

A continuación se muestran los pantallazos de los resultados del programa para realizar los cierres transitivos tanto con el teorema 4 como con el lema 5 (algoritmo de Washall).

- Al ejecutar el “python main.py” se mostrará el menú al usuario (ver figura 1).

**Figura 1. Menú del programa**

[illegible]

Si se ejecutan ambas opciones, el programa se verá como en la figura 3.

```
Please input the size of the matrix you want to work with.
```

```
Please input how many vertices there are: 5  
Your values have been set as m = 5 and n = 5  
Random(1) or selected(2): 1  
Creating array...
```

```
Array created.
```

```
Your array is:
```

```
[0, 1, 0, 0, 0]  
[0, 0, 0, 0, 1]  
[1, 0, 0, 1, 1]  
[1, 0, 0, 0, 0]  
[0, 1, 1, 1, 0]
```

```
Transitive Closure Array:
```

```
[[1 1 1 1 1]  
 [1 1 1 1 1]  
 [1 1 1 1 1]  
 [1 1 1 1 1]  
 [1 1 1 1 1]]
```

```
Program finished!
```

```
C:\CodeProjects\University\logica\Proyecto 1>python main.py 2  
You will calculate using the Warshall algorithm
```

```
Please input the size of the matrix you want to work with.
```

```
Please input how many vertices there are: 5  
Your values have been set as m = 5 and n = 5  
Random(1) or selected(2): 1  
Creating array...
```

```
Array created.
```

```
Your array is:
```

```
[1, 0, 1, 0, 0]  
[0, 0, 0, 0, 1]  
[0, 1, 0, 0, 1]  
[0, 0, 0, 0, 1]  
[0, 0, 0, 0, 1]
```

```
Transitive Closure Array:
```

```
[1, 1, 1, 0, 1]  
[0, 0, 0, 0, 1]  
[0, 1, 0, 0, 1]  
[0, 0, 0, 0, 1]  
[0, 0, 0, 0, 1]
```

```
Program finished!
```

**Figura 3.** Resultado de la implementación de los teoremas 4 y lema 5.