**Case Study: (40 mins) – 3-4 slides**

You need to design some Order Management related RESTful APIs that orchestrates among multiple enterprise systems, and these APIs will in turn be used by other customer-facing products.

Assume the below upstream & downstream enterprise systems that these APIs would interact with:

Upstream System that exists that will be using the REST APIs:

Customer-facing UI website where customers can buy some products. This UI website will call your REST APIs to accomplish the following:

1. Get a price quote for a given product
2. Submit an order to purchase the product

Downstream Systems that already exist that the REST APIs will orchestrate with to provide a response:

* Product Catalog system: a backend REST service that contains the list of products that can be sold along with its base prices
* Tax Calculation system: a backend REST service that computes the tax for a given base price amount depending on the customer's billing address
* Order system: a backend SOAP service that processes an order and bills a customer for a given payment amount and given billing address
* Email system: a backend JMS queue which listens for messages and for each message it receives, it sends an email to the given email-id with the given email content

Questions:(Prepare in advance and present the following during the interview)

1. Present the design of the REST APIs you would be building and exposing for consumption by the upstream system. In the design for each API, mention details like: (i) Resource, (ii) HTTP Method, (iii) Request payload, (iv) Response payload, (v) Return Codes.
2. For each of the REST APIs, how would the internal functional flow look like - what downstream systems would each REST API orchestrate with.