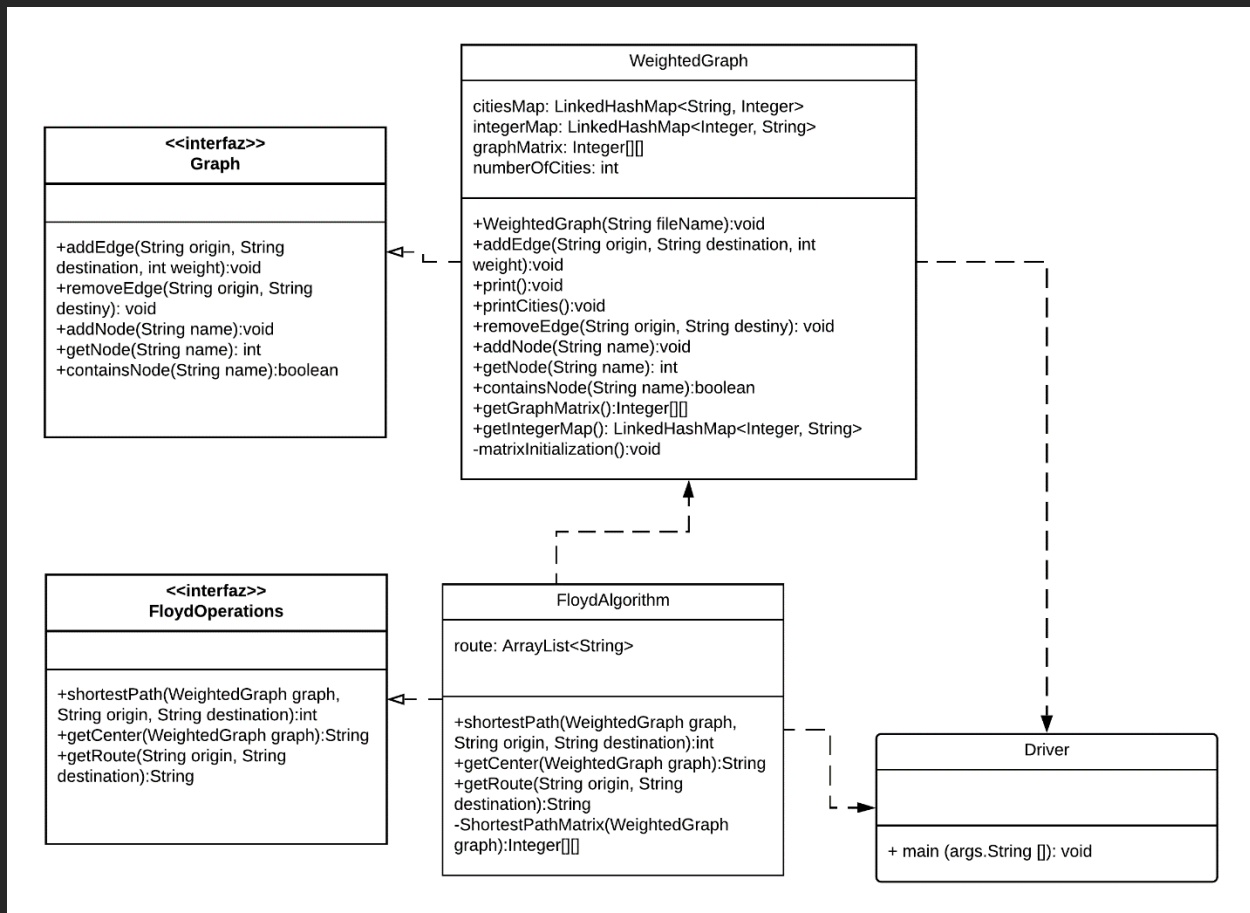


Pruebas de Junit y UML

Diagrama UML de clases del programa:



A continuación, se muestran las pruebas para el algoritmo de Floyd y el centro del grafo:

The screenshot displays the IntelliJ IDEA IDE with the `FloydAlgorithmTest` class open. The code includes three JUnit tests: `shortestPath`, `getCenter`, and `getRoute`. The `Run` tab at the bottom shows that all three tests passed successfully.

```
public class FloydAlgorithmTest {
    WeightedGraph graph = new WeightedGraph("guategrafo.txt");
    FloydAlgorithm operations = new FloydAlgorithm();

    @org.junit.Test
    public void shortestPath() {
        assertEquals(22, operations.shortestPath(graph, "Antigua", "Escuintla"));
    }

    @org.junit.Test
    public void getCenter() {
        WeightedGraph graph = new WeightedGraph("testGraph.txt");
        assertEquals("centercity", operations.getCenter(graph));
    }

    @org.junit.Test
    public void getRoute() {
        operations.shortestPath(graph, "Antigua", "SantaLucia");
        assertEquals("La ruta es: antigua-escuintla-santalucia", operations.getRoute("Antigua", "SantaLucia"));
    }
}
```

Run Results:

Test Name	Duration	Output
FloydAlgorithmTest	16 ms	"D:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2019.3.1\jbr\bin\java.exe" -ea -Didea.test.cyclic.buffer.size=1048576 "-javaagent:D:\Program File
shortestPath	0 ms	
getCenter	0 ms	
getRoute	16 ms	Process finished with exit code 0

Tests passed: 3 of 3 tests - 16 ms

Posteriormente, se encuentran las pruebas del grafo:

