KOTLIN PROGRAMS FOR PRACTICE

1. Hello World

Problem: Write a Kotlin program to print "Hello, World!" on the screen.

```
fun main() {
    println("Hello, World!")
}
```

---

2. Sum of Two Numbers

Problem: Write a program to take two numbers as input and print their sum.

```
fun main() {
    println("Enter first number:")
    val num1 = readLine()!!.toInt()

    println("Enter second number:")
    val num2 = readLine()!!.toInt()

    val sum = num1 + num2
    println("The sum is: $sum")
}
```

---

3. Even or Odd

Problem: Write a Kotlin program to check if a number is even or odd.

```
fun main() {
    println("Enter a number:")
    val num = readLine()!!.toInt()

    if (num % 2 == 0) {
        println("$num is even.")
    } else {
        println("$num is odd.")
    }
}
```

KOTLIN PROGRAMS FOR PRACTICE

4. Factorial of a Number

Problem: Write a Kotlin program to calculate the factorial of a number.

```
fun main() {
    println("Enter a number:")
    val num = readLine()!!.toInt()
    var factorial = 1

    for (i in 1..num) {
        factorial *= i
    }
    println("Factorial of $num is $factorial")
}
```

---

5. Fibonacci Series

Problem: Write a Kotlin program to print the Fibonacci series up to n terms.

```
fun main() {
    println("Enter number of terms:")
    val n = readLine()!!.toInt()

    var t1 = 0
    var t2 = 1
    print("Fibonacci Series: $t1 $t2 ")

    for (i in 3..n) {
        val sum = t1 + t2
        print("$sum ")
        t1 = t2
        t2 = sum
    }
}
```

KOTLIN PROGRAMS FOR PRACTICE

6. Reverse a String

Problem: Write a Kotlin program to reverse a string.

```
fun main() {
    println("Enter a string:")
    val str = readLine()!!
    val reversed = str.reversed()

    println("Reversed string: $reversed")
}
```

---

7. Check Palindrome

Problem: Write a Kotlin program to check if a string is a palindrome.

```
fun main() {
    println("Enter a string:")
    val str = readLine()!!
    val reversed = str.reversed()

    if (str == reversed) {
        println("$str is a palindrome.")
    } else {
        println("$str is not a palindrome.")
    }
}
```

KOTLIN PROGRAMS FOR PRACTICE

8. Simple Calculator

Problem: Write a Kotlin program to perform basic arithmetic operations (+, -, *, /).

```
fun main() {
    println("Enter first number:")
    val num1 = readLine()!!.toDouble()

    println("Enter second number:")
    val num2 = readLine()!!.toDouble()

    println("Enter operator (+, -, *, /):")
    val operator = readLine()!!

    val result = when (operator) {
        "+" -> num1 + num2
        "-" -> num1 - num2
        "*" -> num1 * num2
        "/" -> num1 / num2
        else -> "Invalid operator"
    }

    println("The result is: $result")
}
```

KOTLIN PROGRAMS FOR PRACTICE

9. Prime Number Check

Problem: Write a Kotlin program to check if a number is a prime number.

```
fun main() {
    println("Enter a number:")
    val num = readLine()!!.toInt()
    var isPrime = true

    if (num <= 1) isPrime = false

    for (i in 2 until num) {
        if (num % i == 0) {
            isPrime = false
            break
        }
    }

    if (isPrime) {
        println("$num is a prime number.")
    } else {
        println("$num is not a prime number.")
    }
}
```

---

10. Array Operations

Problem: Write a Kotlin program to find the largest element in an array.

```
fun main() {
    val numbers = intArrayOf(3, 5, 7, 2, 8)

    val max = numbers.maxOrNull() ?: "Array is empty"
    println("Largest element is: $max")
}
```