EXP 1A  
Step-by-Step Guide: Installing Flutter and Dart SDK on Windows

1. Check System Requirements

- OS: Windows 10 or later (64-bit)

- PowerShell 5.0 or later

- Git for Windows 2.x+

- 2.5 GB of free disk space (excluding IDE/tools)

2. Install Git

- Download from: https://git-scm.com

- During setup, choose “Use Git from the Windows Command Prompt”

- After install, verify with: `git --version`

3. Download Flutter SDK

- Visit: https://flutter.dev/docs/get-started/install

- Download the latest stable ZIP for Windows

4. Extract Flutter SDK

- Extract to: `C:\development\flutter`

- Avoid protected directories like `C:\Program Files`

5. Add Flutter to System PATH

- Search: “Edit environment variables”

- Under "User variables" → `Path` → Add: `C:\development\flutter\bin`

- Click OK to save

6. Confirm Flutter Installation

- Open Command Prompt or PowerShell

- Run: `flutter doctor`

- Follow any setup instructions shown

7. Verify Dart SDK

- Dart comes with Flutter

- Run: `dart --version`

- Output should show Dart SDK version

8. Install Android Studio

- Download from: https://developer.android.com/studio

- Use default or custom setup

- Ensure “Android Virtual Device” is selected

- Finish installation

9. Install Flutter & Dart Plugins

- In Android Studio, go to Plugins

- Install Flutter → accept Dart plugin prompt

- Restart IDE

10. Accept Android Licenses

- In terminal: `flutter doctor --android-licenses`

- Type `y` to accept all prompts

11. Final Check

- Run `flutter doctor` again

- Ensure all items have green checkmarks

EXP 1B  
  
void main() {

var name = 'Sam';

int age = 20;

bool isAdult = age >= 18;

print('Hi, my name is $name.');

print(isAdult ? 'I am an adult.' : 'I am not an adult.');

greet(name);

for (int i = 1; i <= 3; i++) print('Step $i');

List<String> friends = ['Asha', 'Ben', 'Dia'];

for (var friend in friends) print('Hello, $friend!');

Person p = Person(name, age);

p.introduce();

try {

int res = 10 ~/ 0;

print('Result: $res');

} catch (e) {

print('Error: $e');

}

}

void greet(String name) {

print('Welcome, $name!');

}

class Person {

String name;

int age;

Person(this.name, this.age);

void introduce() => print('I\'m $name and I\'m $age years old.');

}

EXP 2A  
import 'package:flutter/material.dart';

void main() => runApp(const MainApp());

class MainApp extends StatelessWidget {

const MainApp({super.key});

@override

Widget build(BuildContext context) {

return MaterialApp(

title: '2305e3',

debugShowCheckedModeBanner: false, // Removes debug banner

home: Scaffold(

appBar: AppBar(

title: const Text('2305e3'), // Output window heading

),

body: Center(

child: Column(

mainAxisAlignment: MainAxisAlignment.center,

children: [

const Text(

'Welcome to Flutter!',

style: TextStyle(fontSize: 24),

),

const SizedBox(height: 16),

Image.network(

'https://upload.wikimedia.org/wikipedia/commons/1/17/Google-flutter-logo.png',

width: 200,

height: 200,

),

const SizedBox(height: 16),

Container(

width: 200,

height: 50,

color: Colors.blue,

child: const Center(

child: Text(

'Start',

style: TextStyle(color: Colors.white),

),

),

),

],

),

),

),

);

}

}

