**1. Agile Values & Principles**

**a. 4 core values of the Agile Manifesto:**

1. Individuals and interactions over processes and tools
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation
4. Responding to change over following a plan

**b. 3 out of the 12 Agile principles in your own words:**

1. **Customer satisfaction through early and continuous delivery:** We aim to frequently deliver valuable software that meets the user's needs, keeping them happy and engaged.
2. **Welcome changing requirements:** Even if a change comes late in the development process, we adapt to it to ensure we’re always building the most valuable product.
3. **Build projects around motivated individuals:** Trust your team to get the job done and give them the environment and support they need to succeed.

**c. A situation where traditional project management might fail and explain how Agile could help:**  
In a traditional project for building a student portal, the requirements were fixed at the beginning. As user needs changed midway, incorporating feedback became difficult and caused delays. Using Agile would have allowed for iterative releases and flexibility, making it easier to adapt to student feedback, and resulting in a more user-friendly portal.

**2. Scrum Framework Activity**

**a. Identify and list the three roles in Scrum:**

1. Scrum Master
2. Product Owner
3. Developer (or Development Team)

**b. Create a diagram showing the Scrum workflow from Sprint Planning to Sprint Retrospective:**

Sprint Planning → Daily Scrum → Development Work → Sprint Review → Sprint Retrospective → (Next Sprint begins)

**c. Define the difference between Product Backlog and Sprint Backlog with examples:**

| **Feature** | **Product Backlog** | **Sprint Backlog** |
| --- | --- | --- |
| Definition | A prioritized list of all features and requirements for the product. | A list of tasks selected for a specific sprint. |
| Managed by | Product Owner | Development Team |
| Scope | Broad – covers entire product | Narrow – covers current sprint |
| Example | “Add user login feature”, “Generate reports” | “Design login page UI”, “Implement login API” |

**3. Team Role Simulation**

**b. Discuss a fictional product idea and perform a mock Sprint Planning meeting.**

Our team chose a fictional product called **“Attendance Tracker App”**. It helps track students' daily attendance in different courses.

We planned the project in **three main phases**:

**Phase 1 – Early Phase (First Sprint)**

* Manual attendance marking (basic input system)
* Basic user interface
* Profile management for students and teachers
* Connecting to a database to store attendance records

In the **Sprint Planning meeting**:

* The **Product Owners** (*Varshini, Aryaman, Divya*) explained the product vision and shared user needs.
* The **Scrum Masters** (*Famiya, Faizan, Aniket, Preethika*) guided the meeting, kept it time-limited, and ensured Agile process was followed.
* The **Developers** (*Kishor, Subhasis, Rohit, Siddharth*) discussed technical details and estimated how much effort each task would need.

**Phase 2 – Second Sprint**

* Holiday scheduling (admin can mark non-working days)
* Download attendance logs in Excel or PDF format for admin/teachers

**Phase 3 – Future Sprint**

* Fingerprint authentication for marking attendance
* Retinal authentication (for high security)

**c. Write 3 sample user stories, prioritize them, and assign story points.**

| **User Story** | **Priority** | **Story Points** |
| --- | --- | --- |
| As a teacher, I want to mark attendance manually for each course, so that student records stay updated. | High | 5 |
| As a student, I want to view my attendance report, so that I can keep track of my class participation. | Medium | 3 |
| As an admin, I want to add holidays in the system, so that those days are excluded from attendance counting. | Low | 5 |