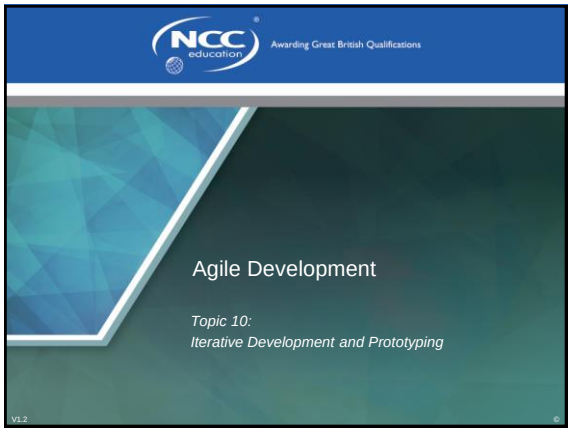
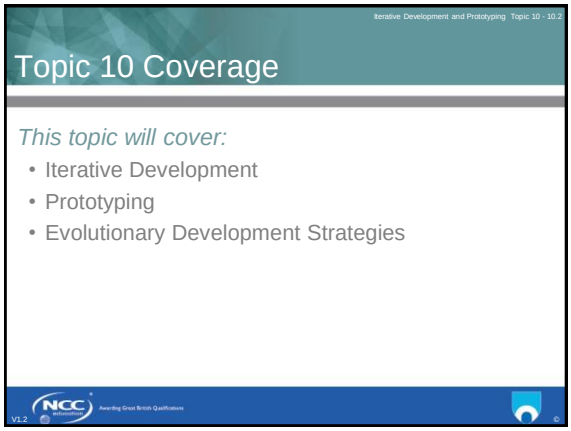
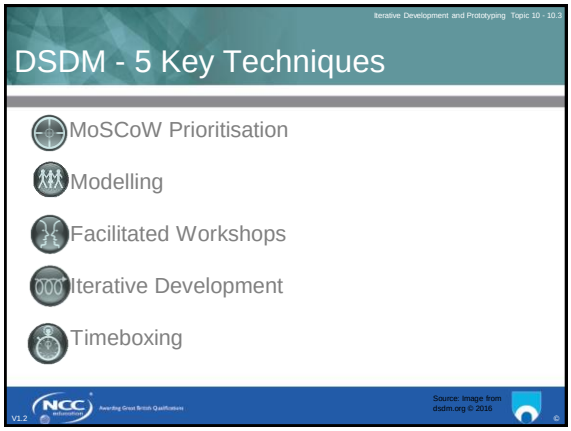

Awarding Great British Qualifications
Agile Development
Topic 10:
Iterative Development and Prototyping
V1.2


Iterative Development and Prototyping Topic 10 - 10.2
Topic 10 Coverage
This topic will cover:
• Iterative Development
• Prototyping
• Evolutionary Development Strategies
V1.2


Iterative Development and Prototyping Topic 10 - 10.3
DSDM - 5 Key Techniques
MoSCoW Prioritisation
Modelling
Facilitated Workshops
Iterative Development
Timeboxing
Source: Image from dsdm.org © 2016
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Iterative Development

This is a key technique to evolve from a high level idea to a delivered product incrementally

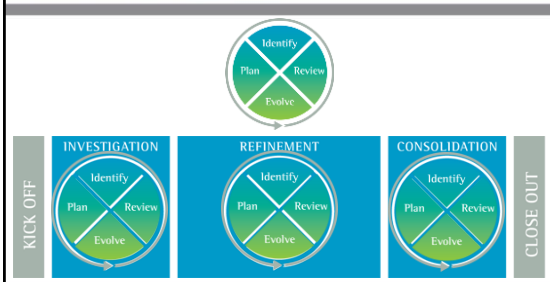
Source: Image from pixabay.com © 2016 and dsdm.org © 2016

The Iterative Development Cycle

Iterative development cycles are typically short – days or even hours!

Source: Image from dsdm.org © 2016

Iterative Development in a Timebox



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Perspectives for Iterative Development

Points to consider include:

- **Functional** – the 'what?' not 'how?' elements of a project
- **Usability** – the users needs and the user interface
- **Non-functional** – the 'how well?' elements of a project

What is a Prototype? – 1

A prototype is:

- An incomplete part of the total solution;
- Used to learn more about what is required;
- Evolutionary (evolving into the final solution) or disposable;
- Evolutionary prototyping is the means of developing the solution as a set of increments, and learning by doing

What is a Prototype? – 2

- The intent is to build something visible, valuable and working as soon as possible.

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A Few Ideas for Prototyping

Screen-based, animated

Role-play

Paper-based "low-tech"

Experimental

Video

Group Exercise – What is a Requirement?

I need four volunteers…

Iterative Development - Functional Perspective

Points to consider:

- Focuses on functionality;
- Developer ***demonstrates*** functional business requirements;
- This checks developer's understanding of user requirements;
- Confirms 'building the right solution'

Iterative Development - Usability Perspective

Points to consider:

- Focuses on user interface
- Illustrates solution ease of use
- User tests ease of use of the solution

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Iterative Development – Non-Functional Perspective

It focuses on non-functional aspects (response time, security etc.) A solution developer tests that the solution meets non-functional requirements.

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Capability/Technique Prototype

It focuses on technical design options and functionality. Here, a solution developer tests design approach and/or development tool.

This is often an Architectural Spike or Proof of Concept.

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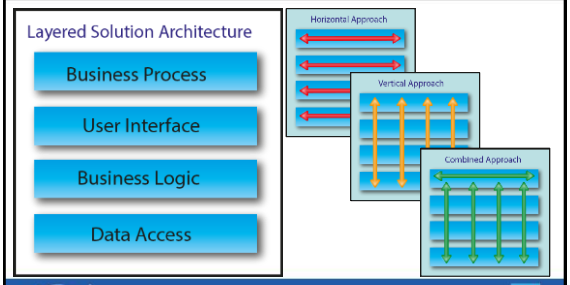
Evolutionary Development Strategies – Vertical, Horizontal & Combined Approaches



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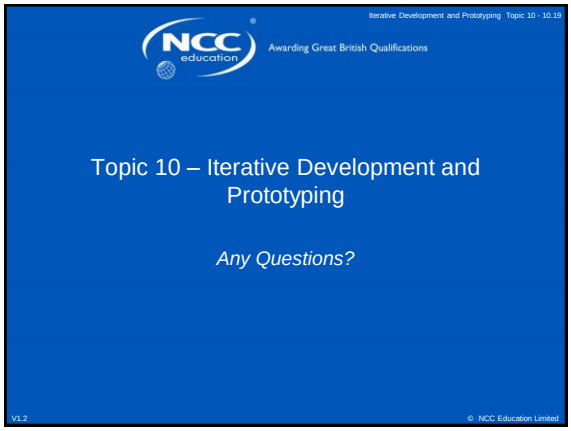
Summary – 1

Here, we have considered the issues of iterative development, prototyping and evolutionary development strategies. Below is an outline of each term:

- **Iterative Development** – the process of identifying; planning; evolving and reviewing the solution. Iterative development allows for faster development and is one of the 5 key techniques used in Agile development.

Summary – 2

- **Prototyping** – tools to demonstrate elements of the solution to allow for iterative development in-line with the users needs.
- **Evolutionary Development Strategies** – the way in which iterative development is managed to ensure each layer of the solution architecture is addressed during iterative development.


Iterative Development and Prototyping Topic 10 - 10.19
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Any Questions?
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