

ROFA Case study :

How can you Design and implement the digital application with the following requirements?

1. An application should allow customers to register online, and place orders and verifies if the stock is available from the inventory, create an invoice by retrieving customer data from the database, that has the customers information and an account. The system should allow Customer to download or view the invoice after placing an order and make payment using any channel of their choice.
2. As soon as customer settle their account, the system should update database that the account is settled and alert the shipping service to queue the ordered items for shipping.

Non-functional requirements

1. applications or services should be highly maintainable and testable
2. services should be loosely coupled and enable different teams to work on different services and deploy them independently
3. services should be testable
4. communication response from the services should not be delayed (prompt)
5. customers should be able to interact with the application using either a mobile phone app or desktop computer browsers

Answer should include the following:

1. High level application design showing how many services and identify databases or queues are used.
2. Detailed design of the application showing all layers, and services involved, and design patterns used and how will they be implemented. Also, motivate what these design patterns are solving.
3. How will the application(s) be deployed and what are the tools to be used for application deployment

