# Clase 4: 16 Agosto Practica 1

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| Class | Compiladores ⚙️ |

## Ejercicio 1

```
#include <stdio.h>

int main()
{
    int x;
    int y;
    int sum_grade;
    double final_grade;
    printf("Cantidad de calificaciones a ingresar ");
    scanf("%d", &x);
    for(int i = 0; i < x; i++){
        printf("Ingresa la calificacion ");
        scanf("%d",&y);
        while(y < 0 || y > 10){
            printf("error, ingrese nuevamente el valor ");
            scanf("%d",&y);
            if(y < 0 || y > 10){
                x++;
            }
        }
        sum_grade = y + sum_grade;
        //printf("Suma %d", sum_grade);
    }
    //printf("Suma total calificaciones %d", sum_grade);
    final_grade = sum_grade/x;

    if(final_grade >= 6 ){
        printf("Felicidades aprobaste-> %lf",final_grade);
    }else{
        printf("Reprobado -> %lf",final_grade);
    }
```

```
    return 0;
}
```

## Ejercicio 2

```
#include <stdio.h>

int main()
{
    int pisos=0;
    int filas=0;
    int columnas=0;
    printf("Ingresa el numero de pisos para la piramide -> ");
    scanf("%d",&pisos);

    for(filas = 1; filas <= pisos; filas++)
    {
        for(columnas=1; columnas <= 2*pisos-1; columnas++)
        {
            if(columnas >= pisos-(filas-1) && columnas <= pisos+(filas-1) ){
                printf("*");

            }else
            {
                printf(" ");
            }
        }

        printf("\n");
    }
    return 0;
}
```

## Ejercicio 3

```
#include <stdio.h>


int a;
int b;
    int maximo_comun_divisor_recursivo(int a, int b) {
    if (b == 0) return a;
    return maximo_comun_divisor_recursivo(b, a % b);

        }
int main(void) {
    printf("%d\n",maximo_comun_divisor_recursivo(24,36));
```

```
    return 0;
```

## Ejercicio 4

```
#include <stdio.h>
void selectionSort(int array[]){

    int n = 10;

    for(int i = 0; i < n -1; i++){

        int min_indice = i;

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

            if(array[j] < array[min_indice]){

                min_indice = j;
            }
        }
        int temp = array[i];
        array[i] = array[min_indice];
        array[min_indice] = temp;
    }
}
//2,43, 3, 1, 9, 23, 12, 8, 56, 12, 21

int main(void){
    int arr[] = {2, 43, 3, 1, 9, 23, 12, 8, 56, 12, 21};
    selectionSort(arr);

    int n = 10;
    for (int i = 0; i < n; i++) {
            printf("%d ", arr[i]);
        }
    return 0;
}
```