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SUBJECT : OOP(LAB 2- DART LANGUAGE)

CLASS TASKS (03.11.2022)

1. a) Why DART is Object Oriented Programming Language?

- Dart is an object-oriented programming language because it allows you to define classes and create objects from those classes. In Dart, everything is an object, and every object is an instance of a class. This means that you can use inheritance, polymorphism, and other objectoriented concepts in your Dart code.

For example, you can define a class called Person with properties such as name, age, and gender, and you can create objects of type Person by using the new keyword and calling the constructor function of the Person class. You can then use these objects to represent real-world people in your code and manipulate them in various ways.

Here is an example of how you could define a Person class in Dart:

```
class Person {  
  String name;  
  int age;  
  String gender;  
  
  Person(this.name, this.age, this.gender);  
}
```

b) What are Built-in types in DART?

i) Set - This represents an unordered collection of unique values eg.

```
Set<String> g = {'red', 'green', 'blue'};
```

ii)Map - This represents a collection of key-value pairs eg.

```
Map<String, int> h = {'one': 1, 'two': 2, 'three': 3}
```

iii) Dictionary - A dictionary is a collection of key-value pairs, where each key is unique and is used to retrieve the corresponding value. In Dart, the Map type is used to represent a Dictionary.

c) Print 2D Matrix-- <https://github.com/JosephMuwuduri/DART-PROJECTS/blob/main/LAB%20%20-2DMATRIX.dart>

2. a) Github repository-- <https://github.com/JosephMuwuduri/DART-PROJECTS/commits?author=JosephMuwuduri>

3. a) Codewars kata 1 challenge-- [https://github.com/JosephMuwuduri/DART-PROJECTS/blob/main/LAB%20%20TASK\(KATA-1\).dart](https://github.com/JosephMuwuduri/DART-PROJECTS/blob/main/LAB%20%20TASK(KATA-1).dart)

b) Codewars kata 2 challenge-- [https://github.com/JosephMuwuduri/DART-PROJECTS/blob/main/LAB2%20TASK\(KATA2\).dart](https://github.com/JosephMuwuduri/DART-PROJECTS/blob/main/LAB2%20TASK(KATA2).dart)

4. a) Homework(Implement print Print 2D matrix with initialization of 2d array)---
<https://github.com/JosephMuwuduri/DART-PROJECTS/blob/main/lab1%20MATRIXdart>