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COMPUTING SCIENCE AND MATHEMATICS

HR Absence and Holiday Planner

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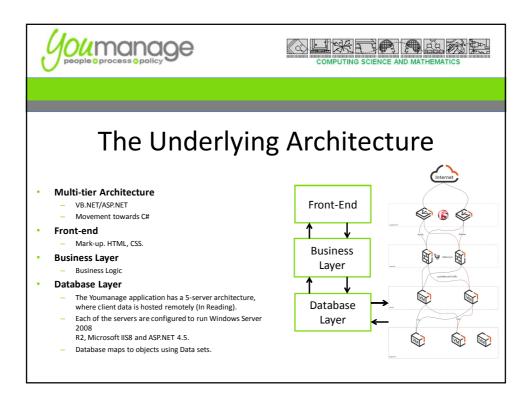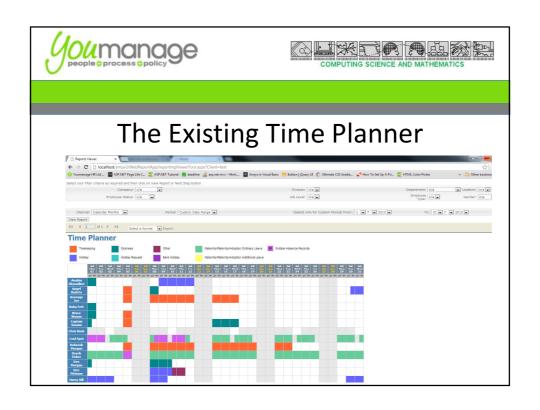people + process + policy

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Background and Context

- Youmanage HR Ltd
- Who are Youmanage?
  - Software house based in Innovation Park, Stirling
  - Their principal product is a web-based application that is designed to ease the management of the people who make up an organization.
  - Youmanage have several clients, ranging from 40-400 people.
  - Undergoing rebranding, and a recent move between versions.
- My project is to redesign and reconstruct the **Absence and Holiday Planner.**

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The Underlying Architecture

- **Multi-tier Architecture**
  - VB.NET/ASP.NET
  - Movement towards C#
- **Front-end**
  - Mark-up. HTML, CSS.
- **Business Layer**
  - Business Logic
- **Database Layer**
  - The Youmanage application has a 5-server architecture, where client data is hosted remotely (In Reading).
  - Each of the servers are configured to run Windows Server 2008 R2, Microsoft IIS8 and ASP.NET 4.5.
  - Database maps to objects using Data sets.

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The Existing Time Planner

Requirements

- To completely rebuild and reconstruct the existing time planner to improve efficiency, accommodate scalability and have less process greediness.
- Replication of functionality = "Must have requirements", additional features = "Would like requirements"
- To map the database into objects using Microsoft's object-relational mapper, Entity Framework.
- Using the following **technologies:**
  – VB.NET, C#, JQuery/Javascript, AJAX/JSON, ClosedXML, ASP.NET MVC, ASP.NET, MS SQL/ SQL, Entity Framework, HTML, CSS, XML, Xunit.

Expected Design Approach

- Systematic design approach
- Agile/Prototyping
  – Iterative…

Analysis	Design	Implementation	Profiling	Testing	Maintenance

Actual Design Approach

- Systematic design approach
- Agile/Prototyping
  - **HIGHLY** iterative.

The Solution

The Solution

Future Steps

- **Testing**
  - Functionality
    - White/Black Box, xUnit unit testing.
  - Usability
    - "Think aloud" protocol (Krug)

  Thanks for your time!

  … Any Questions?

  http://gem.youmanagehr.com