McDonalds eLearning Application

FUNCTIONAL SPECIFICATION

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Contents

1. Introduction

1.1. WHAT IS MCDONALD'S ELEARNING?

The aim of *McDonald's eLearning* is to provide a more efficient and practical means to training new and existing McDonald's employees while also removing the need for paper form *Station Observation Checklists* (SOCs).

1.2. WHAT WILL MCDONALD'S ELEARNING DO?

The application will be designed to work as a mobile application on both Android and iOS and as a mobile application to aid with administrative work. This application will aid in the initial and on-going training of McDonald's employees and the manual administrative work that exists with training now.

The goals of McDonald's eLearning are:

1. To provide new and existing McDonald's employees with an online resource for training in a hope to increase their knowledge and work performance

2. To provide Crew Trainers and Managers a better user experience when carrying out training and monitoring employee progression

3. To reduce the need for paper forms and manual data entry by handling it automatically in the application

2. Use Case Diagram

2.1. UPDATED USE CASE AS OF MARCH 2020

Updated as some functionality has changed since the initial specification. Also, all functionalities will be available on both platforms (mobile and web browser).
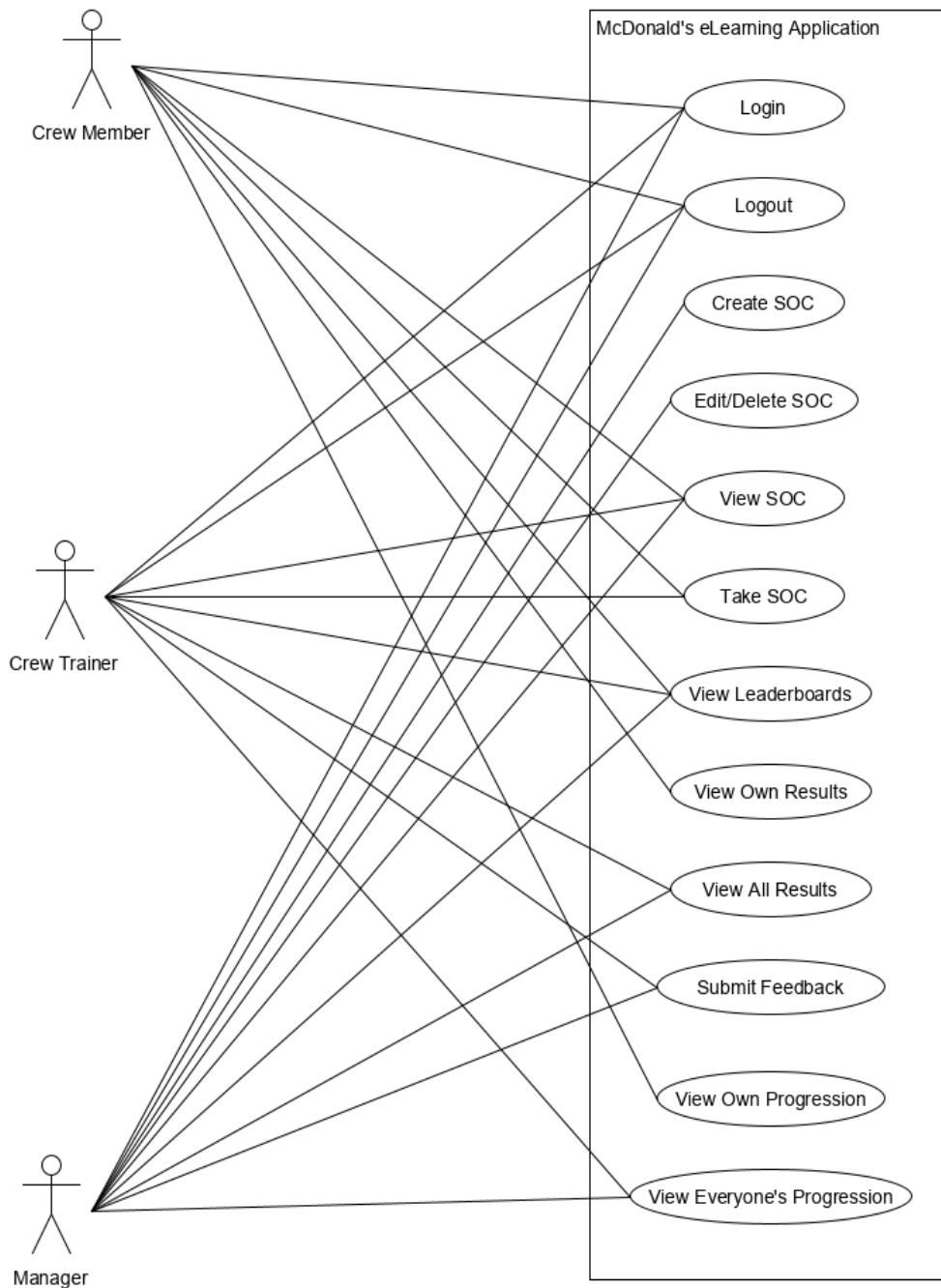
3. Brief Use Cases

3.1. MCDONALD'S ELEARNING APPLICATION

3.1.1. Login

Use Case Name: Login

Actor(s):   Crew Member, Crew Trainer, Manager

Description: This use case begins when a Crew Member, Crew Trainer or Manager launches the application. The actor enters their email and password. Upon successful login, the actor is redirected to the *View SOC* page.

3.1.2. Logout

Use Case Name: Logout

Actor(s):   Crew Member, Crew Trainer, Manager

Description: The use case begins when a Crew Member, Crew Trainer or Manager wishes to logout. The actor clicks the logout button from the 'hamburger' menu and the application logs them out and redirects to the *Login* page.

3.1.3. Create SOC

Use Case Name: Create SOC

Actor(s):   Manager

Description: The use case begins when a Manager wishes to create a new SOC. The actor clicks the '+' button at the top right of the *View SOC* page and is redirected to the *Create SOC* page. Here the actor uses a dynamic form to add questions and answers to the SOC they are creating. When the actor is finished entering the SOC information they submit the form and are redirected back to the *View SOC* page.

3.1.4. Edit/Delete SOC

Use Case Name: Edit/Delete SOC

Actor(s):   Manager

Description: The use case begins when a Manager wishes to edit or delete a SOC. The actor navigates to the desired SOC through the *View SOC* page and clicks the *edit* button at the top right of the *SOC Details* page. Here the actor can edit the SOC or completely delete the SOC.

3.1.5. View SOC

Use Case Name: View SOC

Actor(s):   Crew Member, Crew Trainer, Manager

Description: The use case begins when a Crew Member, Crew Trainer or Manager wishes to view a SOC. The actor navigates to the *View SOC* page where they can view due SOCs or search for a specific SOC. Upon finding the desired SOC the actor clicks on it and is redirected to the *SOC Details* page.

3.1.6. Take SOC

Use Case Name: Take SOC

Actor(s):   Crew Member, Crew Trainer

Description: The use case begins when a Crew Member or Crew Trainer wishes to take a SOC. The actor navigates to the desired SOC through the *View SOC* page and clicks the *start* button on the *SOC Details* page. The take SOC process begins. The actor is presented with each question from the SOC, one at a time, and a set of possible answers. If the actor answers correctly a point is added to their result and their score increases with a flat amount plus bonuses based on how quickly they answered the question and if they're on a streak. If the actor answers incorrectly they miss their chance for a point on their result and increasing their score. All wrongly answered questions are repeated at the end of the SOC until they are answered correctly. Once the SOC is complete the actor is redirected to the *Results* page where they can see their final result, score and any questions answered incorrectly.

3.1.7. View Leaderboards

Use Case Name: View Leaderboards

Actor(s):   Crew Member, Crew Trainer, Manager

Description: The use case begins when a Crew Member, Crew Trainer or Manager wishes to view the SOC leaderboards. The actor navigates to the *Leaderboard* page from the 'hamburger' menu where they can choose the desired SOC leaderboard to view.

3.1.8. View Own Result

Use Case Name: View Own Result

Actor(s):   Crew Member, Crew Trainer

Description: The use case begins when a Crew Member or Crew Trainer wishes to view their SOC results. The actor navigates to the *Results* page from the 'hamburger' menu where they can choose the desired SOC results to view. The actor can view specific information about each result such as feedback, result percentage and incorrect questions if any.

3.1.9. View All Results

Use Case Name: View All Results

Actor(s):   Crew Trainer, Manager

Description: The use case begins when a Crew Trainer or Manager wishes to view SOC results. The actor navigates to the *Review SOCs* page from the 'hamburger' menu where they can choose the desired user and SOC they wish to view. The actor can view specific information about each result such as feedback, result percentage and incorrect questions if any.

3.1.10. Submit Feedback

Use Case Name: Submit Feedback

Actor(s):   Crew Trainer, Manager

Description: The use case begins when a Crew Trainer or Manager wishes to submit feedback about a SOC result. The actor navigates to the *Results* page from the 'hamburger' menu where they can choose the desired user and SOC they wish to give feedback on. The actor clicks the *Give Feedback* button and enters their feedback into the field. The actor submits their feedback.

3.1.11. View Own Progress

Use Case Name: View Own Progress

Actor(s): Crew Member

Description: The use case begins when a Crew Member wishes to view their progression. The actor navigates to the *Progression* page from the 'hamburger' menu where they can choose the desired SOCs to display on the progression graph.

3.1.12. View Everyone's Progress

Use Case Name: View Everyone's Progress

Actor(s): Crew Trainer, Manager

Description: The use case begins when a Crew Trainer or Manager wishes to view a user's progression. The actor navigates to the *Progression* page from the 'hamburger' menu where they can choose the desired user and SOCs to display on the progression graph.

4. Detailed Use Cases

4.1. MCDONALD'S ELEARNING APPLICATION

4.1.1. Login

Use Case Name:	Login
Actor(s):	Crew Member, Crew Trainer, Manager
Main Success Scenario:	This use case begins when a Manager wishes to Login to the application.

The actor launches the application.

1. The application displays a form requesting login information from the actor.
2. The actor enters their email and password and submits the form.
3. The application verifies the user.
4. The actor is logged into the application and redirected to the *View SOC* page.

Alternative(s):	**3a.** The user is not verified.

1. The application displays an error informing the user the login attempt failed.
2. The login form is reset.

4.1.2. Logout

Use Case Name:	Logout
Actor(s):	Crew Member, Crew Trainer, Manager
Main Success Scenario:	This use case begins when a Crew Member, Crew Trainer or Manager wishes to logout.

1. The actor clicks the *Logout* button in the 'hamburger' menu.
2. The application terminates the logged in user data.
3. The actor is redirected to the *Login* page.

Alternative(s):	None.

4.1.3. Create SOC

Use Case Name:	Create SOC

Actor(s):	Manager

Main Success Scenario: This use case begins when a Manager wishes to create a new SOC.

1. The actor clicks the '+' button at the top of the *View SOC* page.
2. The application displays a dynamic form requesting information from the actor.
3. The actor inputs the information adding additional questions and answers where desired.
4. The actor submits the form by clicking the *checkmark* at the top right of the page.

Alternative(s):   **4a.** The form is invalid.

1. The *checkmark* button is greyed out and unclickable.
2. The invalid fields are highlighted for the actor to fix.

4.1.4. Edit/Delete SOC

Use Case Name:	Edit/Delete SOC

Actor(s):	Manager

Main Success Scenario: This use case begins when a Manager wishes to edit or delete a SOC.

1. The actor navigates to the desired SOC through *View SOC* page.
2. The actor clicks the *edit* button at the top right of the *SOC Details* page.
3. The application displays all the information about the selected SOC.
4. The actor edits the form as they desire.
5. The actor clicks the *checkmark* button at the top right of the page.
6. The application verifies the confirmed changes with the actor before submitting the form.

Alternative(s):   **4a.** The actor wishes to delete the SOC.

1. The actor clicks the *Delete SOC* button at the top right of the page.
2. The application verifies the actor's choice before deleting the SOC.
3. The actor is redirected to the *View SOC* page.

5a. The form is invalid.

1. The *checkmark* button is greyed out and unclickable.
2. The invalid fields are highlighted for the actor to fix.

4.1.5. View SOC

Use Case Name:	View SOC
Actor(s):	Crew Member, Crew Trainer, Manager
Main Success Scenario:	This use case begins when a Crew Member, Crew Trainer or Manager wishes to view a SOC.

1. The actor clicks the *My SOCs* button in the 'hamburger' menu.
2. The actor clicks the desired SOC.
3. The application redirects to the *SOC Detail* page.

Alternative(s):	None.

4.1.6. Take SOC

Use Case Name:	Take SOC
Actor(s):	Crew Member, Crew Trainer
Main Success Scenario:	This use case begins when a Crew Member or Crew Trainer wishes to take a SOC.

1. The actor navigates to the desired SOC through *View SOC* page.
2. The actor clicks the *Take SOC* button on the *SOC Detail* page.
3. The application starts the SOC and iterates through each question at a time.
4. The actor chooses an answer for the question.
5. The application displays whether the answer was correct or incorrect.

6. The actor clicks the *Continue* button to continue to the next question.
7. Repeat steps 4 - 6 until all questions are answered.
8. The application redirects to the results page and displays the actor's results.

Alternative(s):   **7a.** The actor answered a question incorrectly.

1. The application adds the question to the end of the SOC.
2. Repeat steps 4 - 6 from the Main Success Scenario until the actor answers all the incorrectly answered questions correctly.

4.1.7. View Leaderboards

Use Case Name: View Leaderboards

Actor(s):   Crew Member, Crew Trainer, Manager

Main Success Scenario: This use case begins when a Crew Member, Crew Trainer or Manager wishes to view a SOC Leaderboard.

1. The actor clicks the *Leaderboard* button in the 'hamburger' menu.
2. The actor clicks the desired SOC.
3. The application redirects to the *Leaderboard* page.

Alternative(s):   None.

4.1.8. View Own Result

Use Case Name: View Own Result

Actor(s):   Crew Member, Crew Trainer

Main Success Scenario: This use case begins when a Crew Member or Crew Trainer wishes to view a SOC result.

1. The actor clicks the *Results* button in the 'hamburger' menu.
2. The actor clicks the desired SOC.

3. The application redirects to the *Results* page.
4. The actor clicks the desired result.
5. The application redirects to the *Results Detail* page.
6. The actor views the result details.

Alternative(s):   None.

4.1.9. View All Results

Use Case Name: View All Results

Actor(s):   Crew Trainer, Manager

Main   Success This use case begins when a Crew Trainer or Manager wishes to view a
Scenario: user's SOC results.

1. The actor clicks the *Review SOCs* button in the 'hamburger' menu.
2. The actor clicks the desired user whose results they wish to view.
3. The application redirects to the *Users Results* page.
4. The actor clicks the desired SOC.
5. The application redirects to the *Results* page.
6. The actor clicks the desired result.
7. The application redirects to the *Results Detail* page.
8. The actor views the result details.

Alternative(s):   None.

4.1.10 Submit Feedback

Use Case Name: Submit Feedback

Actor(s):   Crew Trainer, Manager

Main   Success This use case begins when a Crew Trainer or Manager wishes to submit
Scenario: feedback on a user's SOC Result.

1. The actor navigates to the desired SOC result.

> 2. The actor clicks the *Give Feedback* button at the bottom of the page.
> 3. The application displays a field and the actor inputs their feedback.
> 4. The actor submits the feedback by clicking the *Submit Feedback* button at the bottom of the page.

Alternative(s):   **4a.** The feedback is invalid.

>> 1. The *Submit Feedback* button is greyed out and unclickable.
>> 2. The invalid fields are highlighted for the actor to fix.

4.1.11 View Own Progress

Use Case Name: View Own Progress

Actor(s):   Crew Member

Main   Success This use case begins when a Crew Member wishes to view their
Scenario: progression.

> 1. The actor clicks the *Progression* button in the 'hamburger' menu.
> 2. The actor clicks the desired SOCs to display on the progression graph.
> 3. The application displays the progression graph.

Alternative(s):   None.

4.1.12 View Everyone's Progress

Use Case Name: View Everyone's Progress

Actor(s):   Crew Trainer, Manager

Main   Success This use case begins when a Crew Trainer or Manager wishes to view a
Scenario: user's progression.

> 1. The actor clicks the *Progression* button in the 'hamburger' menu.
> 2. The actor clicks the desired user whose progression they wish to view.
> 3. The application redirects to the *Users Progression* page.

4. The actor clicks the desired SOCs to display on the progression graph.

5. The application displays the progression graph.

Alternative(s):　　　None.

5. Supplementary Specification

5.1. FUNCTIONALITY

As all of the application's functionality requires some kind of user interaction, all functionalities are currently covered in the previously discussed use cases. There are no further functionalities to be discussed.

5.2. USABILITY

A. The target mobile platforms for this application will be both Android and iOS device but specifically:

   a. Android 8.0+ (Oreo and Pie) as it holds nearly 50% of the Android version market share worldwide [1]

   b. iOS 12.4+ as it holds over 70% of the iOS version market share worldwide [2]

B. The target web platform for this application will be Google Chrome (Version Chrome 78+) as it holds over 60% of the browser market share worldwide. Due to the time constraints of this project no other web browsers will be taken into consideration during development.

5.3. RELIABILITY

The application should average 10 days of continuous use for a user between failures.

5.4. PERFORMANCE

The application's average response time to requests such as loading resources or submitting new information should be less than 2 seconds 90% of the time and less than 5 seconds 95% of the time with the remaining 5% being classified as an error.

The application's average response time between questions during the 'Take SOC' process should be less than 0.5 seconds 90% of the time and less than 1 second 95% of the time with the remain 5% being classified as an error.

5.5. SUPPORTABILITY

The application should be able to accommodate any changes to McDonald's SOCs in the future by allowing managers to modify or add new SOCs. This relates to the Take SOC use case where an SOC may become outdated as the restaurant evolves and work techniques change.

6. Bibliography

[1] StatCounter Global Stats. (2019). *Mobile & Tablet Android Version Market Share Worldwide | StatCounter Global Stats*. [online] Available at: https://gs.statcounter.com/android-version-market-share/mobile-tablet/worldwide [Accessed 11 Nov. 2019].

[2] StatCounter Global Stats. (2019). *Mobile & Tablet iOS Version Market Share Worldwide | StatCounter Global Stats*. [online] Available at: https://gs.statcounter.com/ios-version-market-share/mobile-tablet/worldwide/2019 [Accessed 11 Nov. 2019].

7. Appendix

7.1 DECLARATION

- I declare that all material in this submission e.g. thesis/essay/project/assignment is entirely my own work except where duly acknowledged.
- I have cited the sources of all quotations, paraphrases, summaries of information, tables, diagrams, or other material; including software and other electronic media in which intellectual property rights may reside.
- I have provided a complete bibliography of all works and sources used in the preparation of this submission.
- I understand that failure to comply with the Institute's regulations governing plagiarism constitutes a serious offense.

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Date: 20/04/2020