



# TUTOR SYSTEM



**By: Michelle Keehan**  
**CS 460**



# PROJECT DESCRIPTION

- Upgrade the Academic Support Tutor Monitoring and Scheduling System by identifying and integrating enhancements and new features.
  - Review current system
  - Propose a development plan for current and future work
  - Follow system analysis methodology
  - Include Client training



# WHAT IS THE TUTOR SYSTEM?

## ○ Program

- User: Academic Support Services
- Purpose:
  - Provide an application to users
    - Assign Tutors to students
    - Efficiently search for tutor matches
    - Track tutor progress
    - Provides reports

## ○ Website

- Users: Tutors
- Purpose:
  - Provide a site for Tutors
    - Input information about themselves
    - Input their class schedule
    - See who they are tutoring



# STEPS TO FINDING A SOLUTION



- Contact Alumni mentors
  - Location of existing program and website
  - Suggestions for improvements
- Review the current system
  - Recommend modifications
- Contact primary user of program
  - Discuss improvements and additions
- Contact tutors
  - Discuss improvements and additions to the website



# METHODOLOGY

- Project Management Lifecycle



# STEP 1: STRATEGY AND PLANNING



## ○ Project Charter

### V. Benefits / Strategies

- Improve accuracy in managing data
- Reduce time to assign and search for a tutor
- Enable Tutees to be assigned to a tutor experienced in that specific class with the specific professor

### VI. Communication Plan

| What              | Who               | When                 | How (format)                |
|-------------------|-------------------|----------------------|-----------------------------|
| Project Charter   | Sponsors and Team | Beginning of Project | Project Charter Template    |
| Release One       | Sponsors and Team | Mid Term             | Installation of Release One |
| Project Close Out | Sponsors and Team | End of Project       | Installation/Meeting/Email  |

### VII. Sign-Offs

I approve this project charter and the resources identified. I understand the objective/scope, high level approach, deliverables, constraints, assumptions, benefits/strategies, and communication plan associated to this project...

| Role                      | Title                  | Printed Name    | Signature | Date |
|---------------------------|------------------------|-----------------|-----------|------|
| Project Sponsor           | Academic Administrator | Carole Basak    |           |      |
| Technical Project Manager | CS Student             | Michelle Keehan |           |      |

### VIII. Version Control

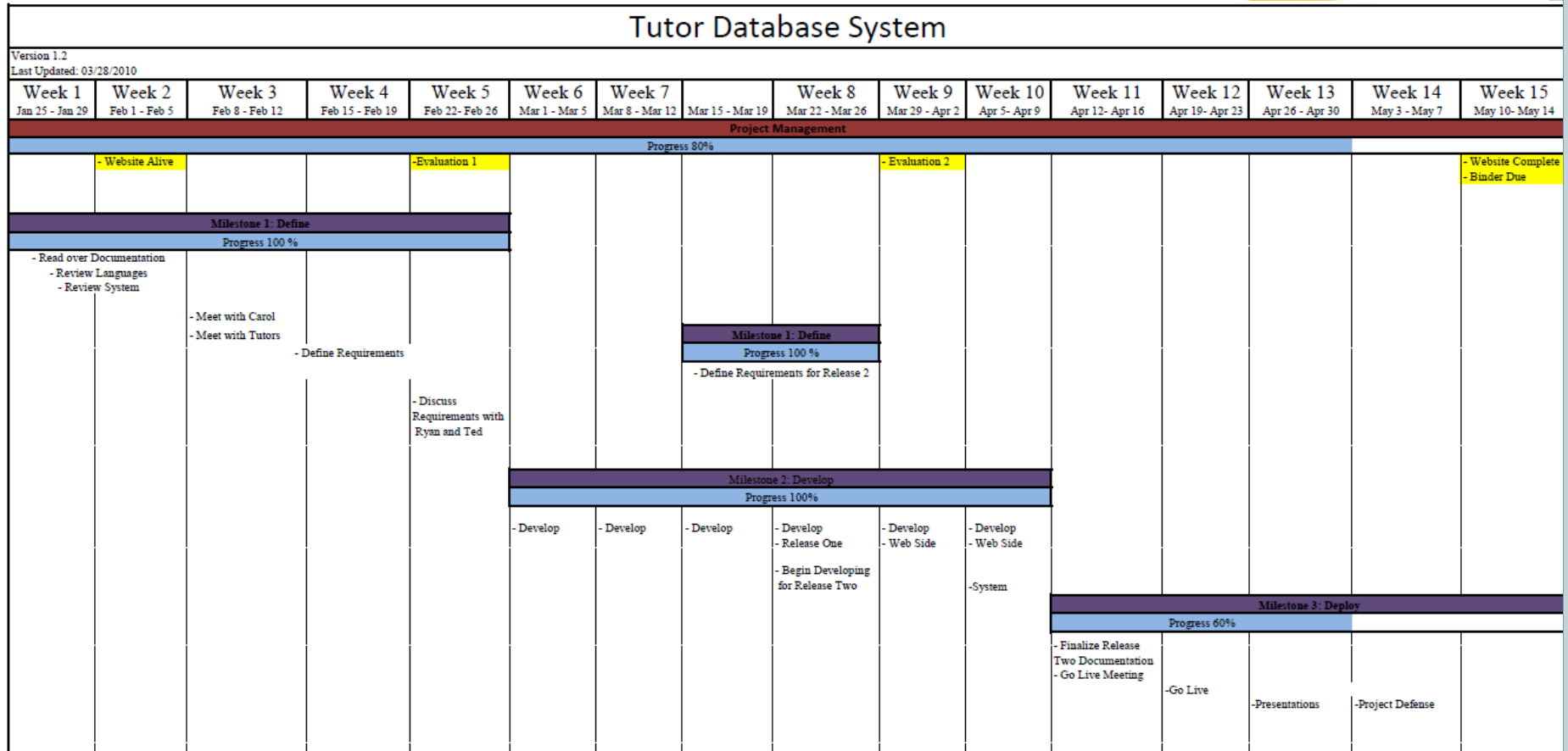
| Last Update Date | Last Updated By | Version | Description of Change           |
|------------------|-----------------|---------|---------------------------------|
| N/A              | Michelle Keehan | v.1.0   | Created document                |
| 2/13/2010        | Michelle Keehan | V.1.1   | Modified to contain Release Two |



# STEP 1: STRATEGY AND PLANNING



## ○ GANTT Chart



# STEP 2: REQUIREMENTS ANALYSIS



Dear Carole Basak,

I appreciate your willingness to allow me to improve the Tutor Database System. It was very helpful for me to meet with you in order to see what improvements you would like made and what 'bugs' seem to occur while using the system. My goal for this project is to implement changes to improve efficiency of the system, therefore, I have taken time to research a lot of the changes you provided me with. This document shows the requirements for the second release which will be implemented at the end of the semester.

## OBJECTIVE

The entire improvement to the system will fix current bugs, implement new features, and expand current features from the suggestions provided to me through our meeting and the meetings with tutors in order to improve the Tutor Database System. Documentation and assistance will also be provided to all users of this system.

The second release will allow me to expand features to ensure your satisfaction with the changes implemented. This release will also ensure superior performance with the installation process of the new system and ensure superior performance of the updated system.

## SCOPE

### 1. Procedures for Release One


#### A. Changes to Tutor Database System

- a. Fix necessary wording on Tutor Information (Suite Number and Preferred Tutees).
  - a. Changing Suite Number to Mailbox and eliminating Preferred Tutees.
- b. Fix the end date glitch appearing on Current Connections.
  - a. Set end date equal to December 20XX or May 20XX.
- c. Fix Assign Tutee section to show the correct class name.
  - a. Allow only class names from the drop down box to be displayed, adding a tutor can be done through file -> add tutor.
- d. Allow the Assign Tutee information to be displayed until Assign is clicked.
  - a. This information will stay in the Assign Tutee section until Assign is clicked.
- e. Allow the ability to navigate between forms.
- f. Improve the Courses Available to Tutor screen.
  - a. Increase the size of the text box.
- g. Add the ability for you to open the letter and edit.
  - a. When print assignment summary is clicked it asks if you would like to print the connection, if yes it will ask if you would like to edit the letter.
    - i. Yes will allow the letter to be open as a Word document, you will have to choose to print and save.
    - ii. No will allow you to see the letter being generated, but then close and print.





# STEP 2: REQUIREMENTS ANALYSIS



Requirements  
Analysis

## 2. Procedures for Release Two

### A. Changes to Tutor Database System

- a. Fix bugs from Release One
- b. Add column for CRN's
  1. Manually insert CRN when assigned
- c. Allow the ability to edit Tutor Information
  1. When specific area is clicked, changes will be allowed. Save Changes must be clicked in order to save.
- d. Allow the ability to edit Group Sessions
- e. Allow the ability to delete Group Sessions
- f. Ability to edit Current Connections
- g. Fix Courses Available to Tutor
  1. Show if there is a hold on the Tutor
  2. Show how many connections the tutor currently has
- h. Print Inactivated student's list
- i. Create a quick search for deactivated students
  1. Print deactivated students list
- j. Show in Quick Search number of Tutees and Hold
  1. Add column to quick search table to say the count of Tutees for that Tutor
  2. Change name to Red if Hold on Tutor
- k. Add Notes Field to Modules
  1. Add a column to hold notes and then save.

### B. Changes to Tutor Website

- a. Wording
- b. View classes other Tutors are tutoring



# STEP 2: REQUIREMENTS ANALYSIS



## 3. Training, Testing, and Documentation

- A. For the first release I will meet with you before the release to explain the new changes.
- B. Ensure functionality of the Tutor Database System.

### BENEFITS

The changes I will make to this project will enhance the usability of the system.

### YOUR RESPONSIBILITY

In order to complete this project successfully, your involvement and the involvement of your team will be needed. Therefore, it is your team's responsibility to carry out the following:

1. Provide immediate feedback on changes.
2. Notify me of any problems or bugs that may occur.

### CLOSING

I would like to thank you for giving me this opportunity to improve the Tutor Database System. If you accept the this proposal for the second release, please sign and notify me when it is complete.

Sincerely,

Michelle Keehan  
Senior Computer Science Major  
CS 460 Student

### RESPONSE

Accepted By \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_



# STEP 3: DESIGN



| # | Tasks   | Priority | Difficulty (10= highest) | Completed |
|---|---|----------|--------------------------|-----------|
| 1 | <b>Current Bugs</b><br>1.1 Fix End Date<br>1.2 Fix Class Name<br>1.3 Allow Multiple forms to be open  | 1        | 3                        |           |
| 2 | <b>Add CRN's</b><br>Search based on CRN's<br>2.1 Add column to Database to allow input of CRNS manually<br>2.2 Add column to appear in Current Connections, Quick Search  | 2        | 7                        |           |
| 3 | <b>Word Documents</b><br>Allow the ability to edit the letter that is sent to the tutee<br>3.1 Edit the letter when Assign is clicked   | 3        | 6                        |           |
| 4 | <b>System Management</b><br>4.1 Edit Group Sessions<br>4.2 Edit Current Connections<br>4.3 Delete Group Sessions<br>4.4 Add Group Sessions<br>4.5 Edit Tutor Information<br>4.6 Add Tutor ID to Add Tutor Form and display in Tutor Info  | 4        | 4                        |           |
| 5 | <b>Modules</b><br>5.1 Add Notes field (requires new database column)- New Form<br>5.2 Ability to highlight columns  | 5        | 7                        |           |
| 6 | <b>Holds &amp; Count of Tutees</b><br>It would be useful to show which tutors have holds when assigning and searching for a tutor.<br>6.1 Show students with a hold in quick search<br>6.2 Show the count of tutees a current tutor has<br>Comments: Color students red if hold applies | 6        | 4                        |           |
| 7 | <b>Deactivated Students</b><br>For reporting purposes, it would be helpful to have a quicksearch of deactivated students, as well as the ability to print a list<br>7.1 Create a Quick Search<br>7.2 Allow print capability of list   | 7        | 5                        |           |

|    |  |    |   |  |
|----|--|----|---|--|
| 8  | <b>Courses Available to Tutor</b><br>8.1 Show hold in Red<br>8.2 Total number of students Tutoring<br>8.3 ABC Order          | 8  | 8 |  |
| 9  | <b>Screen Size</b><br>9.1 Change Screen Size according to screen   | 10 | 9 |  |
| 10 | <b>Color</b><br>10.1 Add Color to the system<br>10.2 Bold Buttons  | 11 | 1 |  |
| 11 | <b>Office Suggestions</b><br>11.1 Create Check boxes Yes/ No field<br>- Make Eval, Goals, Appt                               | 9  | 7 |  |
| 12 | <b>Inactive Tutors</b><br>12.1 Delete Inactive Tutors<br>12.2 Print Inactive Tutors with ID for Deleting Purposes            |    |   |  |
| 13 | <b>Quick Search</b><br>13.1 Show if Hold<br>13.2 Show CRN's  |    |   |  |
| 14 | <b>Group Sessions</b><br>14.1 Ability to Add Group Session   |    |   |  |
| 15 | <b>Website Tasks</b><br>15.1 Changed Wording<br>15.2 Show courses other Tutors are Tutoring<br>15.3 Show highlighted modules |    |   |  |
| 16 | <b>Ongoing Issues/Suggestions</b><br>16.1 Double Spacing in Word   | -  | - |  |

# STEP 4: DEVELOPMENT

## ACCOMPLISHMENTS



- Program
  - Fixed Current Bugs
  - Edit Tutor Information
  - Edit Group Session
  - Add Group Session
  - Edit Current Connections
  - Added CRN field
  - Added Tutor ID
  - Ability to highlight modules
  - Deactivated quick search
  - Check boxes for evaluations
  - Added color
  - Resize capability
  - Edit letter
- Website
  - Search for other Tutors
  - Show highlighted modules



# STEP 4: DEVELOPMENT

## EXCEPTIONS



- Database
  - Delay because of access problems
    - Tasks left unsolved
- Website Tasks
  - Suggestions for improvement
- Application Tasks
  - Unnecessary changes





# STEP 4: DEVELOPMENT DEMONSTRATION

[Tutor Website](#)

# STEP 5: DEPLOYMENT



- Installation
- Cut-Over Document

| Cut-Over Plan- Tutor Database Project |                                    |                        |                              |            |                        |   |
|---------------------------------------|------------------------------------|------------------------|------------------------------|------------|------------------------|---|
| Technical                             |                                    |                        |                              |            |                        |   |
| Sequence ID                           | Task Name                          | Responsible Partner(s) | Planned Start Time(Thursday) | Duration   | Actual Completion Time | Comments  |
| 1.0                                   | Make changes to tables             | Michelle               | 10:00                        | 10 min     | 10:15                  |   |
| 1.1                                   | Add notes field to Module          |                        |                              |            |                        | - Alter table Modules add column notes varchar(100) not NULL;   |
| 1.2                                   | Add highlight field to Module      |                        |                              |            |                        | - Alter table Modules add column highlight tinyint(1) not NULL; |
| 1.3                                   | Add CRN field to Connection        |                        |                              |            |                        | - Alter table Connection add column CRN varchar(11) not NULL;   |
| 1.4                                   | Add TutorID field to Tutor         |                        |                              |            |                        | - Alter table Tutor add column TutorID varchar(4) not ULL;      |
| 2.0                                   | Take Deep Freeze off two computers | Geoff                  | 10:30                        |            |                        |   |
| 3.0                                   | Install System                     | Michelle               | 10:30-11:00                  |            |                        |   |
| 3.1                                   | Carole's Computer                  |                        |                              | 5 min      | 10:35                  |   |
| 3.2                                   | Karen's Computer                   |                        |                              | 5 min      | 10:40                  | - Change default on Word  |
| 3.3                                   | Assistants Computer                |                        |                              | 5 min      | 10:45                  | - Change default on Word  |
| 3.4                                   | Student Computer                   |                        |                              | 5 min      | 10:50                  | - Change default on Word  |
| 4.0                                   | Train Administrator                | Michelle               | 11:00                        | 30 min     | 11:30                  |   |
| 5.0                                   | Go live with Website               | Michelle               | 11:30                        | 10 minutes | 5:00 PM                | - Ran into issue with permissions (Ted's Help)                  |
|                                       |                                    |                        |                              |            |                        |   |

# STEP 6: OPERATIONS AND MAINTENANCE



- Training
- Documentation
- Maintenance





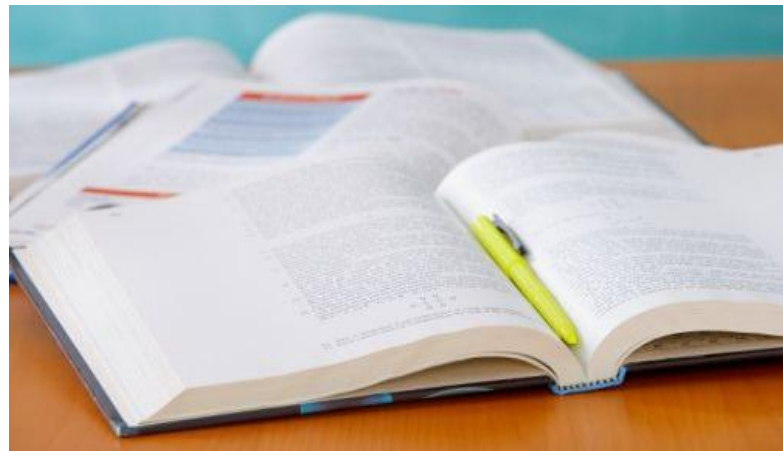
# LEARNING TECHNIQUES

- Previous course knowledge
  - VB6
  - PHP
  - MySQL
  - Project Management
  - Communications
- Books
  - VB6
  - PHP
- Alumni
  - Direction
  - Feedback
- Classmates and Professors
  - Suggestions and ideas
- Completed code



# CONCEPTS

- Database
  - MySQL
- Programming Languages
  - Connection between PHP, VB6, MySQL
- Forms
- Code Concepts



# FUTURE TASKS

- Ability to Add modules
- Add additional date column for modules
- Way to automate CRN input
- Add additional information when search by course
- Add 'blog' feature on web
- Add functionality for students being tutored to update information on web



# ADVICE

- Enjoy your project
- Use it as an opportunity
  - Resume Building
  - Knowledge Building
  - Communication Building
- Use your resources
  - Alumni
  - Professors
  - Fellow Students
- Be Proud of your accomplishments
- How it relates to your future



# THANK YOU...

- Computer Science Professors
- Classmates
- Alumni Mentors
  - Ted and Ryan
- Computer Services
  - Backups
  - Link on MySNC
- Academic Support Services
  - Administrators
  - Tutors
  - Help
- My Family



A decorative vertical stripe on the left side of the slide, composed of several thin, parallel lines in shades of light blue and grey. To the right of the stripe, there are several overlapping circles of varying sizes in a teal color, arranged in a roughly vertical line.

# QUESTIONS?

Feel free to visit my project website at:  
[compsci.snc.edu/cs460/keehmk](http://compsci.snc.edu/cs460/keehmk)