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# Student Grade Book Exporter

Erick J. Smith

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## Abstract

This was a new project I created for my Computer Science Practicum III capstone course (COMP 495) in the Summer 2013 semester. The project conception came from the following processes:

1. I copied all assignments from the course grade book and manually put them into my Google Task list.
2. I created an Excel spreadsheet that computed my personal statistics for the course and point goals needed to achieve a specific grade level.

I directed my team in using the following final approach: a Chrome extension to parse the grade book web page, insert a task for each assignment into the user's Google Task list and create a course file on Google Drive. The course file is read from an Android device and provides the statistical and achievement calculations.

The final application was deployed to the Chrome and Play stores as an invite-only closed beta. The process reduced approximately twenty minutes of work down to around thirty seconds. When made public, this system will assist other Franklin University students by: having tasks created for every assignment in a course and by having detailed information about their courses on an Android device.

## Objectives

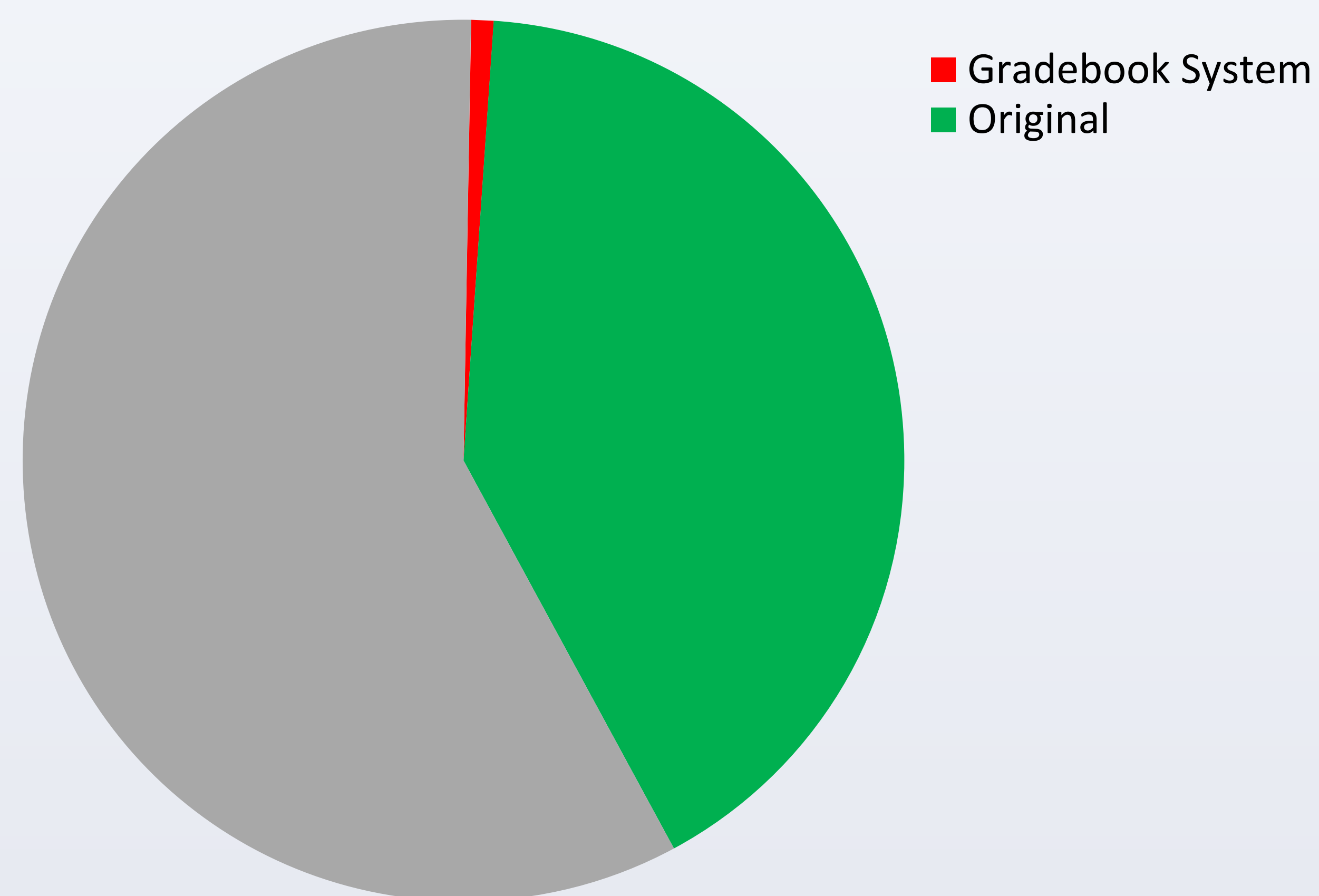
- Automate the process of manually entering each assignment from the grade book page into the Google task list.
- Automate the export of grade information.
- Save grade data to a user specific online storage.
- Provide an Android application to track and update user's copy of course grade data.
- Provide an Android application for the user to perform what-if analysis on grade data.
- Make application easily expandable to use other online service providers and accommodate other schools.

## Conclusion

The architecture of the application uses OO and MVC principles. This allows the system to be upgraded easily in the future. These upgrades could include: additional schools beyond Franklin University and the ability to use online service providers other than Google. The Android application is already configured to handle any course file that uses the same XML structure that is defined in the system's DTD. The only upgrade that would be needed for the Android application would be to allow the use of other online service providers for storage. The Chrome Extension is a school specific part of the application because it actually handles the parsing of the grade book web page and saves it to the user's online storage. In order to add another school only the parser object would need replaced and to add another service provider only the task list and file saving portions would need updated.

The functionality of this system drastically reduced the time it took to export the grade book of a course. The original process took an average of twenty minutes to complete, both the Task List export and the Spreadsheet setup. The Grade Book Exporter reduced this time to an average of thirty seconds. These times were dependent on the number of assignments in the course being exported and the number of calls allowed by the online task and storage provider.

## Time Savings



## References

Franklin Gradebook System Website.

<https://sites.google.com/site/franklingradebooksystem/>

Google Groups for Beta Deployment Access Control.

<https://groups.google.com/forum/#!forum/franklingradebook>

Chrome Web Store Listing for Chrome Browser Exporter.

<https://chrome.google.com/webstore/detail/franklin-grade-book-cours/cicllkbghchgejkooccjoadofhoafhp>

Google Play Store Listing for Android Application.

<https://play.google.com/apps/testing/com.FGBAA.franklingradebook>

## Contact

If you have questions, would like to discuss the application or would like to be added to the beta tester list please contact me at:

[smithe10@email.franklin.edu](mailto:smithe10@email.franklin.edu)

Or

[smithe10115@gmail.com](mailto:smithe10115@gmail.com)

## Acknowledgements

This project was completed for my Capstone COMP 495 course, Summer 2013.

The development team consisted of:

Jonathan Winsley (COMP 394) (Lead Chrome Browser Extension Developer)

Evan Reisman (COMP 294) (Lead Android Application Developer)

Jenifer Robb (COMP 394) (Lead Browser Tester and GUI design)

Erick Smith (COMP 495) (Project Creator, Manager, Team Lead

and Senior Programmer)