Testing R1.1 – The drone does not fly into no-fly zones:

Unit test (LngLat):

Graphical user interface, text

Description automatically generated

Integration test (Polygon):

Text

Description automatically generated

Integration test (Visibility graph generation):

Result (Left – JGraphT, Right – own graph):

Diagram

Description automatically generatedDiagram

Description automatically generated

R1.2 - The path to the location has the shortest distance:

Graphical user interface, text, application

Description automatically generated

R2 – The system should take at most 60 seconds to find the shortest paths for all orders in each day:

Result: (Windows) Result: (Mac)

Text

Description automatically generatedGraphical user interface, text

Description automatically generated

Chart, line chart

Description automatically generated

R3 - The system should be able to classify orders based on their attributes:

Unit testing (Card)

Failed tests:

* testExpiryDateSameYearAndMonth:
  + Did not consider when expiry month was the same as current month

Result:

Text

Description automatically generated

Component testing (Card + OrderChecker)

Failed tests:

* orderPizzaWithInvalidOrderNumer
  + Did not check hexadecimal values – tested for only 8-character order numbers

Result:

Text

Description automatically generated