Agile Software Development

Lecturer: Raman Ramsin

Lecture 20

DAD: Disciplined Agile Delivery
DAD: Definition

Characteristics of the DAD process framework:

- People first
- Learning oriented
- Agile
- Hybrid
- IT solution focused
- Goal-driven
- Delivery focused
- Enterprise aware
- Risk and value driven
- Scalable
DAD: Lifecycle

[Ambler & Lines 2012]
## DAD: Phase Goals

<table>
<thead>
<tr>
<th>Goals for the Inception Phase</th>
<th>Goals for Construction Phase Iterations</th>
<th>Goals for the Transition Phase</th>
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<tr>
<td>- Form initial team&lt;br&gt;- Identify the vision for the project&lt;br&gt;- Bring stakeholders to agreement around the vision&lt;br&gt;- Align with enterprise direction&lt;br&gt;- Identify initial technical strategy, initial requirements, and initial release plan&lt;br&gt;- Set up the work environment&lt;br&gt;- Secure funding&lt;br&gt;- Identify risks</td>
<td>- Produce a potentially consumable solution&lt;br&gt;- Address changing stakeholder needs&lt;br&gt;- Move closer to deployable release&lt;br&gt;- Maintain or improve upon existing levels of quality&lt;br&gt;- Prove architecture early</td>
<td>- Ensure the solution is production ready&lt;br&gt;- Ensure the stakeholders are prepared to receive the solution&lt;br&gt;- Deploy the solution into production</td>
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**Ongoing Goals**

- Fulfill the project mission<br>- Grow team members’ skills<br>- Enhance existing infrastructure  

- Improve team process and environment<br>- Leverage existing infrastructure<br>- Address risk
DAD: Inception Phase

- **Coordinate**
  - Initiate team
  - Schedule stakeholders for envisioning sessions
  - Up to a few hours

- **Collaborate**
  - Build team
  - Requirements envisioning
  - Architecture envisioning
  - Consider feasibility
  - Align with enterprise strategy
  - Release planning (initial)
  - Develop shared vision
  - Set up environment
  - Ideally: Up to a few weeks
  - Average: Four weeks
  - Worst case: Several months

- **Conclude**
  - Light-weight milestone review
  - Communicate vision to stakeholders
  - Up to a few hours

[Ambler & Lines 2012]

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DAD: Construction Phase

Coordinate

- Iteration planning
- Iteration modeling

“Standard” practices:
- Visualize work
- Daily coordination meeting
- Refactoring
- Developer regression testing
- Model storming
- Continuous integration (CI)
- Sustainable pace
- Prioritized requirements
- Architecture spike
- Collective ownership
- Burndown chart
- Automated metrics

“Advanced” practices:
- Test-driven development (TDD)
- Acceptance TDD (ATDD)
- Continuous deployment (CD)
- Look-ahead modeling
- Parallel independent testing
- Continuous documentation
- Non-solo development
- Look-ahead planning

Collaborate

Typical: One to four weeks
Average: Two weeks
Worst case: Six weeks

Conclude

- Iteration demo
- Retrospective
- Release planning (update)
- Determine “go forward” strategy

Two hours for each week of the iteration length
One hour per week of iteration length

[Ambler & Lines 2012]
DAD: Transition Phase

- **Coordinate**
  - Phase planning
  - Transition planning
  - End-of-lifecycle testing and fixing
  - Data and user migration
  - Pilot/beta the solution
  - Finalize documentation
  - Communicate deployment
  - Prepare support environment
  - Train/educate stakeholders
  - Ideally: Nothing
  - Typical: One hour per week of collaborate time

- **Collaborate**
  - Ideally: Nothing
  - Average: Four weeks
  - Worst case: Several months

- **Conclude**
  - Production readiness review
  - Deploy solution
  - Ideally: Less than an hour
  - Worst case: Several months
  - Actual usage
  - Production ready
  - Delighted stakeholders

[Ambler & Lines 2012]
DAD: Roles

[Ambler & Lines 2012]
DAD: Teams

- DAD teams are typically small-to-medium sized.
  - We consider teams of 15 people or fewer to be small, and teams between 10 and 40 people to be medium-sized.

- DAD teams are also typically collocated or near-located.
  - The definition of collocation is that everyone, including primary stakeholders, is in the same work room.
  - The definition for near-location is that everyone on the team is close enough that they could drive in to attend a coordination meeting.

- DAD’s advice is to reduce the project risk by keeping the teams as small and as geographically close as possible.
DAD: Structure of Small Teams

Small DAD Team

- Team Lead/Architecture Owner
- Team Members
- Product Owner

Supporting Cast

- Technical Expert(s)
- Domain Expert(s)
- Independent Tester

Produces

Consumable Solution

[Ambler & Lines 2012]
DAD: Structure of Medium-Sized Teams

[DAD Subteam]

- Team Lead
- Product Owner
- Architecture Owner
- Specialist(s)
- Team Member

Produces

Feature/Component

[Consumable Solution]

Technical Expert(s)
Domain Expert(s)
Independent Tester(s)

Supporting Cast

[Ambler & Lines 2012]
Reference