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***IN2030 WORK-BASED PROJECT***  
***Software Requirements Specification***  
***(SRS) Document***  
*HR TRACK SYSTEM*

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## Revisions

Version	Primary Author(s)	Description of Version	Date Completed
First Draft	Mayur Patel	All sections being Filled	19/03/22

# 1. Introduction

## 1.1 Introduction

The purpose of this document is to define and describe the requirements of the project and to spell out the system's functionality and its constraints.

## 1.2 Scope of this Document

The customer and the user for the system are the employees of the AbilityNet.

## 1.3 Overview of the current system

The current system involves just a word document template. The consultant assigned to the project completes his/her testing on the desktop responsive website. The consultant then notes the result down on to the template after analysing the cross-sections of five pages as decided by the scoping of the project. The consultant then marks each web page on the traffic light system on 10 different WCAG issues/ groups of check such as Heading, Keyboard checks, multimedia checks, etc. The consultant then calculates the scores on the basis that red means 0, yellow means 1 and green means 2. The consultant then calculates the scores for each of the five pages and take an average to arrive at the final score. The consultant then submits for QA (Quality Assurance) and the senior consultant just checks for the quality of document and he makes any further changes which are necessary. Once the QA is complete the senior consultant sends the report to the project planners, and they then forward it to the client.

## 1.4 Business Context

As it applies to this project, Headline Review allows AbilityNet to get on board with existing clients. As this a new deliverable and low cost, it attracts a huge, small – medium organisations and allows AbilityNet to further enhance the client relationship and generate more revenue. As it is seen that newer or existing client who take on Headline Review further go ahead with other deliverables such as Design Review, Audit and Gap analysis.

# 2. New System

## 2.1 Product Functions

The new system would be called Headline Review Track. The new system would allow a simple transition from word template to a web based. The web-based system would function in almost similar manner to the current word template. The differentiating factor would be it would be easier, as AbilityNet has ever expanding team and many of consultant work from home and sometimes word syncing is problem. The new system would generate report in different forms from PDF (easily accessible), word (can be easily annotated for project purposes) and a HTML copy (easily shareable).

## 2.2 Similar System Information

The product is being developed with Access, so there are a large number of similar databases or systems and they are used for a wide array of different purposes. The possible strength our project would have will be it would be suited to our project and would put privacy and security at its heart.

## 2.3 User Characteristics

The users include the employees of the AbilityNet. The administrator creates the project. The consultant works on the project using the system. The senior consultant does the QA. The planners generate a report through the system and submit it to the client.

## **2.4 User Problem Statement**

The user's system, currently, is slow and inefficient as it relates to the checkout process. QA/Senior consultant must wait hours before doing QA. Too many man hours have been needed to complete the report.

## **2.5 User Objectives**

The user wants a system that can easily calculate the score for Headline Review and generate different forms of the report, this would allow more benefits for client in providing reports as mentioned in 2.1 (Product Functions). The program must facilitate the speed and ease of input. It also must store the items the Headline Review Track needs to store.

## **2.6 General Scenario in Detail for the New System**

AbilityNet is a specialist application service which provides services within accessibility for applications such as WCAG Audit, User-testing report services, Gap analysis, etc.

They need a new software system, HR (Headline Review) Track system, to manage the Headline review services with their clients.

Once client has agreed on the cross-representation of pages an agreement is drawn and a project is formed in the system by the planners and administrative team.

The project is then assigned to an in-house consultant along with a senior consultant who would peer review (QA) this project. The consultant and senior consultant already have a username and password which would be used to access the system along with the administrative team who can create, delete, or cancel the project.

The consultant then tests the five pages on 10 different WCAG checks and scores them using traffic light system on the basis that red means 0, yellow means 1 and green means 2. Across five pages this translates to a total score of 100.

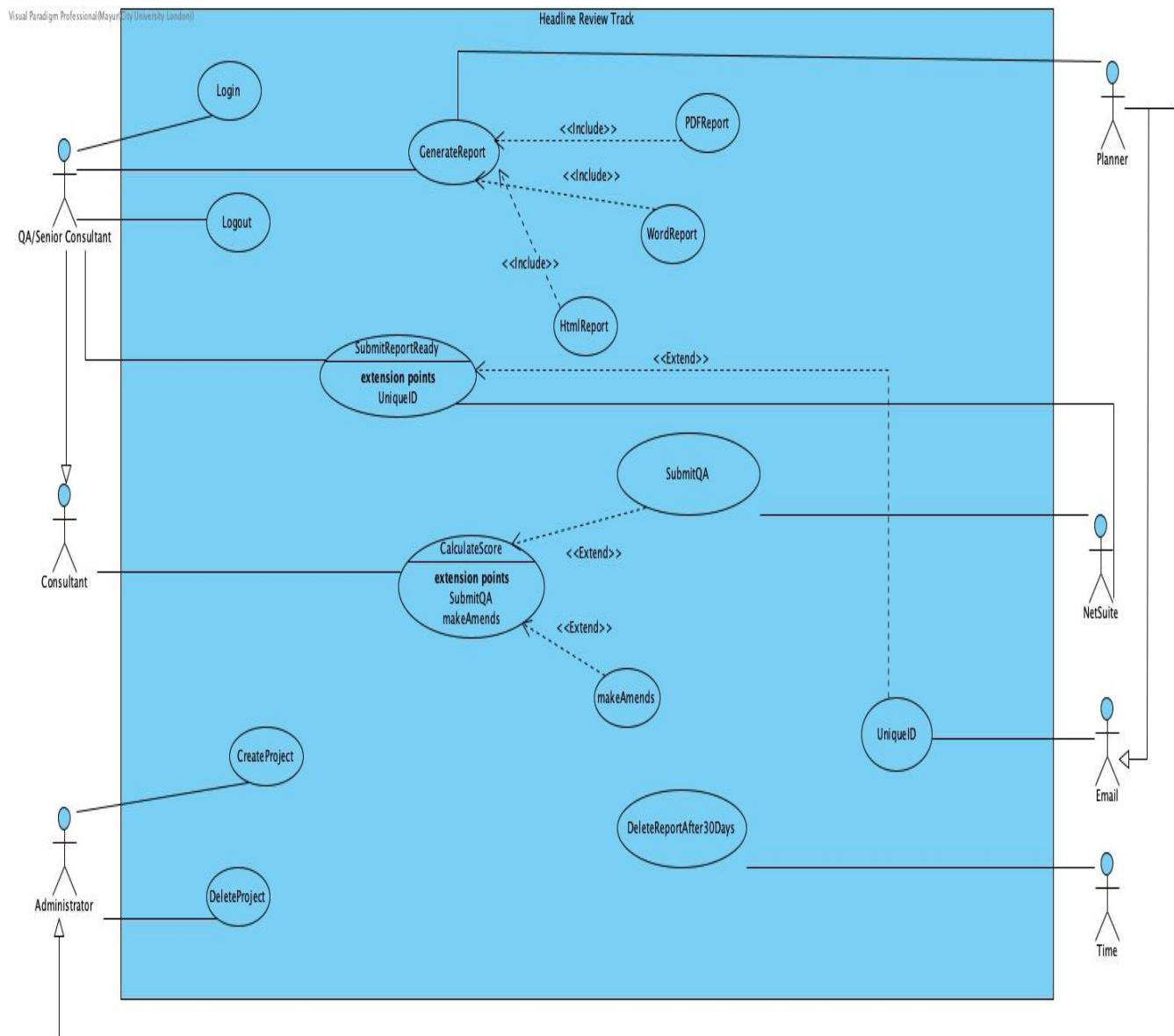
The consultant then submits for QA (Quality Assurance) and the senior consultant just checks for the quality of document and direct the consultant to make any further changes which are necessary. Once the QA is complete the senior consultant sends the report to the project planners, and they then forward it to the client.

When the report is ready to sent the system generates a Unique ID which is emailed to the planners, the planners then use this Unique ID to access the system and generate the report in different forms and then they are delivered to the client with AbilityNet packaging.

### **3. Functional Requirements**

1. **A total score should be calculated by the Headline Review Track.**
2. **The user should be able to create a project, make necessary changes and submit the project.**
3. **The system should be able to generate a unique code when report is submitted.**

### **4. Preliminary Use Case Models and specifications**



Note: - Try viewing the document in landscape orientation for better viewing experience.  
I will also be attaching the project images and .vpp extension files with the report.

The above present is the Use Case model for HR Track system. The main priorities use case are CalculateScore and SubmitReportReady. I have also provided with use case prioritization table below; it identifies use cases by there individual priorities for the project HR Track.

Use-cases	Priority Level (5 being highest)	Justification
CalculateScore	5	This is one of the main functional requirements and this is a core requirement for the system and without it the system wouldn't function further.
SubmitReportReady	5	Another main core functional requirement. This is necessary as without it the project wouldn't be able to generate report.
GenerateReport	4	Although kept lower than the above, the following wouldn't be as important as it mostly relates to secondary aspect of the system. However, it is nonetheless extremely important as without it the report would just be stored in system and no further process can be carried out.
Login/Logout	3	Kept at medium as the system without user login can still function but to meet its non-functional requirement for security it is nonetheless necessary.
CreateProject/ DeleteProject	3	This is kept at medium as this looks at distinguishing from projects to projects but doesn't relate to its core functional requirements.
DeleteReportAfter30Days	1	This is kept as low as it isn't necessary in general for the project to delete report but for space issues and to make sure not to get confused, the client requested if the report is deleted after 30 days since delivered.

Note: - The Use-case specifications are arranged to reflect the process of the system and not the priority levels. However, they are given ID which reflects their priority levels. ID ending in 01 are highest and 03 are lowest.

ID: TM01	Use case: CalculateScore
<b>Brief description:</b> The Headline review uses traffic light system to generate score across five pages. The red means 0, yellow means 1 and green means 2. This is scored across 10 different indicators of WCAG such as Headings, Keyboard accessible, etc with a maximum score of 100 and minimum score of 0.	
<b>Primary actors:</b> Consultant, Senior Consultant (QA)	
<b>Secondary actors:</b> Planners, NetSuite	
<b>Preconditions:</b> 1. Headline review track is operational; the primary actor has logged in.	
<b>Flow of events:</b> 1. Consultant activated the functionality for calculating a score for the accessibility of website. Extension point: SubmitQA, makeAmends 2. Consultant works on the assigned project by the administrator. 3. The consultant opens a new project on system and gives a name to the project and then starts the testing of the 5 pages which were selected for testing. 4. While testing the consultant does the following: 4.1. The consultant selects one of the following traffic lights i.e., red, yellow, or green for the 10 different indicators. 5. The consultant then completes the testing across all 5 pages whilst adding pictures on to the system supporting the reasoning behind the rating. 6. The consultant then submits the project for QA on NetSuite. 7. The senior consultant then picks up the QA and make any necessary amends in terms of wordings or pictures and if necessary, informs the consultant to make any necessary changes in ratings. 8. If it is necessary the consultant then provides the necessary required and submits the project for QA on NetSuite, this cycle runs until the QA submits for Report complete.	



<b>Postconditions:</b> <ol style="list-style-type: none"> <li>1. The system has generated a report and the planners collect the report and email it to the client.</li> <li>2. The system marks the project as complete.</li> </ol>
<b>Alternative flow:</b> <ul style="list-style-type: none"> <li>NoNewProject</li> <li>ProjectCancelled</li> </ul>

Alternative flow: NoNewProject
ID: TM01.1
<b>Brief description:</b> No Project is created on the system for the consultant to work on.
<b>Primary actors:</b> Administrator, Consultant
<b>Secondary actors:</b> None
<b>Preconditions:</b> The session does not contain a valid Project.
<b>Alternative flow:</b> <ol style="list-style-type: none"> <li>2. The system prompts the consultant that no valid project has been chosen.</li> <li>3. The consultant acknowledges the notification</li> <li>4. The system removes the session.</li> </ol>
<b>Postconditions:</b> None.

Alternative flow: ProjectCancelled
ID: TM01.2
<b>Brief description:</b> Planners fail to confirm about the go ahead with the project from the client within the stated time through email.
<b>Primary actors:</b> Planners, Administrator

<b>Secondary actors:</b> None
<b>Preconditions:</b> 1. The client informs the change or doesn't give the permission to go ahead with the project.
<b>Alternative flow:</b> 1. The project is put on hold until client's permission. 2. HR Track doesn't give permission for the access of the project.
<b>Postconditions:</b> None

ID: TM01	<b>Use case:</b> SubmitQA
<b>Brief description:</b> The Headline review uses traffic light system to generate score across five pages. The red means 0, yellow means 1 and green means 2. This is scored across 10 different indicators of WCAG such as Headings, Keyboard accessible, etc. with a maximum score of 100 and minimum score of 0. Once score is calculated the consultant submits for QA.	
<b>Primary actors:</b> Consultant, Senior Consultant (QA)	
<b>Secondary actors:</b> Planners, NetSuite	
<b>Preconditions: (extension point: SubmitQA)</b> 1. Headline review track is operational; the primary actor has logged in.	
<b>Flow of events:</b> 1. Consultant has been able to generate a total score for 5 pages. 2. Consultant then submits for QA. 3. The consultant opens a new project on system and gives a name to the project and 4. The senior consultant then picks up the QA and make any necessary amends in terms of wordings or pictures and if necessary, informs the consultant to make any necessary changes in ratings. 5. If it is necessary the consultant then provides the necessary required and submits the project for QA on NetSuite, this cycle runs until the QA submits for Report complete.	

**Postcondition:**

1. Project is complete and the planners picks up the report complete and generate a report.

ID: TM02	<b>Use case:</b> generateReport
<b>Brief description:</b> Once the report is marked as report complete. The planners pick up the report and activates the generate report functionality, which generates a report combining pdfReport, HtmlReport and WordReport.	
<b>Primary actors:</b> Planners, Senior Consultant	
<b>Secondary actors:</b> Planners, NetSuite	
<b>Preconditions:</b> 1. Headline review track, the project is ready and marked as report complete.	
<b>Flow of events:</b>  <ol style="list-style-type: none"><li>1. The report is marked as report complete.</li><li>2. The planners pick up the report and generate the report using the unique id provided to them through email when the report is marked as complete.</li><li>3. The planners use the unique code to generate the report</li></ol>	
<b>Postcondition:</b>  <ol style="list-style-type: none"><li>1. Project marked complete and planners send the report and store in their individual database.</li><li>2. After 30 days the project is deleted from the system.</li></ol>	

ID: TM01	Use case: makeAmends
<b>Brief description:</b> The Headline review uses traffic light system to generate score across five pages. The red means 0, yellow means 1 and green means 2. This is scored across 10 different indicators of WCAG such as Headings, Keyboard accessible, etc. with a maximum score of 100 and minimum score of 0. Once score is calculated the consultant submits for QA.	
<b>Primary actors:</b> Consultant, Senior Consultant (QA)	
<b>Secondary actors:</b> Planners, NetSuite	
<b>Preconditions: (extension point: makeAmends)</b> 1. Headline review track is operational; the primary actor has logged in.	
<b>Flow of events:</b> 1. Consultant has been able to generate a total score for 5 pages. 2. Consultant then submits for QA. 3. The consultant opens a new project on system and gives a name to the project and 4. The senior consultant then picks up the QA and make any necessary amends in terms of wordings or pictures and if necessary, informs the consultant to make any necessary changes in ratings. 5. If it is necessary the consultant then provides the necessary required and calculates the score again and then submits the project for QA on NetSuite.	
<b>Postcondition:</b> 1. Project is marked as ready to complete by senior consultant and the planners picks up the report complete and generate a report.	

ID: TM01	<b>Use case:</b> SubmitReportReady
<b>Brief description:</b> The senior consultant submits the report when complete and marks it complete and it generates a Unique ID which then allows the planners to access the report and generate copies of it in different forms.	
<b>Primary actors:</b> Senior Consultant	
<b>Secondary actors:</b> Planners, NetSuite, Email	
<b>Preconditions:</b> 1. Headline review track is operational; the primary actor has logged in.	
<b>Flow of Events:</b> 1. Once the consultant has completed writing the report, the senior consultant QA's the project and after any amends are required submits the report on the system as report ready to deliver. Extension points: UniqueID 2. Once the report is submitted a uniqueID related to project is emailed to the planners.	
<b>Postconditions:</b> 1. The report is generated in different forms by the senior consultant or planners. 2. Once the report is generated and delivered to the client the report is deleted from the system after 30 days.	
<b>Alternative Flows:</b> 1. None	

## 5. Analysis Class Diagram

### 5.1 1st Cut Diagram using CRC Cards, Noun-verbs Analysis and Robustness Analysis



## 5.2 Robustness Analysis Results

Several boundary classes have been added, which allow each of the actors, defined in the use case diagram, to interact with the system. We assume that a single boundary class, Terminal, will be used by all users (i.e., human actors) of HR Track System. Clearly, since the level of access of different users – some can do more than others – the Terminal class will have to be refined and several boundary classes will result (in design) which will implement the needs of the different users.

Addition boundary classes, TimeGateway, EmailGateway, and NetSuiteGateway are defined. A single control class, Controller, has been added, too, which is associated with all boundary classes and with some entity classes. None of the boundary classes is associated with other boundary classes or entity classes, hence the Robustness Analysis rules are respected in this analysis class diagram.

I can also highlight two associations which were only discovered while constructing the sequence diagram – sending emails to a planner does require an association between the planner's class and the Controller. Without these two associations, sending emails (via EmailGateway) would require many more messages via the other entity classes before the email can be passed to EmailGateway. An alternative solution would be to introduce additional Control classes, e.g., ClientController, which can talk directly to EmailGateway.

