**MANUAL QA**

***Homework - Lesson 3***

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**Level 1:**

* **Make a comparative table of the most common methodologies:**

| **N** | **Name of methodology** | **Pros** | **Cons** | **For which industry is it appropriate** |
| --- | --- | --- | --- | --- |
| **1** | Waterfall Model | It works great for projects with clear requirements and regulations. | It is expensive to solve issues or change requirements. | IT, Software development |
| **2** | V-Model | Works great for small and medium-  sized projects where the requirements are clearly  defined and fixed. | Very rigid and least flexible. | Military, Banks, IT. |
| **3** | Incremental Model | It is more flexible and less costly to change requirements. | Definition of the system should be complete and clear. | Automotive Industry, IT. |
| **4** | Iterative Model | It works great for large projects.  Implementation details can evolve over time. | The requirements for the final system need to be clearly defined and understood in advance. | IT, Software development. |
| **5** | Spiral Model | Is favored for large, expensive and complicated projects. | Not suitable for small projects and the process is complex. | Software development. |
| **6** | Agile Model | Only a little planning is enough to start the project. | Require a high level of collaboration and communication between team members. | Software development. |

**Level 2:**

* **Complete the task of the previous level.**
* **Write detailed answers (0.5-1 pages in volume) to the following two questions:**
* **In your opinion, why did the Agile manifesto appear?**
* **What problems did it have to solve and did it succeed?**

The Agile Manifesto appeared in response to the limitations of traditional software development methodologies. Many software development projects were failing because they were being managed using the traditional methodologies, which were linear and sequential. So the agile manifesto came to solve:

* Inflexibility: Traditional methodologies were too rigid and unable to adapt to changing requirements or customer needs.
* Slow feedback: Traditional methodologies had long feedback loops, meaning that it took a long time to get feedback on whether the product being developed met the customer's requirements.
* Heavy documentation: Traditional methodologies required extensive documentation, which was time-consuming and often not very useful.
* Lack of collaboration: Traditional methodologies often didn't encourage collaboration between the development team and the customer or end-users.

The Agile Manifesto succeeded in addressing these problems by promoting a more flexible, iterative, and collaborative approach to software development. Agile methodologies emphasize delivering working software quickly and regularly, seeking feedback early and often, and continuously adapting to changing requirements. This approach has helped organizations deliver software that better meets customer needs, with fewer delays and lower costs.

**Level 3:**

* **Complete the tasks of the previous two levels.**
* **You are the founder of a startup planning to launch a mobile application for sharing cat photos.**

**What methodology will you choose for the development process and why? Support your answer.**

As the founder of a startup planning to launch a mobile application for sharing cat photos, I would choose the Agile methodology for the development process. Here are a few reasons why:

* Rapid development: As a startup, we want to get our product to market as quickly as possible. Agile methodologies emphasize working software over documentation and prioritize fast delivery. By working in short sprints, we can rapidly develop and release new features, getting our product into the hands of users sooner.
* Flexibility: Since we are a startup, we may not have a completely defined set of requirements and may need to adapt our plans as we go. Agile methodologies allow for this flexibility by breaking the project down into small, iterative chunks that can be adjusted based on feedback from users that will be uploading their cat photos regularly.
* Collaboration: Agile methodologies emphasize collaboration and communication between team members, which can be especially important for a startup with a small team. By working together and sharing feedback, we can ensure that everyone is aligned and focused on delivering the best possible product.