

MILESTONE 4

Team Name: College Crusaders

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Github Repository Link: <https://github.com/TaylorJesse/CSCI3308CollegeCrusaders>

Market Analysis

This covers the market research and competitor analysis. It must demonstrate that there is a viable market and that you can devise a plan to beat the competition in that market for sales. It should include the sections listed below.

Target market: The market to which you are planning to sell the product or service. Include the size of each market segment, the rate of change (growing, shrinking), and characteristics of potential customers.

The main market we are planning to sell our product to is current or future college students. There could potentially be other people or businesses that could use our product for research purposes, but the main goal is to inform college students on how their college degree will affect their future. According to the National Center for Education Statistics, there is expected to be 20.5 million college students in America by the current semester of fall 2016 which is an increase by 5.2 million students since the fall of 2000. This is a 25 percent increase in the amount of college students since the fall of 2000 which averages to a 1.56 percent increase per year. One main characteristic of a potential customer is to have an interest and curiosity about a college degree. This curiosity will lead the consumer to our product because our product has the underlying information about their major of interest. Our customers would likely be ones that want to have a plan for their future. They want to know the degree that best fits their needs for their future, and with our product, they will be able to find the best degree for them.

Profile of Competitors: Analysis of the competitors in this market. What are the competing products and services? What kinds of companies are in that market? What are the advantages and disadvantages of the current competitor product offerings?

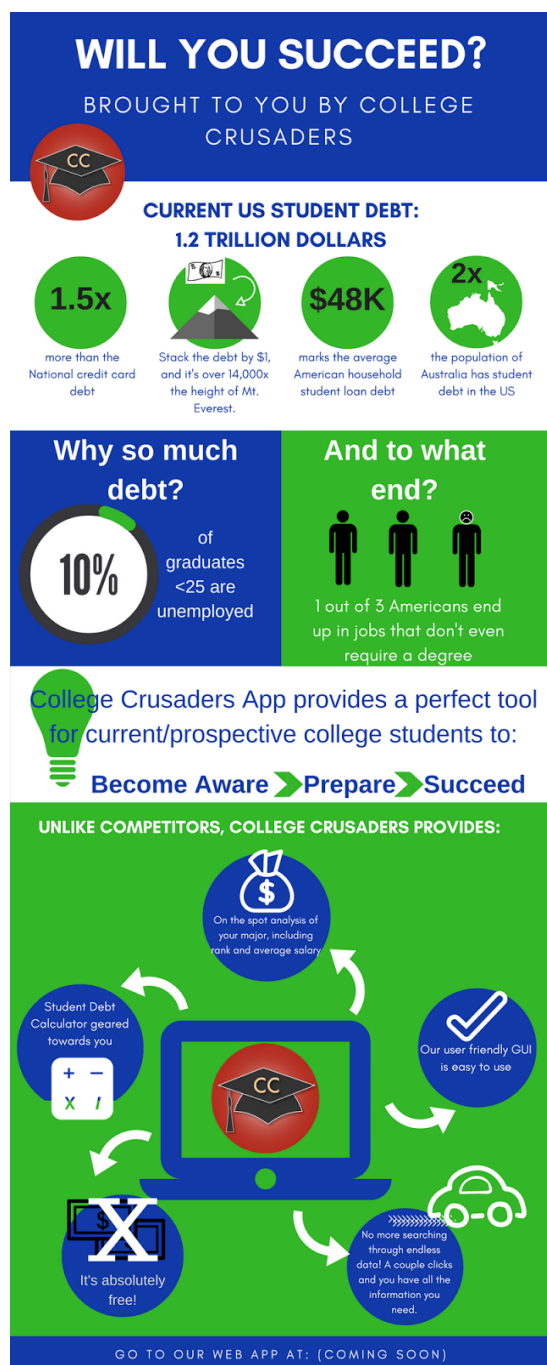
Our competitors are mostly websites like nces.ed.gov and collegefactual.com that have information and statistics about college majors within them. They give information that we provide with our product like average salary, but they also give a ton of unneeded information. This will be a disadvantage to a curious college student because they only desire the most important and basic information about their major of interest, and they want to find it easily. There are numerous confusing graphs and statistics on their page that the user has to navigate through which can deter consumers from visiting their website. This disadvantage to the basic college student could be an advantage to a more research based consumer or business that require every specific detail about a college major. They might need all this information to publish an article or graphic for their needs making one of these competitors a more desirable choice.

Competitive Advantage: What are the benefits to customers of your products over the competitors listed above? This could include unique features, price, new technologies, better value, or even greater compatibility with other services.

Unlike our competitors our limited scope lets us be a lot more straight forward with the user. While nces.ed.gov and collegefactual.com do give more information about each major such as articles and different colleges, it might be hard to find the facts that our app provides on these other services. Luckily, our simple user interface lets users find exactly what they need as far as their college major is concerned. Within a single page web application that can be accessed on all devices with modern browsers, one can find how much their major makes upon graduation and more. Also, one feature our application has that our competitors don't is a debt calculator, thus making this a perfect way to monetarily plan out your college career.

Infographic

Create a single image (or slide) detailing the market analysis.



This infographic is also in our repository labeled: Final_Infographic_College_Crusaders.png for a more detailed look.

Sources used for this infographic include:

- <https://www.canva.com> (for design)
- <http://list25.com/25-sad-statistics-about-college-education-in-the-united-states/1/> (for statistics)
- <https://studentloanhero.com/student-loan-debt-statistics/> (for statistics)

Results of the retrospective on first iteration

In our first sprint cycle, we were able to put most of the requirements that we set out to do. In this cycle, our goal was to split into two groups, a front end group and a back end group. The front end group was able to finish developing the layout of our site. They developed the major look up, and the debt calculator layout. The back end group was able to add our data of majors, major's rank, starting plus mid-career salary into our database using MySQL. We weren't able to find data on the probability of getting hired and as well the unemployment rate for each major.

Additional Requirements

- We will add another result field for probability of getting hired.
- We will add field for the school that the major is in. (engineering school, business, arts, etc.).
- We will create script to build the website.
- We will setup a server for our app to run on.

(These additional requirements and other requirements are shown on our PM Tool screenshot)

Plan cycle within the methodology

For our next sprint, our goal for the back end group will be to incorporate the hire and unemployment rate for each major. Our front end group's goal will be to link our data base with our website and make sure everything runs smoothly in there end. Both groups will work on the code for the debt calculator which we will start on this next cycle. Our main goal for the end of this cycle is to have a working application with the backend database fully integrated into our website.

The screenshot displays a PM Tool interface for 'Milestone 4' (CSCI 3308, Team Visible). It is organized into three columns: 'User Requirements', 'Functional Requirements', and 'Non Functional Requirements'. Each column contains cards with specific requirements and associated assignee tags (DP, JJ, JP, NM, TJ, TG).
User Requirements:
1. OPTIONAL: As a college student or college hopeful I want to know the probability of getting a job in my field. (Tags: DP, JJ, JP, NM, TJ, TG)
2. REQUIRED: As a college student/hopeful I want to know the average salary of someone working in my field. (Tags: DP, JJ, JP, NM, TJ, TG)
3. REQUIRED: As a college student/hopeful I want to know how long it would take to pay off the debt from school with the average salary of my major. (Tags: DP, JJ, JP, NM, TJ, TG)
Functional Requirements:
1. Link our data from our database to our site. (Tags: DP, JP, TJ, TG)
2. Create script to build the website. (Tags: JJ, NM)
3. write code for the debt calculator. (Tags: DP, JP, TJ, TG)
Non Functional Requirements:
1. Add more fields in our database including possibly: unemployment rate per major, hire rate per major, etc. (Tag: DP)
2. Set up a server for our app to run on. (Tags: JP, TJ, TG)
3. Create a student debt-calculator where the user inputs their major, amount of student debt, and % salary going towards their debt. Create a functionality that takes the average salary of that major and outputs the number of years it will take for the user to pay off. (Tags: DP, JJ, JP, NM, TJ, TG)

