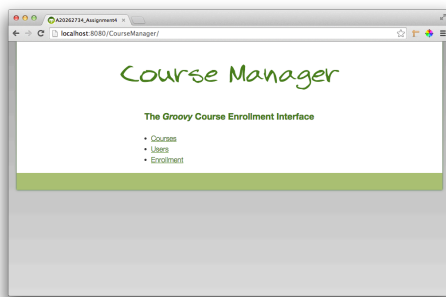
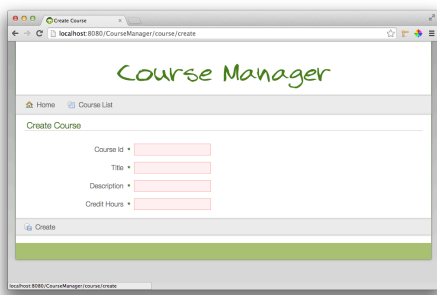


Pre-Requisites:

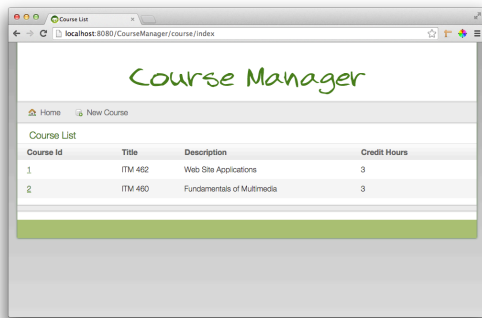
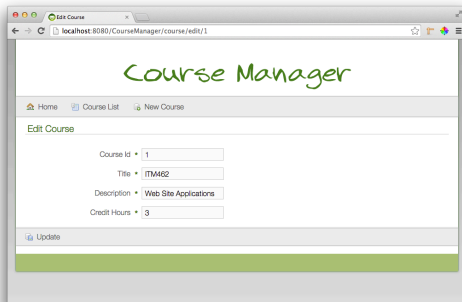
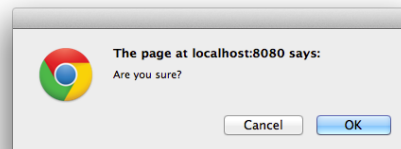
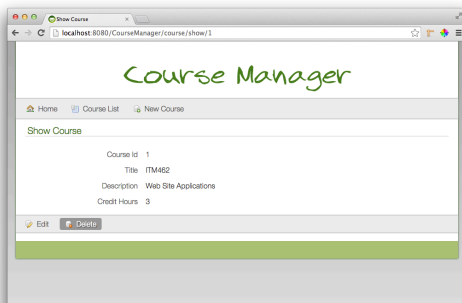
- JDK 1.7.* or higher—ie 1.8.*
- Grails 2.4.3

Installation:

- 1) Unzip
- 2) Open a command prompt
- 3) Navigate to the root directory (1)
- 4) Enter the command "grails run-app"

Wireframes / Functionality:**Home****Course CRUD – Create****Constraints:**

- *All fields are required—cannot be blank*
- *All fields are non-nullable*
- *The Course Id and Title field must be unique*
- *Course Id must be greater than 1*
- *Credit Hours can be equal to 3 or 4*

Course CRUD - Read**Course CRUD - Update****Course CRUD - Delete**

User CRUD – Create

The screenshot shows a web browser window titled 'Create User' with the URL 'localhost:8080/CourseManager/user/create'. The page has a green header with 'Course Manager' and a navigation bar with 'Home' and 'User List'. Below the header, there is a 'Create User' section with three input fields: 'User Name', 'Password', and 'User Id'. Each field has a red border and a small red dot on the left. At the bottom of the form is a 'Create' button.

Constraints:

- *All fields are required-cannot be blank*
- *All fields are non-nullable*
- *UserId cannot be less than 1*
- *Username and UserId must be unique*

User CRUD – Read

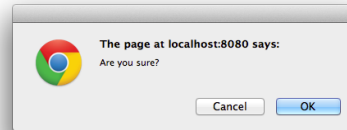
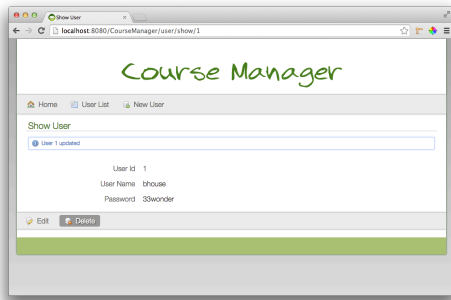
The screenshot shows a web browser window titled 'User List' with the URL 'localhost:8080/CourseManager/user/index'. The page has a green header with 'Course Manager' and a navigation bar with 'Home' and 'New User'. Below the header, there is a 'User List' section with a table showing two users.

User Id	User Name	Password
1	bhouse	33wonder
2	bbaggins	bbot1

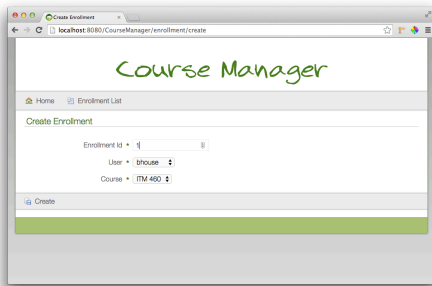
User CRUD – Update

The screenshot shows a web browser window titled 'Edit User' with the URL 'localhost:8080/CourseManager/user/edit/1'. The page has a green header with 'Course Manager' and a navigation bar with 'Home', 'User List', and 'New User'. Below the header, there is an 'Edit User' section with three input fields: 'User Id' (containing '1'), 'User Name' (containing 'bhouse'), and 'Password' (containing '33wonder'). Each field has a red border and a small red dot on the left. At the bottom of the form is an 'Update' button.

User CRUD - Delete



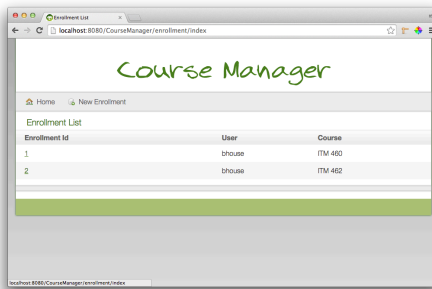
Enrollment CRUD - Create



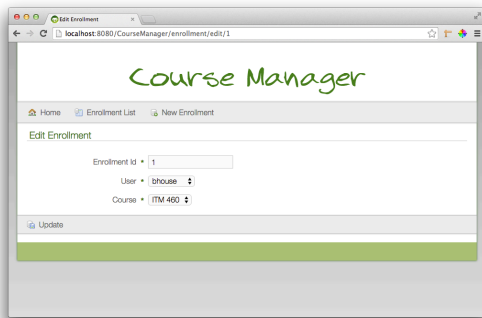
Constraints:

- All fields are required-cannot be blank
- All fields are non-nullable
- Enrollment Id must be unique and greater than 1

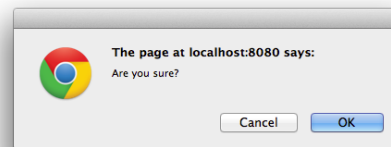
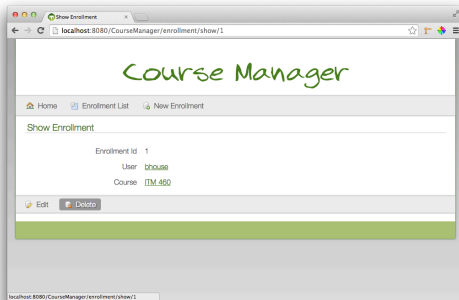
Enrollment CRUD - Read



Enrollment CRUD – Update



Enrollment CRUD – Delete



Open Issues (To Do's)

- No session authentication
 - Needs an actual Login page, which establishes the users session
 - Similarly needs to logout button (link) which kills the users session
- Password not encrypted or hidden
- Password no value validation
- Color scheme is out of the box—i.e. needs to be customized
- Footer missing
- User roles undefined
- Id constraint validations don't seem to actually work
 - If you create a User with the UserId = 1 and then try to create the same user again, the site blows up. This issue seems to be true across domain classes
- No direct links to controllers
 - User must constantly go back to home