C:\Users\Keith\Desktop\Logo.png

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BSc (Hons) in Computing

Cloud Computing

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# Objectives

The aim of this software project is to create a web based distributed system which will allow a user to record, edit, view and possibly search through helpdesk/support desk tickets, and to allow for tracking of renewals of software, licencing, support agreements, etc.

Objectives are as follows:

## Primary Objectives:

### Helpdesk element:

* To Allow for creation of new support Tickets
* To allow to view current tickets
* To be able to sort current tickets by status (Open/Closed)
* To edit/amend current tickets

### Renewals Element:

* To add a recurring renewal to the system
* To view upcoming renewals
* To automatically email a designated contact at a predetermined time before a renewal is due.

## Secondary Objectives:

* To Expose an API to allow some of the functionality to be used in third party applications. This would allow for mobile or tablet application to be developed further down the road
* To add functionality by interfacing with a third party service provider. Using Twilio’s SMS API functionality will be added to send SMS messages when a renewal date is coming up.

# Background

Having worked in many facets of IT over the years and using many helpdesk systems, it is clear that a lot of them have many fine features. With all these features come many items, processes and functionality that is not used often or at all. There is a gap in the market for a piece of helpdesk software that simplifies these applications down to the important aspects of support ticket creation. The aim of this project is to design, develop, build and test an application that fulfils this requirement. Having many customers with renewal dates also showed that there isn’t an adequate tracking system for these type of renewals. Renewals generally fall into a number of categories:

* Hardware
* Software
* Services

The renewal element of the application is something that will set this application apart from the other helpdesk software currently on the market.

# Technical Approach

As someone who has used and uses helpdesk software and processes renewals on a daily or weekly basis, and having access to a number of other people who use the same, I will generate the initial Data capture template by deciding what data is important. Once this is decided I will speak to potential end users to see if any requirements have been missed, or if anything will need to be added. In relation to the renewals, a selection of subtypes will be defined and tested, making sure that nothing is missing, and if it is, should be added.

UI Design will be in the second phase of development, once a working server environment has been built and tested. The UI will be designed around the layout of the data entry and will provide an easy way to access and manipulate the data. This will be shown at each iteration to a number of potential end users and feedback will be taken on board.

# Project Plan

# Technical Details

This project will be designed and developed in the Java programming language using an agile approach to software development.

## Key components:

### Server:

The Server application will utilise the JBoss application server. The Jboss server will run be running on a Platform as a Service (PaaS). The PaaS provider chosen is RedHat Openshift (<http://www.redhat.com/openshift>)

### Client:

Users will connect to a web driven client. This will primarily be developed in HTML5 & JQuery.

### Database:

The persistent data that needs to be retained from the application will be housed within a MySQL (<http://dev.mysql.com/>) which will be hosted on the OpenShift PaaS.

# Evaluation

There will be two distinct types of evaluation throughout the project

## Operation Evaluation:

* Does the system do what it promises to do?
* Does it ask for the right information?
* Are there enough options? Is there anything missing?
* Is performance fast enough?
* Is communication good and consistent between the users view and the server?
* Is Communication consistent and reliable between the server and the database?
* Bug Testing

## Usability Evaluation:

* Design of the interface
* Ease of use
* Accessibility
* Help Documentation
* Features

While the operation evaluations will be handled by myself, the usability evaluations will be carried out by potential end users. They will Log tickets, access previously logged tickets, create renewals, review renewals and test all the functionality that is part of the application. Feedback will be generated, either by online form or classical paper based information gathering.

# Consultation with Project Specialisation Coordinator

Specialisation Coordinator: Adrian Skehill

Feedback Received: *Have a think about exposing out an API, so clients could be developed for mobile devices and it will give you a good expansion point to talk about in your proposal. Also have a think about integrating with some third party services that we looked at on Tuesday night.*

# Consultation with Academic Staff

Due to the tight time frames of part time students and the fact we were only given the list of Academic staff on Tuesday night, Michael Bradford has been unable to get back to me at this time. I am still awaiting his response and will amend this proposal document when it arrives.

# Proposed Supervisor

Adrian Skehill (With his permission)

Keith Kelly September 30th 2012

Signature of student and date