**Task 1:**

#include <stdio.h>

int main() {

    int num1, num2;

    int \*ptr1, \*ptr2, sum;

    printf("Enter the first number: ");

    scanf("%d", &num1);

    printf("Enter the second number: ");

    scanf("%d", &num2);

    ptr1 = &num1;

    ptr2 = &num2;

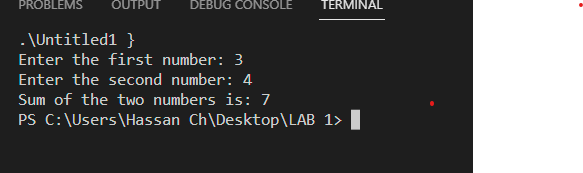
    sum = \*ptr1 + \*ptr2;

    printf("Sum of the two numbers is: %d\n", sum);

    return 0;

}

**Output:**



**Task 2:**

#include <stdio.h>

void generateFibonacci(int n) {

    if (n <= 0) {

        return;

    }

    int first = 0, second = 1, next;

    int \*ptrFirst = &first, \*ptrSecond = &second;

    printf("Fibonacci Series up to %d terms:\n", n);

    for (int i = 1; i <= n; ++i) {

        printf("%d, ", \*ptrFirst);

        next = \*ptrFirst + \*ptrSecond;

        \*ptrFirst = \*ptrSecond;

        \*ptrSecond = next;

    }

    printf("\n");

}

int main() {

    int terms;

    printf("Enter the number of terms in the Fibonacci series: ");

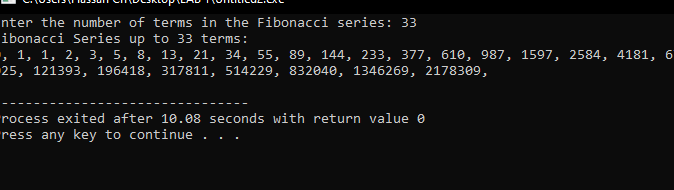
    scanf("%d", &terms);

    generateFibonacci(terms);

    return 0;

}

**Output:**



**Task 3:**

#include <stdio.h>

int findGCD(int a, int b) {

    int \*ptrA = &a, \*ptrB = &b;

    while (\*ptrA != \*ptrB) {

        if (\*ptrA > \*ptrB) {

            \*ptrA = \*ptrA - \*ptrB;

        } else {

            \*ptrB = \*ptrB - \*ptrA;

        }

    }

    return \*ptrA;

}

int main() {

    int num1, num2;

    printf("Enter the first number: ");

    scanf("%d", &num1);

    printf("Enter the second number: ");

    scanf("%d", &num2);

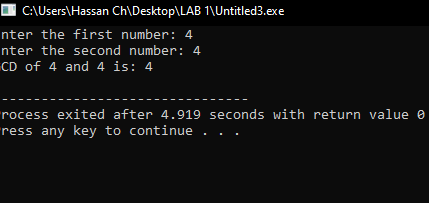
    int gcd = findGCD(num1, num2);

    printf("GCD of %d and %d is: %d\n", num1, num2, gcd);

    return 0;

}

**Output:**



**Task 4:**

#include <stdio.h>

int reverseNumber(int number) {

    int reversed = 0;

    int \*ptrReversed = &reversed;

    while (number != 0) {

        int digit = number % 10;

        \*ptrReversed = (\*ptrReversed) \* 10 + digit;

        number /= 10;

    }

    return \*ptrReversed;

}

int main() {

    int num;

    printf("Enter a number: ");

    scanf("%d", &num);

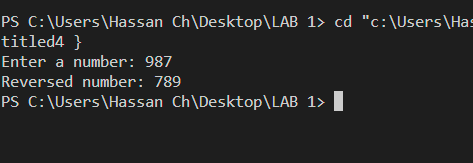
    int reversed = reverseNumber(num);

    printf("Reversed number: %d\n", reversed);

    return 0;

}

**Output:**



**Task 5:**

#include <stdio.h>

#include <stdbool.h>

bool isPrime(int \*num) {

    if (\*num <= 1) {

        return false;

    }

    for (int i = 2; i \* i <= \*num; ++i) {

        if (\*num % i == 0) {

            return false;

        }

    }

    return true;

}

int main() {

    int num;

    printf("Enter a number: ");

    scanf("%d", &num);

    if (isPrime(&num)) {

        printf("%d is a prime number.\n", num);

    } else {

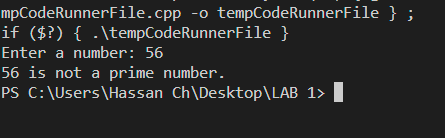
        printf("%d is not a prime number.\n", num);

    }

    return 0;

}

**Output:**



**Task 6:**

#include <stdio.h>

int isPalindrome(int \*num) {

    int original = \*num;

    int reversed = 0;

    int remainder;

    while (\*num > 0) {

        remainder = \*num % 10;

        reversed = reversed \* 10 + remainder;

        \*num /= 10;

    }

    return (original == reversed);

}

int main() {

    int num;

    printf("Enter a number: ");

    scanf("%d", &num);

    if (isPalindrome(&num)) {

        printf("%d is a palindrome.\n", num);

    } else {

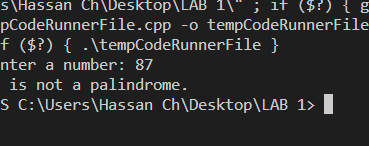
        printf("%d is not a palindrome.\n", num);

    }

    return 0;

}

**OUTPUT:**



**Task 7:**

#include <stdio.h>

int sumOfDigits(int \*num) {

    int original = \*num;

    int sum ;

    while (\*num > 0) {

        sum += \*num % 10;

        \*num /= 10;

    }

    return sum;

}

int main() {

    int num;

    printf("Enter a number: ");

    scanf("%d", &num);

    int sum = sumofDigits(&num);

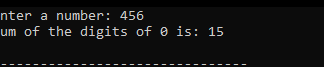
    printf("Sum of the digits of %d is: %d\n", num, sum);

    return 0;

}

**Output:**

:



**Task 8:**

#include <stdio.h>

int calculatePower(int base, int exponent) {

    int result = 1;

    int \*ptrResult = &result;

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

        \*ptrResult \*= base;

    }

    return \*ptrResult;

}

int main() {

    int base, exponent;

    printf("Enter the base number: ");

    scanf("%d", &base);

    printf("Enter the exponent: ");

    scanf("%d", &exponent);

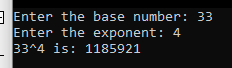
    int power = calculatePower(base, exponent);

    printf("%d^%d is: %d\n", base, exponent, power);

    return 0;

}

**Output:**



**Task 9:**

#include <stdio.h>

int calculateArraySum(int \*arr, int size) {

    int sum = 0;

    int \*ptrSum = &sum;

    for (int i = 0; i < size; ++i) {

        \*ptrSum += arr[i];

    }

    return \*ptrSum;

}

int main() {

    int size;

    printf("Enter the size of the array: ");

    scanf("%d", &size);

    int arr[size];

    printf("Enter %d elements:\n", size);

    for (int i = 0; i < size; ++i) {

        scanf("%d", &arr[i]);

    }

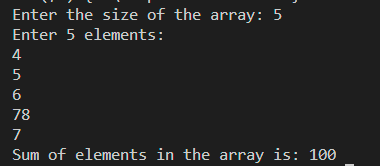
    int sum = calculateArraySum(arr, size);

    printf("Sum of elements in the array is: %d\n", sum);

    return 0;

}

**Output:**



**Task 10:**

#include <stdio.h>

void subtractNumbers(int \*result, int num1, int num2) {

    \*result = num1 - num2;

}

int main() {

    int num1, num2, result;

    printf("Enter the first number: ");

    scanf("%d", &num1);

    printf("Enter the second number: ");

    scanf("%d", &num2);

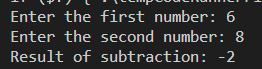
    subtractNumbers(&result, num1, num2);

    printf("Result of subtraction: %d\n", result);

    return 0;

}

**Output:**



**Task 11:**

#include <stdio.h>

void compareNumbers(int \*num1, int \*num2) {

    if (\*num1 > \*num2) {

        printf("%d is greater than %d\n", \*num1, \*num2);

    } else if (\*num1 < \*num2) {

        printf("%d is greater than %d\n", \*num2, \*num1);

    } else {

        printf("%d and %d are equal\n", \*num1, \*num2);

    }

}

int main() {

    int num1, num2;

    printf("Enter the first number: ");

    scanf("%d", &num1);

    printf("Enter the second number: ");

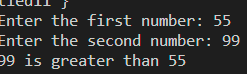
    scanf("%d", &num2);

    compareNumbers(&num1, &num2);

    return 0;

}

**Output:**



**Task 12:**

#include <stdio.h>

void calculateRectangleArea(float length, float width, float \*area) {

    \*area = length \* width;

}

int main() {

    float length, width, area;

    printf("Enter the length of the rectangle: ");

    scanf("%f", &length);

    printf("Enter the width of the rectangle: ");

    scanf("%f", &width);

    calculateRectangleArea(length, width, &area);

    printf("Area of the rectangle is: %.2f\n", area);

    return 0;

}

**Output:**



**Task 13:**

#include <stdio.h>

void divideNumbers(double \*result, double num1, double num2) {

    if (num2 != 0) {

        \*result = num1 / num2;

    } else {

        \*result = 0;

    }

}

int main() {

    double num1, num2, result;

    printf("Enter the numerator: ");

    scanf("%lf", &num1);

    printf("Enter the denominator: ");

    scanf("%lf", &num2);

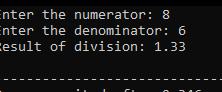
    divideNumbers(&result, num1, num2);

    printf("Result of division: %.2lf\n", result);

    return 0;

}

**Output:**



**Task 14:**

#include <stdio.h>

void multiplyNumbers(int \*result, int num1, int num2) {

    \*result = num1 \* num2;

}

int main() {

    int num1, num2, result;

    printf("Enter the first number: ");

    scanf("%d", &num1);

    printf("Enter the second number: ");

    scanf("%d", &num2);

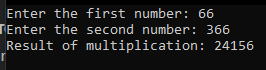
    multiplyNumbers(&result, num1, num2);

    printf("Result of multiplication: %d\n", result);

    return 0;

}

**Output:**



**Task 15:**

#include <stdio.h>

int main() {

    double radius;

    double circumference;

    printf("Enter the radius of the circle: ");

    scanf("%lf", &radius);

    double \*ptr\_radius = &radius;

    double \*ptr\_circumference = &circumference;

    \*ptr\_circumference = 2 \* 3.14159 \* (\*ptr\_radius);

    printf("Circumference of the circle: %.2lf\n", \*ptr\_circumference);

    return 0;

}

**Output:**

