

# Criterion A: Planning

## Scenario

Problem statement: Some clients are spending unnecessary money to have their products be on a flight that has next-day delivery as next-day delivery is more expensive than the normal delivery.

Suggested solution: orders flagged and prioritized so the clients can stop spending money on unnecessary next day deliveries. To be able to do this, an excel sheet should suffice and I would also have to move all of the prioritized orders to the top of the file.

The main goal was making sure that the orders were not only sorted but also displayed comments that described the type of transportation that needed to be done for the order depending on the date it needed to be delivered by.

## Justification

Many different components are needed to make this goal achievable.

A database will be needed to store the information. For a large scale project like hundreds of shipments per day, it will need to be a proper database and not something like a json file. The database I am planning on using is SQLite as it syncs up with java and can be used with some knowledge of SQL. This database is also useful as it can prioritize orders using an “order by” statement. It also has quite a high performance as it is optimized for speed and efficiency with a minimal configuration process which makes it easier to use. (The database has been replaced with an excel file).

I have decided to use java to make this project as it is an object oriented programming language and each of the products being stored in the database will have to be objects. It will make it easier to keep track of the certain components needed in the object such as the product name, the product delivery time and the country the product is being delivered to. The thing that makes java stand out from other programming languages is that there is quite a high level of security built in, with features such as access control, security manager and cryptographic libraries.

Java will be better to use than another programming language because java classes have user-defined data types and methods of java classes provide new functions accessible from SQL.

## Success Criteria

Accessibility:

- Support for iOS and windows: preferably computers

- The spreadsheet the application outputs needs to be visible on operating machines.

#### Functionality:

- Ability to input information into the website via an excel file with the right rows and columns in it
- Ability to successfully store the variables from the excel file in the program and process it correctly
- Ability to sort the information based on a certain criteria (whether the difference between two specific delivery dates are close or far apart)
- Ability to sort the data into shipping-priority categories based on the above criteria.
- Ability to write comments on the products that display the shipping-priority category it's in
- Ability to fully open the modified excel file and be able to view the information
- Ability to display an error when there is a variable type mismatch between data points

#### Works Cited

No sources used