C2C (College to Career) Project Proposal

Overview:

I) Project Title:

College to Career (C2C)

II) Data:

Describe what data is stored in the database. (Where is the data from, and what attributes and information would be stored?)

https://www.kaggle.com/datasets/benroshan/factors-affecting-campus-placement

This project will utilize the TA provided "Campus Recruitment" dataset from Kaggle. The dataset contains the placement data of students from a university campus in India based on gender, secondary education percentage, percentage of degree completion, high school specialization, college degree, and more. *(see Project Details for more description)*

III) Basic Functionality

What are the basic functions of your web application? (What can users of this website do? Which simple and complex features are there?)

At a high-level, our web application will provide data visualizations that depict salary, industry placement, company placement, and retention based on GPA, gender, high school specialization, etc. For example, how much does one's specialization in high school affect their college degree, and in turn how does this affect their job placement? Do people with engineering degrees end up in engineering jobs? In this way, the visualizations will have a predictive element by showing how specific college or educational tracks translate to job and salary. We also plan to add visualizations displaying the distribution of various features in jobs, including gender and major. The user will be able to interact with the visualizations and gain more information, which could help them understand what path they need to take to be placed in a certain job field.

IV) Creativity

What would be a good creative component (function) that can improve the functionality of your application? (What is something cool that you want to include? How are you planning to achieve it?)

The creative element of this project would involve making the data visualizations interactive. Users should be able to select data points on the visualizations and view related past information. There will be hover points, buttons, and other functions that will further enhance user experience. We also plan to provide some sort of simulation where a user can input their

specific statistics and receive information about potential prospects for a job or industry. This tool might also provide information about where the user is in their current educational and career related "track", which would be based on past data regarding secondary education to college degree information, etc.

Project Details:

I) Summary:

It should be a 1-2 paragraph description of what your project is.

The "College to Career C2C" project is a specialized web application designed to support students navigating the Indian education system on their journey from secondary school to their professional careers. Leveraging the "Campus Recruitment" dataset from Kaggle, curated by Dr. Dhimant Ganatara and Ben Roshan, this platform provides invaluable insights into job statistics, industry placements, and salary distributions.

It is useful to not only college students who want to evaluate job prospects given their own candidate profile, but also seniors in high school who may be evaluating their college options. Through interactive and user-friendly data visualizations, students can gain a deeper understanding of the relationship between their educational choices and future career prospects. **"College to Career C2C"** empowers students to make informed decisions and track changes in the education system, making it an indispensable tool for those seeking clarity on their educational and career paths.

II) Description:

Description of an application of your choice. State as clearly as possible what you want to do. What problem do you want to solve, etc.?

Our application aims to provide essential resources to students regarding job statistics and distributions based on college and secondary school data. All students starting from their high school or secondary school education seek as much information as possible to gauge where they are in terms of career. Whether they know what job they want or if they are just wondering what they can do, this web app will provide as much information as possible based on past data. It can also be used to track data and changes throughout the years in the education system within this institution.

III) Usefulness:

Explain as clearly as possible why your chosen application is useful. Make sure to answer the following questions: Are there any similar websites/applications out there? If so, what are they, and how is yours different?

Our application is useful because it helps both high school and college students in their journey through education and industry. There are probably similar applications out there, such as College Board's Big Future tool that determines what college is the best for you, but there aren't as many applications about job placement, if at all. Furthermore, these college tools do not take your personal statistics into account and aren't focused on industry–they mostly consider "environment" factors such as school size, gender ratio, etc. Our application is also catered towards the education system in India instead of the U.S. Although this limits our audience, the impact will be larger since our tool focuses on both school and industry.

IV) Realness:

Describe what your data is and where you will get it.

This project will utilize the TA provided "Campus Recruitment" dataset authored by Dr. Dhimant Ganatara and owned by Ben Roshan from Kaggle. Dr. Dhimat Gantara is the Senior Manager of the Indian Institute of Management in Bangalore, and Ben Roshan is a student doing an MBA in Business Analytics. This dataset consists of placement data of students from a university campus in India. It includes secondary and higher secondary school percentage, specialization, degree specialization, type, work experience, and salary offers to the placed students featured in the set. The current primary intention is to use the columns relating to college and employment tracks to analyze what and how specific factors influence job placement.

V) Functionality:

Description of the functionality that your website offers. This is where you talk about what the website delivers. Talk about how a user would interact with the application (i.e., things that one could create, delete, update, or search for). Read the requirements for stage 4 to see what other functionalities you want to provide to the users. You should include:

The "College to Career C2C" web application offers a range of functionalities aimed at providing students with comprehensive insights and support in their educational and career decision-making processes:

Data Visualizations: The core functionality of the platform revolves around interactive data visualizations. Users can explore graphical representations of salary trends, industry placements, company placements, and retention rates. These visualizations allow students to gain a clear understanding of how different variables, such as GPA, gender, secondary education, and school subject tracks correlate with career outcomes.

Candidate Profile Evaluation: Students, whether in high school or college, can input their academic and personal details to receive personalized insights. By simulating their specific

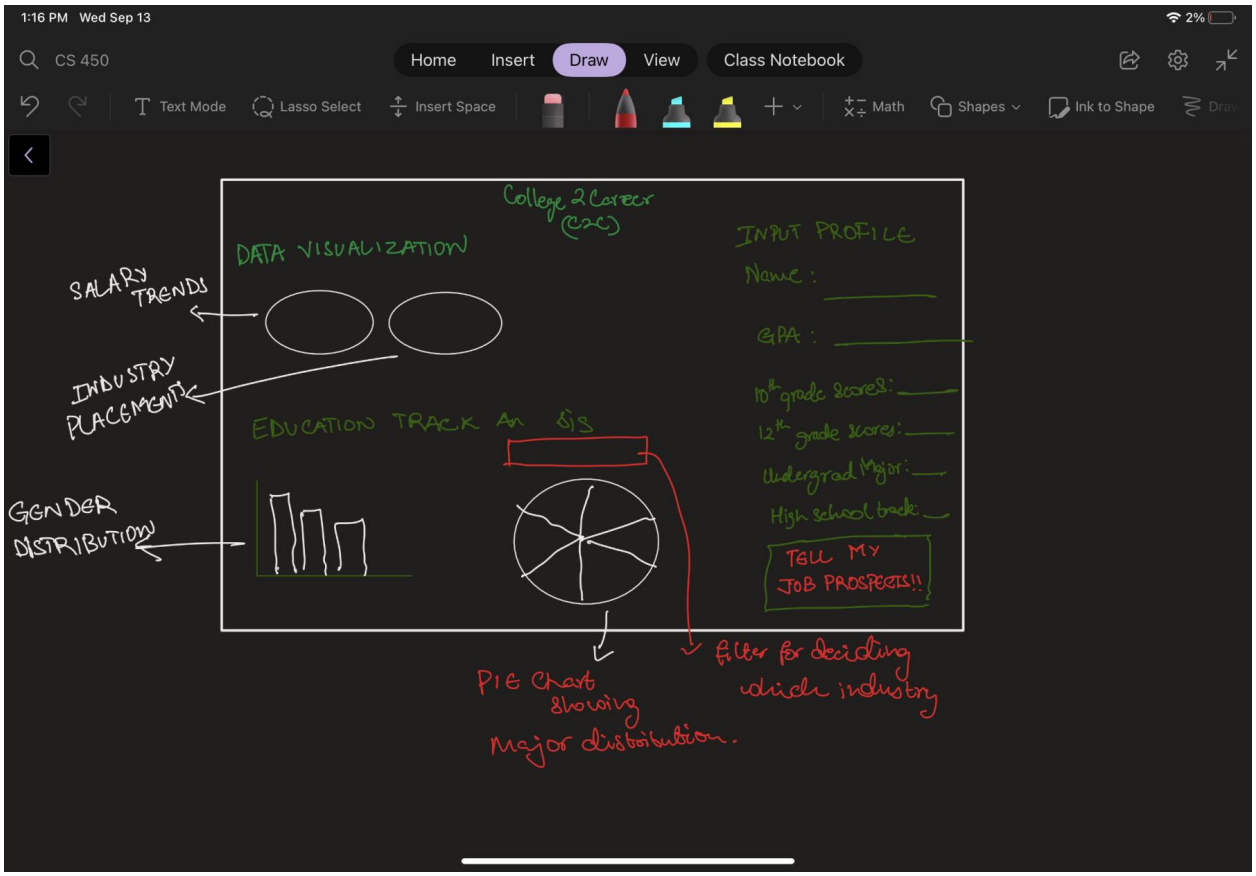
statistics, the platform provides estimates for potential job prospects and career tracks based on historical data. This feature assists both high school seniors considering college options and college students planning their career paths. Users can also update or delete this profile in the database as they decide to continue their journey through this app or end it. This gives our web application the ability to perform all CRUD operations.

Educational Track Analysis: The web app also includes visualizations that highlight distributions of specific features for jobs, such as gender and major. Users can explore how various factors impact industry placement and salary offers, helping them make informed decisions about their educational and career trajectories.

User-Friendly Interface: The application boasts an intuitive and user-friendly interface, complete with hover points, buttons, and other interactive elements to enhance the user experience. This makes it easy for students to explore, analyze, and gain valuable insights from the data presented.

VI) Low-Fidelity UI mockup:

A low-fidelity UI mockup: What do you imagine your final application's interface might look like? A PowerPoint slide or a pencil sketch on a piece of paper works!



VII) Project work distribution:

Who would be responsible for each of the tasks or subtasks?
List of the person responsible for which exact functionalities in section 6. Explain how backend systems will be distributed across members. Be as specific as possible as this could be part of the final peer evaluation metrics.

Frontend:

- Ana: Data Visualizations (the graphs and charts that we have mentioned throughout our proposal)
- Areeba: UI (the actual website with good UX design and tooltips, buttons, etc. as mentioned)

Backend:

- Trisha: Endpoints (connecting frontend to backend), database row manipulation functions (i.e., functions that are used to actually interpret the database data in a useful fashion).
- Chai: Database functions (i.e., to retrieve rows from the database).

We predict that Trisha and Chai will both work on these backend systems, but they will be the point persons on each backend system assigned to them. Furthermore, Areeba and Ana will have to cooperate with Trisha and Chai to understand how the backend is sending information so they know how to receive the information.