UT7_PD2

⊘ Property	COMPLETED
🗓 Date	@June 20, 2022
☰ BLOCKED	

Ejercicio 1:

1)

```
**************************************************************************************************
                                           Matriz
**************************************************************************************************
------------------------------------------------------------------------------------------------
              Artigas      Durazno      Rocha      Canelones    Florida   Punta del Este  Montevideo
------------------------------------------------------------------------------------------------
Artigas        0.0          Inf         400.0        Inf         Inf         Inf            Inf
------------------------------------------------------------------------------------------------
Durazno        Inf          0.0          Inf         Inf         Inf         Inf            Inf
------------------------------------------------------------------------------------------------
Rocha          Inf          Inf          0.0         Inf         Inf         Inf            270.0
------------------------------------------------------------------------------------------------
Canelones      500.0        170.0        Inf         0.0         Inf         90.0           Inf
------------------------------------------------------------------------------------------------
Florida        Inf          60.0         Inf         Inf         0.0         Inf            Inf
------------------------------------------------------------------------------------------------
Punta del Este Inf          Inf          90.0        Inf         Inf         0.0            Inf
------------------------------------------------------------------------------------------------
Montevideo     700.0        Inf          Inf         30.0        Inf         130.0          0.0
------------------------------------------------------------------------------------------------
```

Matriz del ejercicio 2

RESTO DEL EJERCICIO:

>>>**[IMPLEMENTACION EN JAVA]**

Ejercicio 2:

```java
public Double[][] floyd() {
        Double[][] a = UtilGrafos.obtenerMatrizCostos(this.vertices);
        for (int k = 0; k < a.length; k++) {
            for (int i = 0; i < a.length; i++) {
                for (int j = 0; j < a.length; j++) {
                    if (a[i][k] + a[k][j] < a[i][j]) {
                        a[i][j] = a[i][k] + a[k][j];
                    }
                }
            }
        }
```

```
        return a;
    }
```

Ejercicio 3:

```java
public Comparable centroDelGrafo() {
        Double[][] a = this.floyd();

        LinkedList<Comparable> exen = new LinkedList<>();
        for (int i = 0; i < a.length; i++) {
            Double maximo = 0.0;
            for (int k = 0; k <a.length; k++){
                if(a[k][i] > maximo && a[k][i] != Double.MAX_VALUE){
                    maximo = a[k][i];
                }
            }
            exen.add(maximo);

        }
        exen.remove(0.0);
        System.out.println(exen);
        return Collections.min(exen);

    }
```