**DART LANGUAGE**

**Lecture # 1:**

* What is dart and why we use it?
* How to install Vs code?
* What is Dartpad?
* Install Extensions
* Make first program “hello world”?
* How to write comments?

**Assignment**

1. Write a program to print all your family members’ name.

**Lecture # 2:**

* What is variable?
* What is constants?
* What is data type (int, double, string)?
* What is identifier?
* How to declare and initialize variables?
* Rules of declaring variable.

**Assignment**

1. write a program to print "Welcome to flutter Mobile application development"
2. Write a program to perform all arithmetic operations?
3. Write a program to multiply three decimal number?
4. Differentiate between variable and dynamic?

**Lecture # 3:**

* What is constants?
* Datatypes(bool, List,Map)
* Differentiate between variable and dynamic
* Relational operators
* Concatenation

**Assignment**

1. Write a program in which make rectangle using print statement (\*)?
2. Write a program to perform all relational operators (>, <,>=, <=).
3. Write a program to subtract two constant numbers.
4. Write a program to Calculate Area of Circle.
5. Write a program to Calculate Area of square.

**Lecture # 4:**

* User input/output
* Logical operators
* Increment/decrement operator
* Assignment operator
* Conditional operators

**Assignment**

1. Write a program to calculate the sum of the first 10 natural numbers.
2. Write a program to enter two numbers and display its sum.
3. Write a program that reads a set of integers, and then prints the sum of the even and odd integers.
4. Write a program to print following:

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1. How string can work as a list and how we can replace data in string.
2. How to convert feet into meter based on user input.

**Lecture # 5:**

* Practice all things that we discuss in previous lectures.
* Using all the concepts make calculator.

**Lecture # 6:**

**Conditional Statements**

* If statement
* If-else statement
* Nested if (if\_else\_if) statement.
* Switch statement

**Assignment**

1. Write a program that input two numbers and if second number is square of first using if statement.
2. Write a program that input marks of three subjects. If the average of marks is more than 80, it display messages “you are above standard” otherwise it display “You are low standard.
3. Write a program that input marks of student and display grade according to following criteria:

|  |  |
| --- | --- |
| **Marks** | **Grade** |
| >=90 | A |
| 80-89 | B |
| 70-79 | C |
| 60-69 | B |
| Below 60 | F |

1. Write a program that input number of week’s day and display the name of the day. For Example if user enters 1, it display “Monday” and so on using Switch Statement.

**Lecture # 7:**

Practice all conditional statements

**Lecture # 8: Loops**

* While loop
* Do while
* For loop

**Assignment**

1. Write a program that displays counting form 1 to 10 using **while loop**.
2. Write a program that displays first five numbers with their square using **while loop**.
3. Write a program that display back counting from 10 to 1 using **do while loop**.
4. Write a program that display product of all odd numbers from 1 to 10 using **for loop**.

**Lecture # 10: Functions**

* Functions
* Functions with parameters
* Async Function

**Assignment**

1. Write a program that display a message “Programming makes life interesting” using function.
2. Write a program that input two number and performs all arithmetic operations using function.
3. Write a program in which display your name using async function in which wait 30 milliseconds.