### Day 7- 108415746-Srilekha Bhimavarapu

### JAVA

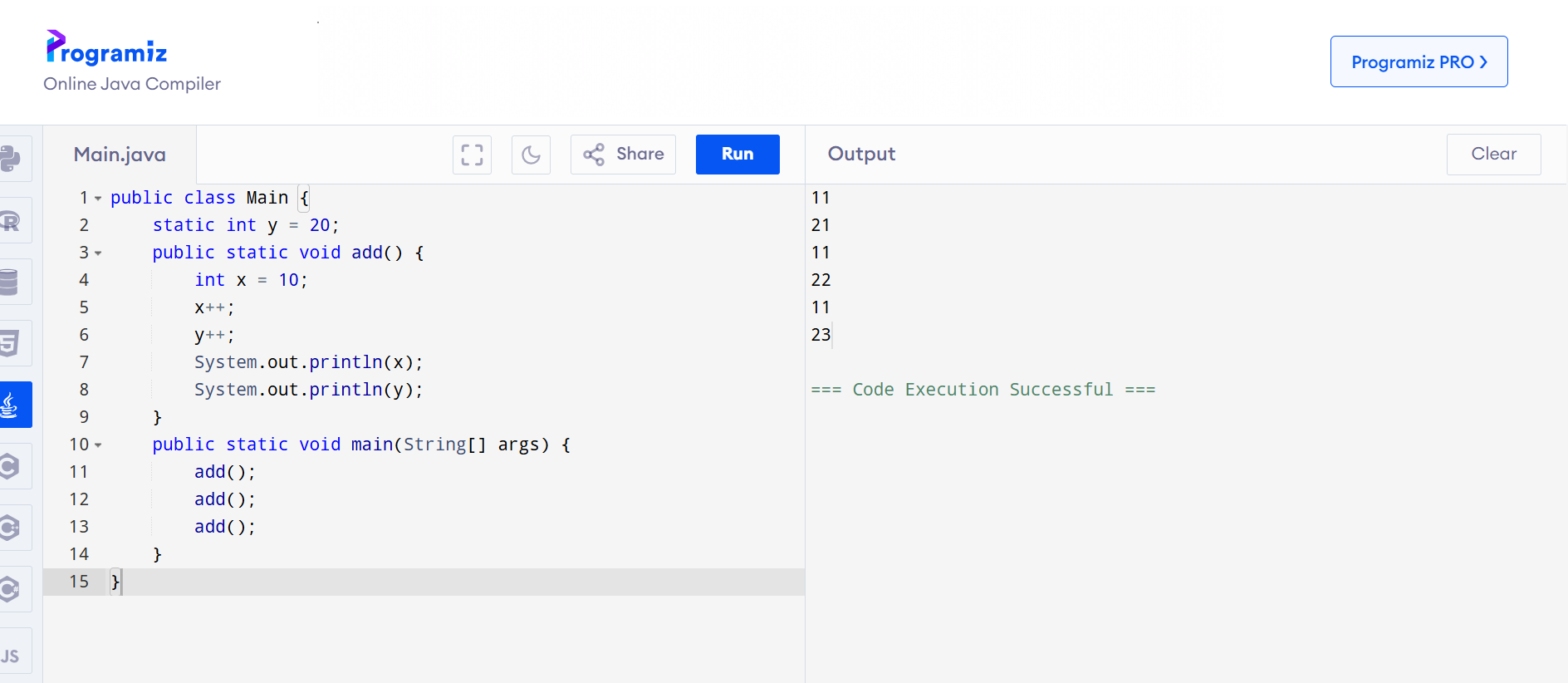
### Task 1

### 

### Output

### 

### Task 2



### Task 3

public class Task003 {

public static int add(int a,int b) {

return a+b;

}

public static void main(String[] args){

int num1 = 2;

int num2 = 3;

int result = add(num1, num2);

System.out.println("Sum: " + result);

}

}

**Output**

Sum: 5

### Task 4

public class Task004{

public static void main(String[] args) {

int a = 5, b = 10;

System.out.println("Before swap: a = " + a + ", b = " + b );

int temp = a;

a = b;

b = temp;

System.out.println("After swap: a = " + a + ", b = " + b);

}

}

**Output**

Before swap: a = 5, b = 10

After swap: a = 10, b = 5

### Task 5

public class Task005 {

public static int add(int a, int b) {

return a + b;

}

public static int subtract(int a,int b) {

return a - b;

}

public static int multiply(int a, int b) {

return a \* b;

}

public static int divide(int a, int b) {

if (b == 0) {

System.out.println("Error: Division by zero");

return 0;

}

return a / b;

}

public static void main(String[] args) {

int num1 = 20;

int num2 = 5;

System.out.println("Addition: " + add(num1, num2));

System.out.println("Subtraction: " + subtract(num1, num2));

System.out.println("Multiplication: " + multiply(num1, num2));

System.out.println("Division: " + divide(num1, num2));

}

}

**Output**

Addition: 25

Subtraction: 15

Multiplication: 100

Division: 4

### Task 6

public class Task006 {

public static void main(String[] args) {

int a = 15;

int b = 20;

String result = (a > b) ? "a is greater than b" : "b is greater than a";

System.out.println(result);

}

}

**Output**

b is greater than a

### Task 7

import java.util.Scanner;

public class Task007 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Enter your email Id: ");

String email = sc.nextLine();

System.out.print("Enter your password: ");

String password = sc.nextLine();

System.out.println("\nYour entered details: ");

System.out.println("Email ID: " + email);

String hiddenPassword = new String(new char[password.length()]).replace("\0", "\*");

System.out.println("password:" + hiddenPassword);

sc.close();

}

}

**Output**

Enter your email Id: sreelekha@gmail.com

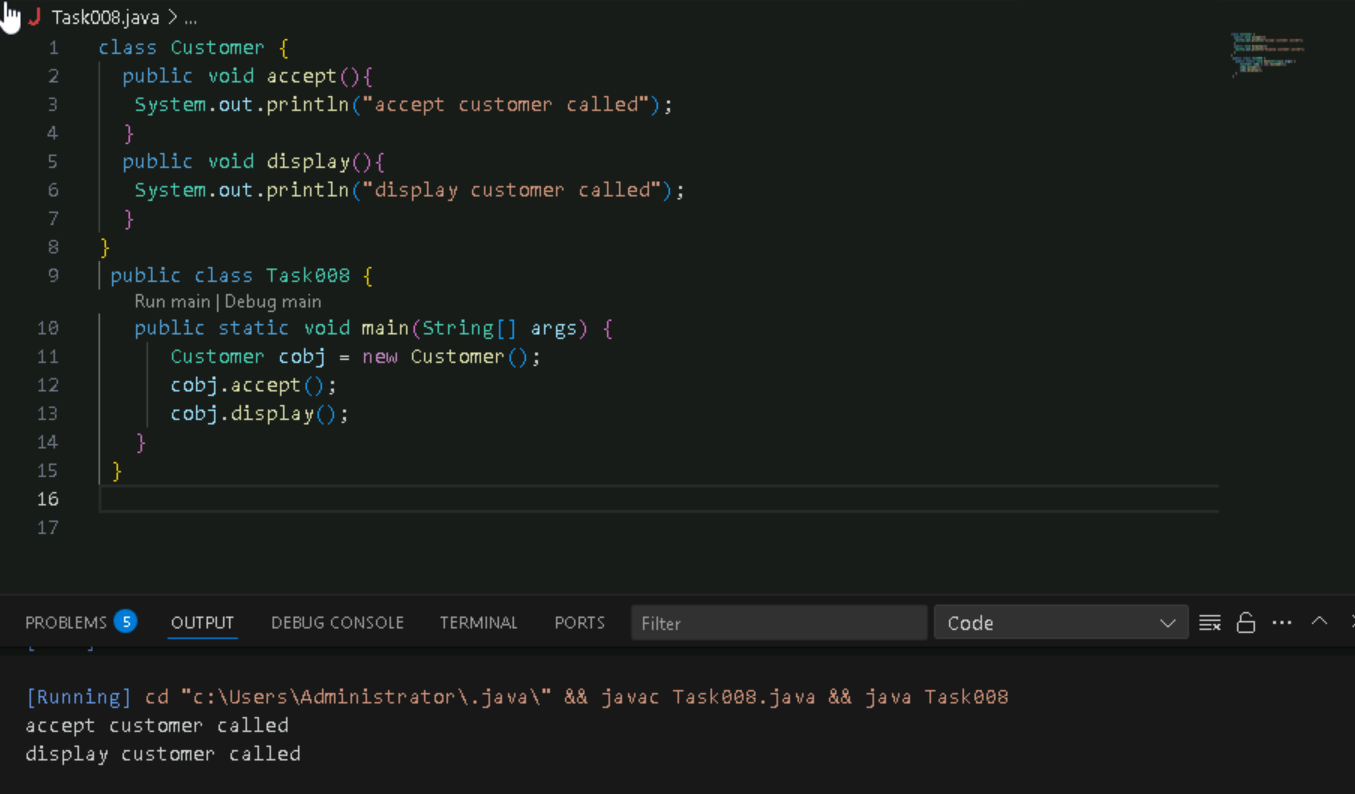
Enter your password: gfasdf

Your entered details:

Email ID: sreelekha@gmail.com

password: \*\*\*\*\*\*

### Task 8



### Task 9

public class Task009 {

public static void main(String[] args) {

int num1 = 10;

int num2 = 20;

if (num1 > num2) {

System.out.println("num1 is greater");

}

else {

System.out.println("num2 is greater");

}

}

}

**Output**

num2 is greater

### Task 10

public class Task010 {

public static void main(String[] args) {

int num1 = 10;

int num2 = 25;

int num3 = 15;

int largest;

if (num1 >= num2 && num1 >= num3) {

largest = num1;

} else if (num2 >= num1 && num2 >= num3) {

largest = num2;

} else {

largest = num3;

}

System.out.println("The largest number is: " + largest);

}

}

**Output**

The largest number is: 25

### Task 11

import java.util.Scanner;

public class Task011 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number (1-7) representing a day of the week: ");

int dayNumber = scanner.nextInt();

String dayName;

switch (dayNumber) {

case 1:

dayName = "Sunday";

break;

case 2:

dayName = "Monday";

break;

case 3:

dayName = "Tuesday";

break;

case 4:

dayName = "Wednesday";

break;

case 5:

dayName = "Thursday";

break;

case 6:

dayName = "Friday";

break;

case 7:

dayName = "Saturday";

break;

default:

dayName = "Invalid day number";

}

System.out.println("The day is: " + dayName);

scanner.close();

}

}

**Output**

Enter a number (1-7) representing a day of the week: 2

The day is: Monday

Enter a number (1-7) representing a day of the week: 8

The day is: Invalid day number

### Task 12

Using while loop:

import java.util.Scanner;

public class Task012 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

String Username = "sreelekha02";

String Password = "abcd@12sre";

boolean loggedIn = false;

int attempts = 0;

int maxAttempts = 3;

while (!loggedIn && attempts < maxAttempts) {

System.out.print("Enter username: ");

String username = scanner.nextLine();

System.out.print("Enter password: ");

String password = scanner.nextLine();

if (username.equals(Username) && password.equals( Password)) {

System.out.println("Login successful!");

loggedIn = true;

} else {

attempts++;

System.out.println("Login failed. Attempts remaining: " + (maxAttempts - attempts));

}

}

if (!loggedIn) {

System.out.println("Maximum login attempts exceeded. Account locked.");

}

scanner.close();

}

}

**Output**

Enter username: sreelekha02

Enter password:

Login failed. Attempts remaining: 2

Enter username: sreeleka02

Enter password: yt

Login failed. Attempts remaining: 1

Enter username: sreelekha02

Enter password: abcd@12sre

Login successful!

**Using do while loop:**

import java.util.Scanner;

public class Task012 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

String Username = "sreelekha02";

String Password = "hello@23";

String inputUsername, inputPassword;

boolean isValidLogin;

do {

System.out.print("Enter username: ");

inputUsername = scanner.nextLine();

System.out.print("Enter password: ");

inputPassword = scanner.nextLine();

isValidLogin = inputUsername.equals(Username) && inputPassword.equals(Password);

if (!isValidLogin) {

System.out.println("Invalid username or password. Please try again.");

}

} while (!isValidLogin);

System.out.println("Login successful!");

scanner.close();

}

}

### Task 13

public class Task013 {

public static void main(String[] args) {

for (int i = 10; i >= 1; i--) {

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

continue;

}

System.out.println(i);

}

}

}

**Output**

10

9

8

6

4

3

2

1

### Task 14

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

}

}

**Output**

aeiou

Meena

Reena

4

ERROR!

Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index 4 out of bounds for length 4

at Demo01.main(Main.java:12)

=== Code Exited With Errors ===

### Task 15

public class Task015 {

public static void main(String[] args) {

String str1 = "Java Strings ";

String str2 = new String(str1);

String str3 = new String("are easy to learn ");

char ch[] = {'S', 't', 'r' ,'i', 'n', 'g'};

String str4 = new String(ch);

System.out.println(str1 + "\n" + str2 + "\n" +str3 + "\n" +str4);

}

}

**Output**

Java Strings

Java Strings

are easy to learn

String

### Task 16

public class Demo01 {

public static void main(String[] args) {

Weekdays c1 = Weekdays.monday;

System.out.println(c1);

}

enum Weekdays { sunday , monday, tuesday}

}

**Output**

Monday

public class Demo01 {

public static void main(String[] args) {

color c1 = color.black;

System.out.println(c1);

}

enum color { red, black, green, yellow }

}

**Output**

Black

### Task 16 - Enums or Enumerations

public class Person {

private String name;

// Getter

public String getName() {

return name;

}

// Setter

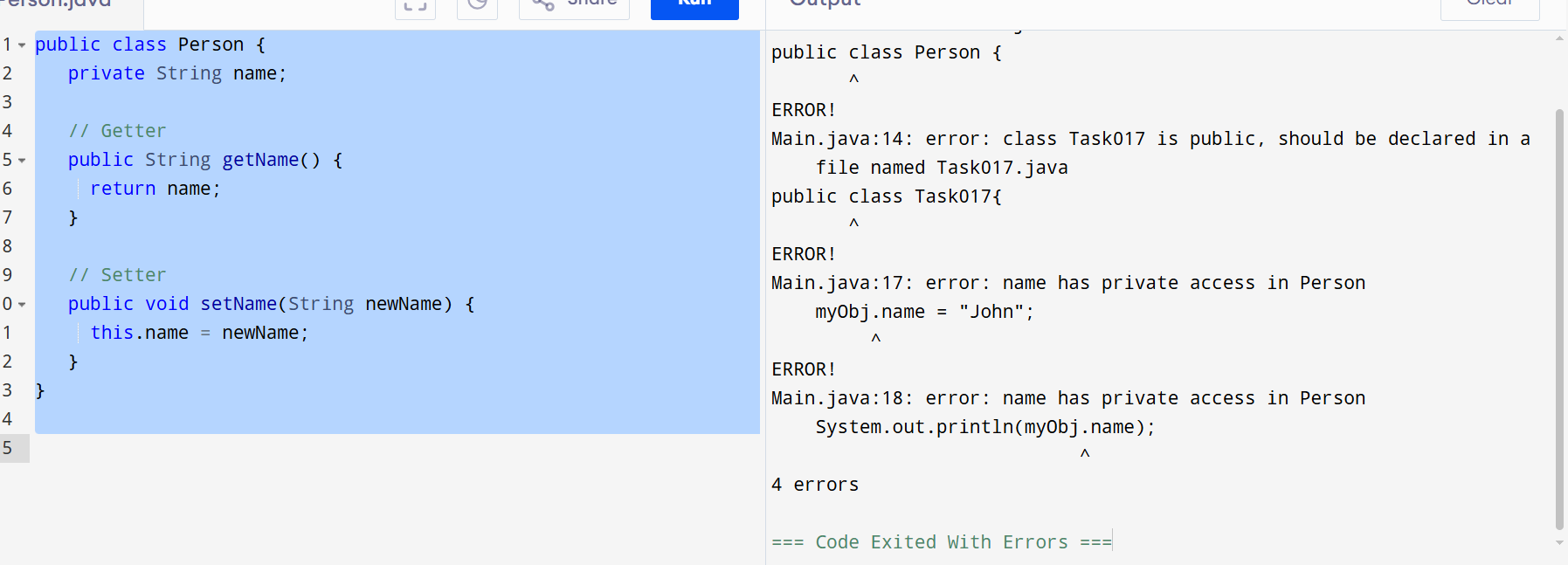
public void setName(String newName) {

this.name = newName;

}

}

**Output**



There is no main class so it can’t be executed.

### Task 17

public class Task017{

public static void main(String[] args) {

Person myObj = new Person();

myObj.setName("John");

System.out.println(myObj.getName());

}

}

public class Person {

private String name;

// Getter

public String getName() {

return name;

}

// Setter

public void setName(String newName) {

this.name = newName;

}

}

**Output**

John

### Task 18

public class Main {

public static void main(String[] args) {

Person myObj = new Person();

myObj.setName("John");

System.out.println(myObj.getName());

}

}

class Person {

private String name;

// Getter

public String getName() {

return name;

}

// Setter

public void setName(String newName) {

this.name = newName;

}

}

**Output**

John

### Task019

public class Task016\_1 {

public enum Element {

H("Hydrogen", 1, 1.008f),

HE("Helium",2, 4.0026f),

NE("Neon", 10, 20.180f);

public final String label;

public final int atomicNumber;

public final float atomicWeight;

private Element(String label, int atomicNumber, float atomicWeight) {

this.label = label;

this.atomicNumber = atomicNumber;

this.atomicWeight = atomicWeight;

}

}

public static void main(String[] args) {

System.out.println("Element Details:");

for (Element e : Element.values()) {

System.out.println("Symbol: " + e.name() +

", Name: " + e.label +

", Atomic Number: " + e.atomicNumber + ",Atomic Weight: " + e.atomicWeight);

}

}

}

**Output**

Element Details:

Symbol: H, Name: Hydrogen, Atomic Number: 1,Atomic Weight: 1.008

Symbol: HE, Name: Helium, Atomic Number: 2,Atomic Weight: 4.0026

Symbol: NE, Name: Neon, Atomic Number: 10,Atomic Weight: 20.18

### Task 20

public class Task020 {

public static void main(String[] args) {

char[] name = {'s', 'r', 'e', 'e', 'l', 'e', 'k', 'h', 'a'};

System.out.println("Characters in the name:");

for (char c : name) {

System.out.println(c);

}

}

}

**Output**

Characters in the name:

s

r

e

e

l

e

k

h

a