Product Requirements Document

Submission 1 Specification

Green Day

SWEN90007 SM2 2021 Project

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SCHOOL OF
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Revision History

Date	Version	Description	Author
11/08/2023	01.00-D01	Finalise the Introduction, Actors, and Use Cases sections.	Quanchi Chen (1358474)
11/08/2023	01.00-D02	Finalise the Domain Model section.	Yijie Xie (1159800) Wenxuan Xie (1339442)
11/08/2023	01.00	Finalise the first version.	Quanchi Chen (1358474) Yijie Xie (1159800) Wenxuan Xie (1339442)

Contents

1. Introduction

1.1 Proposal

This document specifies the use cases and the domain model diagram of the music events system to develop during 2023 Semester 2 SWEN90007 by Team Green Day.

1.2 Target Users

This document is intended for the SWEN90007 teaching team to assess the business logic of the music events system. It also serves as the unanimous agreement and understanding of these business rules of all members on Team Green Day.

1.3 Abbreviations

The following table includes the abbreviations used throughout this document and their explanations.

Term	Description
MES	Music Events System
UML	Unified Modelling Language

2. Actors

Actor	Description
Administrator	The single administrator is the only person who manages MES and creates new venues in the system.
Event Planner	Event planners can create events, manage events, view event bookings, and cancel customer bookings.
Customer	Customers can search for music events, book tickets, and manage bookings.

3. Use Cases

Use Case Diagram

Below is the UML use case diagram of MES. The tool employed to create it is Visual Paradigm (Community Edition), a professional UML modelling tool.

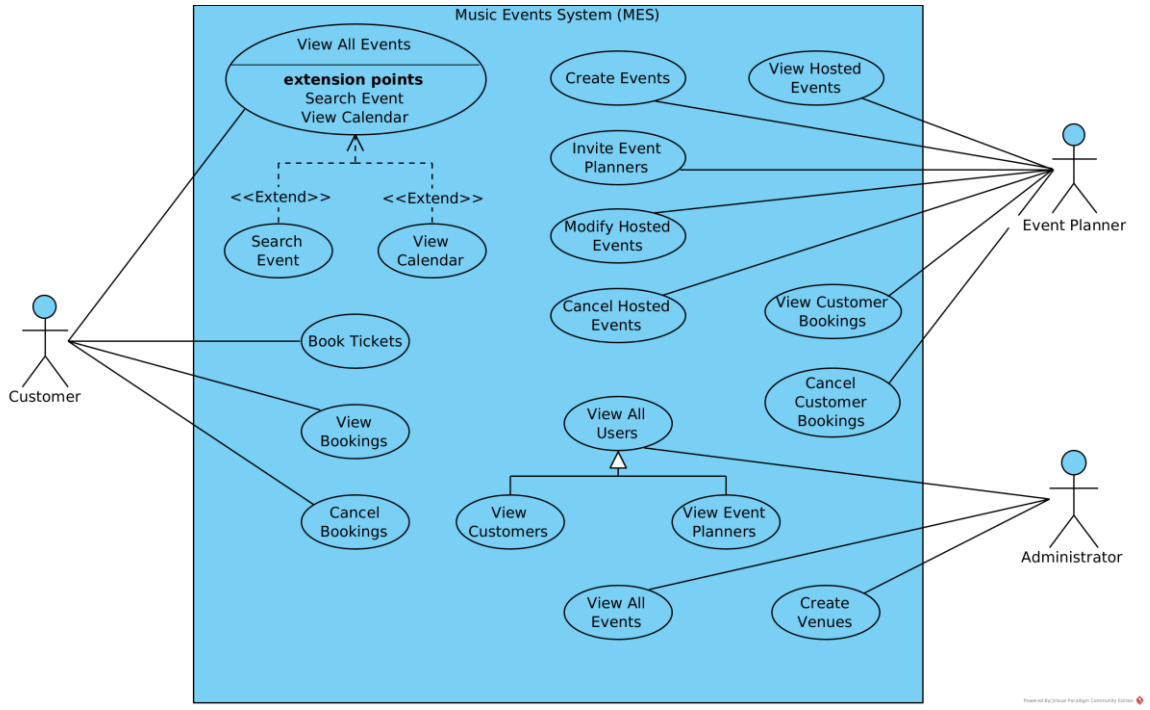

Figure 1: Use Case Diagram

To improve the readability of the use case diagram, we intentionally decide not to show the other three necessary use cases, i.e., Sign Up, Log In, and Log Out. An ***assumption*** is the development team will create the administrator account by manually updating the database. Thus, the administrator does not need to create an account explicitly via the user interface.

3.1 Use Case 1: Customer Views All Music Events

Actors

1. Customer

Basic Flow

After logging in to MES, customers can view all the active music events on the home page. They can view detailed information about each music event by clicking on it.

3.2 Use Case 2: Customer Searches a Particular Music Event

Actors

1. Customer

Basic Flow

After logging in to MES, customers can search for a particular music event by typing the event name in the search bar on the home page. They can view detailed information about that event by clicking the matching search result.

3.3 Use Case 3: Customer Views Calendar

Actors

1. Customer

Basic Flow

After logging in to MES, customers can click the calendar icon to view a calendar specifying all the music events in the upcoming six months from the current date. They can view detailed information about a particular music event by clicking on it in the calendar.

3.4 Use Case 4: Customer Books Tickets

Actors

1. Customer

Basic Flow

Customers go to an event page by following one of the three above scenarios. They can book tickets for a music event on the event page. After going to the booking page, they can select the number of purchased tickets in each venue section. An ***assumption*** is that customers can buy multiple tickets from various venue sections in one order.

3.5 Use Case 5: Customer Views Bookings

Actors

1. Customer

Basic Flow

After logging in to MES, customers can go to the bookings page to view all their existing bookings by clicking on the corresponding button in the navigation bar.

3.6 Use Case 6: Customer Cancels Bookings

Actors

1. Customer

Basic Flow

After following the scenario described in Use Case 5 to go to the bookings page, customers can select to cancel a particular booking.

3.7 Use Case 7: Event Planner Creates Events

Actors

1. Event Planner

Basic Flow

After logging in to MES, event planners can create a new event by clicking on the corresponding button in the navigation bar on the home page. On the event creation page, they can specify the event title, choose the date and time, select an available venue, and determine the venue sections, capacities, and prices. The sum of all the section capacities must be ***equal to or less than*** the venue's total capacity set by the administrator. In addition, they can also invite other event planners to plan the current event when creating the events.

3.8 Use Case 8: Event Planner Views Hosted Events

Actors

1. Event Planner

Basic Flow

After logging in to MES, event planners can view all their hosted music events on the home page. They can select to view the details of a particular event by clicking on it to go to the event planning page.

3.9 Use Case 9: Event Planner Views Customer Bookings

Actors

1. Event Planner

Basic Flow

After following the scenario described in Use Case 8 to go to an event planning page, event planners can view all customer bookings and cancel specific bookings.

3.10 Use Case 10: Event Planner Cancels Customer Bookings

Actors

1. Event Planner

Basic Flow

After following the scenario described in Use Case 8 to go to an event planning page, besides viewing all customer bookings, event planners can select to cancel specific bookings.

3.11 Use Case 11: Event Planner Modifies Music Events

Actors

1. Event Planner

Basic Flow

After following the scenario described in Use Case 8 to go to an event planning page, event planners can modify every setting of an event, such as changing the venue or the date and time.

3.12 Use Case 12: Event Planner Cancels Music Events

Actors

1. Event Planner

Basic Flow

After following the scenario described in Use Case 8 to go to an event planning page, event planners can select to cancel that event.

3.13 Use Case 13: Event Planner Invites Other Planners

Actors

1. Event Planner

Basic Flow

After following the scenario described in Use Case 8 to go to an event planning page, event planners can invite other planners to plan the current event. Another chance of having other planners is during the event creation phase described in Use Case 7.

3.14 Use Case 14: Administrator Views All Users (i.e., All Customers and Event Planners)

Actors

1. Administrator

Basic Flow

After logging in to MES, the administrator can select to view all the users by clicking on the corresponding button in the navigation bar on the home page. After going to the user page, the administrator can view all customers and event planners. By clicking on a particular customer, the administrator can view the bookings. And by clicking on a specific event planner, the administrator can view the hosted music events.

3.15 Use Case 15: Administrator Views All Events

Actors

1. Administrator

Basic Flow

After logging in to MES, the administrator can select to view all the music events by clicking on the corresponding button in the navigation bar on the home page.

3.16 Use Case 16: Administrator Creates Venues

Actors

1. Administrator

Basic Flow

After logging in to MES, the administrator can select to create a new venue by clicking on the corresponding button in the navigation bar on the home page. After going to the venue creation page, the administrator specifies the venue name, address, and total capacity. An ***assumption*** is event planners will determine the venue sections and each section's capacity and price. The administrator only sets the venue's total capacity.

4. Domain Model

4.1 Domain Model Description

Based on the specifications provided for the Music Events System, the system domain model can be summarised as follows:

- Three types of end users exist in the system, i.e., *Customer*, *Event Planner* and *Administrator*. The system can have many *Customers* and *Event Planners* but only one *Administrator*.
- *Venues* can only be **created** by the *Administrator*.
- *Event Planners* can **create**, **modify** or **cancel** *Events*. Each *Event* can be hosted and planned by one or multiple *Event Planners*, while an *Event Planner* can launch many *Events* or none.
- Each *Event* must be assigned a single *Venue*, while a *Venue* can accommodate none or multiple *Events* as long as these *Events* do not overlap in time slots.
- Each *Event* can have its own division of *Sections*, even if held in the same *Venue*. An *Event* has at least one or many *Sections*, and a *Section* must match precisely one *Event*. Here we assume that the seats in the same *Section* share the same ticket price.
- Each *Section* maintains a `remainingTicket` field to track the number of tickets remaining. Upon every *Ticket* sold, the `remainingTicket` will be deducted by 1.
- A *Customer* can **create** and **cancel** *Orders* with the system. A *Customer* can place multiple *Orders* while each *Order* only corresponds to a single *Customer*.
- A *Customer* can purchase multiple *Tickets* in a single *Order*, and each *Ticket* must match precisely one *Order*.
- An *Event Planner* is able to **cancel** any *Order* under an *Event* it is hosting, in which case all the *Tickets* associated with that *Order* are also automatically cancelled by MES. This is based on the assumption that all *Tickets* in an *Order* are for the same *Event*.
- Each *Ticket* must be assigned one and only one *Section* once sold, and multiple *Tickets* can be associated with one *Section*. For MES, we assume that only *Sections* are assigned to *Tickets*, and the seat information will not be tracked.

Domains have been italicised, important **actions** have been bolded and assumptions made have been underlined.

4.2 Domain Model Diagram

Below is the domain model diagram of MES.

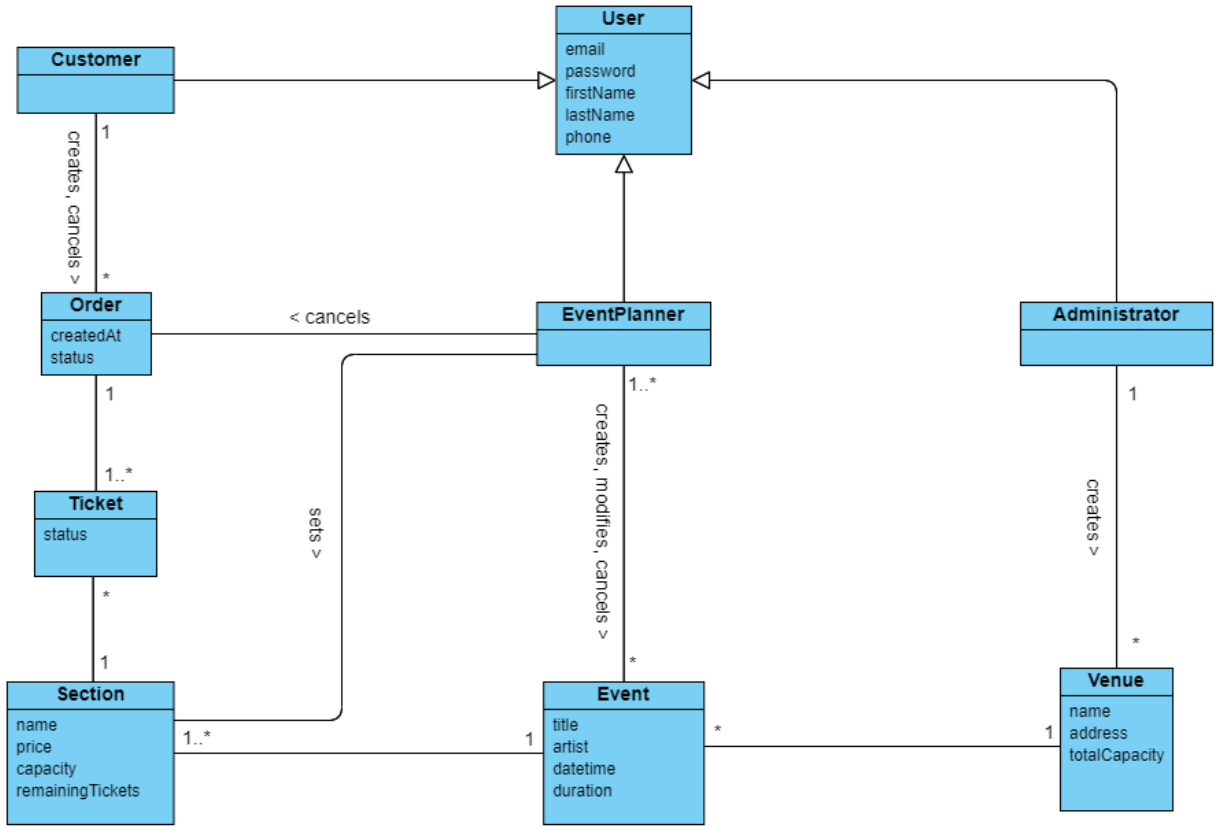

Figure 2 – Domain Model Diagram