Agile & Scrum Cheat Sheet

Agile Principles

1) Customer Satisfaction
   - Highest priority: Deliver valuable software to customers early & continuosly.

   - Frequent Delivery:- Deliver working s/w frequently, from a couple of weeks to a couple of months.

2) Embrace Change
   - Welcome changes: Accomodate changing requirements, even late in development

   - Flexibility: Use change to harness competitive advantage for the customer.

3) Incremental Delivery
   - Small Increments: Break projects into small, manageable increments for frequent delivery.

   - Continuous Feedback:- Use regular feedback to refine & improve the product.

4) Collaboration
   - Daily Interaction: Developers & business people must work together daily throughout the project

   - Customer Collaboration: Engage customer involvement for better product outcomes.

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5) Motivated Individuals

- Support & Trust: Build projects around motivated individuals, giving them the environment & support they need & trust them to get the job done.

6) Face-to-Face Communication

- Use face-to-face communication as the most efficient & effective method of conveying information within a development team.

7) Working Software

- Primary measure: Use working software as the primary measure of progress.

8) Sustainable Development

- Pace: Promote sustainable development, maintaining a constant pace indefinitely.

9) Technical Excellence

- Enhance Agility: Continuos attention to technical excellence & good design enhances agility.

10) Simplicity

- Maximize work not done

11) Self Organizing Teams

- Best Architectures: The best architectures, requirements & designs emerge from it.

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Scrum Framework

1) Scrum Team

- **Composition:** Product Owner, product Scrum Master & Development Team

- **Collaboration:** Operates collaboratively with shared goals.

2) Product Owner

- **Role:** Represents stakeholders & prioritizes the backlog

- **Backlog Management:** Ensures backlog items are clear, transparent & prioritized based on business value.

3) Scrum Master

- **Facilitation:** facilitates scrum events, removes impediments & ensures scrum practices are followed.

- **Coaching:** Coaches the team in Agile practices & promotes continuous improvement.

4) Development Team

- **Role:** Cross-functional team that develops the product

- **Self-Organizing:** Decides how to accomplish work set in each sprint.

Scrum Events

1) sprint:

- **Duration:** Time-boxed duration (2-4 weeks) where a potentially shippable product increment is created.

- **Fixed length:** Consistent duration throughout the project

2) Sprint Planning
- Goal: define what can be delivered in Sprint & how the work will be achieved
- Participants:- Entire Scrum Team
- Outputs: sprint Goal, Sprint Backlog

3) Daily Scrum
- Duration: 15 min time-boxed events held daily
- Purpose: Synchronize activities & create plan for next 24 hrs.

4) Sprint Review
- Duration: 2-4 hour meeting at end of sprint
- Purpose: Inspect increment & adapt Product Backlog if needed

5) Sprint Retrospective
- Duration: 1.5-3 hour meeting after sprint Review
- Purpose: Reflect on past sprint & identify improvements

Scrum Artifacts:

1) Product Backlog
- Ordered list of all features, functions, requirements, & fixes that could be made to product.

2) Sprint Backlog
- Set of Product Backlog items selected for sprint, plus a plan for delivering product increment

3) Increment
- Sum of all Product Backlog items completed during a sprint & all previous sprints.