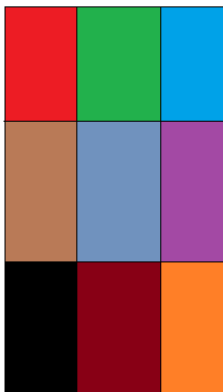
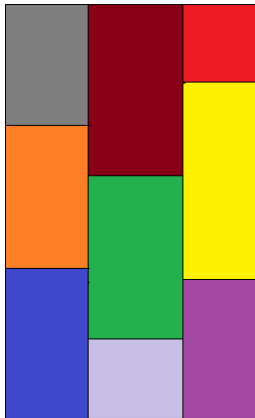


Lab	Type	Practical
Unit : I – Introduction		
1	A.	<p>Write a dart code to print your name in the console.</p> <p>Write a dart code to print the addition of 2 numbers.</p> <p>Write a dart code to convert temperature from Fahrenheit to Celsius. [$^{\circ}\text{C} = [(^{\circ}\text{F}-32)\times 5]/9$, $^{\circ}\text{F} = ^{\circ}\text{C} * 1.8000$]</p> <p>Write a dart code to find the percentage of 5 subjects.</p> <p>Write a dart code that reads a number in meters, converts it to feet, and displays the result.</p> <p>Body Mass Index (BMI) is a measure of health on weight. It can be calculated by taking your weight in kilograms and dividing by the square of your height in meters. Write a dart code that prompts the user to enter a weight in pounds and height in inches and display the BMI.</p> <p>Note: 1 pound = .45359237 kg and 1 inch = 0.254 meters</p>
2	A.	<p>Write a dart code to check whether the given number is positive or negative.</p> <p>Write a dart code to perform Addition, Subtraction, Multiplication, Division based on user choice using if, if..else..if, & switch.</p> <p>Write a dart code to find out the largest number from three numbers without using Logical Operator.</p> <p>Write a dart code to read marks of five subjects. Calculate percentage and print class accordingly. Fail below 35, Pass Class between 35 to 45, Second Class between 45 to 60, First Class between 60 to 70, Distinction if more than 70.</p> <p>Write a dart code to find out the largest number from the given 3 numbers using the conditional operator.</p> <p>Write a dart code to make a Simple Calculator using switch...case.</p>
3	A.	<p>Write a dart code to print numbers between two given numbers which are divisible by 2 but not divisible by 3.</p> <p>Write a dart code to find the factorial of the given number.</p> <p>Write a dart code to find whether the given number is prime or not.</p> <p>Write a dart code to print a given number in reverse order.</p> <p>Write a dart code to print the reverse string.</p> <p>Write a dart code program to calculate the sum of all positive even numbers and the sum of all negative odd numbers from a set of numbers. You can enter 0 (zero) to quit the program and thus it displays the result.</p>

4	<p>(Using named parameter, positional parameter, default parameter only)</p> <ul style="list-style-type: none"> A. Write a dart code to calculate simple interest using a method. A. Write a dart code to find the maximum number from two numbers using this method. A. Write a dart code to generate a Fibonacci series of N given numbers using this method. A. Write a dart code to accept a number and check whether the number is prime or not. Use method name check (int n). The method returns 1, if the number is prime otherwise, it returns 0. A. Write a dart code that calculates area of circle, triangle and square using method overloading. A. Write a dart code to count the number of even or odd numbers from an array of n numbers. A. Write a dart code to accept n numbers in an array. Display the sum of all the numbers which are divisible by either 3 or 5.
5	<ul style="list-style-type: none"> A. Create a class named Candidate with <i>Candidate_ID</i>, <i>Candidate_Name</i>, <i>Candidate_Age</i>, <i>Candidate_Weight</i> and <i>Candidate_Height</i> as data members. Create a method GetCandidateDetails() and DisplayCandidateDetails(). Create a main method to demonstrate the Candidate class. A. Create a class named Bank_Account with <i>Account_No</i>, <i>User_Name</i>, <i>Email</i>, <i>Account_Type</i>, and <i>Account_Balance</i> as data members. Also create a method GetAccountDetails() and DisplayAccountDetails(). Create a main method to demonstrate the Bank_Account class. A. Write a dart code to create a Circle class with area() and perimeter() function to find <i>area</i> and <i>perimeter</i> of the circle. B. Define Time class with <i>hour</i> and <i>minute</i> as data member. Also define addition() method to add two-time objects. B. Create a class named Member having the following members: <ul style="list-style-type: none"> 1 - <i>Name</i> 2 - <i>Age</i> 3 - <i>Phone number</i> 4 - <i>Address</i> 5 - <i>Salary</i> It also has a method named printSalary() which prints the salary of the members. Two classes Employee and Manager inherit the Member class. The Employee and Manager classes have data members <i>specialization</i> and <i>department</i> respectively. Now, assign <i>name</i>, <i>age</i>, <i>phone_number</i>, <i>address</i> and <i>salary</i> to an Employee and Manager by making an object of both of these classes and print the same along with <i>specialization</i> and <i>department</i> respectively.

6	<p>A. Write a dart code that prompts the user to enter 5 numbers, stores them in a List, and displays them in increasing order.</p> <p>A. Write a dart code to read 2 lists and return a list that contains only the elements that are common between them.</p> <p>A. Write a dart code that creates a List with the following values: “Delhi”, “Mumbai”, “Bangalore”, “Hyderabad” and “Ahmedabad”. Replace “Ahmedabad” with “Surat” in the above List. Write a dart code to create and read a phonebook dictionary.</p> <p>B. Write a dart code to find friends’ details by their name using a dictionary. (Create a local dictionary and search from it using Map<String, Object?> & Model Class).</p> <p>B. Write a dart code to get the current date from the system and format into different date formats. Ex. dd/MM/yyyy, dd-MM-yyyy, dd-MMM-yyyy, dd-MM-yy, dd MMM yyyy, etc.</p> <p>B. Write a dart code to create common date format method in Util Class and access in different classes (with and without inheritance)</p>
Unit : II – UI Design, State Management, Navigation	
7	<p>A. Create a flutter project with proper name in Android Studio and observe different files for programming.</p> <p>A. Write a flutter code to divide horizontal space of screen in 3 different equal parts with different colors.</p> <p>A. Write a flutter code to divide the vertical space of the screen in 3 different equal parts with different colors.</p> <p>B. Write a flutter code to divide the whole screen into 9 (equal size and the different size) with different colors.</p> <div data-bbox="418 1258 641 1648">  </div> <div data-bbox="933 1232 1189 1648">  </div>
8	<p>A. Write a flutter code to display “hello world” using <code>Text</code> widget. Change color & size of text using different properties.</p> <p>A. Write a flutter code to create a custom <code>Text</code> widget with different fonts & use it.</p> <p>A. Write a flutter code to use <code>TextField</code> and print the input value into the terminal using the controller.</p> <p>B. Write a flutter code to use <code>TextField</code> & apply different borders, floating labels, hint text etc., Write a flutter code to print <code>TextField</code> value into <code>Text</code> widget on a click of a <code>Button</code>.</p> <p>B.</p>

9	<p>A. Write a flutter code to display an <code>Image</code> into the <code>Image</code> asset widget from the <code>asset</code> folder.</p> <p>A. Write a flutter code to display an <code>Image</code> from a WEB URL using a cached network <code>Image</code>.</p> <p>A. Write a flutter code to use <code>Stack</code> widget and show text upon an <code>Image</code>.</p> <p>A. Write a flutter code to create a birthday card using different widgets.</p> <p>B. Write a flutter code to roll a dice on the <code>Button</code> click event.</p> <p>B. Design splash screen as given in the sample attached.</p>
10	<p>A. Write a flutter code to do <code>navigation</code> between two different pages using a material page route.</p> <p>A. Write a flutter code to do <code>navigation</code> between two different pages using a name route.</p> <p>B. Write a flutter code to use the <code>bottom NavigationBar</code> & on click display different pages.</p> <p>B. Write a flutter code to create a dynamic Birthday card.</p>
11	<p>A. Write a flutter code to use <code>TabView</code> and display different pages on different tab clicks.</p> <p>A. Write a flutter code to use the <code>NavigationDrawer</code> & display different pages on different menu clicks.</p> <p>A. Write a flutter code to use the <code>ActionBar</code> widget and display menu in it and display <code>Alert Dialog</code> on menu click.</p>
12	<p>A. Write a flutter code to create login screen login for username & password using <code>Textfield</code>, <code>Button</code> etc.,</p> <p>A. Write a flutter code to do validation in the login screen. (Email Validation & Password Validation) on <code>Button</code> click.</p> <p>B. Write a flutter code to create a registration screen using different widgets.</p> <p>B. Write a flutter code to do validation in the registration screen.</p> <p>B. Add password visibility icon in the <code>Text</code> field.</p>
Unit : III – Database Connectivity	
13	<p>A. Create different tables for the to-do list app in SQLite and attach a <code>.db</code> file with the flutter project.</p> <p>A. Use db queries to get records for the practical 13 (A).</p> <ul style="list-style-type: none"> • Select All Data • Select data using join <p>B. Query table and display data in terminal using print.</p>
14	<p>A. Write a flutter code to design To-Do list insert screen and do validation on it.</p> <p>A. Write a flutter code to insert data into the table.</p> <p>B. Write a flutter code to fill the Country list in the dropdown and then fill the State list based on selected Country and then fill City dropdown based on State.</p>
15	<p>A. Write a flutter code to list data into the <code>List</code> view.</p> <p>A. Write a flutter code to display a list with different colors with different priority.</p> <p>B. Write a flutter code to sort data by options: A->Z & Z-A.</p>

16	<p>A. Write a flutter code, pass data from list to edit page and edit record in table.</p> <p>A. Write a flutter code to place delete button in list page and on click delete button show alert dialog for confirmation for delete and delete data from table and refresh the page with updated data.</p> <p>B. Write a flutter code to delete data from table and from list and refresh page.</p>
Unit : IV – Accessing Rest API	
17	<p>A. Write a flutter code to fetch json file from asset folder & parse json data and display data in widget.</p> <p>B. Write and flutter code to generate model classes from json.</p>
18	<p>A. Write a flutter code to call rest api (using Mock Api) with <code>GET</code> Method with <code>HttpClient</code> library and display data in List widget using future builder.</p> <p>A. Write a flutter code pass Path Variable and Query Variable as parameters in <code>GET</code> Method and display single record in full screen page.</p> <p>B. Write a flutter code to call rest api and display data in <code>ListView.builder</code> with pagination (Lazy Loading).</p>
19	<p>A. Write a flutter code to display the country list in dropdown on selection of country call state api and fill data in the state list after selection state call city api and fill city list in dropdown.</p> <p>B. Write a flutter code call nested api (prefill 3 dropdown before).</p>
20	<p>A. Write a flutter code to design an entry screen with Name, DOB, City, Address, etc.. validate it & save data to webserver using <code>POST</code> method with form URL encoded.</p> <p>B. Write a flutter code to refresh the list with updated data without creating a new instance of list screen.</p>
Unit : V – Advance Application Development	
21	<p>A. Write a flutter code to request camera permission from user capture image using camera and store in external storage.</p> <p>A. Write a flutter code to display images from the gallery using the image widget.</p>