**Project Design**

**CMSC 495 #6380**

**9/13/20**

**Group #5**

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# **Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Revisor** | **Changes made** |
| 1.0 | 9/13/20 | Nicholas Crown | Proposed event-tracing scenarios |
|  |  |  |  |

# **Project Design for Martial Arts Attendance Tracking Application**

## **Event-trace diagrams:**

### **Scenario 1:**

Description: The user enters an incorrect username or password.

Precondition: The user has navigated to the web application location in their browser.

Post-Condition: The web application denies access to the user, stating that they have entered an incorrect username or password.

### **Scenario 2:**

Description: The user enters the username and password of a student account.

Precondition: The user has navigated to the web application location in their browser and the account exists in the database.

Post-Condition: The web application permits access to the user, loading the class calendar schedule view.

### **Scenario 3:**

Description: The user enters the username and password of an instructor account.

Precondition: The user has navigated to the web application location in their browser and the account exists in the database.

Post-Condition: The web application permits access to the user, loading the class calendar schedule view and menu toolbar.

### **Scenario 4:**

Description: The user navigates to the New Student menu selection and attempts to submit an incomplete form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the form is incomplete.

### **Scenario 5:**

Description: The user navigates to the New Student menu selection and submits a completed form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application accepts the form data, creates a new record in the Students table of the database, and displays a message to the user notifying them that the operation was successful.

### **Scenario 6:**

Description: The user navigates to the New Instructor menu selection and attempts to submit an incomplete form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the form is incomplete.

### **Scenario 7:**

Description: The user navigates to the New Instructor menu selection and submits a completed form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application accepts the form data, creates a new record in the Instructors table of the database, and displays a message to the user notifying them that the operation was successful.

### **Scenario 8:**

Description: The user navigates to the New Class menu selection and attempts to submit an incomplete form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the form is incomplete.

### **Scenario 9:**

Description: The user navigates to the New Class menu selection and submits a completed form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application accepts the form data, creates a new record in the Classes table of the database, and displays a message to the user notifying them that the operation was successful.

### **Scenario 10:**

Description: The user navigates to the Modify Student menu selection, selects a student, and attempts to submit a blank form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the form is incomplete.

### **Scenario 11:**

Description: The user navigates to the Modify Student menu selection, selects a student, and submits data that is the same as the current record.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that there are no new changes.

### **Scenario 12:**

Description: The user navigates to the Modify Student menu selection, selects a student, and submits data that is the different from the current record.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prompts the user to confirm submission of data and updates the appropriate record in the Students table in the database.

### **Scenario 13:**

Description: The user navigates to the Modify Instructor menu selection, selects an instructor, and attempts to submit a blank form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the form is incomplete.

### **Scenario 14:**

Description: The user navigates to the Modify Instructor menu selection, selects an instructor, and submits data that is the same as the current record.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that there are no new changes.

### **Scenario 15:**

Description: The user navigates to the Modify Instructor menu selection, selects an instructor, and submits data that is the different from the current record.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prompts the user to confirm submission of data and updates the appropriate record in the Instructors table in the database.

### **Scenario 16:**

Description: The user navigates to the Modify Class menu selection, selects a class, and attempts to submit a blank form.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the form is incomplete.

### **Scenario 17:**

Description: The user navigates to the Modify Class menu selection, selects a class, and submits data that is the same as the current record.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that there are no new changes.

### **Scenario 18:**

Description: The user navigates to the Modify Class menu selection, selects a class, and submits data that is the different from the current record.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prompts the user to confirm submission of data and updates the appropriate record in the Classes table in the database.

### **Scenario 19:**

Description: The user navigates to the Class Attendance menu selection, selects a class, and attempts to submit the form without changing the state of any radio buttons for attendance associated to the displayed students.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prevents the user from submitting the form and displays an error notifying the user that the attendance record has not changed.

### **Scenario 20:**

Description: The user navigates to the Class Attendance menu selection, selects a class, and submits the form after changing the state of any radio buttons for attendance associated to the displayed students.

Precondition: The user has navigated to the web application location and logged in with an instructor account.

Post-Condition: The web application prompts the user to confirm submission of data and then updates the appropriate record’s Attendance field in the Classes table in the database. The attendance count updates in the calendar view on the associated class.