ANAS AHMED

ASSIGNMENT 4

TASK 1 :

```dart
import 'dart:io';


void main() {
 final List<dynamic> _namelist = ["Bilal","Bilal","Bilal","Owais","Owais","Owais"];

List n = _namelist.toSet().toList();

print (n) ;


}
```

TASK 2:

```dart
import 'dart:io';


void main() {

List<dynamic>  numbers = [1,4,9,25,36,49,64,81,100];

List evens = [

 for (var n in numbers)

 if (n % 2 == 0) n

 ] ;

 print(evens);

}
```

TASK 3:

```dart
import 'dart:io';


void main() {
  int i, m = 0, flag = 0;
  print("Enter any number to check whether it is a prime number or not: ");
  int num = int.parse(stdin.readLineSync()!);
  m = num ~/ 2;
  for (i = 2; i <= m; i++) {
    if (num % i == 0) {
      print("$num is not a prime number.");
      flag = 1;
      break;
    }
  }
  if (flag == 0) {
    print("$num is a prime number.");
  }
}
```

TASK 4:

```dart
void main() {
  int table_of_num = 7;
  for (int i = 1; i <= 15; i++) {
    int table = table_of_num * i;
```

```dart
    print("$i: $table");

  }

}


TASK 5:

void main() {

  List fruits = ["apple", "banana", "mango", "orange", "strawberry"];

  for (int i = 0; i < fruits.length; i++) {

    print(fruits[i]);

  }

}


TASK 6:

void main() {

  for (int i = 1; i <= 100; i++) {

    if (i % 5 == 0) {

      print(i);

    }

  }

}


TASK 7:

void main() {

  num celsius1 = 45;

  num fahrenheit1 = num.parse(((celsius1 * (9 / 5)) + 32).toStringAsFixed(2));
```

```dart
    print("$celsius1 of C is $fahrenheit1 of F");


  num fahrenheit2 = 99;

  num celsius2 = num.parse(((fahrenheit2 - 32) * (5 / 9)).toStringAsFixed(2));

  print("$fahrenheit2 of F is $celsius2 of C");

}
```

TASK 8:

```dart
import 'dart:io';


void main() {

  print("<--- CALCULATOR PROGRAM --->");

  print("\nEnter first digit: ");

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

  print("Enter second digit: ");

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

  print("Enter operation: ");

  var symbol = stdin.readLineSync();


  if (symbol == '+') {

    num answer = num1 + num2;

    print("Sum = $answer");

  } else if (symbol == '-') {

    num answer = num1 - num2;

    print("Difference = $answer");
```

```dart
    } else if (symbol == '*') {

      num answer = num1 * num2;

      print("Product = $answer");

    } else if (symbol == '/') {

      num answer = num1 / num2;

      print("Division = $answer");

    } else if (symbol == '%') {

      num answer = num1 % num2;

      print("Modulus = $answer");

    }

}
```

TASK 9:

```dart
import 'dart:io';


void main() {

  print("Enter digit to check if it's a vowel or not: ");

  String? digit = stdin.readLineSync();

  if (digit == 'a' ||

      digit == 'e' ||

      digit == 'i' ||

      digit == 'o' ||

      digit == 'u') {

    print("It's a lowercase vowel!");

  } else if (digit == 'A' ||
```

```
          digit == 'E' ||

            digit == 'I' ||

            digit == 'O' ||

            digit == 'U') {

        print("It's an uppercase vowel!");

    } else {

        print("Not a vowel!");

    }

}
```

TASK 10:

```
void main() {

  String s = "Anas Ahmed";

  String temp = "";

  for (int i = s.length - 1; i >= 0; i--) {

    temp += s[i];

  }

  print(temp);

}
```

TASK 11:

```
void main() {

  final List<dynamic> _nameList = [

    "Ahmed",

    "Bilal",
```

```dart
    "Muhammad",

    "Owais",

    "Muhmmad",

    "Ali",

    "Ahmed"

  ];

  final List<dynamic> no_repetition = _nameList.toSet().toList();

  print(no_repetition);

}
```

TASK 12:

```dart
void main() {

  List arr = [1, 2, 3, 4, 6, 7];

  num total = (arr.length + 1) * (arr.length + 2) / 2;

  for (int i = 0; i < arr.length; i++) {

    total -= arr[i];

  }

  print("The missing number in the array is: $total");

}
```

TASK 13

```dart
void main() {

  List numbers = [12, 70, 56, 32, 45];

  int temp;

  for (int i = 0; i < 5; i++) {

    for (int j = i + 1; j < 5; j++) {
```

```
      if (numbers[j] < numbers[i]) {

        temp = numbers[i];

        numbers[i] = numbers[j];

        numbers[j] = temp;

      }

    }

  }

  print("${numbers[0]} is the smallest number!");

  print("${numbers.last} is the largest number!");

}
```

TASK 14:

```
void main() {

  List<int> arr = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

  int sum = 15;

  int pairs = 0;

  for (int i = 0; i < 11; i++) {

    for (int j = i + 1; j < 11; j++) {

      if (arr[i] + arr[j] == sum) {

        pairs++;

      }

    }

  }

  print("Number of pairs are: $pairs");

}
```