Assessment Brief

Queries and Questions

You can send us <u>one</u> email with questions for clarification before you finalise and present your response. Your email will be answered within 24 hours.

The Scenario

Nebula's Software Team is developing a mobile application for a Petrochemical Company, ABC Fuels, who markets and sells petroleum products. The purpose of this mobile application is to allow fuel station owners (Dealers) to order and track their daily petrochemical products ordered from ABC Fuels, on the go. The products that they can order include petrochemicals such as diesel, petrol, and oil.

The Fuel Stations (Dealers) are dependent on ABC Fuels to deliver their orders promptly for them to be able to do business. The biggest challenges for Dealers up until now have been:

- That they have no visibility over where their orders are in the delivery pipeline and if it will be on time
- Moreover, they currently place orders manually by phoning ABC Customer Services.

ABC Fuels has an ERP system that maintains all their master data (customer accounts, products. etc). The solution will need to integrate with their ERP system.

Requirements Breakdown

FRQ1.1 Order Placement

User should be able to place orders across all products / account linked to user's profile. The User's organizational data such as customer number(s) can be obtained from the partner identification service. ABC Fuels sells hundreds of products in various pack sizes, weight, or volume combinations. It must be easy for the customer to identify and select the required product that he / she wants to order:

- Portal should display recent/frequent orders (configurable i.e., last 30 days or last 5 orders etc.)
- Top ordered products applicable to customer should be available to choose from
- Re-order option(s) must be available if customer place repeat orders.
- Product Search capability
- Direct linking to product related information (Material Safety Data Sheets – MSDS, websites, marketing material, etc.)
- Any other recommendation that will make it easy for the customer to identify the required product

Stock out / product shortage alerts must be displayed.
Alternative products should be displayed if stock out or shortage occurs
Ability to interact with ABC Fuels support staff in real time without leaving the function that the user is busy with:

- Ability to log a query directly from in the Online ordering application
- Ability to live chat to the Customer Service Centre (CSC)
- Interaction to be presence and time aware (for example not available after hours)
- Any other potential means of interaction

Ability to print, email, save order information on order creation.
The overall user experience must have the ability to order online like a "Shopping Cart" linking to relevant product information (Material Safety Data Sheets, etc.).

FRQ1.2 Order Tracking

Users should be able to easily track the status of all orders (open, on hold, etc.) - using default settings and configuration

- query based on multiple selection criteria
- multiple dashboard views

Users should be able to view progress of all orders

View should be available by tracking through geographical representation (ABC Fuel corporate information is limited but the system must make provision for it)

View should be available to track on time bar showing various keys status throughout the delivery process

User Alerting

- Should be configurable
- Based on multiple predefined events (i.e., when orders have breached SLA period, change in order status, etc.)

Order status should be available on the user's dashboard.

FRQ1.3 – Order Query (related to incident logging)

Search and display orders by multiple selection criteria - order status (open, closed, etc.)

- order number
- date range
- value
- product and product grouping
- etc.

Create query for escalation to CSC/Credit/Sales

Create query that initiates online support with CSC

FRQ1.4 –Price Quotation

Query pricing on specific products

Confirmation of price query to convert to order placement.

FRQ1.5 – Query Stock/SLA

Search product and availability

Input product and quantity and view SLA

Online Ordering Process

Users log in to app and gets access to their accounts and features. The account on which they want to place an order is selected. They also must select the Mode of Transport they want (Collect, Rail or Road). If they choose Rail or Road, then the delivery address is defaulted and so is the supplying plant. If the customer wants to collect their order, they can choose which supply plant they want to collect from. There are 3 product categories fuel, lubricants, and chemicals each with lots of products the user can order depending on which category they want to order from. The customer can only order products that their account is linked to (this is stored in the ERP system). The user adds their products to the cart and then proceeds. The ERP system must validate the order first by checking account number, account type and product codes for the Customer. If that is successful then the order gets placed, if not then the customer can send the order as an order enquiry to Customer Services. Just before the order gets placed a credit check is performed to make sure the customer has enough credit on their account to place the order. Once order is successful the customer gets an automated email (Mandrill) with reference number and all the order details.

Order Notification Emails

When orders are placed in ABC Fuels' ERP system regardless of the source (app, web, call centre, email) an order notification needs to be sent out to the customers. Order notifications are sent out for successful order placement and cancelled orders. Only some of the users at the customer get the notifications it depends on the user's preference settings and if the user is linked to that account. All the items that were ordered are listed in the order confirmation.

Your tasks

To develop and release version 1 of the app successfully, Nebula must provide the client with Business Analyst artefacts.

Use the high-level brief, requirements, online ordering process and order notification emails outlined above to compile the following:

1. Draw a high-level **context diagram** to show the actors and systems in the online ordering process.
2. A **process flow diagram** (activity or sequence) depicting the **online ordering process** using your choice of UML or BPMN. If you don't have a software licence please make use of a free tool online.
3. An **ERD diagram** for the **order notification emails** showing relationships between customer (account), users, orders and order items and anything else you deem relevant.
4. Three **user stories** of your choice relevant to the context with acceptance criteria to go onto the JIRA board for developers.
5. Any **assumptions** made for the purpose of this assessment.

- End ---