**Question No.1:**

How to duplicate repeating items inside a Dart list?

Problem

Consider the code:

final List<Ball> \_ballList = [Ball (), Ball (), Ball (), Ball (), Ball (),]

What can to be done in order to not repeat Ball () multiple times?

**Answer:**

void main() {

List<String> ballList = [

"bilal",

"ali",

"owais",

"humza",

"abdullah",

"humza"

];

List<String> finalList = ballList.toSet().toList();

print(finalList);

}

**Question no.2:**

2. How to get difference of lists in Flutter/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? eg. [1, 2, 4

**Answer:**

void main() {

var list1 = [1, 2, 3, 4, 5, 6, 7];

var list2 = [3, 5, 6, 5, 6, 7];

var list3 = list1.where((e) => !list2.contains(e)).toList();

print(list3);

}

**Question NO.3:**

Let’s say you are given a list saved in a variable:

Consider a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100].

Write a code that takes this list and makes a new list that has only the

even elements of this list in it.

**Answer:**

void main() {

var a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100];

for ( var i in a )

if(i%2==0){

print(i);

}

}

**Question NO.4:**

Ask the user for a number and determine whether the number is prime or not.s

**Answer:**

import 'dart:io';

void main() {

pirnt("Enter any value");

int? num = stdin.readLineSync();

if(num %2==0)

{

print(" Not a Prime Number");

}

else {

print("Prime Number")

}

}

**Question No.5;**

Write a program to print multiplication table of 7 length 15.

**Answer:**

void main() {

var a=7;

var b=0;

for( b=0;b<=15;b++)

{

print("$a x $b =${a \* b}");

}

}

**Question No.6:**

6. Write a program to print items of the following array using for loop:

fruits = [“apple”, “banana”, “mango”, “orange” , “strawberry”].

**Answer:**

void main() {

var fruits = ["apple", "Bannana", "Orange", "Mango", "Strawberry"];

for (var i in fruits) {

print(i);

}

for (var i = 0; i <= fruits.length - 1; i++) {

print(fruits[i]);

}

}

**Question No.7;**

Write a program to print multiples of 5 ranging 1 to 100.

**Answer:**

void main() {

var i = 5;

for (i; i < 100; i++) {

if (i % 5 == 0) {

print(i);

}

}

}

**Question No.8;**

The Temperature Converter: It’s hot out! Let’s make a converter

based on the steps here.

a. Store a Celsius temperature into a variable.

b. Convert it to Fahrenheit & output “NNoC is NNoF”.

c. Now store a Fahrenheit temperature into a variable.

d. Convert it to Celsius & output “NNoF is NNoC”.

**Answer:**

void main() {

var cal = 36;

print("Today Temperature in Celcius is ${cal} C");

var fer = (cal \* 9 / 5) + 32;

print("NNo$cal to NNo$fer");

print("NNo$fer to NNo$cal");

}

**Question No.9;**

Write a program to create a calculator for +, -, \*, / & % using if

statements. Take the following input:

a. First number Second number

b. Operation (+, -, \*, /, %)

Compute & show the calculated result to user.

**Answer:**

import 'dart.io'

void main(){

print('Enter first number');

double? num1 =double.parse(stdin.readLineSync());

print("Enter Second Number");

double? num2 =double.parse(stdin.readLineSync());

print("Enter the operation you want to perform");

String? operator=stdin.readLineSync();

if(op=="+"){

num result=num1+num2;

print("After adding 2 numbers result is : ${result}");

}

else if(op=="-"){

num result=num1-num2;

print("After substracting 2 numbers result is:${result}");

}

else if(op=="\*"){

num result=num1\*num2;

print("After multiplyingng 2 numbers result is: ${result}");

}

else if(op=="%"){

num result=num1%num2;

print("After dividing the 2 numbers remainder is: ${result}");

}

else if(op=="/"){

num result=num1/num2;

print("After dividing 2 numbers result is: ${result}");

}

else {

print("Enter valid operator");

}

**Question No:10;**

Write a program that takes a character (I. e. string of length 1)

and returns true if it is a vowel, false otherwise.

**Answer :**

void main() {

var a = "a";

if (a == "a" || a == "e" || a == "i" || a == "v" || a == "o" || a == "u") {

print("Vowel");

} else {

print("Not a Vowel");

}

}