

MGMT2107 – Assignment #2

- Required/Applicable Software:
 - Microsoft Visio
- Submissions:
 - ***COMPLETE & SUBMIT INDIVIDUALLY – This is NOT a group assignment. For this lab everyone must produce and submit their own diagrams.***

What You Need to Do:

1. Review, analyze and conduct further research about the case described starting on the next page. There are details throughout the write up that should influence your work but are not going to be immediately obvious. The first task is to uncover what is not obvious. The business case should be unfamiliar to you, so some googling around the business sector is going to benefit your understanding of the problem.
2. Create one use case diagram including:
 - a. All relevant actors
 - b. Include a minimum of 8 use cases based on the mission objectives in the case write up.
 - c. Any relationships to actors or other use cases (include/extend) as necessary.
3. Create an activity diagram with matching use case narratives for each of the following requirements. Use the provided use case template. Note, if you are not familiar with the case you will want to ask your professor for clarifications as you try to figure this out. That means, attend class:
 - a. 'Select workers'
 - b. 'Import worker applications...'

CASE DESCRIPTION:

Motorsport Marshalling Services Track Day Management Suite

Motorsport Marshalling Services is a not-for-profit organization of volunteers which staffs major and amateur motorsport events with safety personnel (workers/applicants) at Canadian Tire Motorsport Park. On non-race day events the track is rented out to organizers who bring in groups of people for high-speed driver education events. Those groups organize themselves and have nothing to do with managing worker selection or staffing of the event. They simply call Robb to book their dates for the year and communicate how many marshals they need.

To work at one of those events workers apply and await selection confirmation from the 'Track Day Coordinator' who organizes the worker compliment for those private events. These confirmations usually arrive 2 weeks prior to the event date. Not everyone who applies is selected, but all who apply receive a templated group email indicating everyone who was accepted and not accepted. Registration is completed through a totally separate system that we do not have access to make any changes in. More on that later.

We are looking for a tool to assist Robb Dobbie, track day coordinator, in recording, managing, and communicating all the necessary details of a track day. Robb currently uses a programmed Excel file that is no longer able to accommodate the large number of events in a year and he is unwilling to share this file with us currently as it contains personal private information of his workers. The file itself is password protected, and thus we are unable to adjust the VB Script within. Beyond that there are features Robb requires which Excel is unable to provide and Robb would like a standalone application to replace the Excel file permanently.

Currently, Robb accesses a separate web application where his workers register for events. This application will not be integrated into what we are creating and should not be modeled in our documentation. Instead, Robb will continue to access that web-app where he downloads a CSV file containing all of the registered workers for a particular event. A key feature of this new application will be the ability to import the contents of the CSV file into a database which then automatically relates each registration to the relevant event that is already present in his system. Included with this package is an example of an old 2018 CSV file. It is important to note that the system exporting the CSV file includes fields that are not used or relevant, and they should not be included in your requirements determination.

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We have done some preliminary requirements gathering and determination and now require some diagrams we can use to give Robb a walkthrough of what we are planning to do. Below is the requirement work we've completed to date.

Mission Statement

The purpose of the MMS Track Day Management Suite is to facilitate the management of event details, worker selection and communication with worker applicants for those events.

Mission Objectives

- To Maintain (Enter, Update, Delete) data on Event Organizers
 - To Maintain (Enter, Update, Delete) data on Events
 - To Maintain (Enter, Update, Delete) data on Workers
 - To Maintain (Enter, Update, Delete) data on Worker Applications
 - To Maintain (Enter, Update, Delete) data on Worker Selections
-
- To Search Data on Event Organizers
 - To Search Data on Events
 - To Search Data on Workers
 - To Search Data on Worker Applications
 - To Search Data on Worker Selections
-
- To Track Data on Worker Applications
 - To Track Data on Worker Selections
-
- To Report on Event Worker Compliment Requests
 - To Report on Events
 - To Report on Worker Applications
 - To Report on Worker Selections

Functional Requirements

Event Organizers

- Add new organizers
- Edit existing organizers

Event Management

- Add new event
- Edit existing event
- Delete event

Event Applicant Management

- Import worker applications for an event data from a downloaded CSV file & relate data to existing event
- Manually add new applicant(s)
- Edit list of applicants

Produce Worker Selection(s)

- View worker applications
- Select workers for an event
- Adjust worker selections

Send Templated Emails

- Email applicants indicating selection/non-selection
- Update applicants via email on selection changes after initial selection email

Reporting

- Generate a summary report of events per event organizer
- Generate a summary report of all events
- Generate a summary report of all events by track (DDT or GP – Driver Development Track or Grand Prix)
- Generate a summary report of all event worker applications
- Generate a summary report of registration versus selection for all workers for the year
- Generate a summary report of registration versus selection per individual for the year

Non-Functional Requirements:

Operational Requirements

- Locally hosted Windows application
- Target operating system is Windows 10
- Must work offline with exception of sending emails

Performance Requirements

- Excel import should complete in 2 seconds or less
- Any manual input should complete in 2 seconds or less

Security Requirements

- None

Cultural and Political Considerations

- Tutorial documentation accessible within app

Grading Scheme:

Use Case Diagram (40 points)

1. Correct use case notation (5 points)
2. Use case relationships accurately depicted (10 points)
3. Use cases properly named and described (10 points)
4. Actors identified and properly related to use cases (10 points)
5. Overall organization and clarity of the diagram (5 points)

Activity Diagrams (50 points)

1. Correct use of symbols and notation (10 points)
2. Proper sequencing of activities (10 points)
3. Clarity and completeness of the diagrams (10 points)
4. Proper use of decisions and loops (10 points)
5. Correctness and completeness of the process flow (10 points)

Matching Use Case Narratives (20 points)

1. Completeness and accuracy of the narrative (10 points)
2. Alignment with corresponding activity diagram (10 points)

Overall Quality (60 points)

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1. Show coherence between use case diagram, activity diagrams and corresponding use case narratives (15 points)
2. Create neatly organized diagrams that are easy to read (15 points)
3. All elements reflect an accurate representation of the business case as presented, and discussed, without superfluous or out of scope pieces. (30)

Total: 170 points

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