

Assignment One
Ryan Lebeau - 104535367

Part One

Q1.2

Considering the main concerns for this app are requirements and usability from a user base that the company has never interacted with before, it would seem like the Agile model would be most appropriate. This type of app would require lots of communication between the user base and developers since requirements are still a main concern. Also with this model, as new versions are being pushed out concerns can be easily addressed which seems to be a very useful feature considering the app has many tasks to accomplish ("schedule medical appointments, medication reminder, order grocery, and transportation services"). Since the app is being delivered directly to users, being able to quickly fix issues and easily receive feedback makes this model a very intuitive choice for the company.

Q1.3

Within a new and growing market not only key features but entire infrastructures can change rapidly, which is why the Prototyping model would be the ideal developmental process. With the prototype model, as things in the market change (such as new features or completely new inventions) the product can be changed accordingly without having to start from the ground up. Also when working with multiple competitors in a new and upcoming field being able to quickly change important features can put you ahead of all competition while they have to completely restructure their process.

Q1.4

With a tight time schedule and quick updates to combat new security threats a must, the Iterative and Incremental model seems to be the perfect fit. Since this model has rapid delivery of useful technology to the user it would be ideal on a tight time schedule, even to deploy a base security model at first and build upon it as time proceeds. Not to mention within the realm of security a product must be able to quickly update to combat a never ending wave of new threats which is where the Iterative and Incremental model shines. Also, the option for new updates is very useful when working around open source security appliances as code from a project could change within the blink of an eye.

Part Two

Q2.1 You are building a highly interactive website to replace the current website of the school of computer science at the University of Far-Far-Away. Identify the different groups of primary and secondary users of the website. For each group describe between 3-5 functional requirements. How could you verify these requirements? In your opinion what are the possible non-functional requirements for this website and which ones are the most important?

There are two main groups of primary users for a website such as this one; professors (GA's, and TA's as well), and students. Both groups would need their own set of functional requirements for the website to run smoothly. A professor or someone in a role of teaching would likely need a simple mechanic for document submission from students to make receiving and marking anything hassle-free. Also, an intuitive mailbox to easily receive, review, and sort both student and faculty requests would be a must have. Alongside those two previous functional requirements, an interactive bulletin board to link professors with other faculty members and news info from university heads would be nice. On the other hand, students would like an easy way to learn about updates from professors quickly, a simple way to access marks given out, and also a separate student bulletin board to hear about news from the faculty of computer science pertaining to them. Although there are many more functional requirements that both separate primary user groups could benefit from, there are plenty of shared non-functional requirements needed as well. The most important non-functional requirements being: low server delay on notifications and announcements, simple user login for tailored website experiences, and a simple but complementing user interface so accessing the website functionalities is not stressful.

Even though a faculty website at a university is only used by primary users, it can very much affect the main group of secondary users; other faculty department heads. Other faculty heads need the website to run smoothly just as much as the primary users which is why they also have functional requirements for such a project. The main functional requirements needed by this secondary user base would be a simple distribution of information such as a public bulletin or else communication between faculty may be hindered. A simple email base system designed into the website would also be needed for private communication between members would also be needed. Finally, advertisements for other societies or clubs throughout the university would be very beneficial for the group of secondary users. All of the functional requirements from both primary and secondary users could be verified through analyzing the current computer science website, other universities/faculties websites and their functions, or simple polls done by users (although polling secondary users is a difficult process).

Part Three

Q3.1

The authors clearly recognize that the Agile methodology has many advantages but also limitations. One of the main advantages to the Agile method outlined by the authors is the ability to not fully understand all requirements needed which is a very useful for the beginning of projects and small teams since it is impossible to know every requirement that will be needed. Also, having the customers directly involved in the developmental process allows for a simple change of requirements without needing to begin the entire project from the start again. Another big advantage to this method is the flexibility of design within the project which the authors also agree upon. Although there are many advantages this methodology also has its share of limitations. The largest limitation, in my opinion as well as the authors, is its lack of scalability as a company grows to larger and larger teams. The larger the team working on the project is, the more iterations required for a single functionality which can cause a massive amount of time being devoted to a single function.

Q3.2

I believe the authors opinion of the Agile methodology is overall positive. Even though they clearly express the limitations this methodology has, the authors state in the conclusion that it has “positive impact on both the productivity and the quality” of a product. They clearly are in favour of this methodology as long as the limitations are known by anyone willing to adopt its use.