Sets in Dart

Exercise #2

Flutter Developer Bootcamp

# **Purpose**

This Exercise demonstrates how to remove duplicate elements from a list in Dart using sets.

# **Problem**

In the provided Exercise You need to create as follows:

This Exercise involves initializing a list named numbers with integers [1, 2, 3, 4, 3, 2, 5, 6, 7, 8, 7, 9, 10]. This list contains duplicate integers. Converts this list into a set to remove duplicates, resulting in a set named uniqueNumbers. After the conversion, the unique elements in the set are [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]. Finally, the code prints both the original list [1, 2, 3, 4, 3, 2, 5, 6, 7, 8, 7, 9, 10] and the set containing unique elements [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]. This demonstrates how sets in Dart can efficiently remove duplicates from a list of elements.

**How to Solve**

1. Checkout the Exercise from Git Repo:

git clone -b <user-branch> <repo-URL>

2. Open the root folder inside VS Code

3. Open the root folder in terminal

4. Run the command dart run filename.dart

5. List Initialization:

* A list named numbers is initialized with integer values, including duplicates.

6. Convert List to Set:

* The Set.from() constructor is used to create a new set uniqueNumbers from the elements of the numbers list.
* Sets in Dart automatically eliminate duplicate elements, so by converting the list to a set, duplicates are removed.

7. Printing Results:

* The original list numbers is printed using print("Original List: $numbers").
* The set containing unique elements uniqueNumbers is printed using print("Unique Elements: $uniqueNumbers").

8. Go To File: <specific-file-with-Set-method> à <method-name>, implement your logic.

**You will Achieve**

When you complete this Exercise you will learn the following:

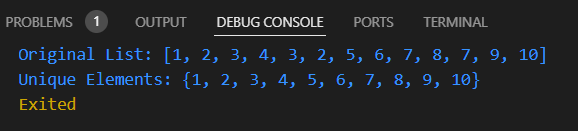
* **List Initialization:**
* A list named numbers is initialized with integer values, including duplicates.
* **Method:** Initialization using list literal [].
* **Convert List to Set:**
* The Set.from() constructor is used to create a new set uniqueNumbers from the elements of the numbers list.
* **Method:** Set.from() constructor.
* This constructor creates a set from an iterable, removing any duplicate elements.
* **Printing Results:**
* The original list numbers is printed using print("Original List: $numbers").
* The set containing unique elements uniqueNumbers is printed using print("Unique Elements: $uniqueNumbers").
* **Functions/Methods:** print() function, string interpolation ($ symbol).

In summary, the code achieves the task of removing duplicate elements from the list numbers by converting it into a set (uniqueNumbers). It then prints both the original list and the set containing unique elements. The following methods and functions are involved:

* List initialization using list literal [].
* Set.from() constructor to create a set from the list, removing duplicates.
* print() function to output data to the console.
* String interpolation ($ symbol) to include variables within strings when printing.

# **Screenshots**

## **Expected output (with Sets)**



## 

# **How to submit your Exercise**

Push your project back to the same git branch using command:

<command name>

# **Happy Coding!**