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Course: Agile methods of Software Development.

Q1. Describe each of the six different roles mentioned by FDD.

a. What skills and/or knowledge is needed to fulfill the role? Justify your answer by referring to the tasks and responsibilities they have.

b. How much software development experience is needed?

Ans. Six different roles mentioned by FDD are as follows:

- 1) **Project Manager:** The administrative head of the project team for a particular project is called the Project Manager. He collects the progress reports from other roles and supporting roles and is responsible for presenting it to the higher level managers. Project manager gets the necessary budget and distribute it throughout the project according to the needs. He is always aware about the requirements of the project and also manages the space and equipment necessary for the project. He manages the finance, documents and human resources. An ideal project manager should have excellent communication skills and should have previous experience in project management.
- 2) **Development Manager:** A development manager is the team manager for the development team. Development manager is responsible to oversee the day-to-day work of development team. He makes sure that the development process is moving at a pace which is required too deliver the product on time. He solves the queries raised by the chief programmers and also resolve the conflicts between them. An ideal development manager should have multiple years of experience in development and should be able to understand the project inside out.
- 3) **Chief Architect:** Chief architect managers the overall design of the system. He holds different workshops and seminars before the development process begins in order to discuss the design with the teams. Stakeholders also collaborate with the chief architect in order to finalize the design of the system. An ideal chief architect should have excellent technical skills and should have excellent knowledge of system modelling. A chief architect is required to have years of experience in system designing.
- 4) **Chief Programmers:** Chief programmers are leaders of different development teams. They have participated in entire SDLC multiple times on different projects and hence have experience of working as a developer. Chief programmers participate in designing and the requirement analysis phase as they oversee these tasks at a lower level. Chief programmers are assigned a team of 3-6 developers in order to develop different features during different phases of SDLC. An ideal chief programmer should have experience as a developer for a quite a few years so that they can guide the developers about the issues which might arise and help them resolve them. They should also have good technical knowledge so they can help other developers.
- 5) **Class Owners:** Class owners are the members of the team which implement various features. They can be experienced or entry level developers. They work under the guidance of chief programmer and deliver the features they are assigned. They are responsible for designing,

coding, testing and documentation. An ideal class owners should have some experience in coding and designing and should be aware of various testing techniques and documentation practices.

- 6) Domain Experts: They are considered as the voice of the customers. They represent the user who will be using the system. Developers are dependent on them for delivering the correct working system. Participation of domain experts is necessary as they represent the end users. Ideal domain experts should have excellent communication skills and are considered to be the ones who understands the functionality of the system. They should know about the product being developed.

Q2. Describe the advantages and disadvantages of segregating the software developer population by the roles in FDD.

Ans. Advantages of Segregating the software development population by the roles in FDD

- Each developer is responsible for the feature he has developed and hence it is easy to find the responsible person when an error occurs or some modification is required.
- High quality code can be generated due to guidance provided by the chief programmers and every stage of development. ‘
- Each developer has a predefined role and hence the tasks assigned to them are clear enough.
- Developers can focus on their own development work since they don't have to participate in other's work.

Disadvantage of Segregating the software development population by the roles in FDD.

- Absence of a person at a particular role might stop progress or affect the project schedule adversely.
- Less people to work on the feature development.
- Dependencies on each other increases as roles are pre-defined.