Team 5: CMR Design Solutions
Charanya, Manoj, and Rich

{nhnguye1, cvenkat1, mgour}@uncc.edu

Dance Competition Management System
Software Requirements Specifications

Version <1.0>
## Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Description</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25/SEP/06&gt;</td>
<td>&lt;1.0&gt;</td>
<td>Initial Version</td>
<td>Team 5</td>
</tr>
</tbody>
</table>

Confidential © CMR Design Solutions, 2008

Page 2
# Table of Contents

1. Document Overview  
   1.1 Purpose  
   1.2 Team Contact information  
   1.3 Références  

2. Project Mission Statement  
   2.1 Project Introduction  
   2.2 Product Vision and Scope  
   2.3 Stakeholders  
   2.4 Assumptions and Constraints  
   2.5 Business Requirements  

3. Requirements  
   3.1 Functional Requirements  
      3.1.1 Membership Functional Requirements  
      3.1.2 Registration Functional Requirements  
      3.1.3 Check-in Functional Requirements  
      3.1.4 Scheduling Functional Requirements  
      3.1.5 Projector Screen Functional Requirements  
      3.1.6 Score Calculation Functional Requirements  
   3.2 Non-Functional Requirements  
      3.2.1 Performance Requirements  
      3.2.2 Security Requirements  
      3.2.3 Software Quality Attributes  

4. Classification of Functional Requirements  

Confidential © CMR Design Solutions, 2008  
Page 3
Software Requirements Specifications

1. Document Overview

1.1 Purpose

This Software Requirement Specification captures and records the requirements of the Dance Competition Management System, which is a desktop application system that would help the user organize and conduct a dance competition. The document contains in detail, the functional and non-functional requirements of the system to be created. It also contains the assumptions and constraints placed on the system.

1.2 Team Contact Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich Nguyen</td>
<td>(704) 541 - 8442</td>
<td><a href="mailto:nhnguye1@uncc.edu">nhnguye1@uncc.edu</a></td>
</tr>
<tr>
<td>Charanya Venkatesh Kumar</td>
<td>(704) 657 – 8780</td>
<td><a href="mailto:cvenkat1@uncc.edu">cvenkat1@uncc.edu</a></td>
</tr>
<tr>
<td>Manoj Gour</td>
<td>(704) 941 - 1629</td>
<td><a href="mailto:mgour@uncc.edu">mgour@uncc.edu</a></td>
</tr>
</tbody>
</table>

1.3 Références

Skating System Software [recommended by the stake holders]

2. Project Mission Statement

2.1 Project Introduction

The project aims at creating an application to ease the process of organizing and conducting a dance competition. The motivation to create a dance competition management system comes from a group of organizers who realized the need for an automated system that could assist them in making their job simpler and faster.

2.2 Product Vision and Scope

The system when completed should enable the user of the system to effectively and efficiently organize and conduct dance competition. The project aims at making the product evolvable, thereby opening the option to add functionalities or modify existing functionalities as the user requirement changes. The product might also be modified in the future to organize various competitions.

2.3 Stakeholders

Members/Participants: Those who use the system to register for competitions.

Scrutineers/Administrators: Those who use the desktop application to organize and conduct dance competition.
2.4 Assumptions and Constraints

2.4.1 The system will not take any payment information.

2.4.2 The system has a web based application for the membership and registration functionalities, and acts as a desktop application for the rest of the functionalities.

2.5 Business Requirements

2.5.1 The system must assist the client in effective and efficient organization of a dance competition.

2.5.2 The system should provide an easy to use interface that would save on time.

3. Requirements

3.1 Functional Requirements

3.1.1 Membership Functional Requirements

3.1.1.1. For every new member, the system must get the following information: first name, last name, proficiency level, date of birth, username, password, email address, and favorite dance styles.

3.1.1.2. The system must check for the availability of the username.

3.1.1.3. The system must check for the age of the member and only allow membership if the visitor is 18 yrs or above.

3.1.1.4. The system must allocate a unique member ID for each member.

3.1.1.5. The system must validate and record the information received from the user.

3.1.2 Registration Functional Requirements

3.1.2.1. The system must get the following information from members who wish to register for a competition: the member ID of the participants, the event they would like to participate.

3.1.2.2. The system must check for the comparability between the partners [Partner must be in the same or consecutive levels of proficiency]

3.1.2.3. The system must check for the eligibility of the participants in the event they are registering for.

3.1.2.4. The system must give a unique team ID for the registered participant.
3.1.2.5. The system must validate and record the information received from the user.

3.1.2.6. The system must allow the registered participants to withdraw from the event.

3.1.3 **Check-in Functional Requirements**

3.1.3.1. The system must get the unique team ID number.

3.1.3.2. The system must then display the details (Members IDs and names) of the team.

3.1.3.3. At check-in, the system must allow the scrutineer to add, remove, or modify participant information.

3.1.3.4. The system must validate the team ID number from the registered member.

3.1.4 **Scheduling Functional Requirements**

3.1.4.1. The system must count the total number of check-in teams.

3.1.4.2. The system must organize the teams in heat of at most 12.

3.1.4.3. The system must display the appropriate time for each heat in an event.

3.1.4.4. The system must calculate and create a schedule for the next round based on the results from the judges.

3.1.5 **Projector Screen Functional Requirements**

3.1.5.1. The system must gather the following data and display it for the scrutineer as well as the audience: current event, round, heat number; details of performing team, and the upcoming event.

3.1.5.2. The system must provide the scrutineer an option to enter any special announcement.

3.1.5.3. The system must display the recalled couples after calculating the scores from the judges.

3.1.6 **Score Calculation Functional Requirements**

3.1.6.1. The system must display the recalled couples after calculating the scores from the judges.

3.1.6.2. The system must calculate the scores for all teams based on the judges’ decisions.

3.1.6.3. For the final round, the system must calculate the team ranking, and display the winner.

3.1.6.4 The system must provide an option for the scrutineer to determine the number of teams qualifying for the next round.
3.2 Non-Functional Requirements

3.2.1 Performance Requirements

3.2.1.1 The system must take no longer than two seconds to schedule any event.
3.2.1.2 The system must print pages on receiving the command from the scrutineer.
3.2.1.3 The system must project the gathered data on the projector screen.
3.2.1.4 The system must ensure that a typical user does not take more than ten minutes to set up a dance competition.

3.2.2 Security Requirements

3.2.2.1 The system uses hashing technique to secure user passwords
3.2.2.2 Every visitor must become a member to access the system.

3.2.3 Software Quality Attributes

3.2.3.1 Each member who wishes to participate in a competition must register for it.

4. Classification of Functional Requirements

<table>
<thead>
<tr>
<th>Functional Requirement</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score Calculating Function</td>
<td>Essential</td>
</tr>
<tr>
<td>Projector Screen Display</td>
<td>Desirable</td>
</tr>
<tr>
<td>Scheduling First Round</td>
<td>Essential</td>
</tr>
<tr>
<td>Event Withdrawal</td>
<td>Optional</td>
</tr>
</tbody>
</table>