

```
assignment3.....cpp
1  #include <stdio.h>
2  #include <string.h>
3  void reverse(char *str) {
4      int i, j;
5      char temp;
6      int n = strlen(str);
7      for (i = 0, j = n - 1; i < j; i++, j--) {
8          temp = *(str + i);
9          *(str + i) = *(str + j);
10         *(str + j) = temp;
11     }
12 }
13 int main() {
14     char str[100];
15     printf("Enter any string: ");
16     scanf("%s", str);
17     reverse(str);
18     printf("The Reverse of the String [ %s ] is :: %s\n", str, str);
19     return 0;
20 }
```

es Compile Loc... Debug Find Results Close

Shot on OnePlus
Powered by Triple Camera

```
C:\Users\mahis\OneDrive\Doc... x + v
Enter any string: good
The Reverse of the String [ doog ] is :: doog

-----
Process exited after 45.93 seconds with return value 0
Press any key to continue . . .
```

```
1 #include <stdio.h>
2 int main()
3 {
4     int arr1[10], arr2[10], i;
5     int *p1, *p2;
6     printf("Input array1 elements: ");
7     for (i = 0; i < 10; i++) {
8         scanf("%d", &arr1[i]);
9     }
10    p1 = arr1;
11    p2 = arr2;
12    for (i = 0; i < 10; i++) {
13        *(p2 + i) = *(p1 + i);
14    }
15    printf("\nArray1: ");
16    for (i = 0; i < 10; i++) {
17        printf("%d ", arr1[i]);
18    }
19    printf("\nArray2: ");
20    for (i = 0; i < 10; i++) {
21        printf("%d ", arr2[i]);
22    }
23    return 0;
24 }
```

```
C:\Users\mahis\OneDrive\Doi x + v
Input array1 elements: 10 -1 100 90 87 0 15 10 20 30
Array1: 10 -1 100 90 87 0 15 10 20 30
Array2: 10 -1 100 90 87 0 15 10 20 30
-----
Process exited after 60.27 seconds with return value 0
Press any key to continue . . .
```

assignment 3.....cpp

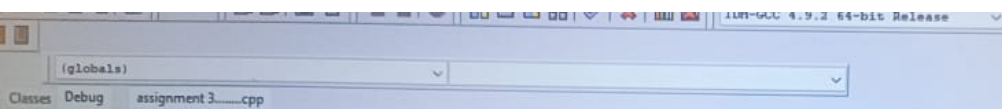
```
1  #include <stdio.h>
2  #include <string.h>
3  void swap(char *a, char *b) {
4      char temp = *a;
5      *a = *b;
6      *b = temp;
7  }
8  void permute(char *str, int start, int end) {
9      if (start == end) {
10         printf("%s\n", str);
11     } else {
12         for (int i = start; i <= end; i++) {
13             swap(str + start, str + i);
14             permute(str, start + 1, end);
15             swap(str + start, str + i);
16         }
17     }
18 }
19 int main() {
20     char str[100];
21     printf("Enter a string: ");
22     scanf("%s", str);
23     printf("All possible permutations are:\n");
24     permute(str, 0, strlen(str) - 1);
25     return 0;
26 }
```

C:\Users\mahis\OneDrive\Do

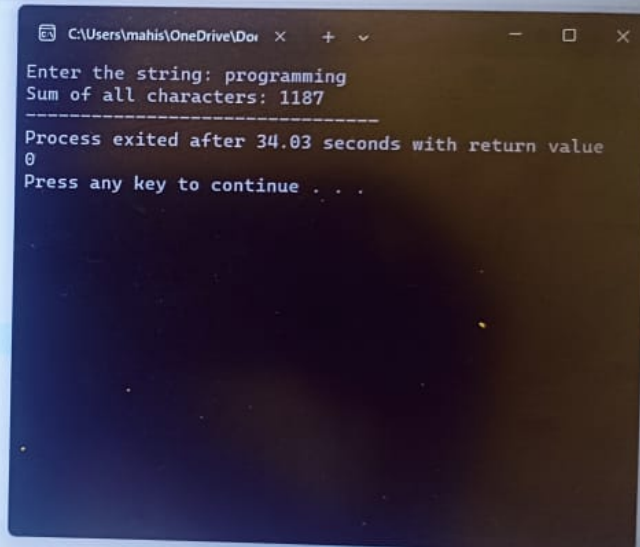
Enter a string: wow
All possible permutations are:

wow
wwo
oww
oww
wow
wwo

Process exited after 6.44 seconds with return value 0
Press any key to continue . . . |



```
1 #include <stdio.h>
2 int main() {
3     char str[10];
4     int sum = 0;
5     printf("Enter the string: ");
6     gets(str);
7     for (int i = 0; str[i] != '\0'; i++) {
8         sum += (int)str[i];
9     }
10    printf("Sum of all characters: %d", sum);
11    return 0;
12 }
```



```
(globals)
assignment 3.....cpp
13 len2 = strlen(str2) - 1;
14 if (len1 != len2) {
15     printf("Strings are not anagrams\n");
16     return 0;
17 }
18 for (i = 0; i < len1; i++) {
19     freq1[str1[i] - 'a']++;
20 }
21 for (i = 0; i < len2; i++) {
22     freq2[str2[i] - 'a']++;
23 }
24 flag = 1;
25 for (i = 0; i < 26; i++) {
26     if (freq1[i] != freq2[i]) {
27         flag = 0;
28         break;
29     }
30 }
31 if (flag) {
32     printf("%s and %s are anagrams\n", str1, str2);
33 } else {
34     printf("%s and %s are not anagrams\n", str1, str2);
35 }
36 return 0;
37 }
```

```
C:\Users\mahis\OneDrive\Doc x + v
Enter first string: hellow
Enter second string: hi
Strings are not anagrams

-----
Process exited after 18.62 seconds with return value 0
Press any key to continue . . .
```

```
(globals)
Classes Debug assignment 3.....cpp
1 #include <stdio.h>
2 #include <string.h>
3 #define MAX_SIZE 100
4 int main()
5     char str1[MAX_SIZE], str2[MAX_SIZE];
6     int freq1[26] = {0}, freq2[26] = {0};
7     int i, len1, len2, flag;
8     printf("Enter first string: ");
9     fgets(str1, MAX_SIZE, stdin);
10    printf("Enter second string: ");
11    fgets(str2, MAX_SIZE, stdin);
12    len1 = strlen(str1) - 1;
13    len2 = strlen(str2) - 1;
14    if (len1 != len2) {
15        printf("Strings are not anagrams\n");
16        return 0;
17    }
18    for (i = 0; i < len1; i++) {
19        freq1[str1[i] - 'a']++;
20    }
21    for (i = 0; i < len2; i++) {
22        freq2[str2[i] - 'a']++;
23    }
24    flag = 1;
25    for (i = 0; i < 26; i++) {
```

```
C:\Users\mahis\OneDrive\Do... x + v
Enter first string: hellow
Enter second string: hi
Strings are not anagrams

-----
Process exited after 18.62 seconds with return value 0
Press any key to continue . . .
```



```
Debug assignment 3.....cpp
1 #include <stdio.h>
2 #include <string.h>
3 #define MAX_SIZE 100
4 int main() {
5     char str[MAX_SIZE];
6     int i, j, max_freq, freq;
7     char max_char;
8     printf("Enter a string: ");
9     fgets(str, MAX_SIZE, stdin);
10    max_freq = -1;
11    for (i = 0; str[i] != '\0'; i++) {
12        freq = 1;
13        for (j = i + 1; str[j] != '\0'; j++) {
14            if (str[j] == str[i]) {
15                freq++;
16            }
17        }
18        if (freq > max_freq) {
19            max_freq = freq;
20            max_char = str[i];
21        }
22    }
23    printf("Max repeated character in the string = %c\n", max_char);
24    printf("It occurs %d times\n", max_freq);
25    return 0;
}
```

Shot on OnePlus
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Compile Log Debug Find Results Close

```
C:\Users\mahis\OneDrive\Do x + v - □ X
Enter a string: ashok kumar
Max repeated character in the string = a
It occurs 2 times

-----
Process exited after 18.26 seconds with return va
lue 0
Press any key to continue . . . |
```

```
(globals)
assignment 3.....cpp
1 #include <stdio.h>
2 int gcd(int a, int b) {
3     if (b == 0) {
4         return a;
5     } else {
6         return gcd(b, a % b);
7     }
8 }
9 int lcm(int a, int b) {
10    int result = (a * b) / gcd(a, b);
11    return result;
12 }
13 int main() {
14    int a, b, result;
15    printf("Enter two integers: ");
16    scanf("%d %d", &a, &b);
17    result = lcm(a, b);
18    printf("LCM of %d and %d is %d\n", a, b, result);
19    return 0;
20 }
```

Resources Compile Log Debug Find Results Close

Compilation results...

Shot on OnePlus
Powered by Triple Camera

```
C:\Users\mahis\OneDrive\Doi x + v
Enter two integers: 8 6
LCM of 8 and 6 is 24

-----
Process exited after 14.62 seconds with return value 0
Press any key to continue . . .
```



```

1 #include <stdio.h>
2 int gcd(int a, int b)
3 {
4     if (b == 0)
5     {
6         return a;
7     } else
8     {
9         return gcd(b, a % b);
10    }
11 }
12 int main()
13 {
14     int a, b, result;
15     printf("Enter two integers: ");
16     scanf("%d %d", &a, &b);
17     result = gcd(a, b);
18     printf("GCD of %d and %d is %d\n", a, b, result);
19     return 0;
20 }

```

```

C:\Users\mahis\OneDrive\Do...
Enter two integers: 8
9
GCD of 8 and 9 is 1

-----
Process exited after 18.5 seconds with return value 0
Press any key to continue . . .

```

```

1 #include <stdio.h>
2 int isPrime(int n) {
3     int i;
4     if(n == 1) {
5         return 0;
6     }
7     for(i = 2; i <= n/2; ++i) {
8         if(n % i == 0) {
9             return 0;
10        }
11    }
12    return 1;
13 }
14 int main() {
15     int n, i, flag = 0;
16     printf("Enter a positive integer: ");
17     scanf("%d", &n);
18     for(i = 2; i <= n/2; ++i) {
19         if(isPrime(i)) {
20             if(isPrime(n-i)) {
21                 printf("%d = %d + %d\n", n, i, n-i);
22                 flag = 1;
23             }
24         }
25     }
26     if(!flag) {
27         printf("%d cannot be expressed as the sum of two prime numbers.\n", n);
28     }
29     return 0;
30 }

```

```

C:\Users\mahis\OneDrive\Dor x + v - □ x
Enter a positive integer: 4
4 = 2 + 2

-----
Process exited after 8.725 seconds with return value
0
Press any key to continue . . .

```

```
1 #include <stdio.h>
2 int isPrime(int num);
3 int main()
4 {
5     int start, end, i, flag;
6     printf("Enter two positive integers: ");
7     scanf("%d %d", &start, &end);
8     printf("Prime numbers between %d and %d are: ", start, end);
9     for(i=start+1; i<end; i++)
10     {
11         flag = isPrime(i);
12         if(flag == 1)
13             printf("%d ", i);
14     }
15     return 0;
16 }
17 int isPrime(int num) {
18     int j;
19     for(j=2; j<=num/2; j++)
20     {
21         if(num % j == 0)
22             return 0;
23     }
24     return 1;
25 }
```

Compilation results...

Errors: 0
Warnings: 0

Output Filename: C:\Users\mahis\OneDrive\Documents\assignment 3.exe
Output Size: 129,130,593,75 KiB

```
C:\Users\mahis\OneDrive\Documents\assignment 3.exe
Enter two positive integers: 4,5
Prime numbers between 4 and 5 are:
-----
Process exited after 20.91 seconds with return value 0
Press any key to continue . . .
```