Vision and Scope Document

for

GooGrade

Version 1.7

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BluGoo

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Revision History

Name	Date	Reason For Changes	Version
Michael Quan	2009-01-15	First Draft	1.0
Michael Quan	2009-01-19	Revised First Draft	1.1
Nat Welch	2009-01-20	Cleaned First Draft	1.2
Michael Quan	2009-01-26	Edited Revised Version 1.2 Section 1	1.2.1
Katherine Blizard	2009-01-26	Edited Revised Version 1.2 Section 2	1.2.2
Paul Phu	2009-01-26	Edited Revised Version 1.2 Section 3	1.2.3
Hermyn Mendez	2009-01-26	Edited Revised Version 1.2 Section 4	1.2.4
Viktor Gerdin	2009-01-27	Merging and Final Revision	1.3
Michael Quan	2009-02-03	Major revision from instructor feedback	1.4
Michael Quan	2009-02-09	Major revision from Team QA session	1.5
Michael Quan	2009-02-13	Revision from Instructor Feedback	1.6
Michael Quan	2009-02-17	More Revisions	1.65
Michael Quan	2009-02-20	Minor Revisions	1.7

1. Business Requirements

1.1. Background

Managing, calculating and monitoring grades is a time consuming and tedious task for any **Teacher**, especially if the **Course** is large. Numerous calculations must be carried out to set a grade. If variables such as different assignment weights and dynamic grading scales are to be taken into account these calculations become very tedious. **Teacher**s have a stressful schedule as it is and should spend as much time as possible to prepare lectures and to do what they do best, teach!

Students want to be able to monitor their progress in a **Course**. Students also want to figure out what scores they need to achieve a desired grade. Depending on their own attitude towards the **Course** some **Student**s wish to have opportunity to know their **Course** rank and how well they are doing compared to other students. Being able to do all of this from home saves both the **Teacher** and **Student** time and adds extra detail and attention to their **Course** experience. **Student**(s) get immediate feedback and can attend office hours where **Teacher**(s) can spend quality time on critical **Course** topics.

1.2. Business Opportunity

Based on the amount of grading tools that have been developed *, there is a high market demand for a quality grading tool that will save time and effort for the **Teacher** by keeping track of and calculating grades for a large number of assignments and **Student**s. The concept behind GooGrade is to simplify grade management at zero cost to the user.

GooGrade will be competing with other tools of similar nature, containing a variety of similar and different features.* GooGrade contains more features than other grading tools in the market at zero cost to the **Teacher** or academic institution. GooGrade will have a Desired Grade Calculator, which none of the competition offers. Moodle is the only other tool that can compete with GooGrade's features by offering course metrics, uploading files, news bulletins, and a web based system. However, Moodle lacks attendance keeping, desired grade calculator, and **Email** notifications. Coursemate is a higher priced tool with few features and Blackboard offers a good set of features with a cost that no individual **Teacher** can afford on their own without the support of an academic institution.

* based on comparative feature matrix (see Appendix A)

1.3. Business Objectives and Success Criteria

Objectives

BO-1   Reduce grade management time for a **Teacher** by 50% of previous time spent managing grades within one week of using application

BO-2   Increase access speed of grade viewing for a **Student** by 20% within one week of using application.

BO-3   Provide free web based grade management application with all available features

included. **

BO-5   Shows distinct letter based grade breakdowns for every assignment.

BO-6   A graphical user interface (GUI) that takes less four intermediate pages to navigate to any desired page. **

BO-7   A graphical user interface that does not use more than two fonts or font colors to display text paragraphs. **

BO-8   Supported by the following web browsers: Firefox 3, Safari 3, or Internet Explorer 7. **

Success Criteria

S-1   Measured by user positive and negative feedback.

The user experience is measured using survey analysis on a one to ten scale. Success will be based on an average increases in ratings of 0.5 within three months of the initial release and 1.0 within twelve months of initial release.

S-2   Increase in application use over a period of time.

If two or more Cal Poly Computer Science **Teacher**s choose GooGrade over competing software we will   consider the project a success.

** source: Lauren Tsung (2009-02-09)

1.4. Customer or Market Needs

Teachers need a way to **ManageGrades**. **Teacher**s also need to look at various metrics for the **Course** such as mean, median and mode for different sets of grades. The application will be web based, and thus accessible through a supported web browser. Because of this, the application will be operating system independent and will include a large market because it can run on most computers.

1.5. Business Risks

RI-1   A University may be under contract to use one of GooGrade's competitor's applications, preventing GooGrade from even being considered for use.

RI-2   A **Teacher** may not use the application since many other grading tools exist. A **Teacher** may be too lazy to switch over from the use of Blackboard. There may also be a learning curve for the GooGrade application that a **Teacher** may not want to spend the time with. Time and money may be spent developing an unused piece of software that is superior to the competition that exists.

2. Vision of the Solution

2.1 Vision Statement

This grading application will provide a **Student** the ability to view their grades from the Internet without the need to visit the office hours of a **Teacher** on campus, and it provides a **Teacher** with an application that helps calculate grades, modify grading curves, and enables freedom of time for **Teacher** and **Student** using non administrative tasks. The biggest advantage of the grading application is that a desired grade calculator is included and will notify **Student** what grades are needed to achieve a desired final grade.

2.2 Business Rules

BR-1   The system must support a maximum of 200 **Student** per **Course**. The typical **Course** size is 40 but larger **Course**(s) exist. ***

BR-2   A **Teacher** instructs a maximum of five **Course**(s). Each **Course** may have one **TeacherAssistant**. ***

BR-3   A **Teacher** has the option to add and drop any **Student** from a **Course** within the given university allowance time period. ***

*** source: Lauren Tsung's wiki page (http://turner308customer.pbwiki.com)

2.3 Major Features

There will be a hierarchy of **Permissions**. **Permissions** exclude certain system features from users who do not have **Permissions**. A **Teacher** will have the most **Permissions** and the **Student** will have the fewest.

A **Teacher** will always be able to:

FE-1   Add, modify, and remove **Course**(s)
FE-2   Add, modify, and remove **UserType**
FE-3   Add, modify, and remove **Assignment**(s)
FE-4   Add, modify, and remove **Announcement**(s)
FE-5   View and modify **Course** grades and metrics
FE-6   Communicate with **Student**(s) through email
FE-7   Manage rosters and attendance
FE-8   Import and export data
FE-9   Upload and download a **File**
FE-10 Print page
FE-11 Reset **Password**

A **TeacherAssistant Permission**(s) are up to the discretion of a **Teacher** and can include any of the **Teacher**'s **Permission**(s).

A **Student** will always be able to:

FE-9   Upload and download a **File**
FE-10   Print page
FE-11   Reset **Password**
FE-12   View **Announcement**s
FE-13   View grades and **Course** standing
FE-14   Calculate metrics to achieve desired grades
FE-15   Add **Assignment**

2.3 Assumptions and Dependencies

Assumptions:

AS-1   The storage space of user information and grades will be accessible to users at all times regardless of high volume loads trying to access the grading application simultaneously.

AS-2   **Course** prerequisites are met by enrolled **Student**(s).

AS-3   All **Student**(s) are enrolled in the **Course**.

AS-4   All changes made to the storage space of user information and grades of the grading application take effect immediately.

Dependencies

DE-1   The system will need to be hosted at an address on the Internet with encryption.

DE-2   The system depends on the **Teacher** and **TeacherAssistant** keeping **Course** rosters and any **Assignment** accurate and up to date.

3. Scope and Limitations

3.1 Scope of Initial Release

Feature	Description	Release 1	Release 2
FE-1	Add, modify, and remove **Course**(s)	Fully Implemented	
FE-2	Add, modify, and remove **UserType**	Fully Implemented	
FE-3	Add, modify, and remove **Assignment**(s)	Fully Implemented	
FE-4	Add, modify, and remove **Announcement**(s)	Fully Implemented	
FE-5	View and modify **Course** grades and metrics	Fully Implemented	
FE-6	Communicate with **Student**(s) through email	Not Implemented	Fully Implemented
FE-7	Manage rosters and attendance	Fully Implemented	
FE-8	Import and export data	Not Implemented	Fully Implemented
FE-9	Upload and download a **File**	Not Implemented	Fully Implemented
FE-10	Print page	Fully Implemented	
FE-11	Reset **Password**	Fully implemented	
FE-12	View **Announcement**(s)	Fully Implemented	Fully Implemented
FE-13	View grades and **Course** standing	Fully Implemented	
FE-14	Calculate metrics to achieve desired grades	Not Implemented	Fully Implemented

3.2 Limitations and Exclusions

LI-1:   Users who operate the GooGrade application with an unsupported browser may not be able to access desired information.

LI-2:   The GooGrade application may have inaccurate information (grades, dates) due to **Teacher** error. Final grades are always based on the discretion of the teacher, not GooGrade.

LI-3:   The GooGrade application does not enforce prerequisites for a **Student** who enrolls in the **Course**.

LI-4:   A **Student** will not be able to view personal information and grades of another **Student** enrolled in the **Course**.

4. Business Context

4.1 Stakeholder Profiles

Stakeholder	Stakeholder Profile	Major Benefits	Likely Attitudes Towards the Application	Key Application Features of Interest
Teacher	A **Teacher** will create **Course**(es), **ManageStudents** and **ManageGrades**.	Reduction of time spent calculating grades and metrics. Less time spent in office hours. A new way to store and manage assignments digitally.	The **Teacher** may be skeptical because blackboard is already a reliable and widely used tool. GooGrade will provide graphical and statistical features superior to those of blackboard.	The statistics features give the **Teacher** an incentive to upload grades. Accessible from any computer with access to the Internet and a supported web browser.
Student	A **Student** will be able to view their grades and see details about **Assignment**(s) and **Course** progress.	Access to their grades and **Course** metrics from supported web browser.	A **Student** will embrace whatever the **Teacher** uses. A **Student** will want to view up to date grades with a desired grade calculator.	A **Student** will be able to view their grades. They will also know how they match up against the **Course** average for each **Assignment**.
Lauren Tsung *Customer and Corporation Manager*	Customer will market application to **Teacher**s	Will build relations with **Teacher**(s)	The customer will see a good opportunity to help a **Teacher** manage metrics and grading.	The final working application.
Professor Clark Turner *Upper Management*	Upper management in charge of ensuring timely delivery of application.	Gets credit in creation of grading application.	Upper management must be on board with development team to ensure a successful application.	A completed application with the least amount of bugs.

4.2 Project Priorities

Dimension	Driver (state objective)	Constraint (state limits)	Degree of Freedom (state allowable range)
Schedule	To have a successful release before end of CPE309	No Constraint	Preferably a 2nd release by the designated deadline but due to unforeseen consequences a patched 1st release would be satisfactory.
Features	None	No Constraint	70-80% of high priority features must be included in 1st release
Quality	None	Application must pass all required security test.	>90% of user acceptance tests must pass for 1st release, >95% for 1st patch
Staff	None	Maximum team size is 7	By 309 team size may have 1-7 different members
Cost	None	All software used will be freely available or open source	None

4.3 Operating Environment

The GooGrade software will have a web based graphical user interface. This will allow operation at both personal computers at a home environment as well as from a local terminal in a computer laboratory. As long as the computer can access the Internet with use of a supported web browser, it will be able to work with a GooGrade interface.

Providing a web based interface allows for a **Student** enrolled in a **Course** to gain information about their grade without direct contact with the **Teacher** during formal office hours. It also allows a **Teacher** to communicate important information to any **Student** without being in **Course** or at office hours.

Appendix A - Comparative Feature Matrix

The matrix compares the **UserType** and features of GooGrade against other grading tools that exist in the market. Based on the number of grading applications in the market, there is high demand for a product like this that include a variety of competitive features at different costs.

Grading Tool Reviewed	GooGrade	Blackboard	Class Mate	Moodle	eGrader	RealGrade
User Types						
Student	Yes	Yes	No	Yes	No	No
Teacher's Assistant	Yes	Yes	No	Yes	No	No
Teacher	Yes	Yes	Yes	Yes	Yes	Yes
Additional Admin	No	Yes	No	Yes	No	No
Features						
Course Statistics	Yes	Yes	Yes	Yes	Yes	Yes
Student Statistics	Yes	Yes	Yes	Yes	No	Yes
Desired Grade Calculator	Yes	No	No	No	No	No
Attendance Record Keeping	Yes	No	No	No	No	Yes
Uploadable Assignment Key	Yes	Yes	No	Yes	No	Yes
Automated E-mail Notifications	Yes	No	No	No	No	Yes
Course News Bulliten	Yes	Yes	No	Yes	No	No
Forums	No	Yes	No	Yes	No	No
Webbased	Yes	Yes	No	Yes	No	No
Cost	Free	$259,000	$300	Free	$8	Free

Sources:

BlackBoard: http://www.blackboard.com/
                   http://mfeldstein.com/blackboard_by_the_numbers/
Class Mate: http://www.classmategrading.com/
Moodle: http://moodle.org/
eGrader: http://www.egrader.net/
RealGrade: http://www.alaasadik.net/realgrade/

Appendix B – Customer Feedback Survey

The purpose of the customer feedback survey is to measure the success of GooGrade after the product is released to the market.

Name:

Date:

Are you a teacher or student?

How many weeks have you been using GooGrade for? (round to nearest whole number)

Please rate your overall experience with GooGrade on a 1-10 scale (1 = poor, 10 = excellent)

Please rate the GooGrade's features list on a 1-10 scale (1 = poor, 10 = excellent)

Please rate the ease of use of GooGrade on a 1-10 scale (1 = difficult, 10 = easy)

Please rate the GooGrade's graphical user interface on a 1-10 scale (1 = poor, 10 = excellent)