SIGMA FIVE PTE LTD

Online Movie Ticketing System

Software Requirements Specification

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0.1	24/01/2008	Nor Rahim	Draft
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Software Requirements Specification

1   Introduction

1.1   Purpose

The purpose of this documentation is to provide the requirement specifications needed in developing an Online Movie Ticketing System for the software development teams.

The intended audience of this documentation includes potential developers from Sigma Five Pte Ltd and the relevant stakeholders from Cinematic Entertainment Group.

1.2   Scope

The system to be produced is an Online Movie Ticketing System.

The OMTS allows users of the client organization to book and purchase movie tickets online. The users are able to view listings of currently showing and upcoming movies presented by Cinematic Entertainment Group.

Users are able to register themselves into the database and have access to members-only functions such as monthly promotions and also an online virtual bank to deposit money for future use. The movie department of Cinematic Entertainment Group is able to update the website with the latest movies and also their screening time and duration to keep their users up to date.

2   Overall Description

2.1   Product Perspective

In some movie entertainment organizations, users are able to book movies and purchase tickets online anytime of the day as long as they have an internet access to the system. This allows users to plan their movie plans in the comfort of their own zone.

Without Online Movie Ticketing System, users have to go down to the ticket box office and join the queue to check the availability of the selected movies and screening times. Time spent on such an activity can be a tedious task. With Online Movie Ticketing System in place, it eases this task benefiting the users and the organization.

2.1.1   System Interfaces

The Online Movie Ticketing System is to be developed and

integrated within the organization's network demilitarized zone. It consists of 10 major components: Log in Module, Administrator Module, Registered Users Module, Normal Users Module, Book Tickets Module, Payment Module, Virtual Bank Module, Ticket Collection Module, Server Module and the Database.

- The Log in Module allows various users to log into Online Movie Ticketing System. Users that are allowed to log in are, registered users, administrators and ticketing officers.

- The Registered Users Module allows registered users to log into Online Movie Ticketing System, maintain their personal information profile and view movies and their screening times, and make use of the virtual bank feature.

- The Normal Users Module allows users who are not registered visit the system and view movies and their screening times.

- The Virtual Bank Module allows registered users to deposit money into their accounts for future ticket purchases.

- The Book Ticket Module allows both normal and registered users to select their desired movie, screening times and their seats and purchase them.

- The Payment Module allows both registered users and visiting users to pay for their purchases through credit card payment or by cash, choosing which, they will have to go down personally to collect and make payment and the ticketing box-office.

- The Ticket Collection Module allows the ticketing staff of the organization to log in and view statuses of the tickets and collect cash payment from the users and issue the tickets.

- The Administrator Module allows the systems administrator to update movie details, promotions and create additional approved user accounts.

- The Server Module acts as an interface between the various modules and the Database.

- The Database contains all the necessary tables whereby information will be stored in order to be accessed by the Online Movie Ticketing System at all times.

All components must be executable on the latest Windows OS platforms for the clients and on Windows Server 2003 for the web server.

2.1.2 User Interfaces

The Registered Users Module, Normal Users Module, Payment Module, Administrator Module and Ticket Collection Module must provide a user interface that will be accessible through any internet browser, the major ones being Mozilla Firefox and Internet Explorer 6.0.

2.1.3 Hardware Interfaces

All components able to be executed on personal computers with Windows OS platforms.

2.1.4 Software Interfaces

All the interfaces will be aspx pages running within the internet browser. The Server Module must integrate with the Database though SQL Interface. The system will be hosted in a web server running on Windows Server 2003.

2.1.5 Communication Interfaces

Connections to the system will be over TCP/IP connection.

2.1.6 Operations

The operation of the modules must be intuitive and easy to be navigated. Maintaining of the Database should not require any specific technical skill.

Backup operations as discussed with the technical department of the organization, will be done during off-peak hours 1-2am daily.

Incremental Backups: Monday-Friday, Saturday

Weekly Full Backups: Sunday

Monthly Full Backups: Last Sunday of the month

2.1.7 Constraints

Online Movie Ticketing System should enforce user

authentication security and guarantee data integrity.

2.2 User Profiles

The user profiles identified to have interaction with Online Movie Ticketing System are Registered Users, Normal Users, Administrators and Ticketing Officers.

Registered Users, are users which have registered with Online Movie Ticketing System to purchase movie tickets and are entitled to privileges such as promotions and access to virtual bank.

Normal Users are users who visit Online Movie Ticketing System and view movies and purchase tickets for them, without registering.

Administrators are responsible for the maintaining for the movie database of Online Movie Ticketing System, they get information from the movie department of the client organization.

Ticketing Officers are responsible for the collection and payment of tickets when a user comes to the ticketing box-office.

2.3 Use Cases

Refer to Appendix A

Refer to Appendix B

Refer to Appendix C

Refer to Appendix D

3 Specific Functional Requirements

3.1 Log in Module (LM)

3.1.1   User shall be able to load the Log in Module in the internet browser.

3.1.2   The Log in Module shall support the user to log into the system.

3.1.3   The login panel shall contain fields to contain a user name and a field for password. The password field shall be masked with symbols when the user types. It shall also contain a button labeled as Login.

3.1.4   When the user clicks on Login button, the Registered Users Module will send the request to the Server Module which will authenticate the credentials against the information in the

Database.

3.1.5 Successful login, system will display a successful login page.

3.1.6 Registered users who successfully logged in will be forwarded to Registered Users Module.

3.1.7 Administrators who successfully logged in will be forwarded to Administrator Module.

3.1.8 Ticketing Officers who successfully logged in will be forwarded to Ticket Collection Module.

3.1.9 Unsuccessful login, system will bring user back to login panel.

3.2   Registered Users Module (RUM)

3.2.1 After successful login, user shall be able to continue navigating through the website and view currently showing and upcoming movie listings.

3.2.2 After successful login, user shall be able to update and maintain their profile, such as changing password and personal details.

3.2.3 After successful login, user shall be able to use the Virtual Bank Module.

3.2.4 After successful login, user shall be able to view movies and their screening times by entering the Book Ticket Module.

3.3   Normal Users Module (NUM)

3.3.1 Users who visit Online Movie Ticketing System, but have not registered, are able to navigate through the website.

3.3.2 Users shall be able to view currently showing and upcoming movie listings.

3.3.3 Users shall be able to view movies and their screening times by entering the Book Ticket Module.

3.3.4 Users are able to register themselves as registered users, by clicking on the register now button.

3.4   Administrator Module (AM)

3.4.1 After successful login, system shall display administrative functions. Administrative functions shown shall be add and update.

3.4.2   When administrator clicks on the add button, system shall display a section where administrator can add new movie listings, session times and promotion code.

3.4.3   When administrator clicks on update button, system shall display a section where administrator can update movie details and screening times which are currently stored in the database. Administrator shall also be able to delete any of the currently stored movie and their details.

3.4.4   When administrator adds, updates or delete and entry, the AM module will send the request to the Server Module which will do the necessary changes to the Database.

3.5   Virtual Bank Module (VBM)

3.5.1   Registered users shall be able to operate the Virtual Bank Module.

3.5.2   Registered users shall be able to deposit money which can be used to pay for tickets in the future.

3.5.3   Amount of money deposited shall only be paid through credit card.

3.5.4   Virtual Bank Module shall display the balance amount in the account.

3.6   Book Tickets Module (BTM)

3.6.1   Both registered and Normal Users shall be directed to the Book Ticket Module when they choose to purchase tickets.

3.6.2   Each user shall only be able to order up to 5 tickets per session.

3.6.3   Users shall be able to purchase their tickets by selecting movie title, screening times and selecting the available seats.

3.6.4   Upon selecting the required information, the user will be able to click on the purchase button and redirected to the Payment Module.

3.7   Payment Module (PM)

3.7.1   The Payment Module shall display the total amount payable.

3.7.2   The Payment Module shall display the number of tickets purchased.

3.7.3 The Payment Module shall give Normal Users an option of payment either through cash or credit card.

3.7.4 Normal Users shall be required to key in personal details such as name, address, telephone number and email address before payment.

3.7.5 Registered users shall not be required to key in personal details as the module shall automatically display relevant information.

3.7.6 Registered users shall be able to key and verify promotion code, when applicable.

3.7.7 Registered users shall be able to make payment either through cash, credit card or amount deposited in the virtual bank.

3.7.8 Upon confirmation, both registered and Normal Users will be shown a confirmation page containing relevant personal information, mode of payment and a reminder to collect tickets at the ticketing box-office.

3.7.9 Both registered and Normal Users are able to print the confirmation page and also exit from the page back to the main page of the system.

3.8   Ticket Collection Module (TCM)

3.8.1 After successful login, ticketing officer is able to view Ticket Collection Module functions.

3.8.2 Ticketing officer shall be able to key in reference id provided by users to check status of order.

3.8.3 Ticketing officer shall be able to issue tickets to users and update status of tickets as paid, booked, collected or cancelled.

3.9   Server Module (SM)

3.9.1 Server Module shall be between the various modules and the Database.

3.9.2 Server Module shall receive all requests and format the pages accordingly to be displayed.

3.9.3 Server Module shall validate and execute all requests from the other modules.

3.10 Database (DB)

3.10.1 Database receives request from Server Module.

3.10.2 If request is to retrieve data, Database will retrieve the required information from the corresponding tables and pass the data to Server Module.

3.10.3 If request is to store data, Database will validate the data. If the data to be stored meets the table and entity attributes requirements, the data is store and Database will inform Server Module that the data has been stored

3.10.4 If the data to be stored does not meet the table and entity attributes requirements, the Database will inform Server Module that the data being requested to be stored does not meet the requirements.

4   Classification of functional requirements

Functionality	Type
3.1.1 User shall be able to load the LM in the internet browser.	Essential
3.1.2 The LM shall support the user to log into the system.	Essential
3.1.3 The login panel shall contain fields to contain a user name and a field for password. The password field shall be masked with symbols when the user types. It shall also contain a button labeled as Login.	Essential
3.1.4 When the user clicks on Login button, the RUM will send the request to the SM which will authenticate the credentials against the information in the DB.	Essential
3.1.5 Successful login, system will display a successful login page	Essential
3.1.6 Registered users who successfully logged in will be forwarded to RUM.	Essential
3.1.7 Administrators who successfully logged in will be forwarded to AM.	Essential
3.1.8 Ticketing Officers who successfully logged in will be forwarded to TCM.	Essential
3.1.9 Unsuccessful login, system will bring user back to login panel.	Essential

Functionality	Type
3.2.1 After successful login, user shall be able to continue navigating through the website and view currently showing and upcoming movie listings.	Essential
3.2.2 After successful login, user shall be able to update and maintain their profile, such as changing password and personal details.	Essential
3.2.3 After successful login, user shall be able to use the VB	Essential
3.2.4 After successful login, user shall be able to view movies and their screening times by entering the BTM.	Essential
3.3.1 Users who visit OMTS but have not register, are able to navigate through the website.	Essential
3.3.2 Users shall be able to view currently showing and upcoming movie listings.	Essential
3.3.3 Users shall be able to view movies and their screening times by entering the BTM.	Essential
3.3.4 Users are able to register themselves as registered users, by clicking on the register now button.	Essential
3.4.1 After successful login, system shall display administrative functions. Administrative functions shown shall be add and update.	Essential
3.4.2 When administrator clicks on the add button, system shall display a section where administrator can add new movie listings, session times and promotion code.	Essential
3.4.3 When administrator clicks on update button, system shall display a section where administrator can update movie details and screening times which are currently stored in the database. Administrator shall also be able to delete any of the currently stored movie and their details.	Essential
3.4.4 When administrator adds, updates or delete and entry, the AM module will send the request to the SM which will do the necessary changes to the DB.	Essential
3.5.1 Registered users shall be able to operate the VBM.	Essential
3.5.2 Registered users shall be able to deposit money which can be used to pay for tickets in the future.	Essential
3.5.3 Amount of money deposited shall only be paid through credit card.	Essential

Functionality	Type
3.5.4 VBM shall display the balance amount in the account.	Essential
3.6.1 Both registered and Normal Users shall be directed to the BTM when they choose to purchase tickets.	Essential
3.6.2 Each user shall only be able to order up to 5 tickets per session.	Essential
3.6.3 Users shall be able to purchase their tickets by selecting movie title, screening times and selecting the available seats.	Essential
3.6.4 Upon selecting the required information, the user will be able to click on the purchase button and will redirected to the PM.	Essential
3.7.1 The PM shall display the total amount payable.	Essential
3.7.2 The PM shall display the number of tickets purchased.	Essential
3.7.3 The PM shall give Normal Users an option of payment either through cash or credit card.	Essential
3.7.4 Normal Users shall be required to key in personal details such as name, address, telephone number and email address before payment.	Essential
3.7.5 Registered users shall not be required to key in personal details as the module shall automatically display relevant information.	Essential
3.7.6 Registered users shall be able to key and verify promotion code, when applicable.	Essential
3.7.7 Registered users shall be able to make payment either through cash, credit card or amount deposited in the virtual bank.	Essential
3.7.8 Upon confirmation, both registered and Normal Users will be shown a confirmation page containing relevant personal information, mode of payment and a reminder to collect tickets at the ticketing box-office.	Essential
3.7.9 Both registered and Normal Users are able to print the confirmation page and also exit from the page back to the main page of the system.	Essential
3.8.1 After successful login, ticketing officer is able to view TCM functions.	Essential

3.8.2 Ticketing officer shall be able to key in reference id provided by users to check status of order.	Essential
3.8.3 Ticketing officer shall be able to issue tickets to users and update status of tickets as paid, booked, collected or cancelled.	Essential
3.9.1 SM shall be between the various modules and the DB.	Essential
3.9.2 SM shall receive all requests and format the pages accordingly to be displayed.	Essential
3.9.3 SM shall validate and execute all requests from the other modules.	Essential

Appendix A

Use Case for Registered Users

Appendix B

Use Case for Normal Users

Appendix C

Use Case for Administrator

Appendix D

Use Case for Ticketing Officer