

Fundamentals Of Software Engineering Group - 1 Assignment - 1

Tuesday 17:30 - 19:00. Fall 21

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Instructor R. Singh

Is the waterfall model a good choice for developing this system? Provide detailed reasoning. (5 points)

Waterfall is not a good choice for the development of this system. Firstly, the engineers are new to the technologies that are being used in iOS development and Waterfall requires engineers to fully understand the development technology. Secondly, the advantage of using Waterfall is when the project is short and no risk at failing. As an Architect behind this application have decided not to take this development methodology.

Is iterative development leading to a single release of the system a good choice for developing this system? Provide detailed reasoning. (5 points)

The way Iterative development work is through breaking the software into parts, instead of gathering requirements for the whole project, the requirements would be broken into different development builds. The advantages are running test and debugging made easy due to smaller parts, as well as, completing the software earlier than expected. However, not knowing all the requirements could raise a lot of concerns, i.e. if a newly gathered requirement is bound to one of the first builds, forcing us go over the same development part again, and it doesn't end there, as that build could affect the next or previous ones.

Is agile development with releases of small increments of software a good choice for developing this system? Provide detailed reasoning. (5 points)

Agile is best choice for the development of this system. Agile helps the team deliver the highest quality product. It is extremely effective in team collaboration, as Architect would break the development into parts, set up meetings everyday (Agile SCRUM), and release part by part of the final product, easier to debug, and more transparency as what is being developed. More importantly, incremental releases could help collect feedbacks to improve the final product. Our team has chosen Agile SCRUM as the development methodology.

Discuss your first thoughts on how you will approach the solution? You should discuss in detail with reasoning. (5 points)

1. Team communication: a clear way of communication needs to be established between team members, skills needs to be discussed to understand who can do what and the availability of the team.
2. Architect: he/she needs to design and gather all the requirements for the development of this project and present it to the team. Higher level architecture is a must for every project as team needs to know and understand the process of developing software.
3. Technology and Roles: decide on the best technology for this product that fabricates around the team skillsets, once chosen, the roles can be assigned.

4. Deadlines: setting up progression systems and deadlines. Helps team to stay on track and have pre-knowledge of deadlines for each part of the build.
5. Documentation: having a documentation gives a true meaning to the project, senior engineer role is to write this, but since this is a school project this will be the responsibility of Architect. As documentation delivers what and how it was done and gives a clear understanding of software.
6. Demo and Delivery: deliver a demo to the TA.

Fill in this table, provide as much details possible:

Group Member Name	What is your contribution?	Discussion Notes
Ian Cooper	iOS Architect, Designer, Engineer	Type of technology, design and development methodology and architect of this software
Sayra Rodriguez	Engineer	Assets, type of back-end tech, roles and different development parts
Jhaelon D Edwards Smith	Engineer	Assets, discussing front-end as well as back-end approach