Global Classroom

Interim Project Report

E – Voting System

DT282/3



Student Names & Numbers:

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Due Date: 11/04/17

# Project Roles

Below is the Project Roles we decided on from week one.

|  |  |
| --- | --- |
| Project Manager / Documenter | Eoin Smyth |
| Lead Programmer | Eryk Szlachetka |
| Lead Software Engineer | Jake Young |
| Software Engineer / Researcher | Elliot Igoel |
| UX/UI Designer / Database Designer | Robert Wijntjes |

No changes have been made to these roles, but as we have moved into the Development stage of the project we have adopted further Development roles:

**Team 1:** Web Development

**Leader:** Jake Young

**Members:**

* Robert Wijntjes
* Jake Young
* Eliot Igoe

**Team 2:** Android Development

**Leader:** Eryk Szlachetka

**Members:**

* Eryk Szlachetka
* Eoin Smyth

# Summary

Our aim is to create an Election E-Voting System that could be potentially used for many different events. There are two users, an admin and a regular public user, with a web-based interface for the admin and an Android application for the public user.

As we have progressed with the project this is still our goal. Our focus has become to get the base functionality done (i.e. get the ‘election’ part of the E-voting system working before moving on to other events that could be implemented), and providing a functional system, rather than a flashy one.

Rest Architecture is the architecture we chose for this project as it has many benefits that suit our design of the E-Voting system, such as being based on a Client-Server architectural style and by being stateless.

We are using a Parse Server deployed on Heroku. Parse Server is an open source version of the Parse backend that can be deployed to any infrastructure that can run Node.js. It has a huge API that will allow us to access the database easily.  
Heroku is a cloud Platform-as–a-Service (PaaS) supporting several languages and is used as a web application deployment model.

# Proposed Approach

## Overall Approach

When we initially discussed this project as a group, we came up with the idea of having a web based interface for admin users, and an android application for regular users. For the most part we have not deviated from the initial inception of our methodology. We’re still developing in an Agile method; we’re still using a Rest Architecture and for the most part we are following our project plan.

We have encountered setbacks and hurdles, such as delays due to traveling and unfamiliarity with new environments (both geographically and technically speaking), but for the most part we have done our best to overcome them as a group.

## Implementation Phase

Initially, when we first discussed this project, the dependencies we decided on was as follows:

* Android Studio
* JAVA
* PHP
* MYSQL
* APACHE SERVER

This has changed during this project. We are still developing in Android Studio using Java, and we are still using PHP on our Web Development side, but there have been changes server side. We have decided to use a Parse Server with Node.js, as well as using Heroku to facilitate our back-end development. This has presented its own set of problems and risks. As this is the first time any of us are using these platforms, it requires us to learn as we develop.

As always, up to date changes on the project can be seen on our Github repository:

<https://github.com/EricSzla/e-voting-system/tree/master>

## Testing Phase

As we are using an Agile development method, our plan is to test as we go along. As more functionality of the project is developed, it will be tested in conjunction with its development.

## Project Progress Against Plan Reporting

### Week 1

The main thing that we did was discuss roles for the project. We had a quick meeting to facilitate this. Everybody was happy with their roles

### Week 2

Eoin - Began work on a project plan.  
Eryk – Research.  
Jake – Develop software projections, such as Use Cases.  
Rob – Began work on Database design.

This week we had our initial presentation to our lectures, and much of our energy was dedicated to discussing the design decisions and requirements of the project.

\*During this week Eryk was travelling to China.

### Week 3

Eoin – Finalise project plan and begin work on Design Document.  
Eryk – Prepare development resources.  
Jake – Finalise software projections and other design elements.  
Rob – Design GUI prototypes and database ERD model.

The Design Document was initially due for this week, but was pushed back to accommodate students travelling abroad. This did allow us more time for the Design stage of the project.

\*During this week Eoin and Rob were travelling to China.

### Week 4

Eoin – Collect all design work and compile it for Design Document.  
Eryk – Separate roles for development.  
Jake – Continue design work.  
Rob – Refine database with a MongoDB suitable diagram.

Our Design Document was due this week, which included Use Cases, Analysis Diagrams, Sequence Diagrams, Database Models and GUI prototypes. The majority of the design work at this stage was done by Jake.

Deliverables: Diary Submission 1, Design Document

### Week 5

Eoin –   
Eryk – Started development plan and began mobile development.  
Jake – Refine designs based on feedback.  
Rob – Began basic outline of website code.

This week we had a meeting with our mentor to discuss our design decisions and receive feedback. Using this feedback, we refined our designs and were at a stage where we could comfortably move onto the development stage.

### Week 6

Eoin – Complete Project Plan and Risk Strategy document.  
Eryk – Set up Parse server and continue application development.  
Jake – Begin back end Web development.  
Rob – Continue front end Web development.

The Project Plan and Risk Strategy document was due this week. We had a meeting to discuss the potential risks of the project, and Eoin compiled the information.  
Eryk went out of his way to write up a Development guide to help with accessing the Parse Dashboard, as some members of the team were struggling with this aspect.

Deliverable: Project Plan and Risk Strategy Document.

### Week 7

This week was dedicated for the team to learn about the new technology used, as there was still plenty of confusion with its implementation.

\*Chinese students began new modules which increased their workloads significantly

### Week 8

Team members continued to work on development as they saw fit. There was still some confusion with the new technology being used.

\*Chinese students continued to have a heavy workload which impacted on the amount of time they could dedicate to this project. This was solved the following week however, and is no longer an issue.

Deliverable: Diary submission 2.

## Where do we go from here…

There are three weeks left before the final code drop and final deadline for the project. The only deliverable remaining within that timeframe is the third diary submission. As such, these next three weeks will be focused purely on development.