Ethics and Professional Responsibility
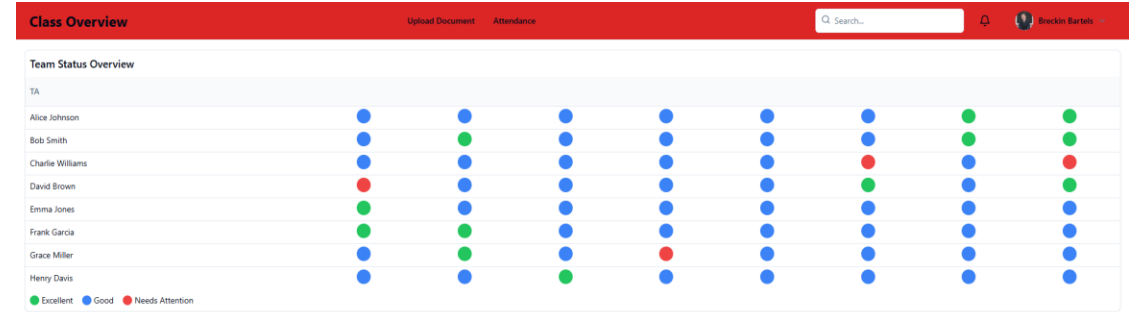
Computer Science 309 Dashboard

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Project Overview

Project Overview

- Project: Computer Science 309 Dashboard

- Advisor: Dr. Simanta Mitra

- Client: Dr. Simanta Mitra

- Goal: Create a platform that gathers, analyzes, and portrays data from numerous applications used in the course including, Canvas, CATme, Gitlab, etc.

- Special Features: Once the application is in motion, we will add attendance, ABET, and other features!

Home Page

Individual Team Page

Ideals

Ideals of Professional Responsibility - Performing Well
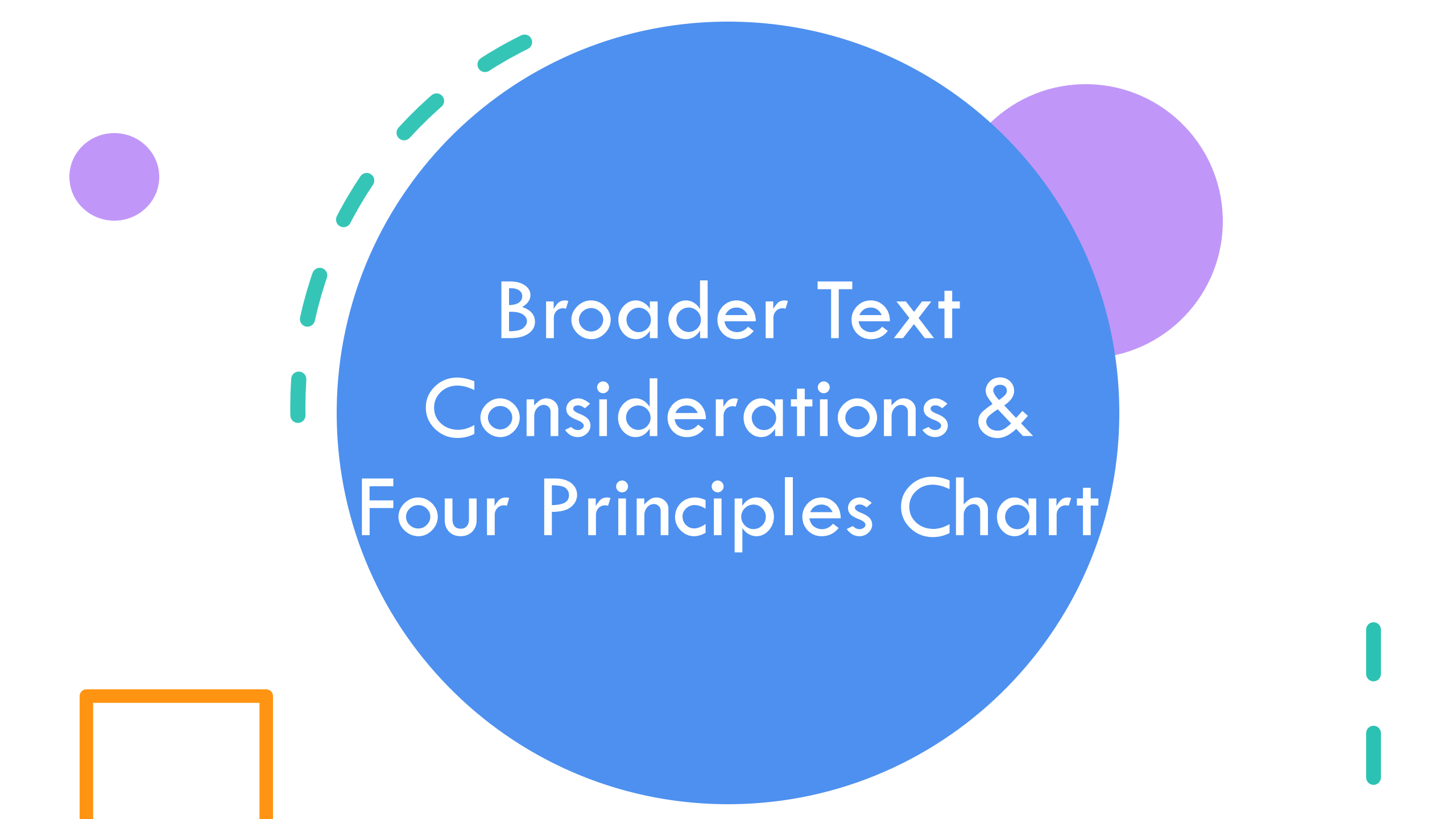
- Social Responsibility:

  - Very relevant to our project because it is centered around helping individuals involved in ComS 309.

  - Our approach focuses on providing the best solution for the ComS 309 community, putting their needs first.

  - Our approach upholds ethical and professional responsibilities by being respectful and private with the community's data.

- Work Competance:

  - Very relevant to our project because we must serve our client in a timely manner.

  - Our approach focuses on making constant adjustments to fit the client's needs.

  - Our approach upholds ethical and professional responsibilities by ensuring we are presenting a project that is of high quality, integrity, and timeliness.

Ideals of Professional Responsibility - Performing Not So Well

- Sustainability:
  - Sustainability is not very relevant to our project besides ensuring we are using the least amount of resources (servers) as possible.
  - Our approach focuses on using one server while calling data from other applications instead of storing in order to minimize storage needs.
  - While we cannot change this approach for the better, we are committed to continuing to evaluate how to build our database off of one server with minimal storage capacity.

Broader Text Considerations & Four Principles Chart

Broader Text Considerations and Four Principles Chart

	Beneficence	Nonmaleficence	Respect for Autonomy	Justice
Public Health, Safety, and Welfare	Reduces stress of finding class resources.	Does not require users to adjust to the dashboard.	Users can choose their involvement level.	All users have availability to the dashboard.
Global, Cultural, and Social	Dashboard is designed for ComS 309 community.	Users are not required to use the dashboard.	Users can choose to use the dashboard.	All users have availability to the dashboard.
Environmental	Dashboard minimized resources used.	Dashboard does not require users to download.	Users can simply access dashboard with a web address.	Dashboard causes no harm to the environment.
Economic	Dashboard minimizes resource costs.	Dashboard does not require users to purchase.	Dashboard is free for all users.	Dashboard is easily available for ComS 309 community.

Ethics

Ethics

- Ethical standards IEEE 830-1988 & 101-2016 are applicable.

  - IEEE 830-1988 provides guidelines for creating software requirements specifications.

  - IEEE 101-2016 helps ensure the quality and reliability of the dashboard system.

- We are primarily concerned with data security:

  - Students' academic data.

  - Teaching assistants' academic data.

  - Professors' course data.

- We are uncertain about:

  - A final approach on data encryption.

Conclusions

- Users include Professors, Teaching Assistants, and students.

- All information will be available in one location.
  - Students will be able to access all assignment information in one platform for review after submission.
  - Students will have easier access to class and project resources.
  - Professors and TA's will be able to track students that are problematic in submitting assignments or attending class.

- Professor will be able to analyze class data in coordination with ABET requirements.
  - Other professors could potentially use this part of the program for their course.

- Stronger organization of course materials for storage.

- Engineering standards IEEE 830-1988 & 101-2016 are applicable.