**Choosing a methodology for an auto repair company.**

There are two methodologies that dominate the software development landscape. Agile and Waterfall, offer two distinct approaches, each with its own strengths and flaws. For developing an application for a small auto repair company, choosing the right methodology means a lot to the unique services of the company.

Waterfall is a linear system; the team must establish project requirements early on and a phase of development must be completed before moving to the next one. This provides a concrete plan of the project from start to finish. This means we may only realize an issue with a phase after it’s too late. Also, if the company changes its vision or plan, this approach makes it difficult to adapt our software. Agile is a method which is more flexible. The Agile Manifesto says “Deliver working software frequently, from a couple of weeks to a couple of month, with a preference to the shorter timescale” and thus make is adaptable.

A small company faces challenges that change frequently as it grows. So, the app must flexible, its designed be informed by the feedbacks of users, be shipped in a reasonable time and handle uncertainty. I think the strengths of agile aligns well with the challenges the company might face.

Here is the list of what Agile offers that Waterfall doesn’t:

* **Flexibility:**

In agile, work is done in short bursts called sprints. With sprints, we can build modules of code that can be easily modified and replaced with newer ones. It can accommodate changing requirements and respond promptly to feedback.

* **Feedback:**

Since this is the first of its kind in Nepal, there is no other product we can learn from. So, the only place we can look for what the design should be is the users. Customers are involved in every stage of the project. This means we can make decisions on the spot and make the required changes. If we identify a new requirement or need, we can incorporate it immediately using sprints.

* **Incremental delivery:**

We can first deliver a minimum viable product, then, according to user feedback, gradually introduce new features and come up with updates. This strength of the agile methodology also helps us meet the requirements of a small company.

* **Time-to-market:**

Agile provides a short time-to-market approach. This means essential features can be delivered quickly so that the users have some idea of the service they will receive. This reduces the chance of competitors implementing the same idea. They will get the first mover advantage.

Agile offers many advantages over the waterfall method, particularly for projects that have uncertainty and changing requirements. Agile makes it easier to involve customers in the decision-making process throughout the development of the application. There is reduced time-to-marked with Agile to outperform its competitors.

1307 Section A

Arun Mainali Assignment #2