Mohammad Ali Jinnah University

Chartered by Government of Sindh - Recognized by HEC

Assignment 02- Case Studies

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Section: AM

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Q: Consider the following Scenarios and suggest the software process model with the justifications. Remember if you have more than one model suggestions then please write other suggestions too.

Scenario 3

☐ Defense organization of a country did a recent study, and the research recommends new capability the country should build to keep the country protected from potential conflicts in the region. So there's a study and the solution, the system that they came up with require to be build has never been attempted, and no literature exist for such system. So it's a very fairly new area, or fairly new adventure or things that they need to create. And it's fairly big and complex system, and potentially can take decades to build. A lot of loss of time, a lot of years to build this software. And scientists have vague idea about how to go about it, but no concrete plan exists. And there'll be a lot of organization stakeholders because this of course defense organization of the country and a lot of stakeholders involved. So a lot of constraints will also be there that will impact on this initiative. So there's a lot of risk, a lot of constraints. So let's try to analyze this situation and see which model will work in this situation.

Answer: Spiral modal

Reasons:

- The solution, the system has never been attempted to build, and no literature exist for Such system.
- It's fairly big and complex system, and potentially can take decades to build.
- A lot of loss of time, a lot of years to build this software.
- An idea about how to go about it, but no concrete plan exists.
- And there'll be a lot of organization stakeholders
- So there's a lot of risk, a lot of constraints

Scenario 4 (Home work)

Getz Pharma 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 Canada, but most of the team who will be doing the coding for the migration will be offshore in Dubai. The testing team will also be in Dubai.

Answer: Increment Model

Reasons:

- The company needs to re-architect the system and provide the exact same functionality.
- The client perspective are very well known and do not need to change.
- 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.