Final Year Project Definition Form

Student's name Junaid Rasheed	
Course Computer Science	
Project title Evaluation of a Haskell Web Framework	

What is the project about?

Comparing a Haskell Web Framework with a more traditional framework. The two frameworks that will be compared are Yesod (Haskell) and Django (Python). A website similar to Twitter will be created with both frameworks and then both websites will be compared. The comparisons will include differences in page load speed, safety, reliability and whether type checking during compile time vs runtime helps reduce bugs, maintainability by comparing the ease of adding a new feature to both websites, and the ease of testing in both frameworks.

What is the project deliverable?

Two websites that are functionally identical, one developed using Django, and the other using Yesod. Then a report will be written comparing the reliability, maintainability, speed, safety, and possibly the scalability of both frameworks. The report will evaluate the advantages and disadvantages of making a website using Yesod.

What is original about this project?

There has not been any detailed comparisons between a Haskell Web Framework and a Web Framework in a more traditional object oriented language like PHP or Python. This project will provide enough detail to people looking into using a Haskell Web Framework to help them inform their decision.

Timetable showing main stages in work plan

End of October: Comfortable with Yesod and Django, create a simple website with both frameworks. Create tests for the simple website.

November: Start to create a simple Twitter clone in both frameworks. Ensure tests are created for new features. Debug any errors.

End of January: Simple twitter clone finished, users can make posts, follow each other, make 'hashtags' (any word with a '#' preceding itself is linkable to other posts containing the 'hashtagged' word and looking up the word will show all posts containing the 'hashtagged' word in a paginated results view.). Tests created for all features, bugs debugged.

End of February: Add a new feature. The feature that planned is a way to send private messages directly to other users. Users will have an area displaying all private messages sent and received and will be able to reply to other people's messages. Add tests for this feature and debug any bugs encountered.

End of March: Record and resolve any bugs and errors in the framework, ensure that each framework has a sufficient number of unit tests and that all unit tests pass. Compare both frameworks, with a focus on speed, reliability, and safety.

April: Begin and finish the Final Project report, prepare for live demos.

Student's signature _____ Date 19 Oct 2017

Supervisor's signature _____ Date 19 Oct 2017

Computer Science, SEAS, Aston University