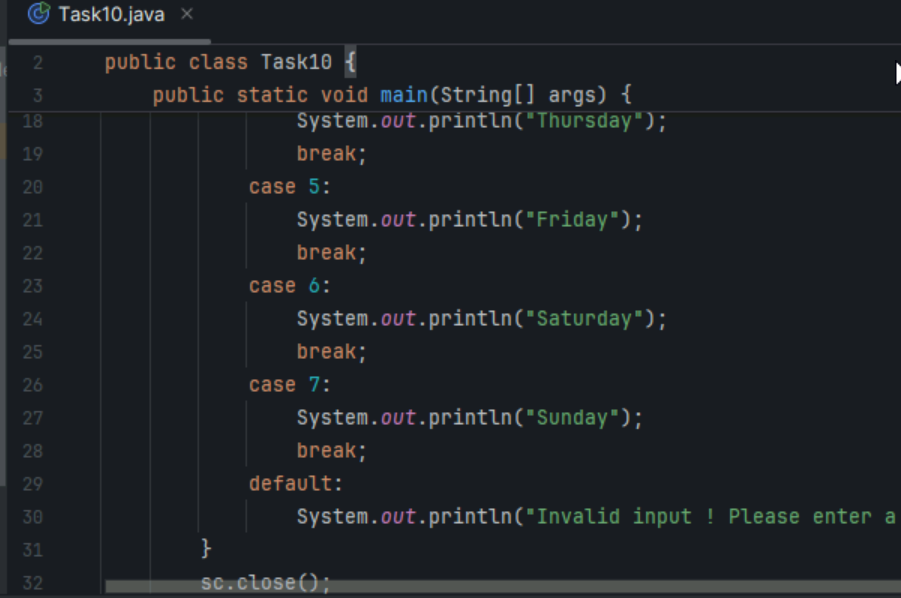
1  ===> sunday

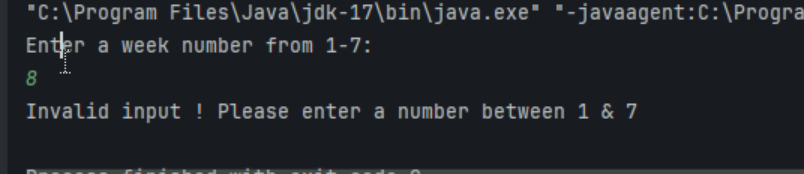
2 ===> monday

So on

8 and above ===> invalid input

Hint : use Switch case





Task 011:

Wap to check loginid and password validation

Hint use while loop

Scanner sc = new Scanner(System.in);

String loginid = “Prasunamba”

String pwd = “12345867”

Int Count = 0;

While (loginid == “Prasunamba” && pwd == “12345867”){

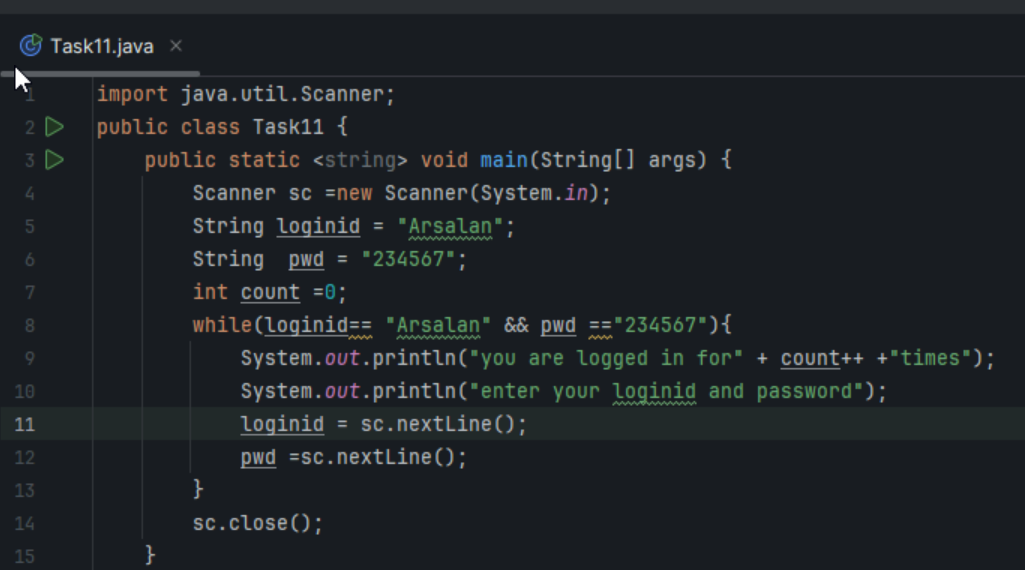
sout(“ you have logged in for  ”+ count++ +” times”);

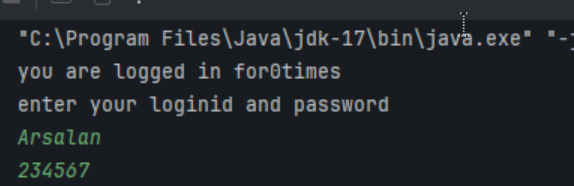
sout(“enter ur login id and password”);

loginid = sc.NextLine();

pwd = sc.NextLine();

}





Task 012:

Same as above qn but use do while loop

Same as above qn but use do while loop

Scanner sc = new Scanner(System.in);

String loginid = “Prasunamba”

String pwd = “12345867”

Int Count = 0;

do{

sout(“ you have logged in for  ”+ count++ +” times”);

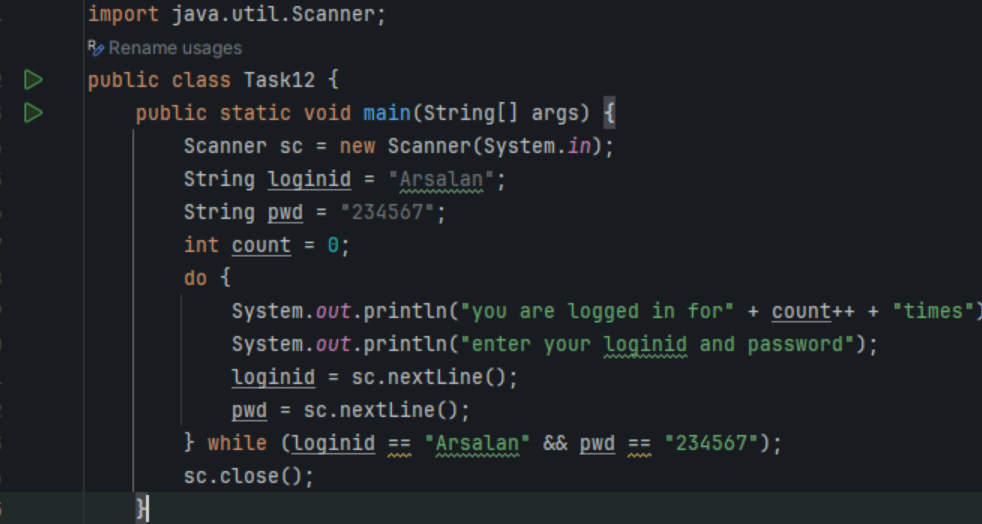
sout(“enter ur login id and password”);

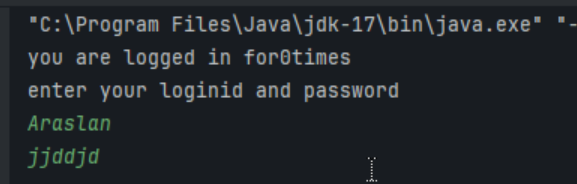
loginid = sc.NextLine();

pwd = sc.NextLine();

}While (loginid == “Prasunamba” && pwd == “12345867”);

sc.close();





Task 013:

Wap to display numbers from 10 to 1 .. skip 7 and 5.

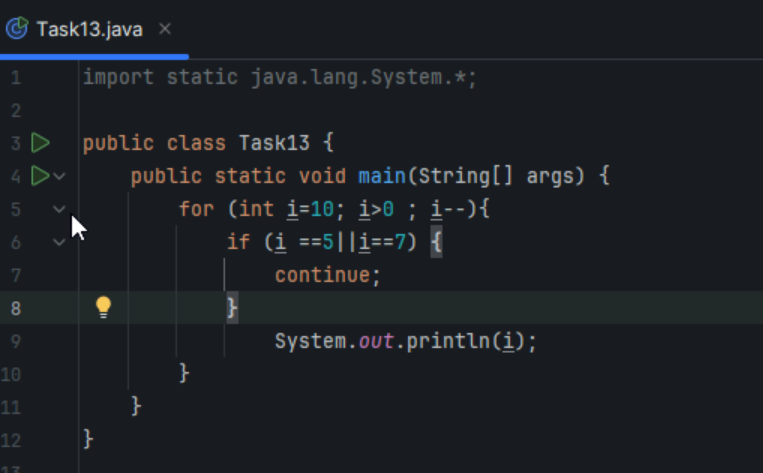
for(int i= 10; i >0; i–){

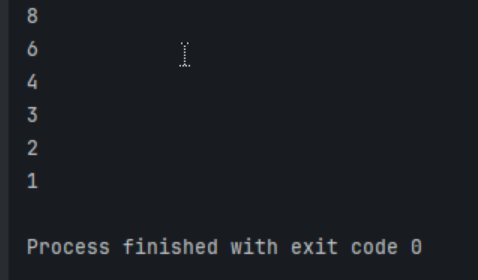
If ( i == 5 || i == 7){

Continue;

sout(i);

}





Task 014:

Arrays:

Try the below code and display the output…

Now play with it try to access arr of 5th index and see the output…and try to access arr of -1 index and see the output..

package Arrays;

public class Demo01 {

public static void main(String[] args) {

// TODO Auto-generated method stub

char[] arr = {'a','e','i','o','u'};

System.out.println(arr);

String[] names = {"Meena", "Tina", "Veena", "heena"};

System.out.println(names[0]);

names[1]= "Reena";

System.out.println(names[1]);

System.out.println(names.length);

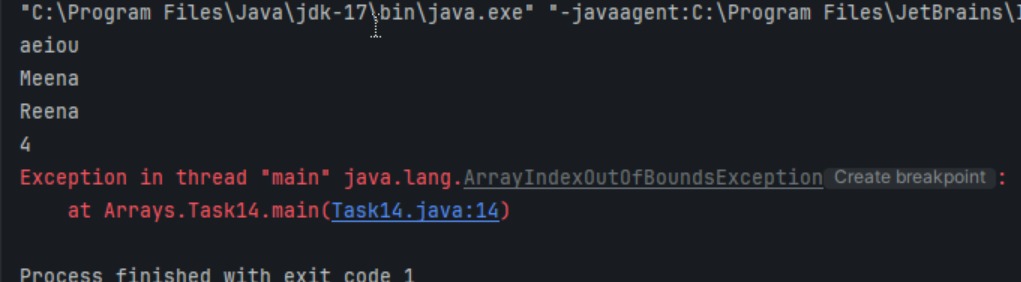
System.out.println(names[4]);

//Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException

}

}





Task 016

Enums or Enumerations

What is the output of the below code snippet

package Enumerations;

enum color{

red, blue, green, yellow

}

public class Demo01 {

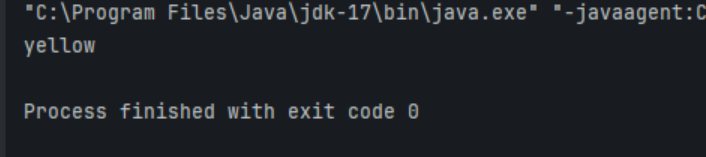
public static void main(String[] args) {

color c1 = color.yellow;

System.out.println(c1);

}

}



Task 017:

Getter and setter

Create a program name Person.java

public class Person {

   private String name;

   // Getter

   public String getName() {

     return name;

   }

   // Setter

   public void setName(String newName) {

     this.name = newName;

   }

}

public class Task017{

  public static void main(String[] args) {

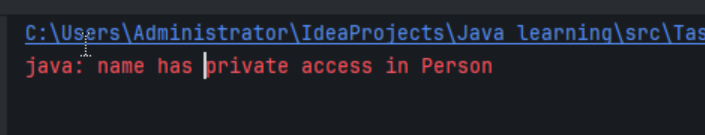
    Person myObj = new Person();

    myObj.name = "John";

    System.out.println(myObj.name);

  }

}



—----------------------------------what is the reason for the error —---------------explain

Person is we have to change access modifier to public

public class Task015{

    public static void main(String[] args){

        String Str1 = "Myname ";

        Str1 = "java";

        String str2 = "hello";

        System.out.println(Str1);

        System.out.println(str2);

    }

}

//string - immutable

//strings with the same content share storage ina single pool to minimize creating the copy of the same value again and again..

//a string is created/ generated , its content cannot be changed

// string are considered as classes -===> we create objects to it..

//cannot be changed one initialized in string

// variable =---> mutable

// age = 10;

// age = 11;

class Customer01{

    void accept(){

        System.out.println("Accept method");

    }

    void display(){

        System.out.println("display method");

    }

}

public class Task111{

    void method1(){

         System.out.println("method1 called");

    }

    static void static\_method1(){

        // method1(); ==> cannot access as it is a non static member

         System.out.println(" static\_method1 called");

    }

    public static void main(String[] args){

        Customer01 cobj = new Customer01();

        cobj.accept();

        cobj.display();

        static\_method1();

        Task111 tobj = new Task111();

        tobj.method1();

        // method1();

    }

}