1. Range of requirements, functional requirements, measurable quality attributes, qualitative requirements, …

Functional Requirements:

- The system must process and validate arguments given to the system specifying which day of orders is to be processed and which URL the orders are to be retrieved from.
- The system must fetch orders from the REST service (the database storing order information). Orders should include information about the restaurants, the menus, and the customer's information.
- The system must process and validate each order to ensure its correctness and completeness. Details such as order number, order status, and the order validation code should be extracted.
- The path algorithm should determine the path of the drone from a restaurant to the drop-off point in the least number of moves by considering the location of restaurants, the drop-off point and the central area whilst avoiding no-fly zones. It must calculate the flight path for each move made by the drone, recording relevant details such as the angle between moves.
- The system should have an average runtime of 60 seconds or less to minimise delays in the delivery of pizzas.
- The system must generate three types of files. These include deliveries in JSON format, flight paths in JSON format, and a GeoJSON file for visualization.

Non-Functional Requirements:

- The system must have robust mechanisms for failure reporting, particularly in the event of a drone crash or system malfunction. Real-time monitoring and alerting systems should be in place to detect anomalies or unexpected behaviours during drone operations such as the wrong flight path being taken.
- The system must have user privacy and anonymity to uphold ethical standards and legal compliance. The system must ensure the privacy and confidentiality of customer information and order details. The system must ensure that the drone's flightpath and flightpath data does not compromise the privacy of residents.
- The system must be able to effortlessly handle a substantial volume of daily orders, ensuring swift order retrieval from the REST service and efficient drone flight path calculations.
- The system must exhibit high reliability, measured by the percentage of time it is available without failures or errors.
- The user interface of the system should be intuitive and user-friendly, requiring minimal training for users to effectively operate and manage the application.
- The communication between the system and the REST service, as well as any sensitive data, must be encrypted to ensure the security and privacy of customer information.