package com.codewithharry;

import java.util.Scanner;

public class Main {

static int sum(int a, int b){

return a+b;

}

public static void main(String[] args) {

// Write your code here

// System.out.println("Hello World");

/\* Variables

Just Like:

-Water - Bucket

-Masala - box

-Lunch - LunchBox

In Java:

Variables are containers which store data values

String, int, float, char, boolean

How to declare variables:

syntax - <dataType> <variableName> = <value>;

\*/

String name = "Harry";

String channel = "CodeWithHarry";

// System.out.println(name);

// System.out.println(name.length());

// System.out.println(name.toUpperCase());

// System.out.println(name.toLowerCase());

// System.out.println(name + " from\" " + channel);

// System.out.println(name + " from\\ " + channel);

// System.out.println(name + " from\t " + channel);

// System.out.println(name + " from\n " + channel);

// System.out.println(name.contains("Har"));

// System.out.println(name.charAt(2));

// System.out.println(name.endsWith("ry"));

// System.out.println(name.indexOf("rry"));

int numb1 = 4, numb2 = 7;

// System.out.println(Math.max(numb1, numb2));

// System.out.println(Math.min(numb1, numb2));

// System.out.println(Math.sqrt(36));

// System.out.println(Math.abs(-36));

// System.out.println(Math.abs(6));

// System.out.println(Math.random());

// System.out.println(4+(8-4)\*Math.random());

// System.out.println(4+(8-4)\*Math.random());

// System.out.println(4+(8-4)\*Math.random());

// System.out.println(4+(8-4)\*Math.random());

// System.out.println(4+(8-4)\*Math.random());

int a = 45, x=56, y=67;

float b = 45.22f;

boolean isAdult = false;

// System.out.println(x);

// System.out.println(b);

// System.out.println(isAdult);

/\* Rules for constructing name of variables in Java

1. Can contain digits, underscores, dollar signs, letters

2. Should begin with a letter, $ or \_

3. Java is case sensitive language which means that

harry and Harry are two different variables altogether.

4. Should not contain whitespaces

5. You cannot use reserved keywords from Java

\*/

/\*

Two types of Java Data Types:

1. Primitive - byte (1 byte), short (2 bytes), int(4 bytes), long (8 bytes), float(4 bytes),

double (8 bytes), boolean(1 bit), char (2 bytes).

2. Non Primitive or Reference Data Type -

\*/

byte u = -56;

double d = 45.635435345d;

// System.out.println(d);

char grade = 'A';

// System.out.println(grade);

/\* Operators in Java

Operand, operator, Operand = Result

4 + 7 = 11

Types of operators in Java

Arithmetic operators

Assignment operators

Logical Operators

Comparison Operators

\*/

int num1 = 45, num2=78;

num1 += 3;

num2 -= 8;

// Explore these operators - \*=, /=, %=

// System.out.print("The value of num1 + num2 is ");

// System.out.println(num1 + num2);

//

// System.out.print("The value of num1 - num2 is ");

// System.out.println(num1 - num2);

//

// System.out.print("The value of num1 \* num2 is ");

// System.out.println(num1 \* num2);

//

// System.out.print("The value of num1 / num2 is ");

// System.out.println(num1 / num2);

//

// System.out.print("The value of num1 % num2 is ");

// System.out.println(num1 % num2);

// System.out.println(num2++);

// System.out.println(++num1);

// System.out.println(num1--);

// System.out.println(--num1);

/\*

\* Comparison Operators:

\* 1. == : checks for equality of two values

\* 2. != : checks if two values are not equal

\* 3. <

\* 4. >

\* 5. <=

\* 6. >=

\*

\* Logical Operators:

\* 1. && - Logical and operator - returns true only if both conditions are true

\* 2. || - Logical or operator - returns true if any one condition is true

\* 3. ! - Logical not - Reverse the result from true to false and vice versa

\* \*/

// Taking user input in Java

// Scanner scan = new Scanner(System.in);

// System.out.println("Enter Your Age");

// int age = scan.nextInt();

// System.out.println(input);

// If-else conditionals

// if(age>20){

//

// System.out.println("You are an adult");

// }

// else if(age>5){

// System.out.println("You are not a kid");

//

// }

// else{

// System.out.println("You are a kid");

// }

// Switch statement in Java

// switch (age){

// case 12:

// System.out.println("You are 12 years old");

// break;

// case 56:

// System.out.println("You are 56 years old");

// break;

// case 16:

// System.out.println("You are 16 years old");

// break;

// default:

// System.out.println("You did not match any of the cases");

// }

// Quick Quiz: print sunday to saturday based on numbers 1 to 7 typed by the user

// Loops

/\*

While Loop

while(condition){

// This code will keep executing until the condition is true

}

\*/

// int i = 0;

// while(i<100){

// System.out.println(i);

// i += 1;

// }

/\*

Do While Loop

do{

// This code will keep executing until the condition is true

}while(condition)

\*/

// int j = 0;

// do{

// System.out.println(j);

// j += 1;

// }while(j>100);

/\*

For Loop

for(st1;st2;st3){

//Code to be executed

}

\*/

//

// for(int i=0;i<=10;i++){

// if(i==2){

// continue;

// }

//// else{

//// System.out.println(i);

//// }

// System.out.println(i);

// }

// Java Arrays

// int [] marks = {1,2,3,5};

// marks[3] = 34; // this will update marks[3]

// System.out.println(marks[0]);

// System.out.println(marks[3]);

//

// // Classical way to iterate an array

// for(int i=0;i<marks.length;i++){

// System.out.println(marks[i]);

// }

// System.out.println("This is for each loop:");

//

// // For each loop

// for(int value:marks){

// System.out.println(value);

// }

//

// int [][] matrix = {{1,2,3},

// {4,5,6}};

// System.out.println(matrix[0][1]);

//

// String [] cars = {"Maruti Harry", "Maruti", "Suzuki", "Innova", "Ford Titanium"};

// for(String value:cars){

// System.out.println(value);

// }

// Try - Catch

// String [] cars = {"Maruti Harry", "Maruti", "Suzuki", "Innova", "Ford Titanium"};

//

// try{

// System.out.println(cars[3]);

// }

// catch(Exception e){

// System.out.println(e);

// }

//

// System.out.println("Masoom");

// System.out.println(sum(5, 7));

float number\_1, number\_2;

System.out.println("Enter first number");

Scanner scan = new Scanner(System.in);

number\_1 = scan.nextFloat();

System.out.println("Enter second number");

// Scanner scan2 = new Scanner(System.in);

number\_2 = scan.nextFloat();

System.out.print("You have Entered ");

System.out.print(number\_1);

System.out.print(" and ");

System.out.println(number\_2);

String prompt = "Enter 0 for addition, 1 for " +

"subtraction, 2 for multiplication and 3 for division";

System.out.println(prompt);

int input = scan.nextInt();

switch (input){

case 0:

System.out.println("Adding these numbers");

System.out.print("The result is: ");

System.out.println(number\_1 + number\_2);

break;

case 1:

System.out.println("Subtracting these numbers");

System.out.print("The result is: ");

System.out.println(number\_1 - number\_2);

break;

case 2:

System.out.println("Multiplying these numbers");

System.out.print("The result is: ");

System.out.println(number\_1 \* number\_2);

break;

case 3:

System.out.println("Dividing these numbers");

System.out.print("The result is: ");

System.out.println(number\_1 / number\_2);

break;

default:

System.out.println("Invalid input");

}

}

}