LAB Assignment – 1

1. Write a program to print your first\_name, middle\_name, Last\_name, DOB, class, Div,contact\_number, email\_id.

class J1\_Detail

{

public static void main(String args[])

{

String first\_name = "Kidecha";

String middle\_name = "Jenish";

String last\_name = "Punabhai";

String dob = "12/07/2006";

String class\_name = "Sy BCA-C";

String div = "A";

String contact\_number = "9714649450";

String email\_id = "jenishkidecha@gmail.com";

System.out.println("First Name: " + first\_name);

System.out.println("Middle Name: " + middle\_name);

System.out.println("Last Name: " + last\_name);

System.out.println("Date of Birth: " + dob);

System.out.println("Class: " + class\_name);

System.out.println("Division: " + div);

System.out.println("Contact Number: " + contact\_number);

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

}

}

Output:

First Name: Kidecha

Middle Name: Jenish

Last Name: Punabhai

Date of Birth: 12/07/2006

Class: Sy BCA-C

Division: A

Contact Number: 9714649450

Email ID: [jenishkidecha@gmail.com](mailto:jenishkidecha@gmail.com)

1. Write a program to demonstrate all data types.

class J2\_DataType

{

public static void main(String args[])

{

byte byteValue = 120;

short shortValue = 32000;

int intValue = 100000;

long longValue = 1000000000L;

float floatValue = 3.14f;

double doubleValue = 3.14159;

char charValue = 'A';

boolean booleanValue = true;

String stringValue = "Hello, Java!";

System.out.println("Byte value: " + byteValue);

System.out.println("Short value: " + shortValue);

System.out.println("Int value: " + intValue);

System.out.println("Long value: " + longValue);

System.out.println("Float value: " + floatValue);

System.out.println("Double value: " + doubleValue);

System.out.println("Char value: " + charValue);

System.out.println("Boolean value: " + booleanValue);

System.out.println("String value: " + stringValue);

}

}

Output:

Byte value: 120

Short value: 32000

Int value: 100000

Long value: 1000000000

Float value: 3.14

Double value: 3.14159

Char value: A

Boolean value: true

String value: Hello, Java!

1. Write a program to demonstrate all types of literals.

class J3\_literals

{

public static void main(String args[])

{

int count=987;

float floatValue = 3.14f;

double doubleValue = 3.14159;

int hexval = 0x1F;

int binary = 011010;

int octalval=067;

char alpha = 'A';

String str = "Hello, World!";

boolean boolval=true;

String StruName=null;

char ch1 = '\u0021';

char ch2=1456;

System.out.println("Integer Literal: " + count);

System.out.println("Float Literal: " + floatValue);

System.out.println("Double Literal: " + doubleValue);

System.out.println("Hexadecimal Literal: " + hexval);

System.out.println("Binary Literal: " + binary);

System.out.println("Octal Literal: " + octalval);

System.out.println("Character Literal: " + alpha);

System.out.println("String Literal: " + str);

System.out.println("Boolean Literal: " + boolval);

System.out.println("String Literal: " + StruName);

System.out.println("Character Literal: " + ch1);

System.out.println("Character Literal: " + ch2);

System.out.println("\t" + "Black slash");

}

}

Output:

Integer Literal: 987

Float Literal: 3.14

Double Literal: 3.14159

Hexadecimal Literal: 31

Binary Literal: 4616

Octal Literal: 55

Character Literal: A

String Literal: Hello, World!

Boolean Literal: true

String Literal: null

Character Literal: !

Character Literal: ?

Black slash

1. Write a program to calculate area of circle.

class J4\_AreaOfCircle

{

public static void main(String[] args)

{

double radius = 5;

double pi = 3.14159;

double area = pi \* radius \* radius;

System.out.println("The area of the circle is: " + area);

}

}

Output:

The area of the circle is: 78.53975

1. Write a program to perform all arithmetic operations. (+, - ,\*, /, %)

class J5\_ArithmeticOperations

{

public static void main(String[] args)

{

int num1 = 10;

int num2 = 5;

int sum = num1 + num2;

int sub = num1 - num2;

int mul = num1 \* num2;

int div = num1 / num2;

int remainder = num1 % num2;

System.out.println("Addition: " + sum);

System.out.println("Subtraction: " + sub);

System.out.println("Multiplication: " + mul);

System.out.println("Division: " + div);

System.out.println("Modulus: " + remainder);

}

}

Output:

Addition: 15

Subtraction: 5

Multiplication: 50

Division: 2

Modulus: 0

1. Write a program to calculate area of triangle.

class J6\_AreaofTriangle

{

public static void main(String[] args)

{

double base = 10.0;

double height = 5.0;

double area = 0.5 \* base \* height;

System.out.println("The area of triangle is: " + area);

}

}

Output:

The area of triangle is: 25.0

7. Write a program to perform following arithmetic expression.

a. 10\*10/5+3-1\*4/2

class J7\_ArithmeticExpression

{

public static void main(String[] args)

{

int result = 10 \* 10 / 5 + 3 - 1 \* 4 / 2;

System.out.println("Result of the expression: " + result);

}

}

Output:

Result of the expression: 21

8. Write a program to check whether the number is positive or negative or zero.

class J8\_NumberCheck

{

public static void main(String[] args)

{

int number = 20;

if (number > 0)

{

System.out.println("The number is positive.");

}

else if (number < 0)

{

System.out.println("The number is negative.");

}

else

{

System.out.println("The number is zero.");

}

}

}

Output:

The number is positive.

9. Write a program that takes a number (1-7) and prints the corresponding day of the week using a switch statement.

class J9\_SwitchCase

{

public static void main(String[] args)

{

int day = 3;

String dayString;

switch(day)

{

case 1:

dayString = "Monday";

break;

case 2:

dayString = "Tuesday";

break;

case 3:

dayString = "Wednesday";

break;

case 4:

dayString = "Thursday";

break;

case 5:

dayString = "Friday";

break;

case 6:

dayString = "Saturday";

break;

case 7:

dayString = "Sunday";

break;

default:

dayString = "Invalid day";

}

System.out.println(dayString);

}

}

Output:

Wednesday

10. Write a program to print 1 to 100 number using do...while loop.

class J10\_dowhileloop

{

public static void main(String[] args)

{

int i = 1;

do

{

System.out.println(i);

i++;

} while (i <= 100);

}

}

Output:

1

2

3

.

.

.

100

11. Write a program to print following pattern.

a. 1

12

123

1234

12345

class J11\_1Pattern

{

public static void main(String[] args)

{

int rows = 5;

for (int i = 1; i <= rows; i++)

{

for (int j = 1; j <= i; j++)

{

System.out.print(j);

}

System.out.println();

}

}

}

Output:

1

12

123

1234

12345

11. Write a program to print following pattern.

b. A

BB

CCC

DDDD

EEEEE

using System;

class J11\_3Pattern

{

public static void main(String[] args)

{

int rows = 5;

for (int i = 1; i <= rows; i++)

{

for (int j = 1; j <= i; j++)

{

char ch = (char) ('A' + j - 1);

System.out.print(ch);

}

System.out.println();

}

}

}

Output:

A

AB

ABC

ABCD

ABCDE

11. Write a program to print following pattern.

c. A

ABA

ABCA

ABCDA

ABCDEA

class J11\_3Pattern

{

public static void main(String[] args)

{

int n = 5; // Number of lines

for (int i = 0; i < n; i++)

{

// Print the first part of the pattern (A, AB, ABC, etc.)

for (int j = 0; j <= i; j++)

{

System.out.print((char) ('A' + j));

}

// Print the last 'A'

if (i > 0)

{

System.out.print('A');

}

System.out.println();

}

}

}

Output:

A

ABA

ABCA

ABCDA

ABCDEA