# New Millenium Building Systems Estimate

Nick Amor, David Hoot, AJ Karnitis, Danny Martin, Alex Myers, Shelby Timbrook

# **New Millenium Building Systems**

- New Millenium Building Systems is trusted as the prefered provider for steel joists, castellated beams and metal decking
- www.NewMill.com

## **New Millennium's Need**

- Web application for NMBS estimators that will replace an Excel based workbook
- Application that allows estimating the overall cost of the materials the company can supply for a project

# **Project Goal**

- Create a web application to easily allow estimators the ability to create and modify different levels of an estimate
- Estimate Structure:
  - Estimate
    - Bid
      - Joist
      - Deck
      - Bridging
      - Accessory

#### Idea

- Online web form using MVC 4
- Separate the application based on the different types of materials
- Store the estimates in a Microsoft SQL database
- This application is for internal use only

# **Planning**

- Met with David Hauze
- Examined the currently existing Excel workbooks
- Contacted the employees at New Millenium for clarification on the structure and functionality of the workbooks

## **Database Construction**

- Designed structure based upon the current Excel worksheets
  - Modified the design to fit desired functionality
- Stored dimensions in terms of millimeters
- Converted our design into scripts that can efficiently create the database

#### **User Interface**

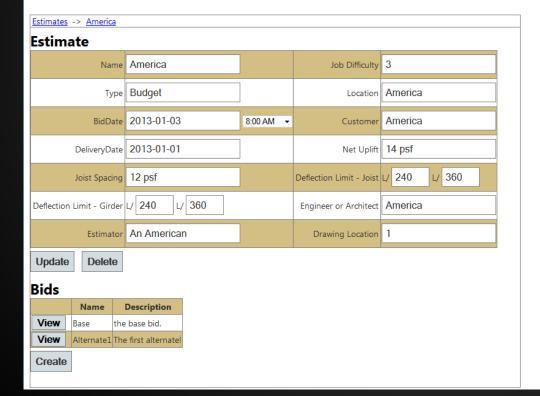
- Experimented with various methods for displaying forms and settled on a modified MVC approach
- Each object has an index page and a details page.
  - The index page lists all of the items of a specific type.
  - The details page lists the details of a specific item and all of its children items.

# **UI Example**

#### **Estimates**

	Job Diff.	Type	Name	Location	Bid Date	Customer	Delivery Date	NetUplift	Joist Spacing	Joist Deflection	Girder Deflection	Eng/Arch	Estimator	Drawing Location
View	] 3	Budge	t America	America	1/3/2013 12:00:00 AM	America	1/1/2013 12:00:00 AM	14 psf	12 psf	LL: L/240 TL: L/360	LL: L/240 TL: L/360	America	An American	1
View	4	Budge	Estimate Numero Uno	Warez, Mexico	5/1/2013 12:00:00 AM	ISan Pahlo	5/31/2013 12:00:00 AM	15 psf	12 psf	LL: L/240 TL: L/360	LL: L/240 TL: L/360	CLAYCO	George	Office

#### Create



#### **Data Access**

- Implemented a basic CRUD (Create, Read, Update, Delete) interface for each level of an estimate
- Verified that data integrity was maintained when modifying records

## **JQuery**

- Ensures that the data is displayed with the correct formatting
- Handles asynchronous loading on forms
- Forms the objects sent to the controllers

# Live presentation