Assignment – 1

**Que 1** - What is an agile or agile methodology?

Agile is a software development methodology to build software incrementally using short iterations of 1 to 4 weeks so that the development process is aligned with the changing business needs.

Instead of a single-pass development of 6 to 18 months where all the requirements and risks are predicted upfront, Agile adopts a process of frequent feedback where a workable product is delivered after 1 to 4 week iteration.

Agile is a software development methodology and approach to project management that is based on delivering software in small working parts and introducing changes if needed. The requirements and results can be evaluated and corrected during the development process, which allows the team to deliver exactly the software that the customer wants.

**Que 2**- Agile Methodology principle?

THE TWELVE PRINCIPLES OF AGILE MANIFESTO

1. CUSTOMER SATISFACTION –

Manifesto provides high priority to satisfy the customer requirements. This is done through early and continuous delivery of valuable software.

2. WELCOME CHANGE - Making changes during software development is common and inevitable. Every changing requirement should be welcome, even in the late development phase. Agile process works to increase the customers; competitive advantage.

3. DELIVER THE WORKING SOFTWARE - Deliver the working software frequently, ranging from a few weeks to a few months with considering the shortest time period.

4. COLLABORATION - Business people (Scrum Master and Project Owner) and developers must work together during the entire life of a project development phase.

5. MOTIVATION - Projects should be built around motivated team members. Provide such environment that supports individual team members and trust them. It makes them feel responsible for getting the job done thoroughly.

6. FACE TO FACE CONVERSATION - Face to face conversation between scrum master and development team and between the scrum master and customers for the most efficient and effective method of conveying information to and within a development team.

7. MEASURE THE PROGRESS AS PER THE WORKING SOFTWARE - The working software is the key and primary measure of the progress.

8. MAINTAINS CONSTANT PACE - The aim of agile development is sustainable development. All the businesses and users should be able to maintain a constant pace with the project.

9. MONITORING - Pay regular attention to technical excellence and good design to maximize agility. 10. SIMPLICITY - Keep things simple and use simple terms to measure the work that is not completed.

11. SELF-ORGANIZED TEAMS - The agile team should be self-organized. They should not be depending heavily on other teams because the best architectures, requirements, and designs emerge from self-organized teams.

12. REVIEW THE WORK REGULARLY - The work should be reviewed at regular intervals, so that the team can reflect on how to become more productive and adjust its behaviour accordingly.

**Que 3** - What are advantages and disadvantages of Agile Process?

ADVANTAGES-

* Customer satisfaction is rapid, continuous development and delivery of useful software.
* Customer, Developer, and Product Owner interact regularly to emphasize rather than processes and tools.
* Product is developed fast and frequently delivered (weeks rather than months.)
* A face-to-face conversation is the best form of communication.
* It continuously gave attention to technical excellence and good design.
* Regular adaptation to changing circumstances.
* Even late changes in requirements are welcomed.

DISADVANTAGES –

* It is not useful for small development projects.
* There is a lack of intensity on necessary designing and documentation.
* It requires an expert project member to take crucial decisions in the meeting.
* Cost of Agile development methodology is slightly more as compared to other development methodology.
* The project can quickly go out off track if the project manager is not clear about requirements and what outcome he/she wants.

**Que 4** - What do you mean by Daily Stand-Up meeting?

DAILY STANDUP - The daily stand-up is a daily status meeting of the agile team member. Each member of the team has to answer three important questions –

* What he/she did yesterday?
* What he/she will do today?
* The problem he/she is facing . . . He/she blocked due to. . .

**Que 5 -** What is the difference between Agile and Scrum?

On the surface, it is easy to see why Agile and Scrum can often be confused, as they both rely on an iterative process, frequent client interaction, and collaborative decision making. The key difference between Agile and Scrum is that while Agile is a project management philosophy that utilizes a core set of values or principles, Scrum is a specific Agile methodology that is used to facilitate a project.

There are also other notable differences between Agile and Scrum.

**Differences:**

* Agile is a philosophy, whereas Scrum is a type of Agile methodology
* Scrum is broken down into shorter sprints and smaller deliverables, while in Agile everything is delivered at the end of the project
* Agile involves members from various cross-functional teams, while a Scrum project team includes specific roles, such as the Scrum Master and Product Owner

It’s important to remember that although Scrum is an Agile approach, Agile does not always mean Scrum—there are many different methodologies that take an Agile approach to project management

**Que 6 -** What is a Sprint Planning Meeting, Sprint Review Meeting and Sprint Retrospective Meeting?

SPRINT PLANNING - Tasks are build and assigned to each members, and discusses on how to complete them.

SPRINT RETROSPECTIVE - What went well and what can be improved?

DEMO/SPRINT REVIEW - Inspects outcomes of the tasks and determines future adaptations if an