

LO1: Test Approach

Black-Box Testing

Order Processing: Test if the system correctly accepts valid orders and rejects invalid ones based on the specified criteria like correct card details, and order size.

Payment Integration: Verify that the system processes payments correctly for different credit cards

Delivery Efficiency: Evaluate the system's ability to find an optimized path to help with delivery during peak order times.

User Interface: Assess the usability and responsiveness of the interface of the delivery application and drone management system

Error Handling: Check how the system handles unexpected inputs or situations like unavailable pizzas or restaurants).

White-Box Testing

Code Coverage: Ensure all paths in the navigation and order processing algorithms are tested, including error and exception handling.

Algorithm Testing: Test the algorithms for calculating the shortest path and distance calculation for accuracy and efficiency.

Data Handling and Security: Examine the code for secure handling of data, including credit card information and order details.

Integration of Components: Test the integration of different software modules, such as order management, navigation, and payment processing.

Performance Testing: Evaluate the performance of the code under different load conditions, especially focusing on the drone's real-time response capabilities.