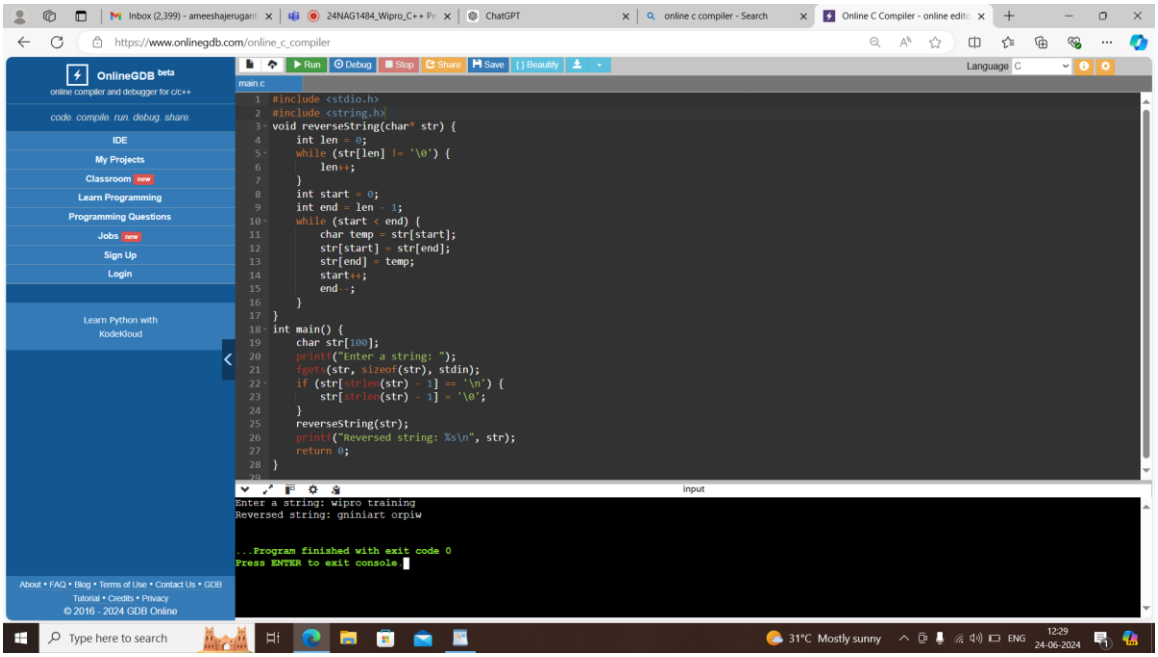
1. write a c program to reverse a string without using additional library functions?

```
#include <stdio.h>

#include <string.h>

void reverseString(char* str) {

	int len = 0;

	while (str[len] != '\0') {

		len++;

	}

	int start = 0;

	int end = len - 1;

	while (start < end) {

		char temp = str[start];

		str[start] = str[end];

		str[end] = temp;

		start++;

		end--;

	}

}

int main() {

	char str[100];

	printf("Enter a string: ");

	fgets(str, sizeof(str), stdin);

	if (str[strlen(str) - 1] == '\n') {
```

```
        str[strlen(str) - 1] = '\0';
    }
    reverseString(str);
    printf("Reversed string: %s\n", str);
    return 0;
}
```

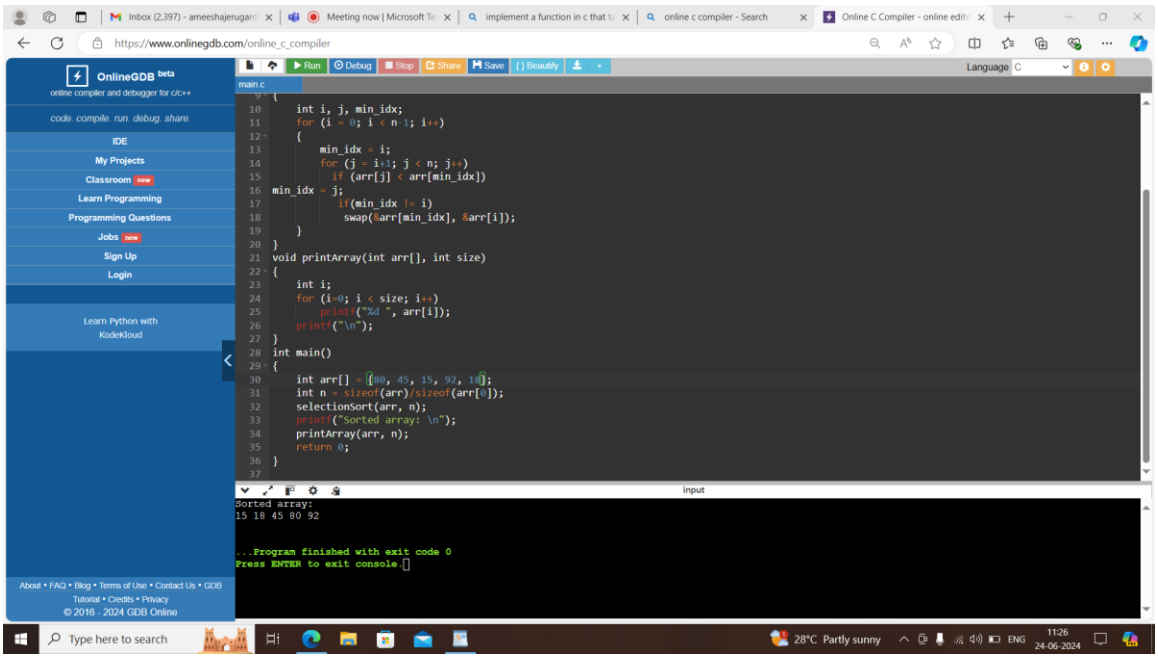


2.C program for implementation of selection sort

```
#include <stdio.h>

void swap(int *xp, int *yp)

{

    int temp = *xp;

    *xp = *yp;

    *yp = temp;

}

void selectionSort(int arr[], int n)
```

```
{
        int i, j, min_idx;
        for (i = 0; i < n-1; i++)
        {
                min_idx = i;
                for (j = i+1; j < n; j++)
                    if (arr[j] < arr[min_idx])
                        min_idx = j;
                    if(min_idx != i)
                        swap(&arr[min_idx], &arr[i]);
        }
}
void printArray(int arr[], int size)
{
        int i;
        for (i=0; i < size; i++)
                printf("%d ", arr[i]);
        printf("\n");
}
int main()
{
        int arr[] = {64, 25, 12, 22, 11};
        int n = sizeof(arr)/sizeof(arr[0]);
        selectionSort(arr, n);
        printf("Sorted array: \n");
```

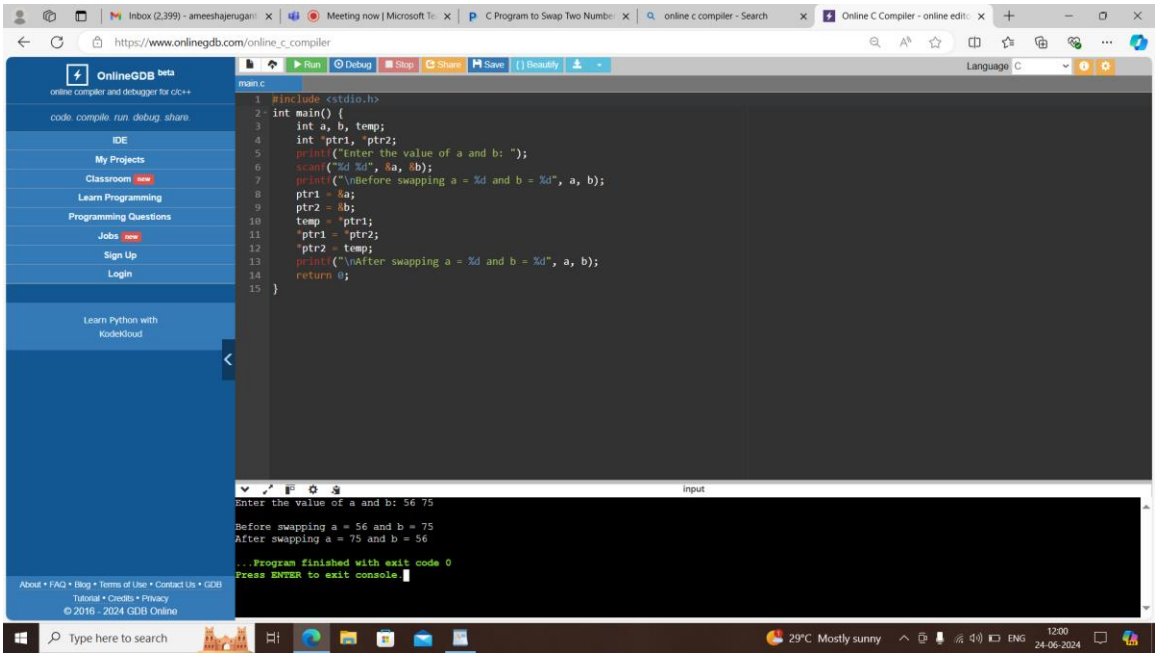
```
    printArray(arr, n);

    return 0;

}
```



3.SWAP TWO NUMBERS:-

```
include <stdio.h>

int main() {

    int a, b, temp;

    int *ptr1, *ptr2;

    printf("Enter the value of a and b: ");

    scanf("%d %d", &a, &b);

    printf("\nBefore swapping a = %d and b = %d", a, b);

    ptr1 = &a;

    ptr2 = &b;

    temp = *ptr1;
```

```
    *ptr1 = *ptr2;
    *ptr2 = temp;
    printf("\nAfter swapping a = %d and b = %d", a, b);
    return 0;
}
```



5. STUDENTS DETAILS :-

```
#include <stdio.h>
struct student {
    char name[50];
    int roll;
    float marks;
} s;
int main() {
    printf("Enter information:\n");
```

```
    printf("Enter name: ");
    fgets(s.name, sizeof(s.name), stdin);
    printf("Enter roll number: ");
    scanf("%d", &s.roll);
    printf("Enter marks: ");
    scanf("%f", &s.marks);
    printf("Displaying Information:\n");
    printf("Name: ");
    printf("%s", s.name);
    printf("Roll number: %d\n", s.roll);
    printf("Marks: %.1f\n", s.marks);
    return 0;
}
```