Project Charter

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**Problem Statement:**

“What grade do I need in my remaining exams in order to get an A in this class given the grades that I have so far?” Our web application will answer this question and also track the user’s grades easily throughout the semester. The main difference between this web app and Blackboard is that Blackboard does not contain detailed information on a course as it only shows a total of all points achieved. Grades and weights will have to be manually input, but users can create an account that tracks all their previously input information.

**Project Objectives:**

* Allow students to keep track of their grades throughout the semester
  + This is achieved by saving data inserted by users into a cloud based database.
  + A login feature will grant access to designated users and they will be able to view the past exam or assignment entered.
* Calculate class grades based on grading policy and individual scores
  + Weightage of each exams/lab/section is manually inserted when the course is created on the web application.
  + This weightage is used to derive a formula for the calculation of grades and current standings.
* Calculate GPA
  + GPA for each course is calculated individually and user will be able to see how each course contributes to their cumulative GPA.
* Estimates remaining percentage needed to obtain desired grade
  + User will be able to choose from a list of desired grade (eg. A, B, or C) and our web application will calculate how much out of the remaining percentages available you will need to get in order to achieve that goal.

**Stakeholders**:

A stakeholder could be a professor that recommends the use of this web application if it proves to be beneficial, but the most dominant stakeholder is just the user (students) since the application is aimed directly towards them.

**Users**:

Any students that use this web application in order to keep track of or calculate grades.

**Software Developers:**  
 Team 10

**Project Deliverables:**

* Create a login feature that users can access from any computer in order to keep track of their classes and data. (Or device given enough time to develop the mobile applications)
* Ability to add multiple classes and sections for each class
* Add weights to each section within a class
* Save inputted grades and add new assignments
* Previous classes if the application is used over multiple semesters
* Calculator for projected grades or required percentages needed to reach a certain letter grade.
* Display current true percent earned for each class as well as percent of current assignments

**Frameworks:**

* MEAN Stack
* AngularJs for frontend development;
* NodeJS and Express for backend server
* MongoDB for backend database
* Nginx (for local hosting)