Name : Durr e Najaf

Quiz # 1

Test-1 (C)

Question: 1

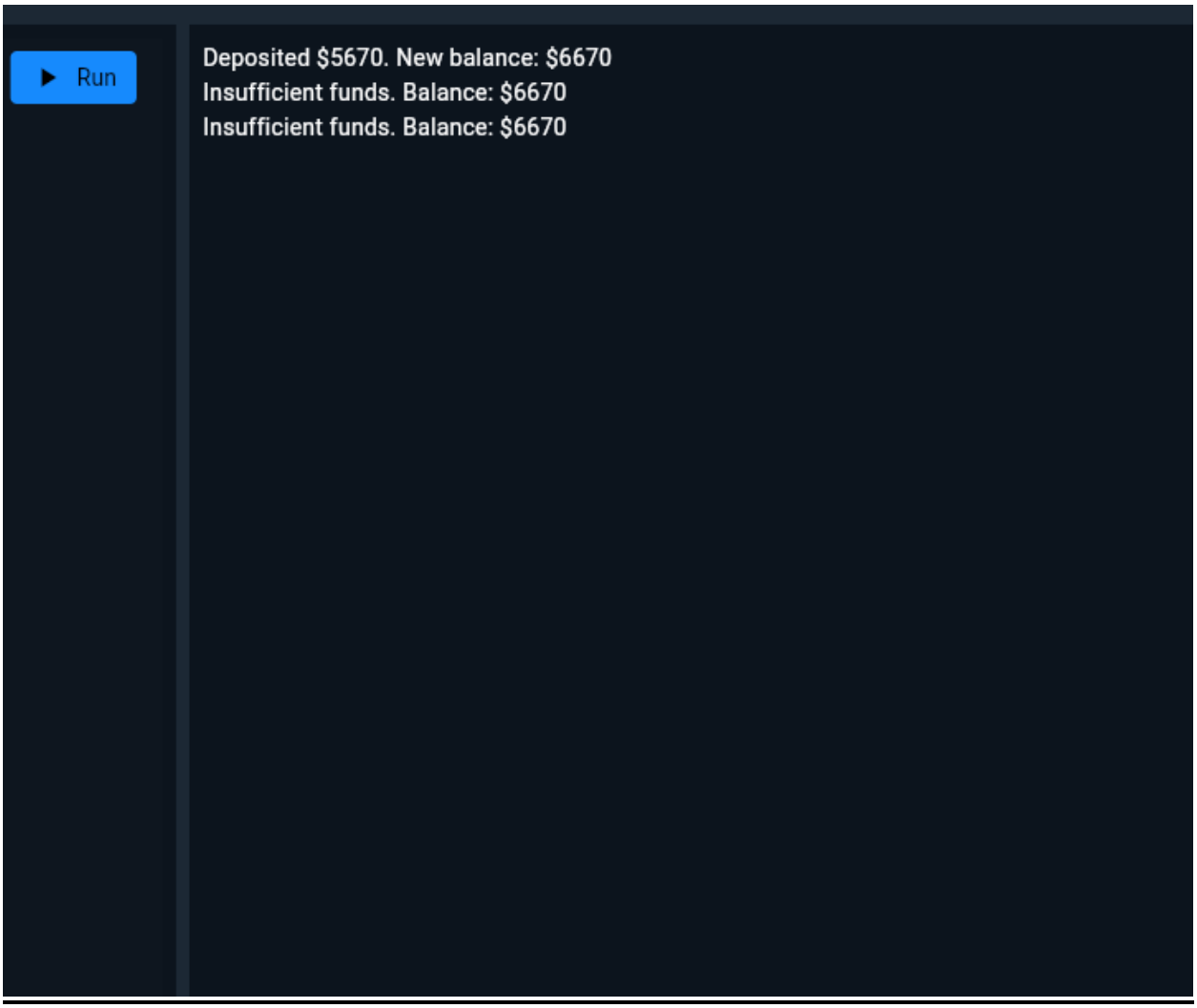
Implement a class BankAccount with properties accountNumber, balance, and owner. Write methods deposit and withdraw.

Code :

```
class BankAccount {
  String accountNumber;
  double balance;
  String owner;
  BankAccount(this.accountNumber, this.balance, this.owner);
  void deposit(double amount) {
    balance += amount;
    print("\$${amount} deposited. New balance: \$${balance}");
  }
  void withdraw(double amount) {
    if (amount <= balance) {
      balance -= amount;
      print("\$${amount} withdrawn. New balance: \$${balance}");
    } else {
      print("Insufficient funds. Available balance: \$${balance}");
    }
  }
}
void main() {
  BankAccount myAccount = BankAccount("123456789", 500.0, "Durr e Najaf");
  myAccount.deposit(150.0);
  myAccount.withdraw(100.0);
  myAccount.withdraw(600.0);
```

}

Output:



Question: 2

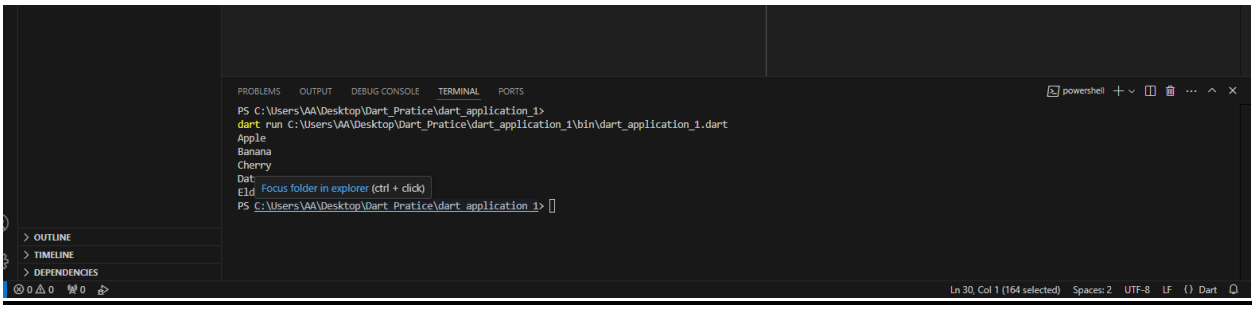
Create a program that uses a for loop to print the elements of a list.

Code :

```
void main() {
  List<String> fruits = ["Apple", "Banana", "Cherry", "Date", "Elderberry"];

  for (int i = 0; i < fruits.length; i++) {
    print(fruits[i]);
  }
```

}

Output:



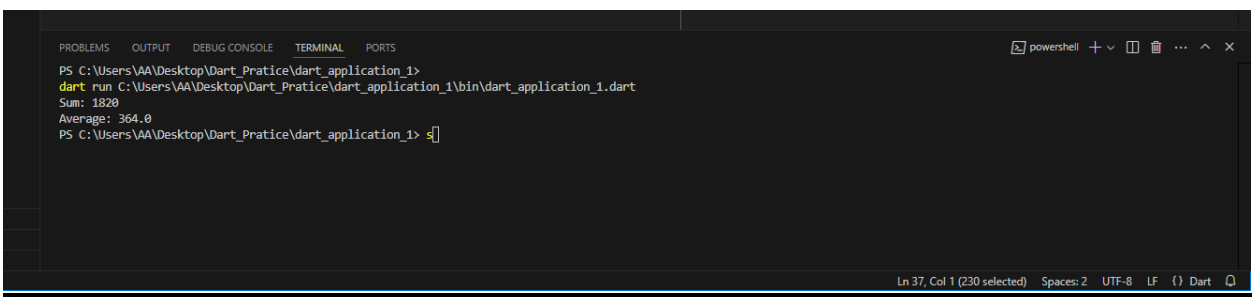
Question: 3

Write a program that creates a list of numbers and calculates the sum and average.

Code :

```
void main() {

 List<int> numbers = [100, 10, 670, 490, 550];


 int sum = 0;

 for (int number in numbers) {

  sum += number;

 }


 double average = sum / numbers.length;


 print("Sum: $sum");

 print("Average: $average");

}
```

Output :



Question: 4

Create a program that uses a static variable to cache results.

Code :

```
class CalculationCache {
  static int? cachedSum;

  static int calculateSum(int a, int b) {
    if (cachedSum == null) {
      cachedSum = a + b;
      print("Calculated and cached sum: $cachedSum");
    } else {
      print("Using cached sum: $cachedSum");
    }
    return cachedSum!;
  }
}

void main() {
  int sum1 = CalculationCache.calculateSum(5, 10);
  print("Sum1: $sum1");

  int sum2 = CalculationCache.calculateSum(20, 30);
  print("Sum2: $sum2");
}
```

Output :