

## Lab End Sem

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### 1a. Dart Basic Arithmetic Calculator

Develop a Dart application that performs basic arithmetic operations: addition, subtraction, multiplication, and division. The application should allow the user to input two numbers and select the operation to be performed.

SOLUTION:

```
import 'dart:io';

void main() {

  print("Enter first number:");

  double num1 = double.parse(stdin.readLineSync()!);

  print("Enter second number:");

  double num2 = double.parse(stdin.readLineSync()!);

  print("Select an operation:");

  print("1. Addition (+)");

  print("2. Subtraction (-)");

  print("3. Multiplication (*)");

  print("4. Division (/)");
```

```
int choice = int.parse(stdin.readLineSync()!);

double result;

switch (choice) {

  case 1:

    result = num1 + num2;

    print("Result: $result");

    break;

  case 2:

    result = num1 - num2;

    print("Result: $result");

    break;

  case 3:

    result = num1 * num2;

    print("Result: $result");

    break;

  case 4:

    if (num2 != 0) {

      result = num1 / num2;

      print("Result: $result");

    } else {

      print("Error: Division by zero is not allowed.");

    }

  }
```

```
        break;

    default:

        print("Invalid choice.");

    }

}
```

OUTPUT



### 1b. Flutter Image Gallery Application

Create a Flutter application that displays an image gallery with at least six images. Use a GridView to arrange the images attractively on the screen

SOLUTION:

```
import 'package:flutter/material.dart';
```

```
void main() {
```

```
  runApp(ImageGalleryApp());
```

```
}
```

```
class ImageGalleryApp extends StatelessWidget {
```

```
  @override
```

```
  Widget build(BuildContext context) {
```

```
    return MaterialApp(
```

```
      home: ImageGalleryScreen(),
```

```
    );
```

```
  }
```

```
}
```

```
class ImageGalleryScreen extends StatelessWidget {
```

```
  final List<String> images = [
```

```
    'assets/images/image1.jpg',
```

```
    'assets/images/image2.jpg',
```

```
    'assets/images/image3.jpg',
```

```
    'assets/images/image4.jpg',
```

```
'assets/images/image5.jpg',  
  
'assets/images/image6.jpg',  
  
];
```

```
@override
```

```
Widget build(BuildContext context) {  
  
  return Scaffold(  
  
    appBar: AppBar(  
  
      title: Text('Image Gallery'),  
  
    ),  
  
    body: Padding(  
  
      padding: const EdgeInsets.all(8.0),  
  
      child: GridView.builder(  
  
        gridDelegate: SliverGridDelegateWithFixedCrossAxisCount(  
  
          crossAxisCount: 2,  
  
          crossAxisSpacing: 8.0,  
  
          mainAxisSpacing: 8.0,  
  
        ),  
  
        itemCount: images.length,  
  
        itemBuilder: (context, index) {  
  
          return Image.asset(images[index], fit: BoxFit.cover);  
  
        },  
  
      ),  
  
    ),  
  
  ),  
  
);
```

```
),  
);  
}  
}
```

OUTPUT:

