**QUESTION:** Zenith Healthcare is a new company in the market and has launched its product two years ago. The product is loved by clients and is growing in popularity. The level of product demand was not anticipated, and the current system architecture cannot support the rising demand. To support the anticipated demand, the company needs to re-architect the system and provide the exact same functionality. Thus, the requirements from the client perspective are very well known and do not need to change. What needs to be changed in the system to support the growing demand is also well understood. The product has 4, fairly independent components. All 4 components need to be re-architected. Out of the 4, one of them has caused the most pain and the organization could benefit greatly if that component could be replaced first with a new, highly scalable architecture. The work of migrating to a new platform is a tedious job and the deployment of a new system will involve a lot of external communication, managing customer expectations, etc.

The technical architect and one project manager will be working from the corporate headquarters in Germany, but most of the team who will be doing the coding for the migration will be offshore in Belarus. The testing team will also be in Belarus.

***ANS:***  So if you do the analysis, it's a fairly known problem, you need to automate it. And it's done before, very known problem. The company has done this before, so the solution is known, except that they haven't done at scale.And so they may want to start something small and then go over. Then the company will benefit from a phase delivery, so we want to do something that can be done in phases. And then we may want to tweak a bit based on early iterations, right? And then of course we want consistency. So we want to be able to design the system in such a way that it stays consistent as we deploy in different locations. So what model would fit this kind of factor, this analysis. I would say that we can go with an incremental model in this case where we do all the requirements upfront and all the design. And that will support the consistency because we've captured all the requirements from all the places and then you do the design, so that you know that the design is going to work in different places, most of it.And then since we are doing this incremental, you can get this benefit from the phase delivery. So in the first increment, you can try South Asia or things like that. And then of course since they haven't done it at scale, doing it in increments will allow them to tweak the implementation for the next iteration. If they learn something in the first increment, then they can tweak it in the next iteration. So I think in this situation I think incremental model and then this version of incremental model would be applicable.

***QUESTIO2 :*** Assume that you are the quality lead or technical lead on this project. What kind of testing would you suggest the team to do? Be sure to justify your answer. To answer this question, first, list down the key things from the use case above that are really important. For e.g. scalability, performance, usability, integration between components, etc. After that, identify what type of testing would you want the team to do to make sure that upgraded product is high quality and deployed defect free. Please refer to the "Testing and Verification" section in module 2. Also, please watch the following videos to learn about various types of testing methods: