The purpose of this document is to set out the requirements for the development of a web application called ExchangED. The purpose of this application is to enable users to exchange resources with other users. The intended customers/market are all lecturers, teachers and tutors across all educational institutions.

Initially the web application will be launched at the further education market, targeting tutors who deliver QQI level 3,4,5 and 6 awards. This application is initially envisaged as a not for profit endeavour.

## Project Scope

**Introduction**

The scope of the project is to develop a resource sharing web application that will allow users to exchange educational resources with each other. The system shall have a font end that will allow users to register and then upload resources to the site and also download resources that they wish.

As tutor in further education, I believe that this is a very useful website to have and from talking to other tutors it is something that they would use.

**Project objectives**

* To allow educators with a valid education domain email to register on the site
* To allow registered users to upload resources in to a general resource area
* To enable registered users to download resources from subject areas
* To create a share ratio derived from resources uploaded/resources downloaded
* To enable users to give feedback and a score on other user’s resources

**Successful criteria of the project**

In order to consider the project a success, the following objectives must be realised within the project timeframe:

* To have a functioning web application that will allow users to register
* To allow registered users to upload resource files
* To allow registered users to download resource files
* To allow rating and comments to be attributed to user resources and users in general
* To have a fully integrated back end using ruby on rails with a functioning MySQL database
* To have web administration access

#### Use Case

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| --- | --- |
| Use case | Register as a user and login |
| Scope | The scope of this use case is for a non-registered user of the app to register and to login to the app for the first time |
| Description | This use case describes the steps a user will have to follow in order to register as a user and also what will happen after that process is completed in terms of logging in. |
| Flow Description  Precondition | The system is idle.  The user is unregistered.  The user is on the home page of the app. |
| Activation | This use case starts when a user clicks the register now button on the home page. |
| Main flow | 1. The user fills in information on the register page such as name, educational institution and email. 2. The users click on register. 3. The system checks that the email used is a valid educational email in terms of its domain name. 4. The system checks the email used is unique in the database to prevent duplicate usernames being present. [A1 Alternate Flow] 5. The user is redirected to their account page and is automatically logged in. (E1 Exception Flow) 6. An automatic email is sent to the new registered user confirming account details and password |
| Alternate flow | (A1 Username (email address) already taken)   1. The system indicates that the email is already associated with an existing account. 2. The system will offer the user a chance to resubmit using a different email. 3. Continue in main flow point 4 |
| Exceptional flow | (E1 Exceptional Flow)   1. Internet connectivity lost 2. Session details are saved in a cookie 3. Session terminated 4. Revert to main flow point 1 |
| Termination | The system stores all new user information and the account entity in the database |
| Post condition | The system goes in to a wait state |

### Requirement 2 – To allow registered users to upload resources

#### Description & Priority

Once registered, a user should be able to upload resources in to the database using their associated account

#### Use Case

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| --- | --- |
| Use case | Registered users upload resources |
| Scope | The scope of this use case is for registered users of the app to upload resources to the system |
| Description | This use case describes the steps a user will have to follow in order to login and then upload resources to the system and for those resources to be associated with their account. |
| Flow Description  Precondition | The system is idle.  The user is registered.  The user is on the home page of the app |
| Activation | This use case starts when a user clicks the login button on the home page. |
| Main flow | 1. The user enters their credentials and logs in. 2. The user selects the upload resources button on the home page. 3. The user clicks on the browse button. 4. The user selects the resource to be uploaded. (A1 Alternate Flow) 5. The user clicks on the ‘Upload Resource’ button |
| Alternate flow | (A1 No valid file selected)   1. The system indicates that there is no resource selected to attach 2. The system will offer the user a chance to reselect a different resource. 3. Continue in main flow point 3. |
| Exceptional flow | (E1 Exceptional Flow)   1. Internet connectivity lost 2. Session details are saved in a cookie 3. Session terminated 4. Revert to main flow point 3 |
| Termination | The system uploads the resource to the database and makes all changes to the user account profile. |
| Post condition | The system goes in to a wait state |

### Requirement 3 – To allow registered users to download resources

#### Description & Priority

Once registered, a user should be able to download resources from other user by accessing the database using their associated account

#### Use Case

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| --- | --- |
| Use case | Registered users download resources |
| Scope | The scope of this use case is for registered users of the app to download resources to the system |
| Description | This use case describes the steps a user will have to follow in order to login and then download resources from the system and for those resources to be associated with their account. |
| Flow Description  Precondition | The system is idle.  The user is registered.  The user is on the home page of the app. |
| Activation | This use case starts when a user clicks the ‘Download Resources’ button on the home page. |
| Main flow | 1. The user enters their credentials and logs in. 2. The user selects the download resources button on the home page. 3. The user clicks on the browse button. 4. The user selects the subject area from a subject dropdown list. (A1 Alternate Flow) 5. The user selects the resource and then click on the ‘Download Resource’ button. (A1 Alternate Flow) 6. Resource is downloaded. |
| Alternate flow | (A1 Users share ratio is below .75)   1. The system indicates that the users share ratio is below the required .75 and that the download will not begin. 2. The system will suggest to the user that they must upload x number of resources in order to bring their ratio above .75. 3. Continue in main flow point 2. |
| Exceptional flow | (E1 Exceptional Flow)   1. User selects ‘Download Resource’ button 2. User informed that share ratio is below .75 3. User terminates session |
| Termination | The system stores all user information and updates the log file for the user account |
| Post condition | The system goes in to a wait state |

### Requirement 4 – To allow registered users to comment on resources and to rate resources

#### Description & Priority

Once registered, a user should be able to upload resources in to the database using their associated account. Every user should be able to comment on resources that are uploaded by other users and also rate these resources.

#### Use Case

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| Use case | Registered users comment and rate resources |
| Scope | The scope of this use case is for registered users of the app to comment and to rate resources uploaded by other users. |
| Description | This use case describes the steps a user will have to follow in order to comment and to rate resources uploaded by other users. |
| Flow Description  Precondition | The system is idle.  The user is registered.  The user is on the home page of the app. |
| Activation | This use case starts when a user clicks ‘Download Resources’ button on the home page. |
| Main flow | 1. Users will then be prompted to put in a comment for the previous resource they have downloaded. 2. Users will then be prompted to put in rating for the previous resource they have downloaded. (A1- Alternate Flow). 3. New resource will then download. |
| Alternate flow | (A1 User does not enter a rating)   1. The system indicates that the rating of previous resources is mandatory 2. The system will offer the user a chance to renter a rating 3. User enters a rating. 4. Continue in main flow point 3 |
| Exceptional flow | (E1 Exceptional Flow)   1. User enters a comment about a resource. 2. User comment is abusive and does not meet the sites policies. 3. Web Administrator blocks user account |
| Termination | The system stores all new user ratings and comments in the database and attaches these to the resource rated and commented upon. |
| Post condition | The system goes in to a wait state |