STATUS REPORT FOR

SEMESTER 2 2015

AUT UNIVERSITY

**UpStage**

By Jing Han and Joshua Kartono v.3.0

|  |
| --- |
| **Client Name** |
| Helen Varley Jamieson |
| Vicki Smith |
|  |
| **Supervisor** |
| Anne Philpott |

Contents

[1. Project Information 3](#_Toc432077676)

[1.1 Scope and Objectives 3](#_Toc432077677)

[1.2 Project Approach 4](#_Toc432077678)

[1.3 Planned End Deliverables 4](#_Toc432077679)

[1.4 How Original Proposal Recommendations Addressed 4](#_Toc432077680)

[1.5 Variations From Original Proposal and Rationale 5](#_Toc432077681)

[2. Project Status 6](#_Toc432077682)

[2.1 Team Achievements 6](#_Toc432077683)

[2.2 Work to be Done 6](#_Toc432077684)

[2.3 Difficulties Met 6](#_Toc432077685)

[3. Team Recommendations 7](#_Toc432077686)

[4. Individual Work 8](#_Toc432077687)

[4.1 Joshua Kartono 8](#_Toc432077688)

[4.1.1 Time Tracking 8](#_Toc432077689)

[4.1.2 Work Done 8](#_Toc432077691)

[4.1.3 Reflection 9](#_Toc432077692)

[4.2 Jing Han 10](#_Toc432077693)

[4.2.1 Time track 10](#_Toc432077694)

[4.2.2 Work completed 10](#_Toc432077695)

[4.2.3 Reflection on learning 11](#_Toc432077696)

# 1. Project Information

UpStage is an open-source web-based application which is used for online performances known as cyberformances. As an ongoing project, team members come and go throughout the project’s lifecycle. The current goal is to maintain the existing version of UpStage and to design and create a new version of UpStage.

## Scope and Objectives

This project has two main objectives, which is to maintain the current UpStage and to design and develop the first version of a new UpStage based on the structure of the current UpStage. It has to be web-based and open-source. A critical criterion for the new UpStage is ubiquity in access which means supporting mobile devices and tablets as well as most popular web browsers.

Users will be able to access a web page to join any existing channels (called a “Stage”) as an anonymous audience. They will only be able to communicate with people who are in the same channel as them.

If the user wants to create a channel as a host, he/she needs to log into his/her account first. By creating an account, users gain access to some features of UpStage, such as using an Avatar or drawing on the Stage. Depending on their access level, they can also create Stages and assign other users or media items such as Video, Audio and Avatars to those Stages.

The main focus of the new UpStage is to make it synchronized, fast, easy to use and ensure that it supports mobile technology while the team maintains a working version of the existing UpStage.

## Project Approach

As the goal is to create a new version of UpStage while maintaining the current version, the team decided that a mixture of Scrum and Kanban would work best for this project. This would allow the project to be done in iterations while preventing the team from working on too many user stories at once. There are also several spikes which are dedicated to researching the best options for the project and upskilling.

A timeframe is set for each iteration and spike. Within each iteration and spike, we list several tasks to be finished within that iteration/spike’s duration. For the iterations, we will use a story board and user stories to keep track of the team’s progress.

## 1.3 Planned End Deliverables

* Project Proposal
* Product Backlog
* Mid-Project Review
* Project Portfolio
* Individual Reflective Reports
* Poster
* Fixes to the current UpStage
* The new UpStage

## 1.4 How Original Proposal Recommendations Addressed

1. *Review your requirements/product backlog and identify the ones that the new system*

*“MUST HAVE” versus those “NICE TO HAVE”.*

We have reviewed the product backlog and categorized all the main requirements as “must have” and put the rest of the requirements as “nice to have”.

*2. Refine your plan. Allow some time to investigate available tools and technologies. Make sure that your plan reflects your chosen methodology.*

We have extended the first spike, which is for investigating the design and architecture for the new UpStage, as we found the time we allocated for it was not enough. We have also added another spike after spike 2 dedicated to designing and creating the initial MVC framework and User Interface.

*3. Review your project deliverables, for example: there are huge gaps in terms of working hours, importance, types of work etc. between the production of the “New Upstage” and the production of a poster.*

We have updated the schedule so that there is less of a gap between the production of the New UpStage and the production of the poster.

*4. Add page numbers to your proposal document.*

We have added page numbers to the proposal to make it easier to read and investigate.

*5. Add your team contract as an appendix to your proposal document.*

We have added the team contract as an appendix to the proposal.

## 1.5 Variations From Original Proposal and Rationale

We have set aside 2 weeks in the initial schedule for spike 1. During the spike, we decided to add a new task which is to create a simple chat prototype using Java and C#, which means the spike needs to be extended by 1 week.

At the end of the spike, we submitted our research documents and rationale to our supervisor to get approval for them. Our supervisor commented on the documents with areas that needs improvement so we decided to extend the spike. This process is repeated three times, each time extending the spike by 1 week. As the spike was extended, the rest of the tasks in the schedule were delayed.

# 2. Project Status

## 2.1 Team Achievements

* The project team have created multiple versions of various research documents.
  + We have researched suitable Software Architecture Patterns for UpStage.
  + We have researched suitable Programming Languages for UpStage.
  + We have researched suitable Data Storage for UpStage.
* The project team have created simple prototypes using Java and C#.
  + Create a simple web-based real-time chat application.
  + Extend the application with a feature to display and hide an image in real-time.
* The project team have created story cards from the product backlog and set up a Trello board with those cards.

## 2.2 Work to be Done

* Prioritize the user stories and confirm with our clients.
* Create the initial User Interface for UpStage.
* Create the architecture framework for UpStage.
* Start developing the new UpStage.
* Maintain the current UpStage.

## 2.3 Difficulties Met

The main issue for the current project is that the progress is slightly behind the original schedule, because the research part took much longer than expected. The main reason it took so long is that our research is not sufficiently detailed and we had to improve on the parts our supervisor commented on.

Since the architecture candidates we found can work with most programming languages, there were no constraints in terms of programming language candidates for our research. This means that the project team has to decide which language would work best for UpStage. However, the criteria we used for the research were not specific enough to UpStage which meant that our research is almost irrelevant to UpStage.

There is a lack of communication between the team members outside of meetings and between the project team and the clients and project supervisor. This is mostly apparent when the whole team has to make a single document, because the resulting document does not look like a whole document but rather several documents put together. There is also a lack of participation from a team member.

# 3. Team Recommendations

The main reason the project is behind schedule is because we needed to continually revise the research documents. A way to avoid this in the future is to make sure that the research questions that are used to direct the research are specific to the project so that the research is focused on UpStage.

To ensure that all team members are aware of any new changes, communication should be done in a specific way which is decided together. To make sure that future group documents are consistent, we must create a template for the team members to follow. Also, any work done must be proofread by other team members before submission.

# 4. Individual Work

## 4.1 Joshua Kartono

## 4.1.1 Time Tracking

From the start of the semester to 7/10/2015 (including the 2 weeks of mid-semester break) I have put in 104 hours into this project, excluding workshops. To complete the 150 hours requirements for this semester, I will need to put in an additional 46 hours in the remaining 3 weeks of the semester. However, due to many other assignments having their deadlines in this period of time, I do not think it is possible to complete the 150 hour quota. I will put in some working time during the summer break to catch up to the required amount of hours.

### 

### 4.1.2 Work Done

* Research on Java for UpStage
* Research on Event-Driven Architecture for UpStage
* Research on the Atmosphere java library
* A simple prototype made in Java
* Extend the prototype made in C# by other team members
* Rationale for using Node.js
* Rationale for using Java
* Rationale for using C#
* Rationale for using MVC and Event-Driven Architecture

### 4.1.3 Reflection

Since this is my first real team project with people I am not familiar with, I have had no experience working in such teams before. I have since learned that working in a decently sized team with people you do not know is not an easy task and adds additional challenges. The main difficulty is when team members do not agree on one solution to a problem. This is when I learned that a good conflict-solving solution is required for any team project.

I have also learnt the importance of communication, both between team members and between the team and the client/supervisor. At the beginning, we did not check the e-mail often enough, and we missed a supervisor meeting because of it. Since then, the project team agreed that something has to be done about it, and so we appended a rule to the team contract that every team member must check the e-mail account daily for important e-mails.

Another thing I have learned is that to do proper research, you need to find the appropriate criteria beforehand. Searching without questions in mind will result in meaningless research as it will most likely not solve the problem. This is why it is good to write down some questions or criteria that is specific to the problem first, then research based on those.

## 4.2 Jing Han

### 4.2.1 Time track

Up to 07/10/2015 I have approximately 97 working hours (excluding work shop). I have at least 50 more working hours to catch up. As this semester is almost finished, lots of assignments need to be done, it is not possible to work for 50 more hours by the end of this semester. I am planning to work harder for the project in the summer break. I will try to finish iteration 1 with a teammate during the summer break.

(This diagram excludes work shop)

### 4.2.2 Work completed

* Research of Model view controller
* Research of Naked Objects
* Research of Python
* Prototype of simple application by using Java to achieve real time functionality
* Extend other teammates’ C# code to see if the code readable and extendable

### 4.2.3 Reflection on learning

In the past 3 months, I feel so glad to work with the other Upstage team members. I realized that working together is very necessary. It helps to finish tasks on time. A good project schedule not only shows the tasks that need to be finished but also helps to push the project team to finish the tasks in the given time limit.

Lack of quality assurance will cause the project to fail. As a group project, communication is really necessary. At the beginning of project, I felt that checking others’ work seems like I do not trust them. In fact, checking other team members’ work is to make sure that the project is on the right track. The biggest issue that happened is the project team cancelling a supervisor meeting without informing our supervisor, just because nobody double checked the e-mail from our supervisor. After this thing happened, we check the group e-mail every day. If there is any mail waiting for response, we will discuss in the facebook and reply to the e-mail as soon as possible.

Good communication between team members could let other team members understand my personal opinions.

Finding a good library can save a bunch of time on coding. This experience comes from prototyping. We used Java and C# to develop same function. In theory, there should be no big differences for achieving the same function. For C# we used SignalR to achieve real time and Atmosphere for Java to do same thing. What we found is that SignalR is way easier than Atmosphere for finishing the prototype. We cannot find a proper library as good as SignalR in Java, this caused our codes in Java to be not readable and not be able to be extended.

# Version History

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Author | Notes |
| 06/10/2015 | 1 | Jing Han |  |
| 07/10/2015 | 2 | Joshua Kartono | Complete the document |
| 08/10/2015 | 3 | Jing + Joshua | Proofreading and Minor Updates |