University of the People

Programming Assignment Unit 1 CS 4403 – AY2021-T2 Date: November 18th, 2020

Question 1:

For the said scenario, I would prefer a structure known as Individual Team Structure. Basically, as we came to know that the project has been done already. It is just larger and a bit complex this can be handled by the team which made the same project earlier. Hence, I would like to go with the same team as mentioned in the description the project has been done in the past. It would be easy for the same team to handle the project as they have made the previous version of the program. As it will be easy, less time consuming for the same team because they would be making the same project just the upgraded one.

However, there is another option as well that we can utilize. A closed paradigm team structure is such option. Since the requirements are well defined, it will be possible to partition requirements and allocation to sub teams. The large size of the project also mitigates in favor of a CD team. Since there is not discussion of schedule, we assume that the delivery date is reasonable. Therefore, it might be possible to use linear sequential work model. (Pratiksha, 2019)

Question 2:

For the said scenario, I would adhere to something known as the agile methodology. Agile is performance for this scenario because it can create and respond to change. It is a way of dealing with, and ultimately succession in, m an uncertain and turbulent environment. One thing that separates Agile from other approaches to software development is the "focus on the people doing the work and how they work together." (What is Agile, 2019) Solutions evolve through collaboration between self-organizing cross-functional teams utilizing the appropriate practices for their context. As mentioned, the project has been done earlier. I would first learn about which methodology was being used to make the previous version if it is compatible now then I would go with the same methodology used earlier or else I would like to go with Agile Methodology.

We all know Agile Methodology is safer to play with when it comes to larger and complex projects and when the client is not fixed with the requirements as changes can pop out anytime.

Question 3:

Yes, the choices will get affected if there is intense competition or tight deadlines. Firstly, the change would come in the team structure. As of now, I think the software methodology would remain the same, but the team structure will change. In the case of tight guidelines, the team may have to share the project with other teams and the structure would change from individual team to multiple teams. This would be the major change for the project as of now.

Conclusion:

If tight deadlines are announced and if their intense competition is introduced, this model would change significantly. I would adapt the project to follow a mixed control team structure. In this the well experienced manager tops all the process and he have few team leaders and team leaders have few engineers. The manager breaks down the requirement among the team leaders and the team leaders breaks among the engineers. It is a hierarchy maintained in this team structure and works well for this case.

References:

- Kadam, Pratiksha. "THE LINEAR SEQUENTIAL MODEL Used in Software Engineering." Medium, Medium, 13 Dec. 2019, medium.com/@pratikshakadam5522/the-linear-sequential-model-used-in-software-engineering-a88dd0ee0dc4.
- "Agile Methodology: What Is Agile Software Development Model?" Guru99, www.guru99.com/agile-scrum-extreme-testing.html.