// Q5

Data Type: Keyword: Description:

Number int, double, num Numbers in Dart are used to represent numeric literals

Strings String Strings represent a sequence of characters

Booleans bool It represents Boolean values true and false

Lists List It is an ordered group of objects

Maps Map It represents a set of values as key-value pairs

// Q1

operators:

1)Arithnetic operators

2)Equality and Relational Operators

3)Logical Operators

1. Arithmetic Operators:

This class of operators contain those operators which are used to perform arithmetic operation on the operands. They are binary operators i.e they act on two operands. They go like this:

Operator Symbol Operator Name Operator Description

+ Addition Use to add two operands

– Subtraction Use to subtract two operands

-expr Unary Minus It is Use to reverse the sign of the expression

\* Multiply Use to multiply two operands

/ Division Use to divide two operands

~/ Division Use two divide two operands but give output in integer

% Modulus Use to give remainder of two operands

void main()

{

int a = 2;

int b = 3;

// Adding a and b

var c = a + b;

print("Sum of a and b is $c");

// Subtracting a and b

var d = a - b;

print("The difference between a and b is $d");

// Using unary minus

var e = -d;

print("The negation of difference between a and b is $e");

// Multiplication of a and b

var f = a \* b;

print("The product of a and b is $f");

// Division of a and b

var g = b / a;

print("The quotient of a and b is $g");

// Using ~/ to divide a and b

var h = b ~ / a;

print("The quotient of a and b is $h");

// Remainder of a and b

var i = b % a;

print("The remainder of a and b is $i");

}

2. Relational Operators:

This class of operators contain those operators which are used to perform relational operation on the operands. It goes like this:

Operator Symbol Operator Name Operator Description

> Greater than Check which operand is bigger and give result as boolean expression.

< Less than Check which operand is smaller and give result as boolean expression.

>= Greater than or equal to Check which operand is greater or equal to each other and give result as boolean expression.

<= less than equal to Check which operand is less than or equal to each other and give result as boolean expression.

== Equal to Check whether the operand are equal to each other or not and give result as boolean expression.

!= Not Equal to Check whether the operand are not equal to each other or not and give result as boolean expression.

void main()

{

int a = 2;

int b = 3;

// Greater between a and b

var c = a > b;

print("a is greater than b is $c");

// Smaller between a and b

var d = a < b;

print("a is smaller than b is $d");

// Greater than or equal to between a and b

var e = a >= b;

print("a is greater than b is $e");

// Less than or equal to between a and b

var f = a <= b;

print("a is smaller than b is $f");

// Equality between a and b

var g = b == a;

print("a and b are equal is $g");

// Unequality between a and b

var h = b != a;

print("a and b are not equal is $h");

}

Logical Operators:

This class of operators contain those operators which are used to logically combine two or more conditions of the operands. It goes like this:

Operator Symbol Operator Name Operator Description

&& And Operator Use to add two conditions and if both are true than it will return true.

|| Or Operator Use to add two conditions and if even one of them is true than it will return true.

! Not Operator It is use to reverse the result.

void main()

{

int a = 5;

int b = 7;

// Using And Operator

bool c = a > 10 && b < 10;

print(c);

// Using Or Operator

bool d = a > 10 || b < 10;

print(d);

// Using Not Operator

bool e = !(a > 10);

print(e);

}

// Q4

What is the difference between = (Assignment) and == (Equal to) operators. The “=” is an assignment operator is used to assign the value on the right to the variable on the left. The '==' operator checks whether the two given operands are equal or not. If so, it returns true

//Q13

String Methods

The Dart provides an extensive range of methods. The list of a few essential methods is given below.

Methods Descriptions

toLowerCase()

It converts all characters of the given string in lowercase.

toUpperCase()

It converts all characters of the given string in uppercase.

trim()

It eliminates all whitespace from the given string.

compareTo()

It compares one string from another.

replaceAll()

It replaces all substring that matches the specified pattern with a given string.

List Methods

List is one of four types of collection Dart offers. It is equivalent to Array and is an ordered collection of items, starting with index 0.

reversed:

reversed is a getter which reverses iteration of the list depending upon given list order.

whereType():

This method returns iterable with all elements of specific data type.

Let’s say we have a list with mix data such as String and int and we just want to retrieve int data from it, then we would use whereType method as:

getRange():

This method returns elements from specified range [start] to [end] in same order as in the given list. Note that, start element is inclusive but end element is exclusive.

replaceRange():

This method helps to replace / update some elements of the given list with the new ones. The start and end range need to be provided alongwith the value to be updated in that range.

firstWhere():

This method returns the first element from the list when the given condition is satisfied.

//Q9

LEGAL VARIABLE:

1)num

2)num123

3)mum\_num1

4)hamza

5)check

ILLEGAL VARIABLE:

1)12num

2)@num

3)num mum

4)1234

5)int