**INTRODUCTION**

The purpose of this document is to clearly specify the requirements to all parties associated with this project. The document describes all project requirements

The user’s wish is to be able to resubmit an application made to the Institutional Review Board (IRB) of Ashesi University. The actors in this case are the students/researchers, as well as members of the IRB, who will use the system.

**FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS.**

All the requirements have a high priority.

1. **Functional requirements**

* A user can check the status of his application
* The user and his application can be uniquely identified by his password.
* The application can be hosted on a web server and the users of the system (students, members of the review board) can use the system to perform various functionalities.

1. **Non-functional requirements**

* Product
* The system should not take a long time to load
* The system should occupy less than 50mb of memory on the user’s hard disk
* The system web page front end should be simple and easy to understand and relate with
* 95% of users should be able to complete tasks without requesting assistance
* The system should allow the user to send encrypted data over the internet
* Organizational
* The system should be environmentally friendly
* External
* The software should be able to work with all other systems on the domain
* The system should be well certified for proper and legal use
* The system should comply with the law for equality of treatment of people with disabilities.

**DESCRIPTION OF SCENARIO**

**Initial assumption**: The user is Abe, an Ashesi student who would like to carry out a research on the impact of the Ebola virus on the people of West Africa. To do this, he would have to come into contact with people who have lost their relatives to the deadly Ebola virus as well as people who have survived it. This user has submitted an application to the IRB. He realized that he submitted an application that was only 60% complete and would like to change it and submit a new application

**Normal**: The user tries to open the application to edit his old application. Currently, there is no option to edit so he begins a new application. He tries to create a new account, through which he can restart his application for the IRB approval.

**What can go wrong**: The system might not allow him to create a new application, because his user credentials are already logged into the system in an existing application.

**Other activities**: If the user goes through this process of filling the form and sending an application again, he would end up having two applications in the system.

**System state on completion**: The user logs in to the IRB application using his credentials. He is able to withdraw an existing application and resubmit another. Upon resubmission, a notification is sent to the IRB administrator that the user has made changes to his application and that the old application should be disregarded.

**INPUTS/OUTPUTS**

The first input into the system would be logging into a user account. The output will be the user being directed to his homepage. This page gives information about his IRB process.

From the homepage, the user can navigate to the applications page where another input would be to upload the application document to the IRB system. The output will be the document displayed on his applications page as submitted. He would also get an email notification.

If the user wants to resubmit an application, he clicks on the icon on his applications page which indicates *resubmit application*. The output for this is that he is directed to another page. He can drag a file from his file explorer and paste it in the resubmit applications page. This is the input. The output displayed here is a confirmation, asking if the user wants to go ahead with the resubmission. His next input is clicking on yes or no. Based on his choice of yes, he will see the new document displayed on his applications page, as output. He will also receive an email notification as output.

Throughout this input output process, classes and methods that will be implemented include login, upload, and resubmit.

**User interface required**

**HOME PAGE**

Welcome to your home page

Start a new application

Check status of application

**IRB LOGIN PAGE**

Username:  
  
Password:

ayeley.commodore

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**MY APPLICATIONS**

Submit a new application

Resubmit an application

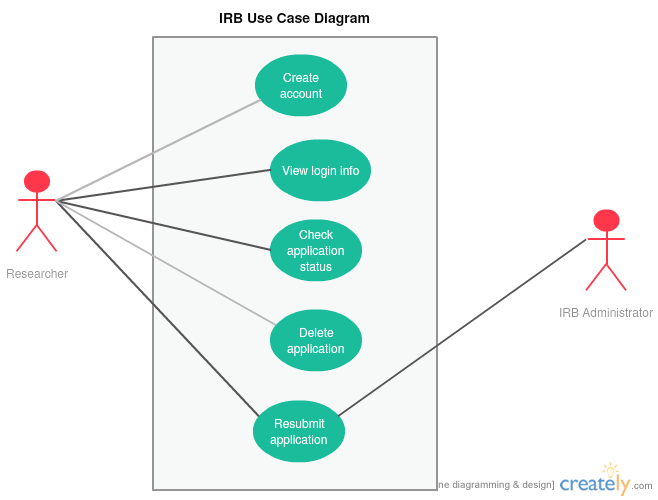
**RESUBMIT APPLICATION**

Drag and drop a file into the space below

Upload Delete

IRB\_application\_Ayeley.docx

Save progress

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**DATABASE PROCEDURES**

The database will store information on members of the system. The database will also store application details and check on status of user’s proposal. The database will also allow the user to send in a new submission to replace the old one.

**Data entities**

|  |
| --- |
| **UserProfile** |
| * Username varchar * Firstname varchar * Password varchar * Lastname varchar * Organization varchar * Email varchar() * UserID int, primary key |
| * View () * Login() * Update () |

|  |
| --- |
| **Proposal** |
| * Proposalname varchar * ResearchType ENUM (Medical, Social, Behavioural, Other) * Proposal\_ID int, primary key * DateSubmitted date * UserID, foreign key |
| * CheckStatus() * ViewProposal() * AddProposal () * Edit() |

One to many

|  |
| --- |
| **Resubmit** |
| * Proposal\_ID, foreign key * DateSubmitted |
| * ResubmitProposal() |

One to one relationship

**TEST PLAN**

Different testing of the functional requirements and test cases to be tested for.

Unit testing will be carried out to test if every line of code executes properly. This will be carried out by the developer to ensure that every line of code that supports the resubmitting ability of the system does what it is supposed to do.

Functional testing is done next to ensure that every function produces its expected outcome. The scenarios for the user requirement is tested out. In this test case, the user wants to resubmit an application. A test is carried out to test if the added lines of code allow the user to resubmit an application.

System testing can be carried out next to ensure that all functions combine to deliver the desired business result. This will include a test for logging in or for adding an application, as well as for resubmitting an application. All these are checked simultaneously to check if they work while run together.

Regression testing is done to ensure new changes do not adversely affect other parts of the system. As a test case, code will be added to make it possible for the user to delete an application without submitting a new line. A test case would be to also allow the user resubmit an application without first deleting the old one.

System integration testing will be done to test if the system does not adversely affect other enterprise systems. A test case could be testing if a notification is sent to the user’s email address. A check could also be done to check if resubmission also sends a notification to the user.

Acceptance testing will be done to confirm if the user is satisfied with the system. The users will be made to use the system and give their feedback on how their requirements are met by the system.

**THE TIME TO IMPLEMENT**

It would take a day for this to be implemented.

**RISKS THAT WILL MAKE THE PROJECT DIFFICULT TO IMPLEMENT**

The Operating system platform may be a constraint. The system may be written to work on a Windows and Mac operating system only, but the user may want to use the system on a Linux operating system.

Time constraints where users cannot edit application after some time as it may have entered the review process. If the user delays on his resubmission attempt, it may affect his ability to resubmit. It could be that when he resubmits the application, the review on the original application may have been carried out already.

The system could be designed in a way that it works only when the PC is connected to the Ashesi local network. If the user tries to login from anywhere outside this network, he would not be able to use the system.

There could be limits on disk space or other hardware limitations, which could restrict the user on the size of the document he can submit as his application. The upload limit on the size of the document that the system will allow will be a constraint for the user.