Dart Programs

Create a program that asks the user to enter their name and their age. Print out a message that tells how many years they have to be 100 years old.

Make a two-player Rock-Paper-Scissors game against computer.

Create a program that asks the user for a number and then prints out a list of all the divisors of that number.

Take two lists, for example:

```
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]

b = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13]
```

and write a program that returns a list that contains only the elements that are common between them (without duplicates). Make sure your program works on two lists of different sizes.

Write a Dart code that takes this list and makes a new list that has only the even elements of this list in it.

Write a Dart code that takes this list and makes a new list that has only the odd elements of this list in it.

Generate a random number between 1 and 100. Ask the user to guess the number, then tell them whether they guessed too low, too high, or exactly right.

Write a program that takes a list of numbers for example

```
a = [5, 10, 15, 20, 25]
```

and makes a new list of only the first and last elements of the given list. For practice, write this code inside a function.

Write a program (function) that takes a list and returns a new list that contains all the elements of the first list minus all the duplicates.
Write a program (using functions!) that asks the user for a long string containing multiple words. Print back to the user the same string, except with the words in backwards order.

For example, say I type the string:

```
My name is Michele
```

Then I would see the string:

```
Michele is name My
```

Create a program that will play the “cows and bulls” game with the user. The game works like this:

- Randomly generate a 4-digit number. Ask the user to guess a 4-digit number. For every digit the user guessed correctly in the correct place, they have a “cow”. For every digit the user guessed correctly in the wrong place is a “bull.”
- Every time the user makes a guess, tell them how many “cows” and “bulls” they have. Once the user guesses the correct number, the game is over. Keep track of the number of guesses the user makes throughout the game and tell the user at the end.

You, the user, will have in your head a number between 0 and 100. The program will guess a number, and you, the user, will say whether it is too high, too low, or your number.

In the game of Hangman, a clue word is given by the program that the player has to guess, letter by letter. The player guesses one letter at a time until the entire word has been guessed. (In the actual game, the player can only guess 6 letters incorrectly before losing).

- Only let the user guess 6 times, and tell the user how many guesses they have left.
- Keep track of the letters user guessed. If the user guesses a letter they had already guessed, don't penalise them - let them guess again.

Write a program in Dart that finds simple interest.

Write a program to find BMI.

Write a program to print a square of a number using user input.

Write a program to print a squareRoot of a number using user input.

Write a program in Dart to remove all whitespaces from String.

Write a program to calculate Tip.
Suppose, you often go to restaurant with friends and you have to split amount of bill. Write a program to calculate split amount of bill.

Write a dart program to check whether a character is a vowel or consonant.

Write a dart program to generate multiplication tables.

Write a program in Dart that find the area of a circle using function.

Add your 7 friend names to the list. Use where to find a name that starts with alphabet a.

Create a map with name, phone keys and store some values to it. Use where to find all keys that have length of 4.

Create a simple to-do application that allows user to add, remove, and view their task.

Write a function named generateRandom() in dart that randomly returns 100 or null. Also, assign a return value of the function to a variable named status that can't be null. Give status a default value of 0, if generateRandom() function returns null.

Given a year, report if it is a leap year.

Find the difference between the square of the sum and the sum of the squares of the first N natural numbers.

Write a program that prints the numbers from 1 to 100 and for multiples of '3 'print "Fizz" instead of the number and for the multiples of '5 'print "Buzz", and for multiples of both '3' and '5' print Fizz-Buzz.