Question# 01

Main.dart File

import 'student.dart';

void main(){

  Student student1 = Student(

    name: 'Madiha',

    id: 'S.S.2.0',

    courses: [ 'Math', 'English', 'Urdu','Statistics']

  );

  Student student2 = Student(

    name: 'Bismah',

    id: 'M.W.1.0',

    courses: ['History','Art','Commerce','Engineering']

  );

  student1.addCourse('Physics');

  student2.dropCourse('Art');

  student1.displayCourses();

  student2.displayCourses();

}

Student.dart File

class Student{

  String name , id;

  List<String> courses;

  Student({

    required this.name,

    required this.id,

    required this.courses,

  });

  void addCourse(String course){

    courses.add(course);

  }

  void dropCourse(String course){

    courses.remove(course);

  }

  void displayCourses(){

    print('Courses for $name($id)');

    for(var course in courses);

    print('-$courses');

  }

}

OUTPUT:

 Courses for Madiha(S.S.2.0)

 -[Math, English, Urdu, Statistics, Physics]

Courses for Bismah(M.W.1.0)

-[History, Commerce, Engineering]

Question# 02

Main.dart File

import 'BankAccout.dart';

void main(){

  BankAccount account1 = BankAccount(

    accountNumber: 246810,

    balance:  1050.465,

    accountType: 'Savings',

    interestRate: 0.05,

  );

BankAccount account2 = BankAccount(

  accountNumber: 135791,

  balance: 3456.765,

  accountType: 'Checking',

  interestRate: 0.03,

);

account1.deposit(488);

bool success =account2.withdraw(3356.7);

if(success){

  print('Withdrawal successful');

}

else{

  print('Insufficient balance');

}

account1.addInterest();

account2.addInterest();

account1.display();

print('\n');

account2.display();

}

class BankAccount{

  int accountNumber;

  double balance ,interestRate;

  String accountType;

BankAccount.dart File

  BankAccount({

    required this.accountNumber,

    required this.balance ,

    required this.interestRate ,

    required this.accountType

  });

  void deposit(double amount){

    balance += amount;

  }

  bool withdraw(double amount){

    if(amount<=balance){

      balance -= amount;

      return true;

    }

    return false;

  }

  void addInterest(){

    balance +=(balance\*interestRate);

  }

  void display(){

    print('Account Number:$accountNumber');

    print('Balance:\$${balance.toStringAsFixed(2)}');

    print('Account Type: $accountType');

    print('Interest Rate: ${(interestRate\*100).toStringAsFixed(2)}%');

  }

  }

OutPut

 Withdrawal successful

 Account Number:246810

Balance:$1615.39

Account Type: Savings

Interest Rate: 5.00%

 Account Number:135791

Balance:$103.07

 Account Type: Checking

Interest Rate: 3.00%