



# Requirements Document 2011-12

## **Project Name: The Durham Cultural Hub**

## **Team Number 5**

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1.9	12/12/2011	Jonathan Gaskell	Revision of hardware and software requirements



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### **Executive Summary**

The University of Durham wish to develop the University as the cultural scene of the North East.

To that end the University currently has a website it uses to advertise all the events going on in and around the University called the What's On Guide (<a href="www.dur.ac.uk/whatson">www.dur.ac.uk/whatson</a>) which is little used and little known about by the students of Durham.

The University of Durham have recently started a new Cultural Strategy to improve the promotion and organisation of events being put on in Durham, and part of that is using technology to help achieve these goals. Our team has been approached by the university to develop a system consisting of a web and BlackBerry app to improve the awareness of the events Durham has to offer, for staff, students, alumni, tourists and the general public.

The system should allow users to personalise their accounts with their interests so that the apps can display a tailor-made feed of events relevant to them. These event feeds should consist of short descriptions of the events with their locations and times, to be displayed both on the web app and the BlackBerry app and each event should have a link to a full description including booking information, directions and any information about disability access to the event.

The University wants to avoid central administration of the system, so to that end heads of departments/colleges/general category managers should be able to add new events to their own categories, and assign event managers who can edit the events and approve user-uploaded photos and comments on the event.

Within the rest of this document are the requirements for the project. These include the domain analysis, project plan, hardware and software requirements for the development and implementation of the system, and functional and non-functional requirements of the actual deliverables.

This document should be referred to and reviewed throughout design and development of the project, to ensure the team remains focused on meeting the requirements of the client.



## **Domain Analysis**

#### **Analysis Process**

The domain analysis looks at the environment in which the system will operate rather than needs of the individual users of the system. By understanding the domain of the system, one should be able to produce a better set of requirements. For example, the more we know about the environment in which the system will operate, the more requirements we will discover along with any commonalities and conflict between the requirements of different stakeholders.

Our domain analysis began when we met the client who explained the system that they wanted to be developed and expanded on the initial brief that we were given. The client provided a detailed presentation based on consultation with the various stakeholders of the system and they pointed out some of the key objectives that the system has to meet and some of the challenges that need to be overcome.

We also conducted a short survey on the students of Durham University to find out the current methods of communication that people use to find out about events in Durham. This enabled us to understand the system domain and how effective the existing systems are.

#### **Analysis**

#### **The Business Environment and Existing Systems**

The purpose of the project is to create a system comprising of a website and a (BlackBerry) mobile application which share similar information. Together, the website and the app should form a cultural hub for Durham and provide information about events that are on in Durham, including university based events as well as tourist events. Users should be able to create their own user account on the website, stating their interests which should then allow them to receive personalised updates about events both the website and the BlackBerry on app.

There are several existing websites which display information about upcoming events, and Durham Students Union (DSU) has an app which contains a few of the features that have been proposed for our app.



#### Durham University 'What's On' webpage (http://www.dur.ac.uk/whatson/)

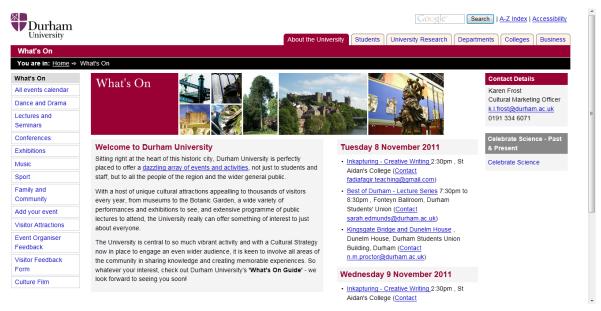


Figure 1 – The Durham University 'What's On' webpage – <a href="http://www.dur.ac.uk/whatson/">http://www.dur.ac.uk/whatson/</a> Accessed 08/11/2011

The Durham University 'What's On' page is essentially the problem solution we are looking to replace. It provides details of many of the events that our proposed system will cover. The webpages provide the following features:

- Homepage displays links to event pages listed by their start date, with the most recent events at the top being the ones that are ongoing
  - o It is worth noting that by organising events in this way, events which are ongoing will be listed as taking place on the date that the site is accessed. If there are many ongoing events this means that on the site there will be many events listed as taking place on the date that the site is accessed resulting in overcrowding of dates with events that the user may find irrelevant because they are on for a long period of time. Additionally, user's may be confused as to how long an event is available if it listed under today's date but is actually taking place for longer than one day.
- Users can subscribe to an RSS feed of events
- Brief description and several videos describing the university and its cultural scene
- Events are split into 7 categories Dance and Drama, Lectures and Seminars, Conferences, Exhibitions, Music, Sport, Family and Community
- Ability for users to add their own event
- The event pages contain a description of the event along with a contact email address, and a link to download the event in iCalendar format



#### 'This is Durham' 'What's On' webpage (http://www.thisisdurham.com/whats-on)

'This is Durham' is the official tourist website for County Durham, and being run by the tourist board for County Durham it is a key stakeholder in our project. Although the 'What's On' section displays events going on all over County Durham rather than just Durham city, it still shares many of the basic features we plan to implement in our system:

- Event pages display locations of events on a map with travel directions from a user input postcode, the facilities available at the event, full address details
- Events can be added to a shortlist
- E-mail newsletter of upcoming events tailored to the interests selected by the user

#### Durham Students Union 'DSU Pocket Uni' Mobile App

The Durham Students Union has developed an app to highlight some of the events that it puts on. The app is available for devices running 'iOS' and 'Android' operating systems. It has the following features:

- A diary (calendar) to which events that interest the user can be added
- Users can subscribe to clubs and societies to ensure they are kept up-to-date with events
- Calendars (groups of events) of different event creators (departments, colleges, clubs, societies etc) can be subscribed to so that the user's diary contains all the events from all the calendars they subscribe to
- Users can select an event to add to their 'reminders'
- Users can add their own events to the diary but these cannot be viewed by other users. This
  diary can also be viewed and edited on the DSU website
- The app also provides a campus map along with news feed integration and discount offers



Figure 2 (left) & Figure 3 (right) – Screenshots of the 'DSU Pocket Uni' app on Android (left - taken from

https://market.android.com/details?id=pokit.campus.dsu) and iPhone (right – taken from http://itunes.apple.com/tw/app/dsu-pocket-uni/id464002041?mt=8)



#### **Positives**

- The graphical user interface (GUI) provides easy access to the app's functionality, uses high quality graphics and follows a consistent, intuitive style which makes the app easy to use
- The personal graphical diary is easy to use on a touchscreen phone, and the user can easily see if they have added an event for that particular day
- It is easy to subscribe and unsubscribe from groups of events

#### **Negatives**

- The software has many bugs, particularly on the 'Android' version; especially if the mobile device being used has a small screen resolution
- A user cannot create an event using the app that can then be seen by other users
- The app's diary cannot be integrated with any other calendars the user might have such as one on their phone or an online service such as 'Google Calendar'

#### **Survey Results**

A survey conducted by Apptitude found that the existing systems in place did not prove popular with students. In our survey none of the respondents used either the 'DSU Pocket Uni' app or the 'This is Durham' 'What's On' page, although it should be noted that the 'This is Durham' page is not targeted at students. The most striking outcome of the survey was that only 16/100 students have used Durham University's 'What's On' page (see figure 4) and of those students who had used it, only 2 found it helpful (see figure 5). Following from the earlier analysis of this system, it could be argued that the main reason users do not find the system helpful is because it does not provide enough features and is not user friendly enough, particularly on mobile devices.

# 2. Have you ever used the What's On Website?

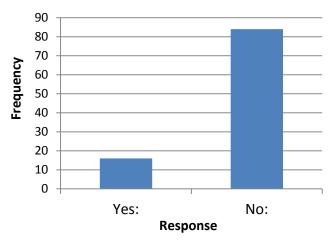


Figure 4: Graph of the survey results



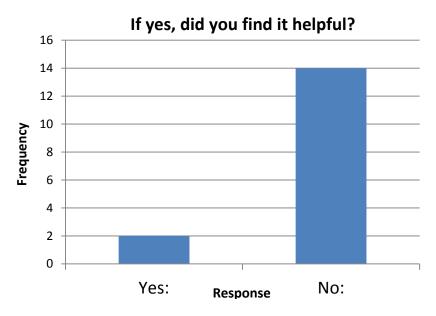


Figure 5: Graph of the survey results

#### **Stakeholders**

During the domain analysis process, we identified several stakeholders for the proposed system. Some of the stakeholders are more important and will have more influence over the functionality of the system; therefore an 'onion ring' diagram has been constructed to represent this as seen in figure 4.

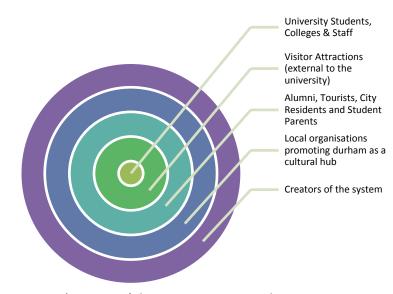


Figure 4 – An 'onion ring' diagram to represent the influence that the system will have on key stakeholders

#### **Different Users of the System**

Regular/End Users – Anyone can create one of these basic accounts. These users will have varying levels of technical expertise but most will have very little. Therefore we must produce a highly intuitive Graphical User Interface (GUI) so that they can use the system without encountering problems and so they will not need to refer to help files often. These users should have a view of the GUI tailored to them so that any content that is not applicable to them is removed. Validation and feedback should be used to reduce the number of errors when inputting data and any error



messages should tell the user exactly what they've done wrong. The system must be easy to use for these users or else they may refuse to use the system which would make it ineffective.

**Advanced Users/Event Creators** – These users have the ability to create new events, edit events, and add new categories. As such in order to obtain this privilege level, the user will be approved by another advanced user or administrator. With these users, the emphasis is more on documentation so that they know how to perform their role within the system.

**Administrators** – These users have all the privileges of the other users but additionally they are able to lock and unlock system accounts and reset user passwords. The emphasis for these users is also good documentation so that they understand how the system works and can operate it properly.

#### The Inputs and Outputs of the System

#### <u>Inputs</u>

- User information and preferences
- Event creators add event details

#### **Outputs**

- Link to Google maps to provide directions for each event
- Add events to the user's BlackBerry calendar
- Event details to the user interface



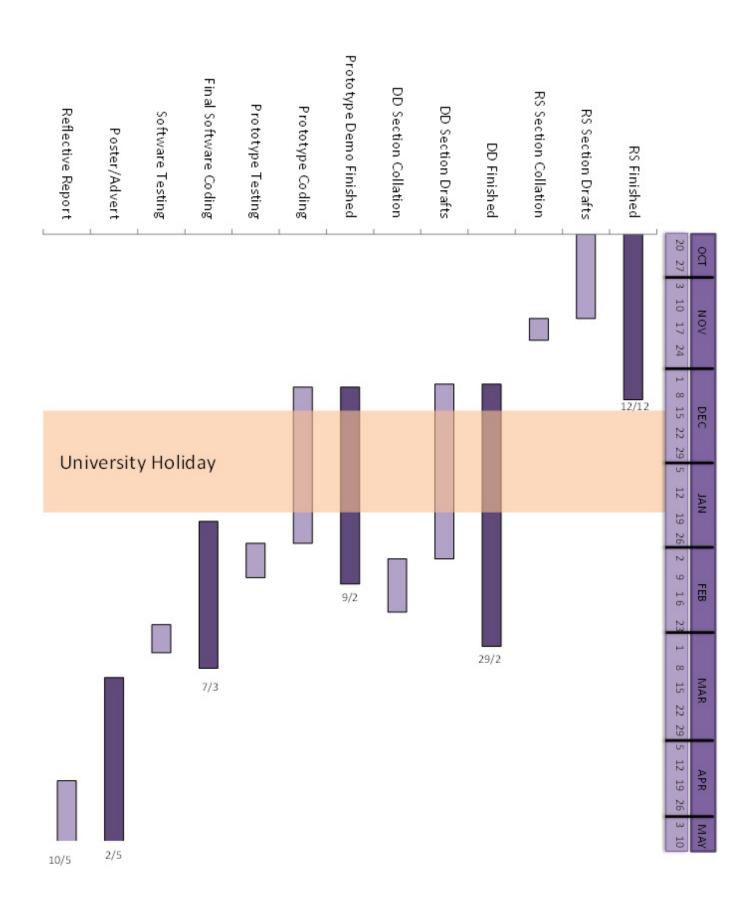
## **Project Plan**

Below is a breakdown of the various sections of the development of our Web application and BlackBerry App software. This is displayed in both a table format, and as a Gantt chart. Note that the soft deadlines are subject to change due to future workload uncertainties.

**Key**: RS = Requirements Specification, DD = Design Document

Task	Start Date	Hard Deadline	Soft Deadline	Duration (Dave)	Members
				(Days)	Responsible
RS Section Drafts	20/10/2011	N/A	16/11/2011	27	ALL
RS Section Collation	16/11/2011	N/A	23/11/2011	7	Jonathan Gaskell
RS Finished	20/10/2011	12/12/2011	06/12/2011	47	Jonathan Gaskell
DD Section Drafts	07/12/2011	N/A	01/02/2012	56	ALL
DD Section Collation	01/02/2012	N/A	18/02/2012	17	Ahmed Saghir
DD Finished	07/12/2011	29/02/2012	24/02/2012	79	Ahmed Saghir
Prototype Coding	08/12/2011	N/A	27/01/2012	50	ALL
Prototype Testing	27/01/2012	N/A	07/02/2012	11	ALL
Prototype Demo Finished	08/12/2011	09/02/2012	09/02/2012	63	Antanas Brazenas
Final Software Coding	20/01/2012	07/03/2012	02/03/2012	42	Jamie Kitson
Software Testing	22/02/2012	N/A	02/03/2012	9	ALL
Poster/Advert	10/03/2012	02/05/2012	27/04/2012	48	Lydia Felton
Reflective Report	12/04/2012	10/05/2012	01/05/2012	19	ALL







#### Hardware and Software Platforms

#### **Hardware**

The user is required to have a BlackBerry with an OS (Operating System) version 4.6 or higher. We have been given a BlackBerry Bold 9000 (OS v4.6.0.303) to test our app. The functionality available in one BlackBerry OS version may not be available in an older version, however, the application should be able to execute for several future OS versions. To write the code in Java language we will use a BlackBerry simulator (OS v4.6.0.23) plug-in for the Eclipse programming tool (IDE). Note that the app might have some problems with touch screen devices with newer operating system versions.

The client will need a web hosting server to store the website and the database. We assume that storage space of 250MB should be enough.

#### **Software**

An internet connection is essential for viewing both the website and the app. Although the app can be run without an internet connection, not all of the functionality will be available. Also, the machine or device must have an internet browser to view the website properly.

We are using Eclipse as our Integrated Development Environment (IDE) and a BlackBerry simulator plug-in (described above) for writing and testing the code written in the Java programming language.

Our project requires the creating and handling of a database. Durham University is using the 'phpMyAdmin' tool to handle the administration of MySQL, therefore, we have decided to use the same software. 'phpMyAdmin' is open source software which is another advantage of this tool.



## **Solution Requirements**

## **Web Application**

## **Functional Requirements**

Req.ID	FR001- Add categories	
Description	Administrators can create categories to organize events	
Priority	High	
Pre-conditions	N/A	
Input	Administrators enter in the category name, details about the category and the "parent" category (where appropriate)	
Operations	The system will save categories	
Expected results	New categories added to the list of categories	
Result Pass/Fail		
Remarks	Categories are organized in a hierarchy, e.g. the "Football", "Rugby" and "Cricket" categories are children of the "Sport" category	

Req.ID	FR002- Add an event
Description	Category managers can add new events to their category, and child categories
Priority	High
Pre-conditions	FR001- Add categories
Input	Manager enters in full event details, including information about physical accessibility, and event location to show it on map. Managers can also assign "Event Organisers" to an event who can edit event details
Operations	The system will save the event
Expected results	New event added to the event list
Result Pass/Fail	
Remarks	



Req.ID	FR003- Delete an event
Description	Category managers can delete an event
Priority	High
Pre-conditions	FR002- Add an event
Input	Manager can delete an event details, then the system will check if there are any users "attending" this event before deleting it. If there are users attending the event the system will email them automatically to let them know
Operations	The system will delete the selected event
Expected results	Event is deleted from the event list
Result Pass/Fail	
Remarks	

Req.ID	FR004- Registering users
Description	New users can register themselves on the system
Priority	High
Pre-conditions	N/A
Input	The user enters an email address as their user name and a password. The user would also be prompted to choose which "type" of user best describes them (student, staff, tourist or general public)
Operations	System will add the user to the database and set their initial preferences based on their selected "type"
Expected results	User account created with user type and email address
Result Pass/Fail	
Remarks	Registering is not mandatory: users will be allowed to use the website as a guest

Req.ID	FR005- Login
Description	The website will provide an interface for the user to login
Priority	High
Pre-conditions	FR004- Registering Users
Input	User email and password
Operations	System will verify the user name and password
Expected results	User can login to the website
Result Pass/Fail	
Remarks	



Req.ID	FR006- Change account settings
Description	Users will be able to customize their category preferences
Priority	High
Pre-conditions	FR005- Login
Input	Users chooses to add/remove a category to/from their preferences
Operations	The system saves changes to user's categories interest
Expected results	New categories added to the user's interest categories list
Result Pass/Fail	
Remarks	

Req.ID	FR007- Change password
Description	Users will be able to change their password
Priority	Low
Pre-conditions	FR004- Registering Users
Input	User enters their original password and then a new password
Operations	The system will check if the user's original password is correct and then will save the new password if the original password is correct. If it's wrong an error message will appear saying that the user's password is incorrect.
Expected results	Change the password
Result Pass/Fail	
Remarks	

Req.ID	FR008- Delete user account
Description	Users can delete their account
Priority	Low
Pre-conditions	FR004- Registering Users
Input	Users click on delete my account
Operations	The system will delete the user account
Expected results	The account has been deleted
Result Pass/Fail	
Remarks	



Req.ID	FR009- Display events	
Description	The website will display a list of events	
Priority	High	
Pre-conditions	FR001- Add categories and FR002- Add an event	
Input	Click to display all events or filter by categories	
Operations	User selects categories and then the system will filter events based on categories chosen or view all	
Expected results	A list of events is displayed in a feed based on the user preferences. An event name, date, time and brief description will be shown, and the user can click a specific event for more details	
Result Pass/Fail		
Remarks	<ul> <li>The user can select multiple categories</li> <li>The system will filter events based on categories choices and/or physical accessibility if the user has specified that in their settings</li> <li>User can specify a date range (e.g. weekly, monthly) of events to display</li> </ul>	

Req.ID	FR010- Display specific event
Description	The website will display full details for a specific event
Priority	High
Pre-conditions	FR009- Display events
Input	Click on the event in the event list
Operations	Full details on the event are displayed to the user. Details include: name, date, location, full description, picture, contact details, physical accessibility, popularity, event history and user comments as well as a link to the location on a map, a link to get notified and a link to add the event to your calendar
Expected results	Display full details as specified above
Result Pass/Fail	
Remarks	



Req.ID	FR011- Link to map
Description	System can provide event address details on map
Priority	High
Pre-conditions	FR010- Display specific event
Input	Click on link to map
Operations	System will forward the user to the map page
Expected results	Display event location on a map
Result Pass/Fail	
Remarks	The system will also display some points of interest in the city of Durham on the map (e.g. Cultural attractions and Colleges)

Req.ID	FR012- Notify me about this event
Description	System will provide a notification service
Priority	Low
Pre-conditions	FR010- Display specific event
Input	User clicks on notify me link and enters a required notification time and date
Operations	The system will send an email automatically to the user's email address prior to the event start time
Expected results	The system will send a reminder email to the user before the event depending on the selected time.
Result Pass/Fail	
Remarks	

Req.ID	FR013- Display all events on a calendar
Description	System organizes the events on a calendar
Priority	Medium
Pre-conditions	FR009- Display events
Input	User clicks on calendar link and chooses week or month to view
Operations	The system will generate a calendar display of events for specific week or month
Expected results	Calendar display of events
Result Pass/Fail	
Remarks	



Req.ID	FR014- Add an event to user's personal calendar
Description	User can add an event to their personal calendar
Priority	Medium
Pre-conditions	FR010- Display specific event
Input	Click on link to export event to personal calendar
Operations	The system will export the event details to the user's personal calendar
Expected results	Event details added to user's personal calendar
Result Pass/Fail	
Remarks	Personal calendars such as iCal and Google calendar

Req.ID	FR015- Change skin depending on category
Description	System will update the current skin to reflect event category
Priority	Low
Pre-conditions	FR010- Display specific event
Input	User selects event from current list
Operations	The system will change the event page skin depending on the currently selected event's category
Expected results	Page skin changes to reflect the selected category
Result Pass/Fail	
Remarks	Page "skin" refers to the template – e.g. colour scheme, border images

Req.ID	FR016- Display history of an event
Description	System will display historical information for any selected event
Priority	Low
Pre-conditions	FR010- Display specific event
Input	User navigates to the event and clicks on 'history'
Operations	The system will extract and display historical information for the selected event (e.g. previous dates event took place on; number of attendees and ratings)
Expected results	New page showing historical information
Result Pass/Fail	
Remarks	



Req.ID	FR017- Register to attend an event
Description	User can register to attend an event
Priority	Low
Pre-conditions	FR010- Display specific event
Input	User navigates to the event and clicks on 'attend'
Operations	System registers the user's interest in the event and alters the "popularity" statistic on the event accordingly
Expected results	Popularity statistic increases by 1 for each user who has said they intend to attend
Result Pass/Fail	

Req.ID	FR018- Feedback on event
Description	User can give feedback on event such as posting ratings, comment and images from an event
Priority	Low
Pre-conditions	FR017- Register to attend an event
Input	User navigates to the past event, and enters a comment/ratings/uploads images
Operations	System will add comments, ratings and images information to the event details (unpublished) and notifies the event organiser
Expected results	Confirmation message upon successful saving of comments etc.
Result Pass/Fail	
Remarks	

Req.ID	FR019- Moderation of feedback comments and images
Description	Event organiser approves user-submitted feedback
Priority	Low
Pre-conditions	FR018- Feedback on event
Input	Administrator selects comments and/or images to approve
Operations	System will mark feedback as "published" and display them on the event
Expected results	Feedback published on the event page
Result Pass/Fail	
Remarks	



## **Non-functional Requirements**

Req.ID	NFR001- Consistent Design
Description	The website will have a consistent colour scheme and typeface.
Priority	High

Req.ID	NFR002- Consistent Layout
Description	The website will have a consistent layout e.g. fonts
Priority	High

Req.ID	NFR003- Branding icon/logo
Description	The website must display the system logo
Priority	High

Req.ID	NFR004- Fast load time
Description	The website must have a fast load time (less than five seconds)
Priority	Medium

Req.ID	NFR005- Easy navigation
Description	The website must be easy to navigate (it must not take more than five mouse clicks to navigate to any given page on the website).
Priority	Low



## **BlackBerry Application**

#### **Functional Requirements**

The BlackBerry application will be for displaying events and is not an administration tool. After installation of the app the program will connect to the service automatically, and display the main menu.

Req.ID	FR020- Registering users
Description	The BlackBerry app will provide the ability for users to create account
Priority	High
Pre-conditions	N/A
Input	User will enter an email address as their user name and create a password and then choose from default profile types (student, staff, tourist or general public)
Operations	The BlackBerry app will check the credentials of the user before accepting
Expected results	A user account created with a user type and email address
Result Pass/Fail	
Remarks	Registering is not mandatory: users will be allowed to use the app as a guest

Req.ID	FR021- Login
Description	The BlackBerry app will provide the ability for users to login
Priority	High
Pre-conditions	FR020- Registering Users
Input	User email and password
Operations	The BlackBerry app will verify the user name and password
Expected results	The user is logged in to the app
Result Pass/Fail	
Remarks	



Req.ID	FR022- Changing account settings
Description	The BlackBerry app will provide the ability for users to customize their category preferences
Priority	High
Pre-conditions	FR020- Registering Users
Input	Users change/select/remove categories of interest
Operations	The system saves changes to the user's categories of interest
Expected results	The list containing the categories that the user is interested in is changed to reflect the user input
Result Pass/Fail	
Remarks	

Req.ID	FR023- Change password
Description	The BlackBerry app will provide the ability for the user to change their password
Priority	Low
Pre-conditions	FR020- Registering Users
Input	User enters their original password and then a new password
Operations	The system will check if the user's original password is correct and then will save the new password if the original password is correct. If it's wrong an error message will appear saying that the user's password is incorrect.
Expected results	The user's password is changed
Result Pass/Fail	
Remarks	

Req.ID	FR024- Delete user account
Description	The BlackBerry app will provide the ability for the user to delete their account
Priority	Low
Pre-conditions	FR020- Registering Users
Input	Users click on 'delete my account'
Operations	The system will delete the user account
Expected results	The account has been deleted
Result Pass/Fail	
Remarks	



Req.ID	FR025- Display events
Description	BlackBerry App will display a list of events
Priority	High
Pre-conditions	FR001- Add categories and FR002- Add an event
Input	Click to display all events
Operations	User selects categories and then the system will filter events based on category preferences or display all events
Expected results	A list of events is displayed in a feed based on the user preferences. An event name, date and time will be shown. The events in the feed will be coloured to indicate which category it belongs to.
Result Pass/Fail	
Remarks	- The user can select multiple categories  - The system will filter events based on categories choices and eligibility (e.g. students only)  - User can order by specified date range (e.g. weekly, monthly)

Req.ID	FR026- Display specific event
Description	The app will display full details for a specific event
Priority	High
Pre-conditions	FR025- Display events
Input	Click on the event in the event list
Operations	Full details on the event are displayed to the user. Details include: name, date, location, full description, picture, contact details, physical accessibility, popularity, event history and user comments as well as a link to the location on a map, a link to get notified and a link to add the event to your calendar
Expected results	Display full details as specified above
Result Pass/Fail	
Remarks	

Req.ID	FR027- Link to map
Description	The BlackBerry app will provide the event address details on a map
Priority	Medium
Pre-conditions	FR025- Display events
Input	Click on event details
Operations	Click on the map link the system will forward the user to map page
Expected results	Display event's location on map
Result Pass/Fail	
Remarks	The App will also display some points of interest in the city of Durham on the map (e.g. Cultural, attractions, and Colleges General sites)



Req.ID	FR028- Directions from user location to event location
Description	The BlackBerry app will provide directions to the event for the user from their current location
Priority	Low
Pre-conditions	FR027- Link to map
Input	Click on event details
Operations	Click on the map link and then get directions and this will forward the user to the map page
Expected results	Display directions to the event location
Result Pass/Fail	
Remarks	The App will also display some points of interest in the city of Durham on the map (e.g. Cultural, attractions, and Colleges General sites)

Req.ID	FR029- Notify me about this event
Description	The BlackBerry app will provide a notification service
Priority	Low
Pre-conditions	FR025- Display events
Input	Click on event details
Operations	User can click on the notify check box and select notify time then the system will send an email automatically to the user's email
Expected results	The BlackBerry app will send reminder email to the user before the event depending on the selected time.
Result Pass/Fail	
Remarks	

Req.ID	FR030- Display all events on a calendar
Description	The BlackBerry app displays the events in an organized manner on the app calendar
Priority	Medium
Pre-conditions	FR025- Display events
Input	Click on events details
Operations	Users can list all and specific events by chosen date range (week/month)
Expected results	Display events in the specified date range
Result Pass/Fail	
Remarks	



Req.ID	FR031- Add event to calendar
Description	Users can export an event to their personal calendar
Priority	Medium
Pre-conditions	FR025- Display events
Input	Click on link to export event to personal calendar
Operations	The system will export the event details to the user's personal calendar
Expected results	Event details added to the user's personal calendar
Result Pass/Fail	
Remarks	Personal calendars such as iCal, Google calendar or BlackBerry calendar

Req.ID	FR032- Register to attend an event
Description	Users can register to attend an event
Priority	High
Pre-conditions	FR025- Display events
Input	Users select an event from the list of current events and click 'attend'
Operations	The BlackBerry app will first check for time conflicts and limits on the number of attendees before accepting; if there are no conflicts, the system will record the user as an attendee and send a confirmation email to the user
Expected results	The user will either receive a message warning of any conflicts, or a confirmation message and email if the user is accepted as an attendee
Result Pass/Fail	
Remarks	

Req.ID	FR033- Cancel registration to attend an event
Description	Users can cancel their registration to attend an event
Priority	High
Pre-conditions	FR032- Register to attend an event
Input	Users select the event that they want to unregister from
Operations	The BlackBerry app will remove the user from the list of attendees of given event
Expected results	The user is unregistered from the event
Result Pass/Fail	
Remarks	



Req.ID	FR034- Feedback on an event
Description	Users can give feedback on an event by rating the event, commenting or uploading images from an event
Priority	Medium
Pre-conditions	FR032- Register to attend an event
Input	Users select the event from the list of events attended by the user, and enters comments, selects ratings or uploads images
Operations	The BlackBerry app will add comments, ratings and images to the event details
Expected results	Confirmation message upon successful saving of comments
Result Pass/Fail	
Remarks	

Req.ID	FR035- Display history of an event
Description	The BlackBerry app will display historical information for any selected event
Priority	Low
Pre-conditions	FR034- Feedback on an event and FR025 Display Events
Input	Users select an event from the list of current events and click on 'history'
Operations	The BlackBerry app will extract and display historical information for the selected event (e.g. previous dates event took place, number of attendees, comments, photos, ratings)
Expected results	New form showing historical information
Result Pass/Fail	
Remarks	



#### **Non-functional Requirements**

Req.ID	NFR006- Future scalability and interaction with devices
Description	The system should be designed to allow for future scalability and interaction with devices such as BlackBerry mobile, Apple devices and Android-based devices.
Priority	Low

Req.ID	NFR007- Consistent layout and usability
Description	BlackBerry layout will be appropriate for the screen size and user interface
Priority	High

Req.ID	NFR008- Branding icon/logo
Description	The Blackberry app must display the system logo
Priority	High

Req.ID	NFR009- Fast load time
Description	The Blackberry app must have a fast load time (less than five seconds)
Priority	Medium

Req.ID	NFR010- Easy navigation
Description	The BlackBerry app must be easy to navigate (it must not take more than five clicks to navigate to perform a given task).
Priority	Low



#### **Definition of Terms**

**Android**: An operating system for mobile devices such as smartphones and tablet computers, developed by Google Inc.

App: An application, typically a small, specialized program downloaded onto mobile devices.

**BlackBerry:** The name given to the line of smartphones developed by Research In Motion Ltd which run on the BlackBerry OS

**Eclipse**: An open source IDE developed by the Eclipse Foundation.

**Feed**: a data format used for providing users with frequently updated content.

**GUI**: Graphical User Interface - is a type of user interface that allows users to interact with electronic devices with images rather than text commands.

**Hardware**: The machines, wiring, and other physical components of a computer or other electronic system. For example, BlackBerry device.

**IDE**: Integrated development environment - a software application that provides comprehensive facilities to computer programmers for software development.

**Internet Browser**: A software application for retrieving, presenting, and traversing information resources on the World Wide Web

**iOS**: An operating system for mobile devices such as smartphones and tablet computers, developed by Apple Inc.

**IP Address**: Internet Protocol address - a numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication.

Java: A programming language

**Java Smartphone Simulator**: Plug-in for the Eclipse IDE for viewing and testing how a Device Software and the screen, keyboard and trackwheel/trackball will work with your application.

**MySQL**: is a relational database management system (RDBMS) that runs as a server providing multiuser access to a number of databases.

**Open Source Software**: is computer software that is available in source code form: the source code and certain other rights normally reserved for copyright holders are provided under a software license that permits users to study, change, improve and at times also to distribute the software.

**OS**: Operating System - a set of programs that manage computer hardware resources and provide common services for application software.

Plug-in: a set of software components that adds specific abilities to a larger software application.

**RSS Feed**: is a family of web feed formats used to publish frequently updated works—such as blog entries, news headlines, audio, and video, in a standardized format.



**Resolution:** is the number of pixels (dots) that make up a digital screen

**Server**: a computer program running to serve the requests of other programs.

**Software:** The programs and other operating information used by a computer.

**Stakeholders**: anyone who has an interest in the project.

**Web-app**: an application that is accessed over a network such as the Internet or an intranet.



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