MICHIGAN STATE UNIVERSITY

Project Plan

Enterprise Learning Activity Capture

The Capstone Experience

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Spring 2015

From Students…

…to Professionals

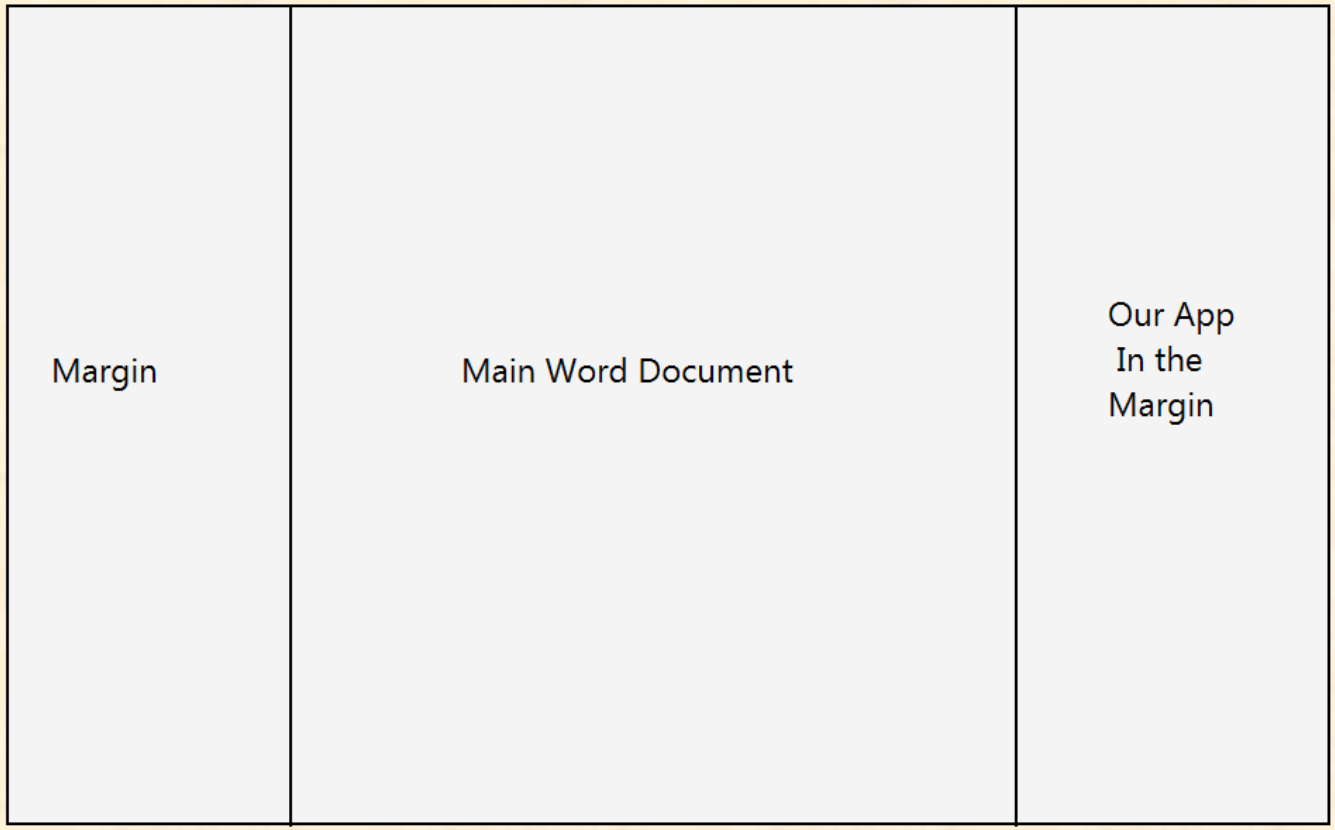
Functional Specifications

- Track digital learning in a company
- Associate people in a company with learned skills
- Allow users to search the database to find out who can help them with a task
- Allow users to view what their colleagues are learning about
- Allow authors to view who has read their documents in Microsoft Office

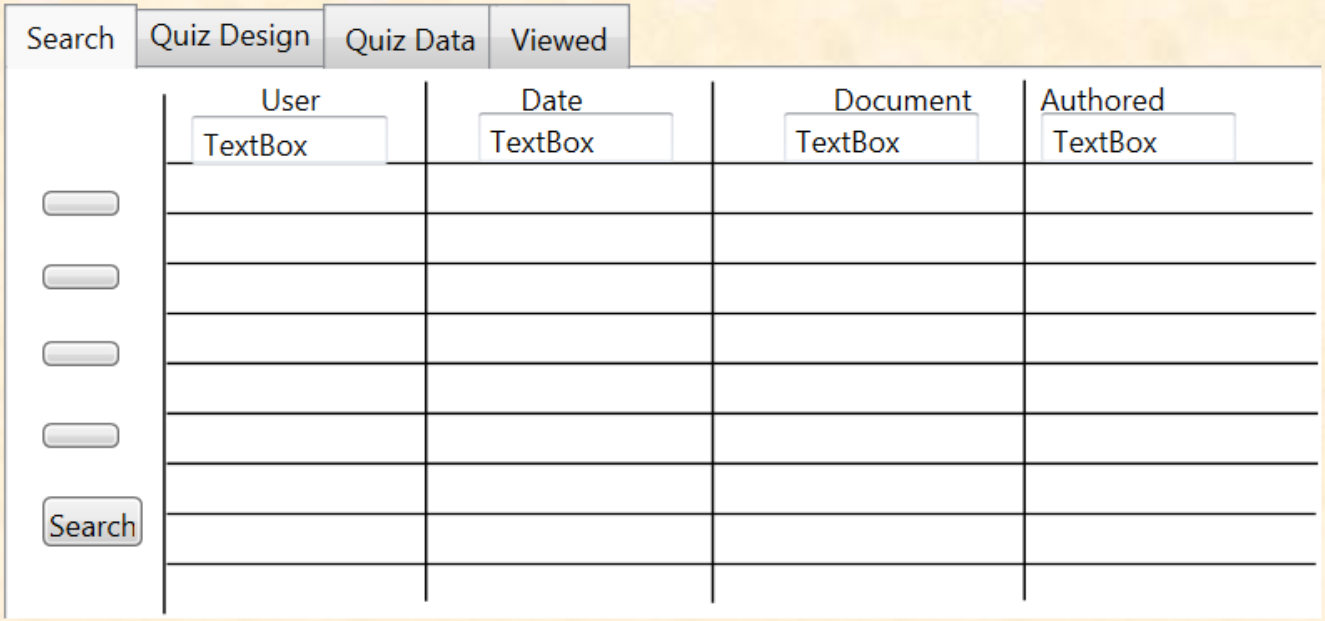
Design Specifications

- A MS office application that is connected to an ADL LRS via the Tin Can API
- Users can query the LRS to find out what their colleagues “know”
- Can view statistics about the readership in their company of their own documents
- There will be three main interfaces, “Author”, “Reader”, and “Search”
- Author can create graphical control elements (Text/Check Boxes etc…) to “test” the reader to verify knowledge

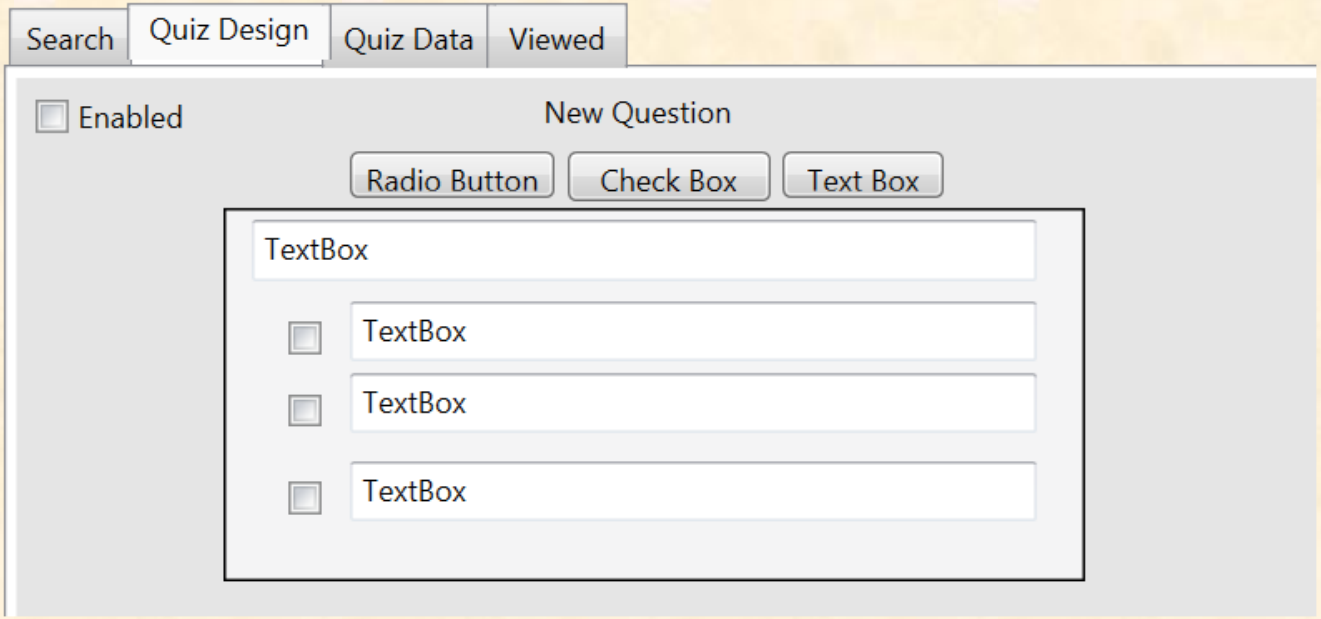
Screen Mockup: Application Location



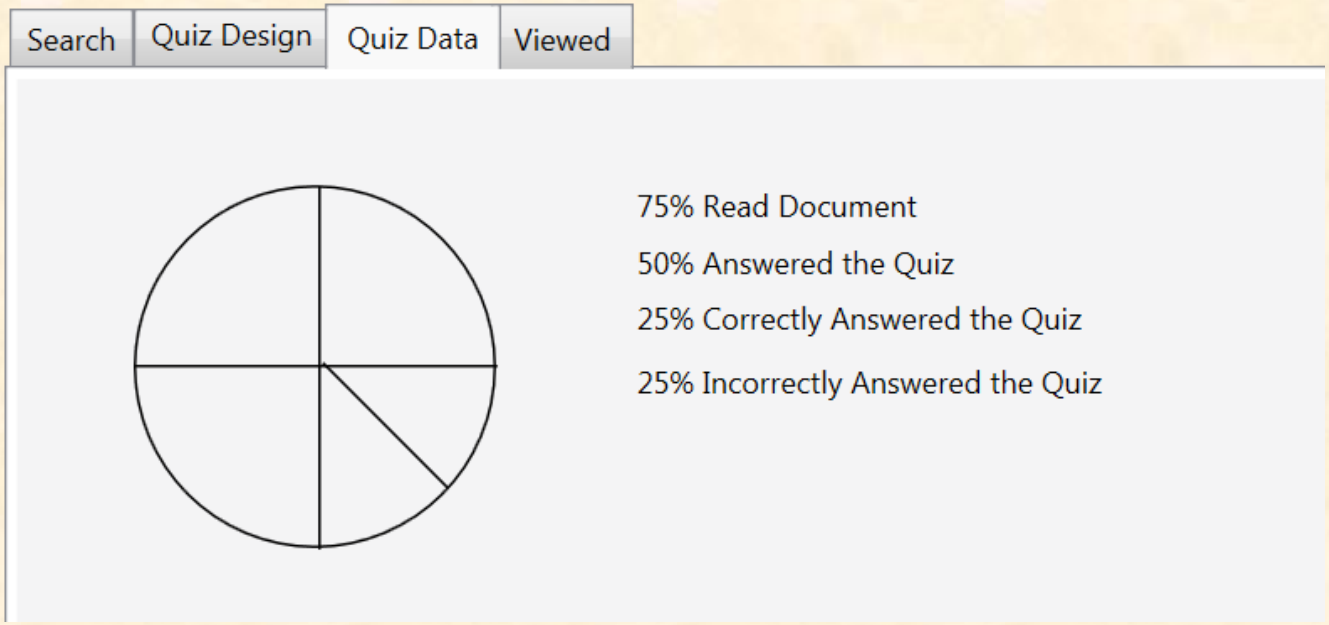
Screen Mockup: Search Tab



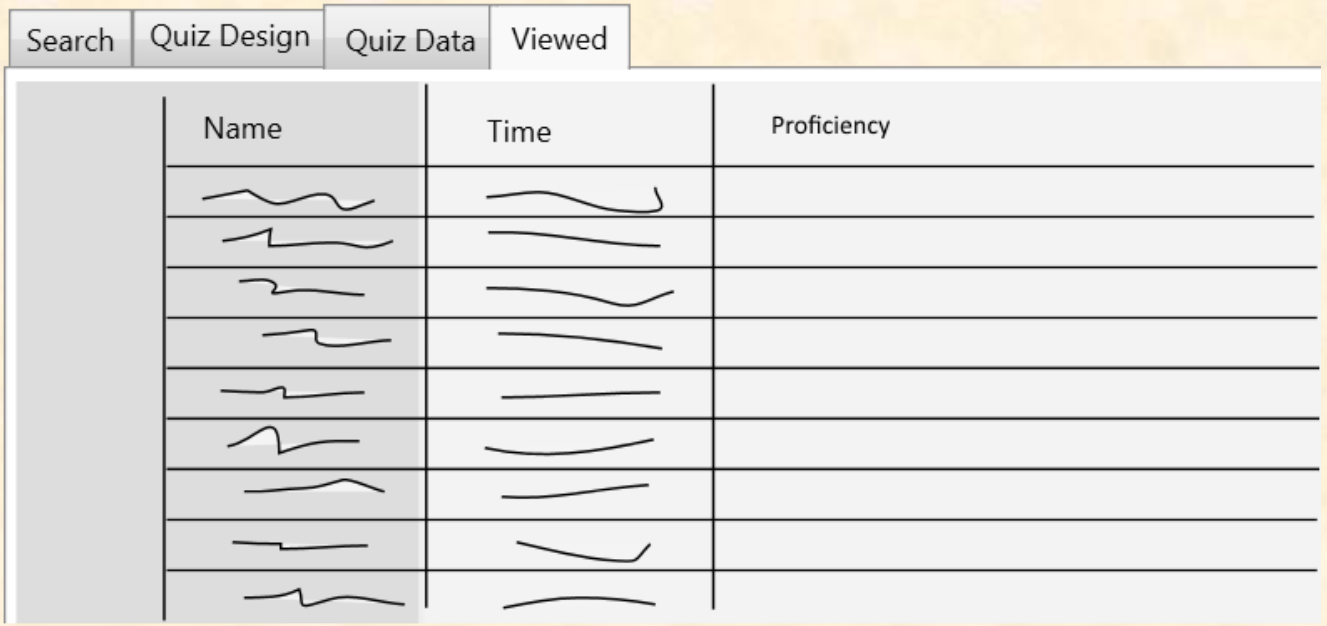
Screen Mockup: Quiz Design Tab



Screen Mockup: Quiz Data Tab



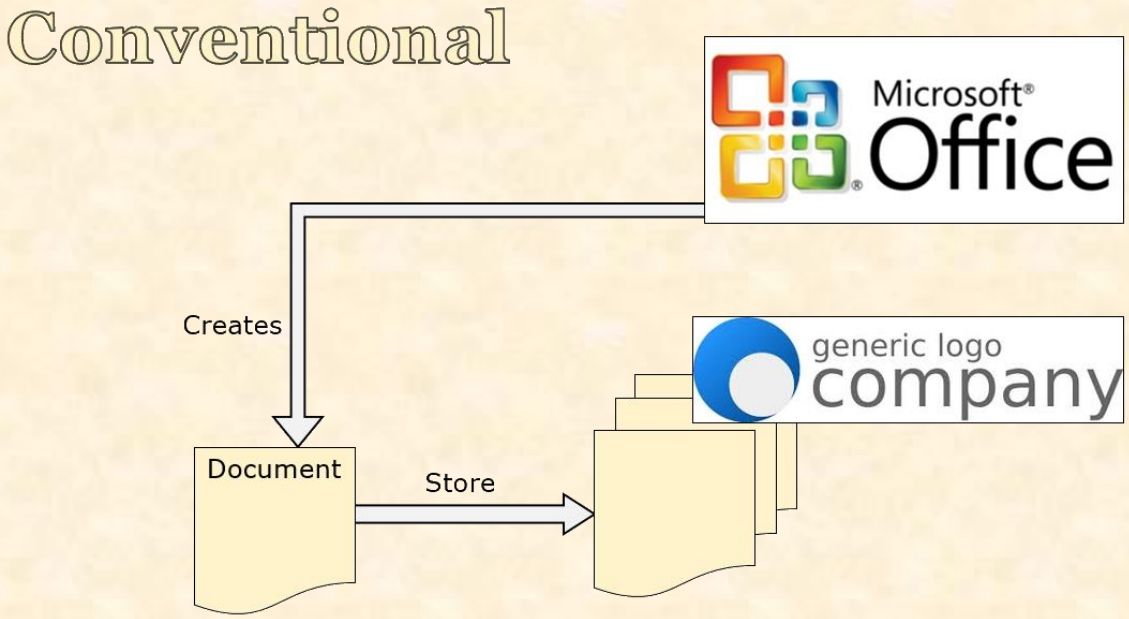
Screen Mockup: Viewed Tab



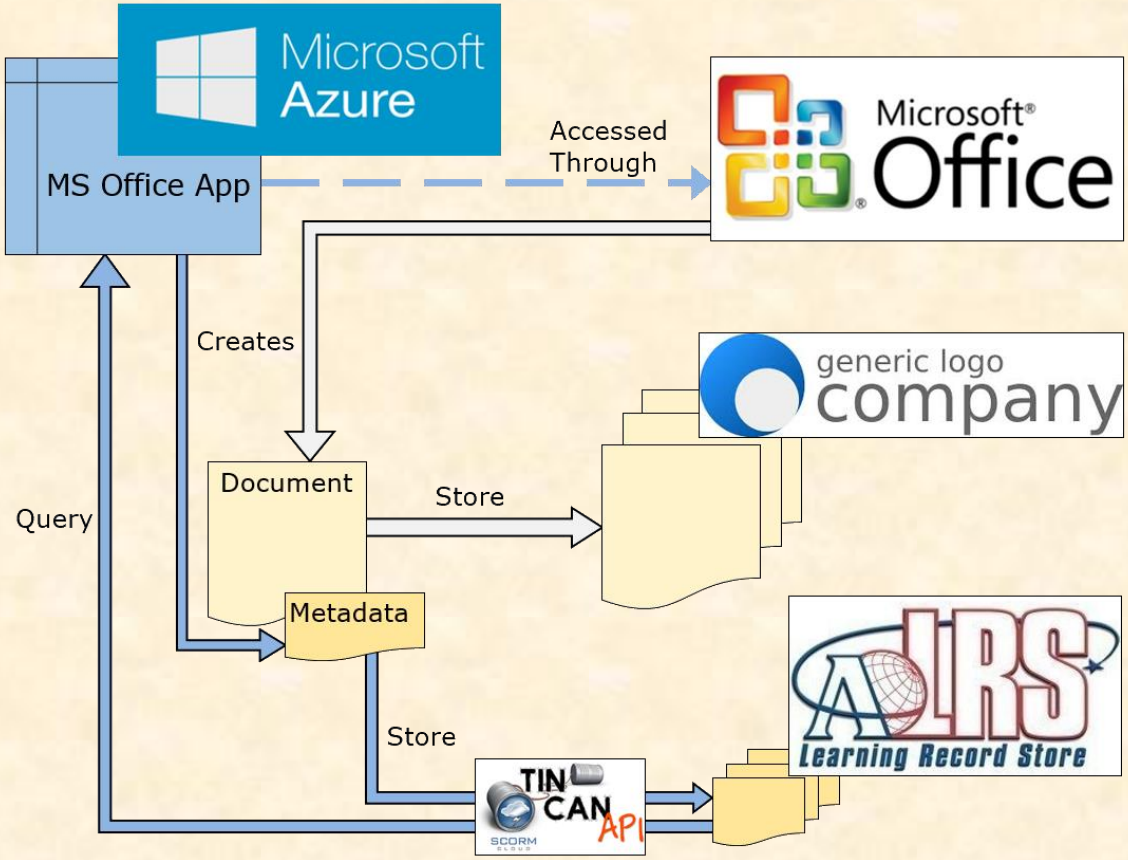
Technical Specifications

- Learning Record Store (LRS)
- Tin Can API
- Ubuntu
- RESTful Web Services
- Microsoft Office/Office 365
- Napa/Visual Studio 2013

System Architecture



System Architecture



System Components

- Hardware Platforms
  - Server
  - Client Side Machines
- Software Platforms / Technologies
  - ADL LRS
    - Ubuntu
  - MS Office/ Office 365
    - Our Application
  - HTML, Javascript, CSS, C#

Testing

- Attempt to create a mock business
- Use this business to test out features
- Human Testing for most of the materials
- Potential Problems
  - Deletion of records
  - Redundant or Protected user/file names
  - Loss of connectivity (Record preservation)
  - Multiple associations or unassociated data
  - Interfacing with an arbitrary company data system

Risks

- Tin Can API
  - High Risk
  - Poor documentation and brand new to all of us
  - Read up on it and try and get examples from the previous capstone group that used the Tin Can API
- ADL LRS
  - High Risk
  - Database Structure that runs on a obsolete version of Ubuntu
  - Attempt to acquire the old version of Ubuntu and install the ADL LRS, otherwise use a different version of the ADL LRS
- Database Queries
  - Low Risk
  - None of us have a database background
  - Read up on databases and find example code to figure it out
- Web coding
  - Low Risk
  - One of us has a background in web development, the other three do not
  - Read up on web development and how to do it properly
- RESTful Web Services
  - Low Risk
  - Unfamiliarty with RESTful practices
  - Read up and look through and understand the theory and guidelines of RESTful web services