



Awarding Great British Qualifications

Agile Development

Topic 11:
Estimating and Timeboxing


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Estimating and Timeboxing Topic 11 - 11.2


Topic 11 Coverage

This topic will cover:

- How do we estimate?
- The estimating process
- Estimating in the DSDM Lifecycle
- What is a timebox?
- Planning the project




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Estimating and Timeboxing Topic 11 - 11.3


DSDM - 5 Key Techniques




MoSCoW Prioritisation




Modelling




Facilitated Workshops



Iterative Development




Timeboxing



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Group Exercise - Estimating

Do this individually, with no discussion ...
Estimate how long it would take for *you* to build *me* a wall.


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Group Exercise - Estimating



What did *you* have in mind?

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Group Exercise 2 - Estimating

Do this individually, with no discussion.
Estimate how long it would take for *me* to drive from...



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The Estimating Process

There are a number of distinct steps:

- Estimate the effort required
- Adjust the effort for environmental factors
- Identify the products and their inter-dependencies
- Schedule the product deliveries and allocate resource
- Adjust the schedule in the light of known constraints



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Factors Affecting an Estimate

- Size of task
- Complexity
- Quality required
- Productivity of people
- Availability of resource
- Experience of people



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Who Estimates?

The team estimates!



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The Estimating Approaches - 1

Estimating approaches can be both top-down or bottom up and may include:

- Task based
- Product based
- Algorithmic
- Non-algorithmic
- Analogy
- Expert judgement
- Standard ratios

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The Estimating Approaches - 2

There are many different ways to identify estimates. It is important to use more than one approach, and often will require many combined approaches to identify realistic estimates.

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Why Are Estimates Wrong?

- Inexperience of estimating
- Doing something that has not been done before
- Inadequate techniques
- Optimistic assumptions
- Wrong person making estimates
- Lack of information

Estimates can be wrong by a small margin, but if they are not approached effectively there could be a large margin of error.

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Estimates Improve

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Estimating in the DSDM Lifecycle

Estimate Accuracy	Outline Plan	Delivery Plan	Timebox Plan(s)
Less			
More			

Requirement Detail	Outline Plan	Delivery Plan	Timebox Plan(s)
Less			
More			

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Estimating

Agree to what you believe you can do –
Set realistic objectives!

Then honour your commitments!

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What is a Timebox?

A timebox is a fixed period of time, at the end of which an objective has been met.

- The time available dictates work done
- The aim of a timebox is to make something useful
- A timebox is product-focused, not task-focused

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The Mindset for Timeboxing


"Creative people in many walks of life have a deadline. A magazine writer, television producer or seminar developer creates material for a certain date ...


James Martin



... Whatever else happens,
they must not fail to meet the deadline.

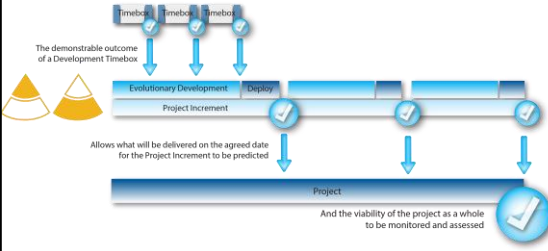
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The Delivery Plan



The demonstrable outcome of a Development Timebox

Evolutionary Development

Project Increment


Deploy


Allows what will be delivered on the agreed date for the Project Increment to be predicted

Project

And the viability of the project as a whole to be monitored and assessed

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Size of a Development Timebox


How large should it be?

2 – 6 weeks



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Timeboxing


As a rule of thumb, within timeboxes within an increment:

Must Have	approximately 60% of effort
Should Have	approximately 20% of effort
Could Have	approximately 20% of effort

The estimated effort in the 'Must Haves' should never be above 75% (except in rewrites of well-documented systems).

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Planning The Project

- **Outline Plan** created in Feasibility
- **Delivery Plan** created in Foundations, showing timeboxes within the increment
- **Timebox Plans** showing detailed activities within timeboxes, to monitor progress within timeboxes
- **Deployment Plan** 'outlined' in Outline and Delivery Plans, created during Exploration and Engineering

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Timebox Plans

KICK OFF

INVESTIGATION

Identify
Plan
Review
Evolve

REFINEMENT

Identify
Plan
Review
Evolve

CONSOLIDATION

Identify
Plan
Review
Evolve

CLOSE OUT

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Timebox Planning - a suggestion

What we need to know ...

ID

Requirement Name

MoSCoW

Who (Resources)

Dependency

Size

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Summary – 1

In this lecture, we looked at:

- How do we estimate? - The class exercises allowed us to consider how we estimate and why experts should be responsible
- The estimating process – we looked at how it is important to go through set steps; consider the affecting factors; work on them as a team and to ensure you use more than one approach.

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Summary – 2

- Planning the project – we looked at a suggested way to ensure that all the elements necessary are covered during the planning for a new increment


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Any Questions?

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