PROJECT PROPOSAL: Team Tiger – Project Lily

COMP 496: SENIOR DESIGN II

SPRING 2020

1 MEMBERS

Abdul Ashwood: Back-End Developer, Lead Engineer

Alexis Cooper: Front End Developer, Scrum Master

Robniqua Wilder-Winborne: Front End Developer, Leader

2 PRODUCT DESCRIPTION

We would like to create a website that calculates major and cumulative GPA, recommends classes for the next semester while giving students the chance to continuously update their Degree Audit Form that they will need to submit during the graduating school year. The services that the product will offer will be automated and require the input of the student. The necessary faculty will have access to the student's outline to assist with registration and advisement. If students properly update their data on the website then it will benefit students and advisors.

3 PRODUCT SCOPE

This project is worth a semester-long work for the entire team because this project can get really extensive. Our goal is to get the Computer Science department completed by the end of the semester with hopes of having the Computer Engineering department within our database too. A&T has at least 30 departments with over 117 undergraduate degree programs not to mention 29 choices in minors. Adding each major with the various curriculum guides may be very hectic and making suggestions for students with minors may become very time consuming and challenging. That is why this project will be a semester-long. If we work together as a team and complete our goal quickly yet efficiently the challenges stated above that the team could face will allow more time to attempt to add other majors into the website. The database may be able to be completed with more COE majors or at least one major from outside of the COE and we may be able to give students the option to add their minor and give recommend courses for students who have a major and a minor. The database will be more than enough for each team member to get their hands dirty with not to mention the website that needs to be created. However, for this semester we are only focused on traditional students with only a major in computer science.

Also, with this project we will be able to utilize the skills that we learned, not only at our internships but also the courses taught here at A&T such as COMP 280: Data Structures, COMP 267: Database Design, COMP322: Internet Systems, etc. Our team specializes in different skills and we all will be able to contribute to different parts of this project when it comes to implementation and documentation.

4 PRELIMINARY PRODUCT REQUIREMENTS

We propose the following requirements, which encapsulate our product.

Functional Requirements

1. Be able to **Recommend** courses for future semesters, including the reason
2. Be able to **View** all remaining classes and completed courses (highlight prerequisites)
3. Be able to **Signup/Login** with "aggie id" only an approved ncat email (@aggies.ncat.edu and @ncat.edu)
4. Be able to **Update/Export** class audit form and the Lily form
5. Be able to **Change** major down to the concentration
6. Be able to **Calculate** major GPA and cumulative GPA

Non-Functional Requirements

1. Have a clean and easy to use user interface
2. Security (distinguishing between a student and an advisor) to determine access
3. High scalability (can include multiple majors/minors)
4. Ensure that students import valid grade