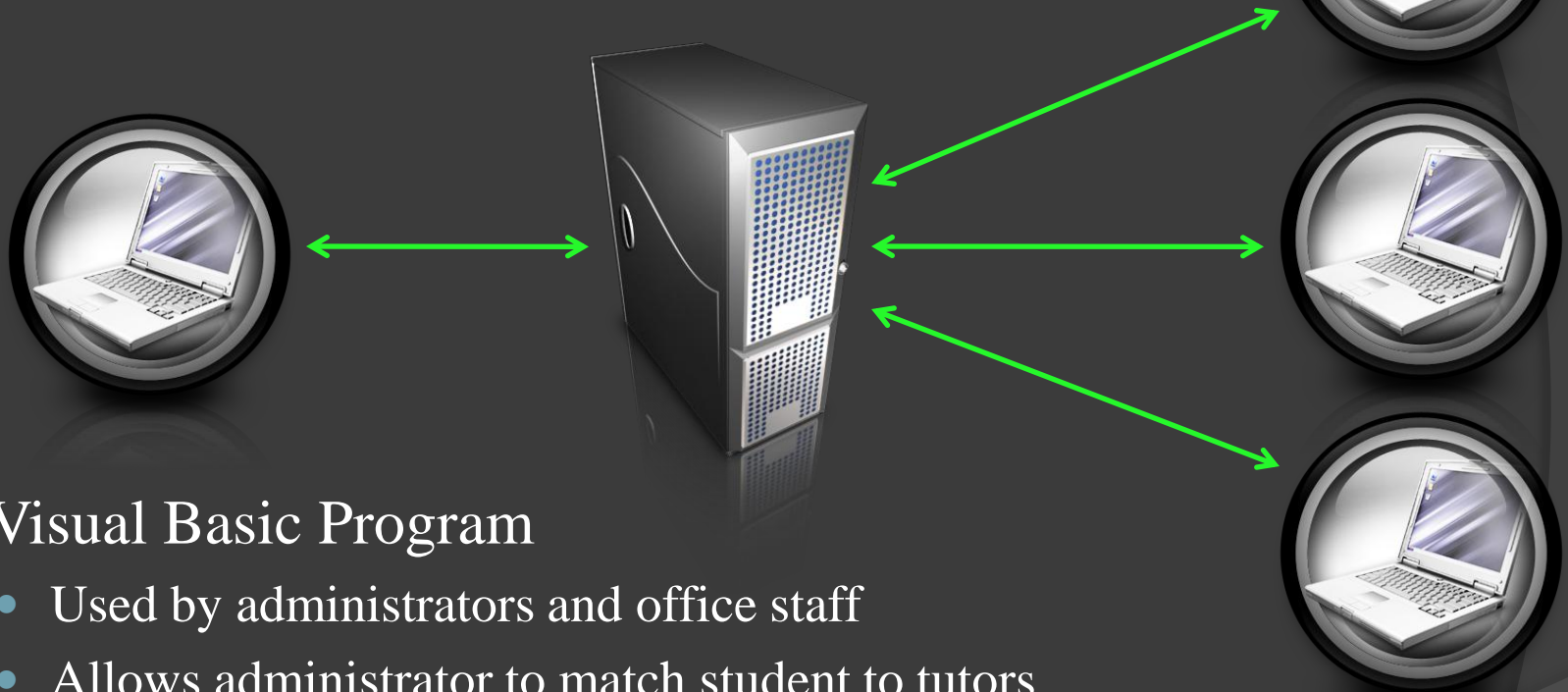# TUTOR DATABASE SYSTEM

Ryan McLaughlin

Project Definition

- System for Academic Support Services

- Visual Basic Program
  - Used by administrators and office staff
  - Allows administrator to match student to tutors
  - Gives easy access to pertinent information about a tutor
- Website
  - Used by tutors
  - Allows tutors to view and update relevant information

Project Requirements

- Redesign and build new user interfaces
- Design and implement enhancements that make the system even more useful

Plan

- Get an understanding of the system
  - Meet with as many contacts as possible
- Identify areas of improvement from consultations
- Personally identify areas of improvement
- Implement new interfaces and enhancements
- Test extensively before going 'live'

Analysis of the System

- Meeting with Carole Basak
  - How she uses the system and her areas of concern
- Meeting with Tutors
  - How they use the system and their areas of concern
- Meeting with Ted Trisco
  - Where files are located and design of database

Carole's Improvements

- Initial Tasks:
  - Course Management
  - Tutor's Schedule
  - Class Selection Method
  - Timeout
  - Tutor's Picture
  - Deleting Connections
  - Showing Professors

- Added Tasks:
  - Printing Quick Search
  - Modules Completed

Tutor's Improvements

- Initial Tasks:
  - Graduation Date
  - Show Class Title
  - Adding classes not listed
  - Schedule

- Added Tasks:
  - Modules Completed

Additional Improvements

- VB Interface
- Web Interface

VB Program Accomplishments

- Clarified how Course Management feature works
- Gave easier access to tutor's schedule
- Added easier methods of finding tutors or classes
- Fixed the timeout problem
- Added the ability to upload and assign pictures
  - Implemented automated maintenance
  - Found easy method to obtain tutors' pictures
- Clarified how to delete all connections

VB Program Accomplishments (Continued)

- Added ability to see Professor before selecting tutor
- Added the ability to keep track of Modules
- Added the ability to print Quick Search results
- Added Help menus on all forms
- Improved user interfaces
- Gave walkthroughs to all users

Website Accomplishments

- Fixed graduation date error
- Added a course request method
- Added ability to see Class Title before adding
- Implemented new Schedule
- Added ability to track Modules completed
- Improved user interfaces
- Updated guide and PowerPoint

Live Demonstration

Strategies

- Extensive system analysis
- Connect with all available contacts
- Collect resources – books, websites, etc.
- Trial and error – go back to drawing board
- Pseudo code and drawings

CS Courses and Concepts

- *Database* – designing, modeling, querying
- *Machine Organization* – VB Interface Development
- *Event Programming* – HCI principles
- *All* – Adaptability and Willingness to Learn

Extensions

- Methods for generating and reporting statistics
- Allow user to add and edit modules
- Automate course additions through VB program
- Add ability to print all information for a tutor
- Usage Tracking Mechanism
- Automate student surveys
- Tracking unused courses for maintenance
- Convert from VB6 to C#

Advice to Future Seniors

- Start work early, and work often
- Backup your work often and in separate locations
- Divide and conquer approach – do not get hung up on one part
- Use all of you resources
- Clarify all details of project definition early
- Have fun!

Reflection of the Project

- How it is applicable in my future
- Frederick Brooks – *The Mythical Man-Month*
  - "The second [system] is the most dangerous system a man ever designs…the general tendency is to over-design the second system, using all the ideas and frills that were cautiously sidetracked on the first one."
  - "Add little to little and there will be a big pile."

Thank you…

- All Computer Science Professors
- Fellow Computer Science Seniors
- Ted Trisco
- Academic Support Services – Administrators, Office Staff, and Tutors
- Campus Card
- My Family

Questions?