ASSIGNMENT 3

Q1. What are the various types of operators? Explain with Examples.

Ans. There are three types of Operators.

1. Arithmetical Operators.
2. Relational Operators.
3. Logical Operators.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **TYPES** | **OPERATORS** | **EXAMPLES** |
| **ARITHMETICAL OPERATORS** | Addition | **+** | Print (a+b); |
| Subtraction | **-** | Print (a-b); |
| Multiplication | **\*** | Print (a\*b); |
| Division | **/** | Print (a/b); |
| **RELATIONAL OPERATORS** | Assign | **=** | A=2 |
| Equal | **==** | Print (A==B); |
| Not Equal | **!=** | Print (A!=B); |
| Less than | **<** | Var A<B; |
| Less than equal to | **<=** | Var A<=B; |
| Greater than | **>** | Var A>B; |
| Greater than equal to | **>=** | Var A>=B; |
| **LOGICAL OPERATORS** | && | **AND** | One or more condition is FALSE than it result is FALSE |
| || | **OR** | One or more condition is TRUE than it result is TRUE |

**Q2.** Cost of one movie ticket is 600 PKR. Write a script to store ticket price in a variable & calculate the cost of buying 5 tickets to a movie.

ANS.

var ticketprice = 600;

   print("Ans 2: Total Cost of buying 5 ticket is ; ${ticketprice \* 5}");

**Result:- Total Cost of buying 5 ticket is ; 3000**

**Q3.** How to get difference of lists in Dart? Problem: Consider you have two lists [1,2,3,4,5,6,7] and [3,5,6,7,9,10]. How would you get the difference as output? E.g. [1, 2, 4].

Ans.

var lst1 = [1,2,3,4,5,6,7];

  var lst2 = [3,5,6,7,9,10];

  var set1 = Set.from(lst1);

  var set2 = Set.from(lst2);

  print(List.from(set1.difference(set2)));

**Q4.** What is a difference between these operators “?? And?”

Ans.**NULL OPERATOR (“?”) :-**

“?” This is used to call a method if an object is null or not.

Example.

Var abc = 2;

Var x = X();

Num = x?.abc;

Print (num);

**EXPLANATION:-** If x value is non mean (Var x; OR Var x = “”) then num value result is NULL or vice versa.

**NULL-AWARE (“??”) :-**

“??” This work to get result if value is null example:-

Var abc = 2;

Var x = X();

Num = x?.abc ?? 25;

Print (num);

**EXPLANATION:-** If value of x is not null than it give result of “abc” that is 2. But when x value is null then

It give me the result “25”.

**Q5.** What are the data types supported in Dart? Explain with Examples.

|  |  |  |  |
| --- | --- | --- | --- |
| **DATA TYPE** | **KEYWORDS** | **EXAMPLES** | **DESCRIPTIONS** |
| NUMBER | INT | Int marks = 80 | Int represent the whole number. |
| DOUBLE | Double marks = 80.00 | It represents decimal number. |
| STRING | STRING | String name = “Ali” | It is a sequence of the character |
| BOOLEAN | BOOL | Bool isValid = True/False | It represents the two value  True or False |
| LISTS | LIST | List table = [1,2,3,4] | Collection of ordered value. |
| MAP | Map | Var student = {'name': 'Ali',  'age':25} | The maps type is used to store values in key-value pairs |

**Q6**

var num = 7;

  for (var i = 1; i <= 10; i++) {

    print("$num \* $i = ${num \* i}");

  }

**Q7.** void main() {

  //question 7

  var js = "syed1234";

  var pass = stdin.readLineSync();

  if (pass == js){

    print("succesful login");

  }

  else if (pass != js.isNotEmpty) {

    print("Password Incorrect");

  }

  else{

    print("Write Your Password");

  }

 }

**Q8.** List students = ["ALi","Sami","Yousuf"];

     List score = [350,420,180];

     var totalmarks = 500;

     var per1 = score[0] / totalmarks \* 100;

     var per2 =  score[1] / totalmarks \* 100;

     var per3 = score[2] / totalmarks \* 100;

     List list1 = [students[0],score[0],per1];

     List list2 = [students[1],score[1],per2];

     List list3 = [students[2],score[2],per3];

     print(list1);

     print(list2);

     print(list3);

**Q9.**

**Ans.LEGAL VARIABLE:-**

1. X
2. Temp
3. Var1
4. Data\_cricket
5. \_data123

**ILLEGAL VARIABLE:-**

1. 2y
2. !xy
3. \*data
4. )var
5. @temp

**Q10.** String str = "Hyderabad";

    String result = str.replaceAll("Hyder", "Islam");

    print(result);

**Q11.** String name = "Muhammad Basit";

    String Currentmonth = "February";

    double NoUnits = 127.81;

    var perunit = 50;

    double nap = (NoUnits \* perunit);

    var lps = nap \* 10 /100;

    double gap = nap + lps;

    print("Customer Name = $name");

    print("Current Month = $Currentmonth");

    print("Number Of Units = $NoUnits");

    print("Charges Per Unit = $perunit");

    print("Net Amount Pyabale (Within Due Date) = $nap");

    print("Late Pyament Surcharge = $lps");

    print("Gross Amount Payable (After Due Date) $gap");

**Q12.**

**Q13. Methods of Lists.**

1. .Length
2. .First
3. .Last
4. .isEmpty
5. .add

**METHOD OF STRING.**

1. .length