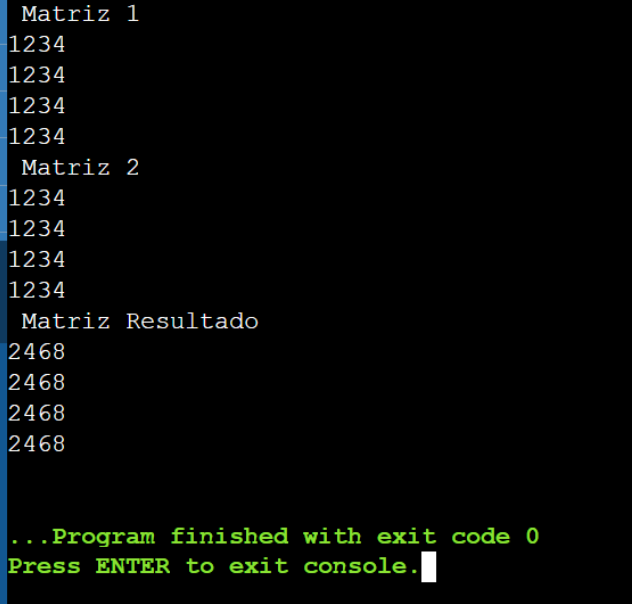


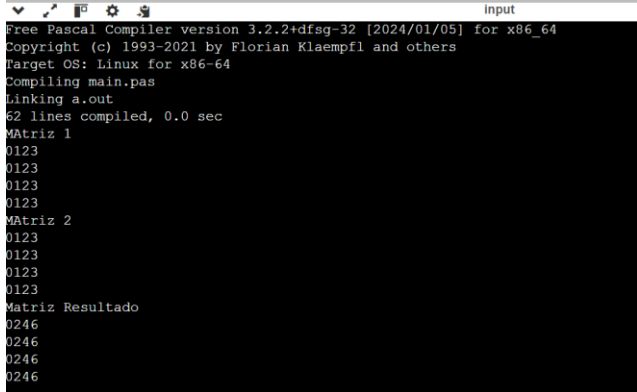
Reporte de Examen práctico.

Problema: Calcular la suma de dos matrices.

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Código en el lenguaje Fortran	Ejecución
<pre> Program SumaMatriz INTEGER :: matriz1(4,4) INTEGER :: matriz2(4,4) INTEGER :: matrizRes(4,4) INTEGER :: i,j DO i = 1 , 4 DO j = 1 , 4 matriz1(i,j) = j matriz2(i,j) = j END DO END DO Print *, "Matriz 1" DO i = 1 , 4 DO j = 1 , 4 WRITE(*, '(I0, A)', ADVANCE='NO') matriz1(i,j) END DO print *, "" END DO Print *, "Matriz 2" DO i = 1 , 4 DO j = 1 , 4 WRITE(*, '(I0, A)', ADVANCE='NO') matriz2(i,j) END DO print *, "" END DO DO i = 1 , 4 DO j = 1 , 4 </pre>	 <p>The screenshot shows the output of the Fortran program. It displays 'Matriz 1' followed by four lines of '1234'. Then it displays 'Matriz 2' followed by four lines of '1234'. Next, it displays 'Matriz Resultado' followed by four lines of '2468'. At the bottom, it shows the message '...Program finished with exit code 0 Press ENTER to exit console.' with a cursor at the end.</p>

<pre> matrizRes(i,j) = matriz1(i,j) + matriz2(i,j) END DO END DO Print *, "Matriz Resultado" DO i = 1, 4 DO j = 1, 4 WRITE(*, '(I0, A)', ADVANCE='NO') matrizRes(i,j) END DO print *, "" END DO End Program SumaMatriz </pre>	
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Código en el lenguaje Pascal	Ejecución
<pre> program Hello; var matriz1 : ARRAY[0..3,0..3] OF INTEGER; matriz2 : ARRAY[0..3,0..3] OF INTEGER; matrizRes : ARRAY[0..3,0..3] OF INTEGER; i,j : INTEGER; begin for i := 0 to 3 do begin for j := 0 to 3 do begin matriz1[i,j] := j; matriz2[i,j] := j; end; end; writeln('MAtriz 1'); for i := 0 to 3 do begin for j := 0 to 3 do begin write(matriz1[i,j]); end; writeln; end; end; end; end; end; </pre>	 <pre> Free Pascal Compiler version 3.2.2+dfsg-32 [2024/01/05] for x86_64 Copyright (c) 1993-2021 by Florian Klaempfl and others Target OS: Linux for x86-64 Compiling main.pas Linking a.out 62 lines compiled, 0.0 sec MAtriz 1 0123 0123 0123 0123 MAtriz 2 0123 0123 0123 0123 Matriz Resultado 0246 0246 0246 0246 0246 </pre>

<pre> end; writeln('MATriz 2'); for i := 0 to 3 do begin for j := 0 to 3 do begin write(matriz2[i,j]); end; writeln; end; for i := 0 to 3 do begin for j := 0 to 3 do begin matrizRes[i,j] := matriz1[i,j] + matriz2[i,j]; end; end; writeln('Matriz Resultado'); for i := 0 to 3 do begin for j := 0 to 3 do begin write(matrizRes[i,j]); end; writeln; end; end. </pre>	
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Código en el lenguaje C/C++	Ejecución
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```
#include <stdio.h>
#include <iostream>

int main()
{
    int matriz1[4][4], matriz2[4][4], matrizRes[4][4];
    //matriz 1,2 y en la que se guardara el resultado
    int i,j; //contadores para sumar

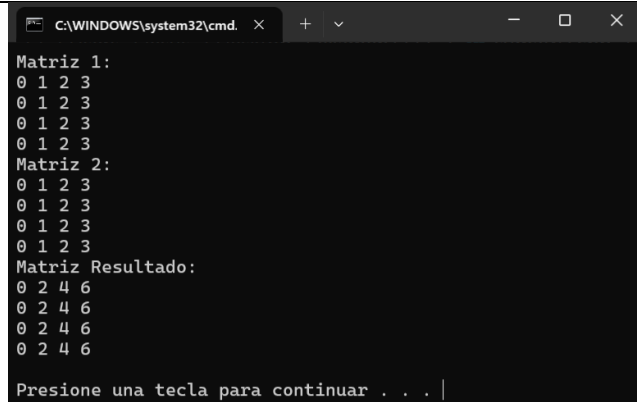
    for (i = 0; i < 4; i++) { //asigna valor a las matrices
        for (j = 0; j < 4; j++) {
            matriz1[i][j] = j;
            matriz2[i][j] = j;
        }
    }

    std::cout << "Matriz 1: " << std::endl;
    for (i = 0; i < 4; i++) { //imprime la matriz 1
        for (j = 0; j < 4; j++) {
            std::cout << matriz1[i][j] << " ";
        }
        std::cout << std::endl;
    }

    std::cout << "Matriz 2: " << std::endl;
    for (i = 0; i < 4; i++) { //imprime la matriz 2
        for (j = 0; j < 4; j++) {
            std::cout << matriz2[i][j] << " ";
        }
        std::cout << std::endl;
    }

    for (i = 0; i < 4; i++) { //suma las dos matrices
        for (j = 0; j < 4; j++) {
            matrizRes[i][j] = matriz1[i][j] + matriz2[i][j];
        }
    }

    std::cout << "Matriz Resultado: " << std::endl;
    for (i = 0; i < 4; i++) { //imprime la matriz
    resultado
        for (j = 0; j < 4; j++) {
            std::cout << matrizRes[i][j] << " ";
        }
        std::cout << std::endl;
    }
}
```



```
C:\WINDOWS\system32\cmd. x + - □ x
Matriz 1:
0 1 2 3
0 1 2 3
0 1 2 3
0 1 2 3
Matriz 2:
0 1 2 3
0 1 2 3
0 1 2 3
0 1 2 3
Matriz Resultado:
0 2 4 6
0 2 4 6
0 2 4 6
0 2 4 6
Presione una tecla para continuar . . . |
```

```
return 0;
}
```

Código en el lenguaje Java

```
public class SumaMatrices
{
    public static void main(String[] args) {

        int[][] matriz1 = new int[4][4];
        int[][] matriz2 = new int[4][4];
        int[][] matrizRes = new int[4][4];
        int i,j;

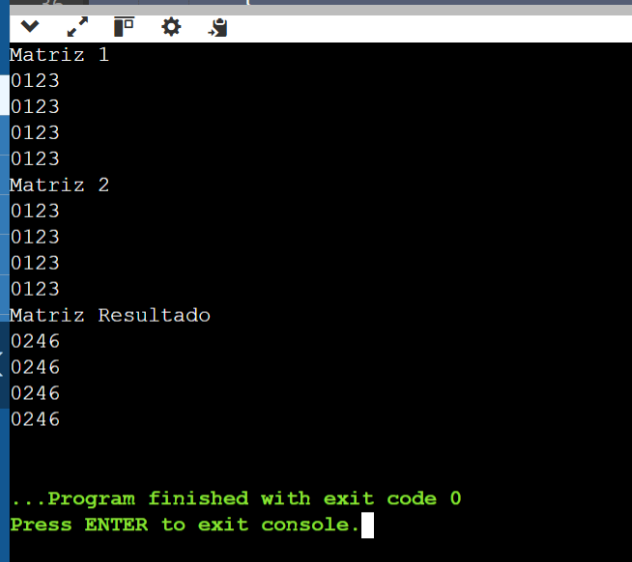
        for(i = 0;i < 4;i++){
            for(j = 0;j < 4;j++){
                matriz1[i][j] = j;
                matriz2[i][j] = j;
            }
        }

        System.out.println("Matriz 1");
        for(i = 0;i < 4;i++){
            for(j = 0;j < 4;j++){
                System.out.print(matriz1[i][j]);
            }
            System.out.println("");
        }

        System.out.println("Matriz 2");
        for(i = 0;i < 4;i++){
            for(j = 0;j < 4;j++){
                System.out.print(matriz2[i][j]);
            }
            System.out.println("");
        }

        for(i = 0;i < 4;i++){
            for(j = 0;j < 4;j++){
                matrizRes[i][j] = matriz1[i][j] +
matriz2[i][j];
            }
        }
    }
}
```

Ejecución



```
Matriz 1
0123
0123
0123
0123
Matriz 2
0123
0123
0123
0123
Matriz Resultado
0246
0246
0246
0246

...Program finished with exit code 0
Press ENTER to exit console.
```

```
System.out.println("Matriz Resultado");  
for(i = 0; i < 4; i++){  
    for(j = 0; j < 4; j++){  
        System.out.print(matrizRes[i][j]);  
    }  
    System.out.println("");  
}  
  
}
```