

EMU Honors Application Outline

Client Introduction

The Honors College at Eastern Michigan University offers academically talented and motivated students a chance to really engage in their college experience through challenging coursework, extracurricular activities, and community involvement. Students who become a part of the Honors College are expected to fulfill additional requirements in order to graduate with Honors; these graduation requirements take many different forms such as enrolling in Honors classes, attending events sponsored by the Honors College, performing research, and studying abroad. The idea is to encourage students to get more out of their college experience than just simply attending classes and getting a diploma.

John Feldkamp is the Assistant Director of the Eastern Michigan University Honors College and is responsible with making sure Honors students are getting the best advice possible for them to reach the expectations placed upon them and to excel in the Honors College; it is with the Honors College and John in particular that we intend to work with.

Problem Description

John, along with two of his colleagues that he intended to help us on this project, sat down with us to discuss problems that he believed needed to be addressed. During our meeting we discussed many of the issues that he had; primarily with how the Honors College presented the Honors student with their own information.

First among the many issues John has is that he believes Honors students do not often have knowledge of their individual Honors College requirements; this was brought upon by the fact that the requirements have been known to change from year to year and the catalog of requirements that an individual student follows is based on the year they started Honors work. That concern extends to the fact that students currently have no way to ascertain what requirements they have completed outside of scheduling an appointment with an advisor and talking to them in person; so even if a student did know what requirements they should be following, they couldn't easily tell what requirements they have met or which requirements are still outstanding.

This desire for a more transparent Honors College also exists in John's concern of upcoming events: John believes (and rightly so) that most students are not reading the numerous voluminous e-mails that he sends out regularly to the Honors students with update of upcoming events that could be immediately relevant to fulfill an individual student's Honors requirements. John hopes that there is some way to easily update the Honors requirements a student has fulfilled in a way that an Honors student would be able to easily be able to view.

Outside of the concern for Honors students requirements being met by the students, he is also hoping for a technological solution to one of their biggest problems: they have so many records that are just slips of paper signifying that someone has attended an event. John believes (as most people would) that is a colossal waste of paper to be used in that fashion, and also a potentially insecure way to store information.

And John really wants our solution to be found in an app; he wants something shiny to put the Honors College name on.

Suggested Solution

To address John's needs, we have hypothesized a few potential solutions. These solutions all require a database, an administrative user interface, and a user interface for Honors students.

For the database to store information about Honors students and their completed requirements, we will either connect to the Honor's College's FileMaker database to access the information stored there, or we will create a dummy database to mimic that FileMaker database. The reason we may need to go with a dummy database is due to sensitive information that is stored in the FileMaker database, and not having permission to access that information.

To administer the Honors requirements for each year, we will create a web-based administrative user interface for John or other administrators to be able to create and update the Honors Graduation requirements for each year.

For the user interface for Honors students, John would like a mobile application so students can access the listing of Honors Requirements, an audit of where they currently stand with respect to completing those requirements, and also have flexibility to expand the application to take on further functionality in the future. We have discussed the advantages and disadvantages of creating an iOS application, an Android application, and a mobile-friendly web-based application; John has accepted that an Android application would be the best solution.

Scope

The project scope for our group this semester will include creating an Android app for the honors college. If the college/students like the app, then an iOS app can be created by future students; creating an app for both platforms is something most certainly out of our scope. This would include creating an app for the students, a web-based administrative app and either using the existing database or creating a dummy database.

The app will serve one main purpose: for students to check their outstanding requirements. While the ability to use QR codes or GPS data in a student's cell phone to allow them to 'check-in' to an event, thus eliminating the need for all of the paper check-in slips was greatly discussed, and there is much interest in implementing the ability to do so, it is not something that we feel can be easily scoped into our project.

The administrative side to this project will be a simple web-based user interface. We will be able to keep this necessary part of the project within the scope as long as we keep it simple. The main purpose for the administrative side is for future requirement updates.

Whether we use the existing database, FileMaker, or create a dummy database depends on if and when we get approval to FileMaker; we will not wait two months to discover if we have approval. If we do create a dummy database to mimic FileMaker, we would like to get a full understanding of how the current database operates. In this case, we hope that the college likes the app and future approval of FileMaker access can be made. If we model our dummy database off FileMaker, then an easy transfer from our dummy database can be made in the future.

One suggestion that John had was creating an interactive calendar. This would allow students to be able to know what type of events to attend depending on what type of student they are. As a group, we decided to keep the calendar out of our scope.

Individual Roles

- Nicole – Documentation Lead, will be responsible for maintaining and encouraging consistency between documents produced throughout the development process, including development documents for internal use, documents for use of by the client, comments and readme files among the code, and written assignments due by the group. The document lead is NOT responsible for writing all of said documents, but is responsible for making sure all group members submissions are up to group standards.
- Stefano – Programming Lead, will be responsible for facilitating the communication between the different programming interfaces that are developed, ensuring that no problems exist with communication between one person's code and the rest of the project. The programming lead is also responsible for establishing and encouraging proper version control and testing efforts, and will be taking point on major refactoring efforts that are taken.
- Jordan – Web Lead, will be responsible for implementing proper connectivity to the web presence that the app will require, along with developing the requisite web pages that the various stakeholders of this project would need to access. The web lead is also responsible for obtaining knowledge of the various web development protocols that we need to follow for developing this project for the University.
- Travis – Design Lead, will be responsible for assuring a consistent and elegant look to all aspects of the project: the mobile application, any web pages developed, and any visuals that the client will see. The design lead will also be responsible for testing the application and web pages on multiple platforms to ensure that the visuals maintain integrity across a variety of situations.
- Eddie – Project Lead, will be responsible for coordinating the distribution of work among the group members, attempting to optimize group member strengths with the work that is required. The project lead is also responsible for keeping the client up-to-date with the goings on of the project and for keeping the group up-to-date with requests from the client; this will be done through simply distributing e-mail communication among group members and the client and also facilitating meeting times with the client as needed.

Special Needs

To maximize the usefulness of this project, we would need to be able to gain access to the student records stored in the general university databases and access to student records stored in the Honors College databases. Unfortunately, there are some severe political, legal, and ethical barriers for us to work around to access all that various data. While we will be putting in the proper requests and hoping for the best, we shall assume the worst that we will not be able to access that data, therefore we will be creating our own databases to hold student data that will be stored somewhere on campus computers.

Project Outline Contributions

Stefano

Attended introductory client meeting to discuss the problem, possible solutions, and potential

requirements. After the meeting, we discussed what we learned and created a plan of action to continue. We also met as a team to discuss team roles and responsibilities. For the Project Outline, I completed the Suggested Solution section of the document.

Nicole

Set up and attended an introductory meeting with the client regarding information supplied in this document along with the beginning ideas of requirements for the final product. Attended multiple group meetings since the introductory meeting to discuss potential scope and ideas for the project along with a plan of where to go next. Completed the Client Introduction for the Project Outline.

Eddie

Attended the two-hour introductory meeting with the client, where his problems and ideas were discussed. Communicated with members of the Emich IT department to ascertain viability of our project's ability to communicate with the University records. Communicated with the client on few occasions following the initial meeting to respond to specific inquiries. Met with the group several times to discuss potential roles and plans moving forward. Completed the Individual Roles and Special Needs part of the Project Outline, and proofread, edited, and reorganized the entire paper before submission.

Jordan

Attended the introductory meeting with our whole group, John and two other members from the Honors College. After this initial meeting with John, our group met about three times discussing possible solutions and how to keep this project within our scope. For the Project Outline, I completed the Scope portion.

Travis

Attended the first meeting with the client to discuss his needs, and possible solutions. After the meeting we discussed the plan of action as a group and what the next steps moving forward were. Attended the second meeting with the client discussing fileMaker and where all the Honors students data is stored. Met with the group to discuss roles and responsibilities. Completed the Problem Description section of the Project Outline.