



Heavy vs Light Methods

Heavy Process

- Predictive making it difficult to respond to change.
- Elaborate, long-term, detailed planning
- Disciplined, detailed process
- Lots of documentation produced in a bureaucratic environment
- Process oriented

Light(Agile) Process

- Adaptive - embrace change.
- Iterative and incremental.
- Fast cycle/frequent delivery.
- Tacit knowledge - project knowledge in the participants' heads rather than in documents.
- People oriented.



Predictive vs Adaptive

- A Predictive process attempts to plan and predict the activities and resource (people) allocations in detail over a long period of time, -the waterfall model.
- This works well until things change so their nature is to resist change.
- An adaptive process accepts change as an inevitable driver and encourages flexible adaptation



Agile methods

- Dissatisfaction with the overheads involved in design methods led to the creation of agile methods. These methods:
 - Focus on the code rather than the design;
 - Are based on an iterative approach to software development;
 - Are intended to deliver working software quickly and evolve this quickly to meet changing requirements.
- Agile methods are probably best suited to small/medium-sized business systems or PC products.



What is an Agile Process?

- An agile software process addresses three key assumptions about the majority of software projects:
 - It is difficult to predict in advance which software requirements will persist and which will change. In addition how will customer priorities change as the project progresses?
 - For many types of software design and construction are interleaved.
 - Analysis, design, construction and testing are not as predictable (from a planning point of view) as we would like.



What is an Agile Process?

- An agile process must be :
- Adaptable - to changing project and technical conditions.
- Incremental - to allow adaptation to keep pace with change.
- Agile Methodologies
 - XP (Extreme Programming)
 - Scrum
 - Feature-Driven Development
 - DSDM (Dynamic System Development Method)



Agile Methods

Assignment week 5 class test.
Complete the following tasks:

- From www.agilealliance.org (Select **Agile Essentials** on the menu)
 - What is the agile manifesto?
 - What are the principles behind the agile manifesto. Describe each.
 - What are the pros and cons of each value listed in the Agile Manifesto?
 - Why should an organisation go agile?
 - What are the problems with agile models?
- From www.agilemodeling.com
 - What is agile modelling (AM)?
 - What is an agile model?
 - What are the values of AM?
 - What is the difference between AM and "traditional modelling"?
- Download and read The Scrum Guide to answer the following questions :
 - What is Scrum?
 - Describe the scrum team.
 - What is a scrum sprint?
 - What are the product and sprint backlogs.