



AITP 15th Annual National Collegiate Conference



Web Application Project Competition

Problem Statement Overview

The Web Application Project Competition is a 2 semester/3 quarter, real-life system analysis/design and implementation project. All teams (may be composed of any number of team members) are expected to complete all 3 phases of this competition in order to qualify for final product presentation at the National Collegiate Conference in March 2010 in St. Louis.

The **first task**, teams must complete is to obtain and contract with a client in need of a new web presence or an update to an existing web presence. Clients can be any non-profit (as described by the IRS's definition) organization, a school department, or school organization (except for sororities or fraternities).

The team must submit a signed contract prior to starting on Phase 1. The final due date for the first task is November 6, 2009. Please include with the contract a Team Contact name and email address. A model contract is located at the NCC Competition website under the Web Application Project Competition page:

(<http://www.aitpncc-contests.org/Default.aspx?tabid=64>).

The 3 phases to be completed are:

1. Phase 1: Proposal and System Analysis Requirements:

- Determine the client's requirements.
- Document the Systems Analysis process including interviews.
- Determine and document client's requirements and specifications to be included.
- Develop a project plan, which must include a database component (*the database must include add, modify, and delete functionality*).
- Phase 1 judging will focus on how well the team followed system analysis practices to determine the site's requirements. The judges will look at the feasibility of the proposal and its realistic aspects. Provide sufficient detail to allow the judges to make this determination. (This phase is worth 25% of the final score)
- **Deliverable: On or before 01/10/2010.** Submit all documentation for Phase 1 *in a single PDF formatted document*, work may start on Phase 2 while awaiting a score and comments from the judges, no teams will be eliminated at this point.

2. Phase 2: System Design:

- Site layout
- Site architecture (page hierarchy, etc.)

- Other supporting systems analysis and design documentation as needed for database design, software selection and development process. The design can be completed in either traditional (dfd,erd, etc) or OO/UML (use case, class diagrams, etc.).
- Phase 2 judging will focus on the systems design, logic, feasibility, and degree of professionalism displayed. It is important for **teams** to convey that they have a well thought out design utilizing good logic. (This phase is worth 25% of the final score)
- **Deliverable: On or before 02/15/2010.** Submit all documentation for Phase 2 *in a single PDF formatted document* again work may start on Phase 3 while awaiting score and comments from the judges, and no teams will be eliminated at this point.

3. Phase 3: Construction and implementation

- Phase 3 judging will review the Phase 3 documentation and will include the review of the application site and focus on functionality, usability and navigation. A key element will be to convey that the site is user friendly, easily updated by non-technical individuals and it meets all user requirements. (This phase is worth 15% of the final score)
- **Deliverable: 03/17/2010 – submit all Phase 3 documentation *in a single PDF formatted document* and include the URL of the website including administrator logon and password** (to allow the judges to see the administrator's usage and feel). This is the preliminary judging, up to ten sites at this point will be invited to present their team projects at the conference.

4. Final Presentation at the Conference for selected Web Teams

- A CD/DVD containing all documentation and other supporting information, plus a copy of the Final presentation PowerPoint and other supporting documents will be submitted upon arriving at the conference (notification of quantity of copies will be made, a few days prior to the start of the conference).
- A 15 minute Professional Presentation will be conducted in front of the judges and an audience of your peers at the conference, this is the final part of the project to be completed for scoring, this is to be presented in a professional manner as if the team were presenting the final product to the client, the presentation will include the process followed during the analysis and design phases plus the final Website and navigation of the website.
- This part of the competition is worth the final 10% of the scoring for this competition.

Note: If there are any questions at anytime during this process as pertaining to any aspect of the competition please contact Larry Friedlander (lfried@oakton.edu) who will respond as soon as possible with an answer. ***Also please note that all documentation is to be submitted in a single PDF file.***

When communicating with the coordinator of this competition please use the following as the subject line of your emails:

Web Project Competition – Your School Name – Contract or Phase 1 or Phase 2 or Phase 3

Problem Statement Specifications

A school may enter more than one project team. A team may consist of any number of team members. A student can be on only one team. The teams competing in this contest can be part of an academic class and can have undergraduates as well as graduate students (the only stipulation on team members is that they cannot be IT Professionals in the Web programming profession, this will be left up to the AITP advisor to determine the eligibility of all team members). However, each member of the team must be an AITP student member, and at least 2 of the members of the team must be present at the AITP National Conference to participate in the final presentation.

Teams are expected to submit complete and readable documents, charts, etc. for each phase in a **single PDF file**. Please note that all due dates are for those phases only; work may continue on all aspects of the project until the final due date. Any phase work may be submitted prior to the due date (make sure each phase is a separate submission and include the phase number being submitted in the email subject line, ex. School name. Phase #), and if this project is started the spring term, submission dates need to adjusted accordingly, the Web Project coordinator must be notified as soon as possible. If your project is not chosen for the final presentation at the conference the team is still required to finish the project and turn it over to the client as agreed to in the contract with them.

Obtain Contract and Client:

The team is required to find and identify a non-profit organization as the client. These organizations may want to replace or update their current web presences or want a new web presence designed by the team. A contract/or letter of understanding will be required to be signed by the organization and the design team which will stipulate:

- 1) All work to be done by the design team.
- 2) That the website and all documentation will be turned over to the organization at the end of the project/competition.
- 3) All maintenance and running of the website becomes responsibility and property of the non-profit organization once the Conference is concluded or as soon as possible afterwards

The non-profit organization may not include fraternities or sororities. Other organizations may include a local YMCA/YWCA, Life Source Blood Bank, Boy/Girl Scout troops, civic clubs, school departments or organizations. If in doubt about the choice, contact the contest coordinator named above. The contract must be received by **11/06/2009**.

Phase 1:

The first deliverable will be a completed Requirements Document which is to include:

Systems analysis: This includes the basic desires and needs of the organization, and how the team will meet those stated needs and desires.

The following are check points for this phase and must be included in the submission of Phase 1 documentation:

- The design should be allowed to be completed in either traditional (dfd,erd, etc) or OO/UML (use case, class diagrams, etc.)
- Structure charts
- Interview questions and answers
- Database design and structure
- The final proposal to the organization of team's findings and recommendations
- Include any pertinent communications with the client made during this phase, do not include all communications, but only those that made a large impact on the project
- The client sign off of Phase I part of the contract

The above items will be submitted *in a single PDF formatted document* to the contest coordinator on or before **01/10/2010** and then it will be passed on to the judging team.

The judges will then look at the proposals and score them accordingly; no team will be disqualified at this point, but the better the documentation the better the Phase 1 score.

Once the team's Requirements Document has been submitted for scoring and any comments that might require changes have been returned, the team will be given one week to make those changes and resubmit for additional comment.

Phase 2:

Work on Phase 2 of the project design for the proposed web application may begin upon submission of Phase 1 documentation. During this phase the team will design the site in conjunction with the needs of the organization as laid out in the Requirements Document. The following are the check points for Phase 2 of this project:

- Formulate a project timeline
- Complete the Site design
- Complete the coding specifications
- Complete the testing specifications
- Complete the implementation specifications
- Include any pertinent communications with the client made during this phase, do not include all communications, but only those that made a large impact on the project
- The client sign off of Phase 2 of the contract

Teams will be given until the end of January 2009 to complete phase 2 of the project. The design documentation and project schedule for completing the website are to be submitted at this stage. The final date for submitting this phase of the project will be **02/15/2010** and *will be a single PDF formatted document*.

Phase 3:

Phase 3 of the project will start upon submission of Phase 2 documentation. Teams will receive scored designs with any comments or change requests prior within a week of the documentation being sent. If changes are requested or required the team will be given a week to make the needed change and return them to the judging team. The following are check points for Phase 3 of this project:

- Commence coding based on the agreed design
- Testing the website

- Change control (if the client requests a change outside of the agreed to design)
- Site URL and administrator logon and password to be included
- Include any pertinent communications with the client made during this phase, do not include all communications, but only those that made a large impact on the project
- **A User Manual and User Documentation for the web site must be included, this is an absolute requirement and a team may be disqualified if this is missing.**
- The client sign off of Phase 3 of the contract
- There will also be a questionnaire given to the client requesting feedback covering the overall impression of the work done and how well it meets the original needs specified. The questionnaire may be constructed in any format desired, but must include feedback components.

The completion goal is **March 17, 2010** (the due date for Phase 3). The Phase 3 deliverable will be submitted with the **final judging URL and any administrator logon and password** of the website application and will be in *a single PDF formatted document*.

The site will be scored based on site appearance, ease of site navigation, the content of the website and how well it meets the original design submitted during the previous phases.

Phase 3 submittals will be scored and a one-week timeline will be allowed for any major questions or suggested changes to be resolved. With the completion of any allowed resolutions the website application will be frozen and the finalists will be selected to present at the 2010 Conference. Any site not selected as a finalist should be completed and turned over to the client by the date of the 2010 Conference.

Team representatives for the website applications selected as finalists will present results at NCC on March 27, 2010. The presentation should include an overview of the site and the creation process. During the presentation be sure to reference how the site met the user requirements and any special technical considerations. Once all of the finalists have presented, the judges will then make their final determinations. Winners and honorable mentions will be announced at the Awards banquet.

WEB APPLICATION PROJECT COMPETITION RULES, REQUIREMENTS AND PROCEDURES FOR 2010

RULES:

The following rules apply to all teams entering the Web Application Project Competition:

1. Participants must be AITP student members and members of the student chapter.
2. Each school may enter multiple Web Application Project teams.
3. A Web development team is not limited as to the number of participants as long as each member meets the chapter membership criterion and is not now or has been a practicing Web developer or Design professional, and members only participate on one website if the school has more than one entry.
4. The Web Application must comply with legalities for a public Web presence.
5. Each team must comply with all submission requirements and deadlines as outlined in the problem statement or it will be eliminated.
6. The client must be a qualified non-profit organization. If a team has a question as to whether an entity qualifies it should ask the competition coordinators.
7. All documentation must be submitted in a **single PDF formatted document**. With each Phase being a separate file.
8. The team must provide a set of User manuals and User documentation both to the Client and the judges as part of Phase 3, this is an absolute requirement and a team may be disqualified if this requirement is missing.
9. You must get a client sign off at the end of each phase, these sign offs are part of the contract you had signed at the beginning of the project.

TECHNICAL REQUIREMENTS:

- The site must have an update feature easily assessable by the client and utilizing a database platform.
- The site may be designed and constructed using any programming languages or Web development tools.