CCRS

Comprehensive **C**onference **R**egistration **S**ystem
Requirements Specification

Requested by:

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1.1 Product Overview and Summary

The Consortium for Computing Sciences in Colleges – Northeastern Region (CCSCNE) has participants involved in many different aspects of the conference. There are the Conference and Committee Chairs, attendees that consist of Reviewers, Presenters and Vendors. There are also people that submit papers but don't necessarily attend the conference. Our client, Dr. Lim, has asked our team to create a web-based interface for registration. With this the people involved will be able to easily register for the system. Once a user is registered our client would like it so that that same user will be presented with only information that is relevant to what that user signed up for. For example if a presenter signs on they will be able to see what time they are presenting and where their presentation is. In addition to being able to register Dr. Lim would like to have the system be able to let users submit papers and review them. After the papers have been reviewed the reviewers should be able to accept and reject certain papers. The system should also have the ability to create a schedule for the conference. This schedule will include all the times that presenters are going and when there will be vendors. Lastly, the Conference Chair should have the ability to change the schedule to however he/she sees fit.

1.2 Development and Production Environments

Our Mac is an iMac (model identifier: iMac 12,1) Mac OS X Lion, version 10.7.4
Intel Core Processor (2.5 GHz)
4 GB of Memory

Our PC is an OptiPlex 760
Windows Vista Enterprise (build 6002) Intel Core Duo Processor (2.93 GHz) 4 GB Memory

Our server is an x86 64 PC Hostname: oraserv.cs.siena.edu CentOS 5.2 (final) Kernel: 2.6.18-92.el5

Intel Xeon 2.66 GHz CPU
8 GB of Memory
Java SE Runtime Environment (build 1.6.0 10-rc-b28) GCC Version 4.1.2 20071124 (Red Hat 4.1.2-42) Python 2.4.3

Production Environment

The production environment for this project includes the computers in the Software Engineering lab as well as any of the software used on those machines to maintain the project, such as Adobe Dreamweaver, Photoshop, Mozilla Firefox, Google Chrome, Internet Explorer.

1.3 User Case Narratives

Conference Chair

The Conference Chair is in charge of everything in the conference. The Conference Chair is also the system administrator.

The Conference Chair logs on to CCRS and is able to see who has registered for the Consortium for Computing Sciences in Colleges Northeastern Region (CCSCNE). Once the Conference Chair enters a unique username and password The Conference Chair is able to access any information from the conference. The Conference Chair can then check the information from people who have registered to make sure everyone has paid. While logged in, The Conference Chair can also view the submitted material for the conference. The Conference Chair is able to see what the reviews on all submissions to the conference. The Conference Chair is able to have some input as to what submissions are accepted into the conference.

The Conference Chair has the ability to create accounts in CCRS and give the accounts access to certain information. The Conference Chair logs onto CCRS and creates an account for the Committee Chairs. The Conference Chair adds a username and password for each Committee Chair. The Conference Chair limits the information each Committee Chair can see based on what is important for to get the job done.

The Conference Chair is able to see the schedule created by the system once all the submissions have been selected. The Conference Chair can examine this schedule and make any desired changes. The Conference Chair can update the schedule information up to the date of the conference.

Committee Chair

The Committee Chair is in charge of their assigned committee. The committees are for panels, posters, tutorial, demo, workshop, paper.

The Committee Chair will be able to log in to CCRS with the username and password provided to them by the Conference Chair. Once logged in the Committee Chair can change the password that was provided by the Conference Chair. The Committee Chair can have access to all information of that committee. The Committee Chair has access to all of the submissions of the particular type and the reviews on the submissions. The Committee Chair helps decide which submissions of the particular type get selected to present at the conference. The Committee Chair has access to each submitter’s email and notifies the submitters of acceptance or rejection via email. The Committee Chair can log in and out of CCRS.

Registration Committee Chair

The Registration Committee Chair keeps track of all the registration information.

The Registration Committee Chair logs into CCRS and immediately sees the list of people that have registered for the conference. The Registration Committee Chair takes the list of emails for everyone that has registered and begins to type an email to let everyone know the update.

The Registration Committee Chair has also decided to send out a reminder email for the people who have not paid for the conference yet. While still logged in o CCRS the Registration Committee Chair examines the list of people is able to easily determine who has paid and who has not. The Registration Chair is able to send an email to the people who have not paid yet. Once payment is received the Registration Chair is able to update the payment information for each the appropriate attendee.

Review Committee Chair

The Review Committee Chair is in charge of making sure all submissions have reviews.

The Review Committee Chair logs into CCRS with the username and password provided by the Conference Chair. The Review Committee Chair is able to see all the submissions that have been submitted to CCRS. The Review Committee Chair has access to all the reviews and is able to make sure each submission has a review. The Review Committee Chair can reassign submissions to a new Reviewer if needed.

Conference Attendee

A Conference Attendee is anyone who physically attends the conference. A Conference Attendee includes a Vendor, a Presenter, a Programming Contest Participant, and a Faculty Advisor.

A Conference Attendee creates a username and password for CCRS. The Conference Attendee is then able to log into CCRS to register for the CCSCNE conference. The Conference Attendee enters all the information necessary for registration to the conference. The Conference Attendee then pays the registration fee for the conference. The Conference Attendee can select many different types of roles at the conference. Once the information is submitted to CCRS database, CCRS sends a confirmation email to the Conference Attendee. The Conference Attendee can log back into CCRS to change any information necessary.

Faculty Advisor

Each programming contest team participating in the CCSCNE contest will have one Faculty Advisor.

The Faculty Advisor will be able to register the Faculty Advisor's programming contest team via CCRS. The Faculty Advisor will register team details such as the college the team represents and names and emails of Programming Contest Participants on the team. The Faculty Advisor will pay for the Faculty Advisor's registration fee during this registration. CCRS will handle any input errors committed by the Faculty Advisor before submission. Once the Faculty Advisor has registered, CCRS will send a confirmation email to the Faculty Advisor.

Programming Contest Participant

A Programming Contest Participant is a student that participates in the CCSCNE programming competition.

Each Programming Contest Participant must register individually. The Faculty Advisor must register for the conference before the Programming Contest Participant can register for the conference. CCRS will send a link to the CCRS registration page via email to the Programming Contest Participant once the Faculty Advisor registers for the programming contest. The Programming Contest Participant will also be able to go to the CCRS homepage and register as a participant in the programming contest if the Faculty Advisor has already registered. The Programming Contest Participant will be able to fill in the registration form and pay the registration fee. CCRS will handle any errors in user input before form submission by notifying the Programming Contest Participant of the errors. Once the Programming Contest Participant has submitted, CCRS will send a confirmation email to the participant and the Faculty Advisor of the team.

Presenter

A Presenter is an attendee who presents a submission at the conference. After the Presenter has been accepted by a Reviewer, the Presenter is given a time slot to present their submission.

A Presenter will be notified via email upon acceptance into the conference. The Presenter will be able to go to CCRS and will be able to easily register a username and password. Once a Presenter is logged on they will be presented with all of the information that they need. This information includes the time they will be presenting and the place of their presentation. A Presenter will be able to log out of the system at any time the Presenter wants.

Vendor

A Vendor is someone who has been given permission by the Conference Chair to attend the conference in order to promote their product or company.

A Vendor will have the ability to go to CCRS and register a unique username and password. Once the Vendor is logged on the Vendor will be presented with material that is unique to the Vendor. When the Vendor is logged on the Vendor will have the option of entering how much space the Vendor needs. The Vendor will also be able to request certain things that the Vendor needs such as audio and visual things. For example these will include televisions, extension cords, speakers, etc… The Vendor will be able to log out of the system at any time the Vendor wants.

Reviewer

A Reviewer is someone who evaluates all submissions that are sent through the system. The Reviewer will not review anything that is from their own school, outside their area of expertise or their own submission category.

The Reviewer will self register with CCRS. While registering the Reviewer will provide information such as name, e-mail address, and specific areas of interest that could be subjects of submissions. The Reviewer will receive a confirmation email after registration. The Reviewer will receive an email when there are submissions on CCRS that have been assigned to review. The reviewer will sign in to CCRS and be able to view a list of submissions to review. The Reviewer will download submissions for review. The Reviewer will upload the numerical and written reviews for each submission.

Submitter

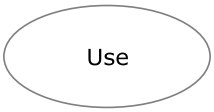
A Submitter is someone who will enter a submission. Submissions can include papers, posters, demos, tutorials, panel, workshop. After the submission is entered it will be reviewed. If the submission is accepted the Submitter will become a Presenter.

The Submitter will self register with CCRS. While registering the Submitter will provide information such as name and e-mail address. The Submitter will receive a confirmation email after registration. The Submitter will upload the submission or submissions to be reviewed and provide the topic of each submission. The Submitter will receive an email when the reviews of the submissions are viewable. The Submitter will log in to CCRS to view the reviews. The Submitter will be notified of acceptance or rejection by the Committee Chair.

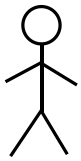
1.4 UML Use Case Diagram

Comprehensive Conference Registration System
UML Use Case Diagram Legend

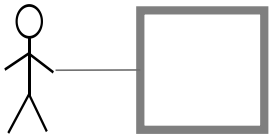
System Boundary: Actors are located to the left and right of the boundary and interact with uses found inside the system boundary.



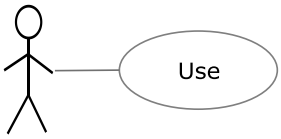
Use case: Activities that the actors interact with to use the system.



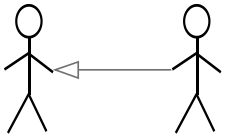
Actor: Interacts with the use cases of the system. Actors to the left of the system boundary are human and actors to the right are non-human actors.



Actor interacts with all use cases in the system

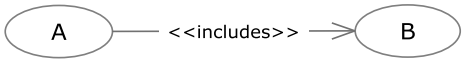


Actor interacts with use case

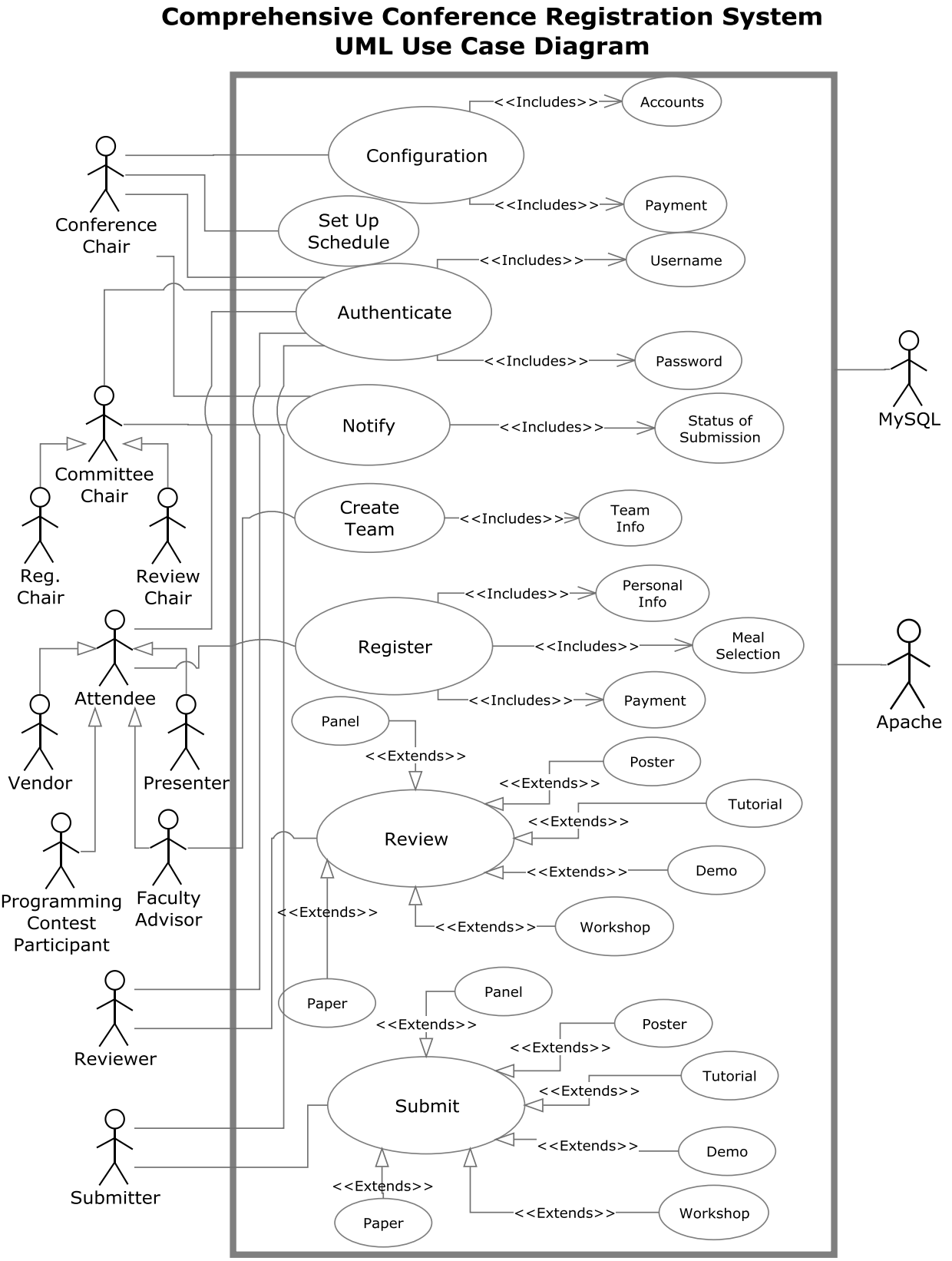


Right-side actor inherits properties from left-side actor

Use case B contains properties of use case A

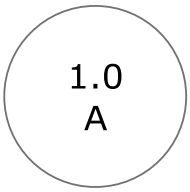


Use case A requires and contains use case B

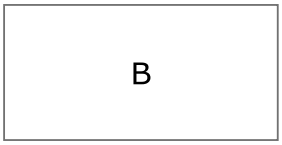

Comprehensive Conference Registration System
UML Use Case Diagram
Accounts
Configuration
Payment
Set Up Schedule
Username
Authenticate
Password
Notify
Status of Submission
Create Team
Team Info
Personal Info
Register
Meal Selection
Payment
Panel
Poster
Tutorial
Review
Demo
Workshop
Paper
Panel
Poster
Tutorial
Submit
Demo
Workshop
Paper
<<Includes>>
<<Extends>>
Conference Chair
Committee Chair
Reg. Chair
Review Chair
Attendee
Vendor
Presenter
Programming Contest Participant
Faculty Advisor
Reviewer
Submitter
MySQL
Apache

1.5 Data Flow Diagrams

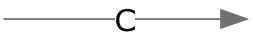
Comprehensive Conference Registration System
Data Flow Diagram Legend



Process: Represents a transaction or transformation of the data. Process name and number are shown within circle.



External Entity: A source or sink of data in the system. May added data to the system or receive data from the system. External entity name is shown within rectangle.

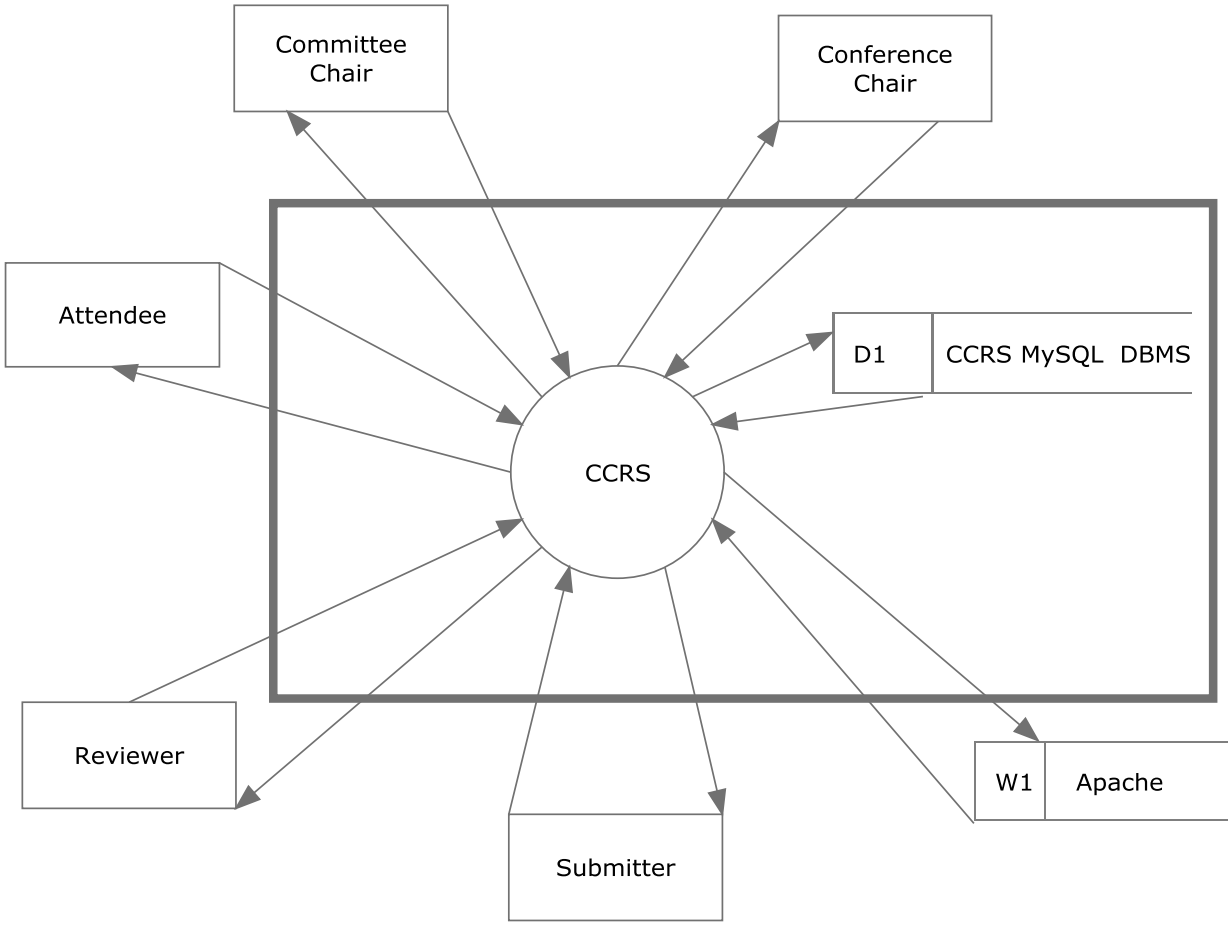


Data Flow: Indicates direction of the flow of data in the system. Arrows are labeled with a description of the data that is being passed along.

Data Store: Represents area where data is stored. T is the type of data stored and E is the data store name. Types of data stores are D - Database and W - Web server.

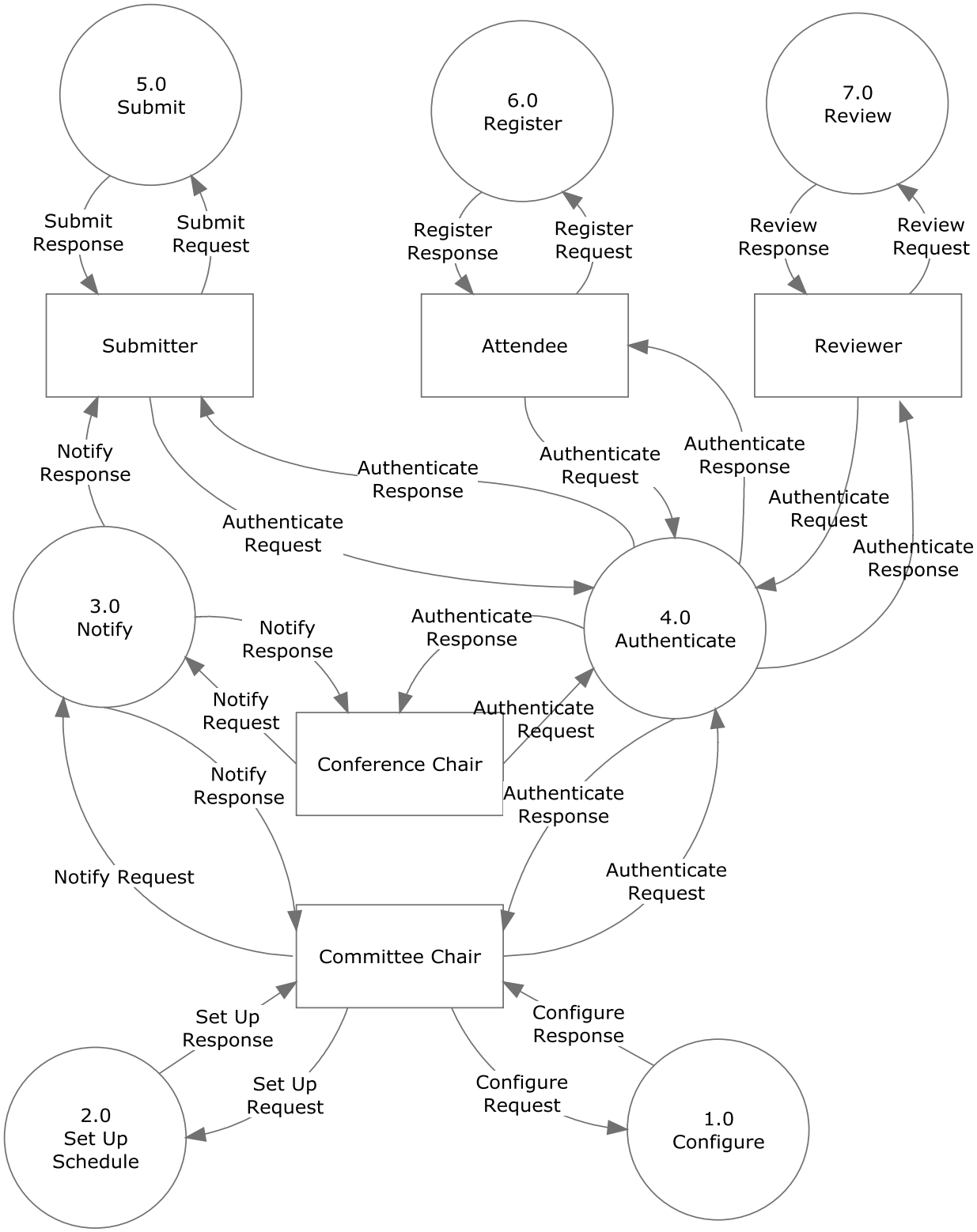
System Boundary: Declares scope of project.
Any entity outside of the boundary is outside of CCRS control.

Comprehensive Conference Registration System Context Diagram

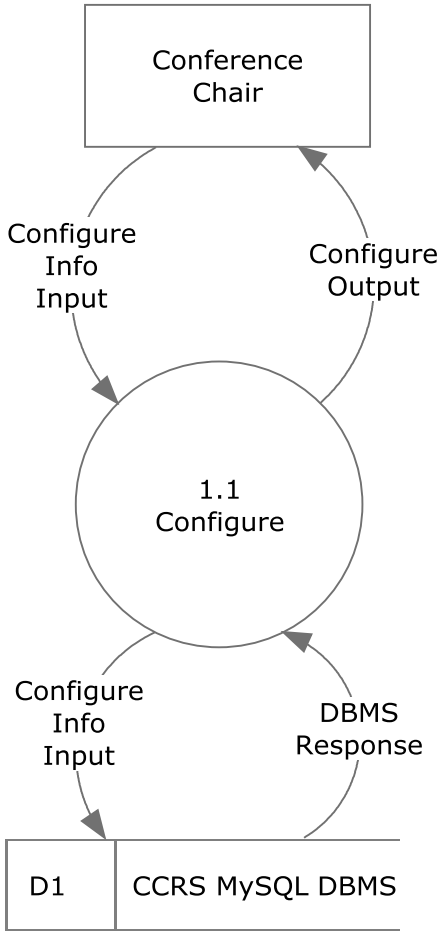


The system boundary will no longer be included on any of the following diagrams. All entities are considered to be external.

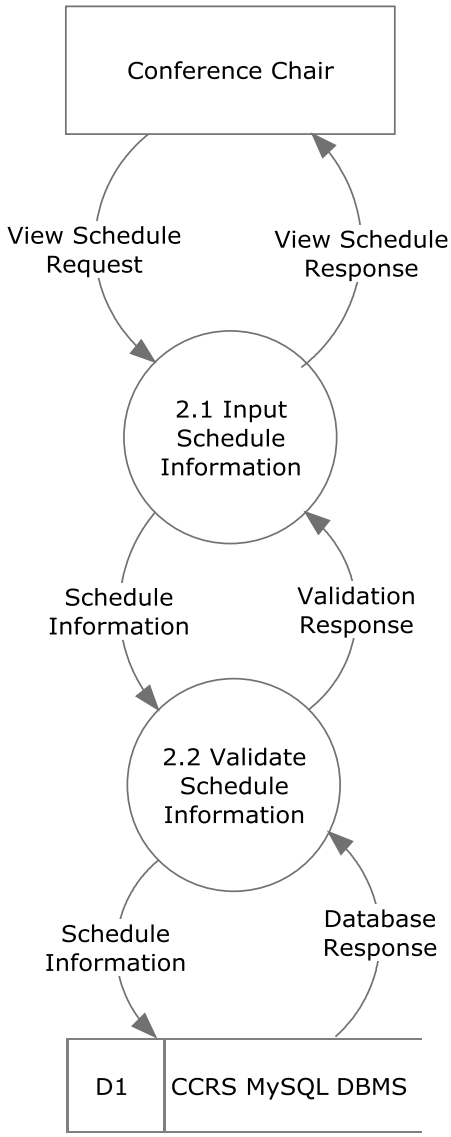
Comprehensive Conference Registration System
Level 0 Diagram



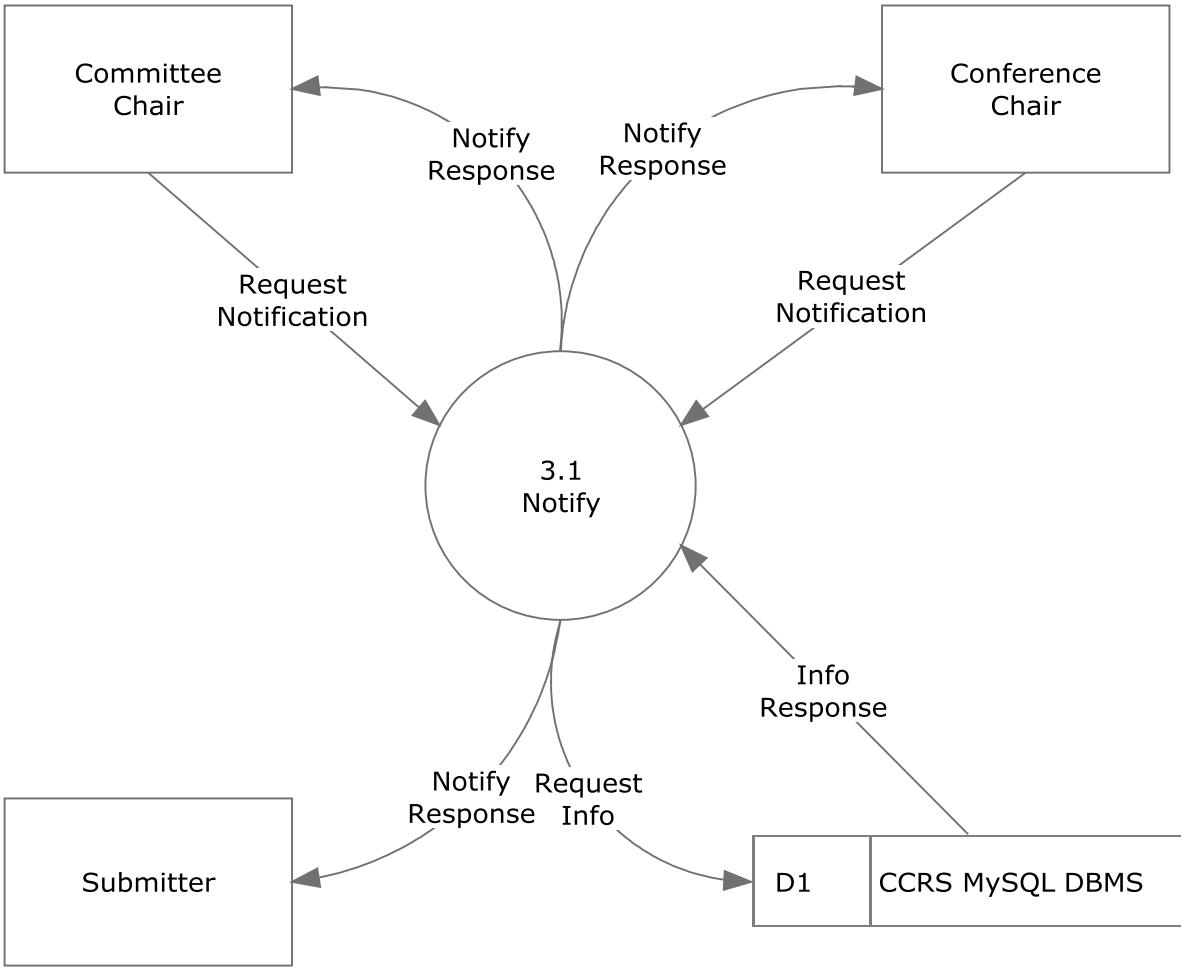
Comprehensive Conference Registration System
1.0 Configure Level 1 Diagram



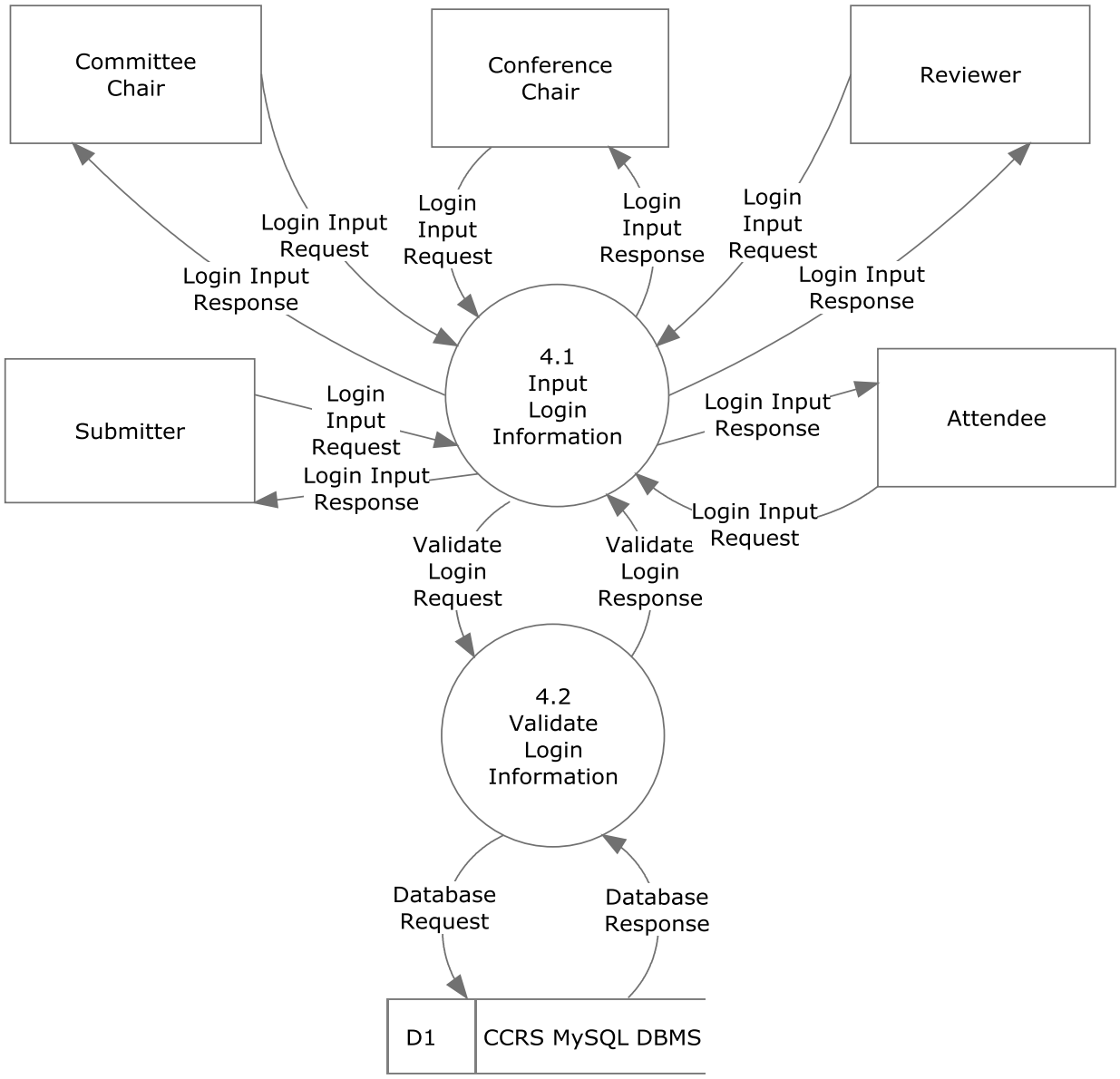
Comprehensive Conference Registration System
2.0 Set Up Schedule Level 1 Diagram



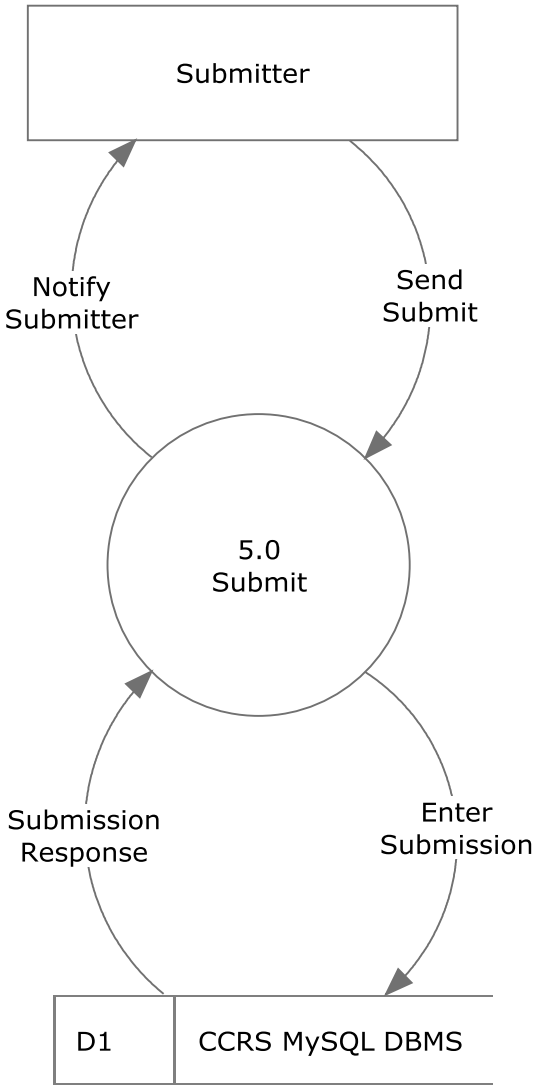
Comprehensive Conference Registration System
3.0 Notify Level 1 Diagram



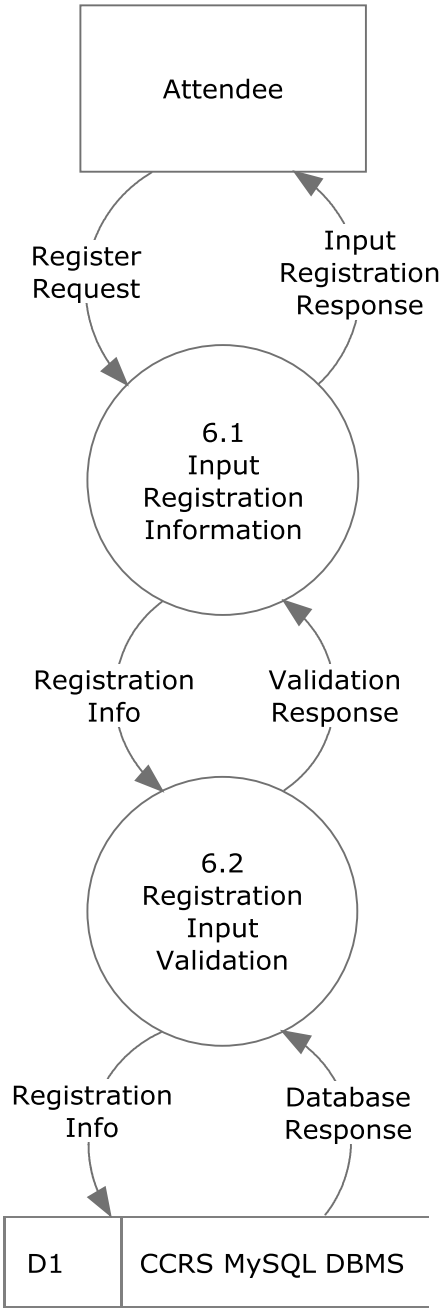
Comprehensive Conference Registration System
4.0 Authenticate Level 1 Diagram



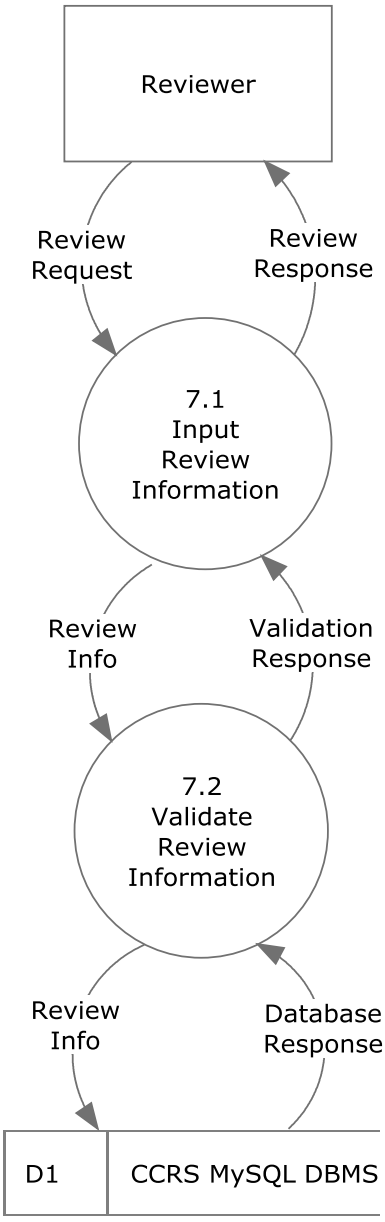
Comprehensive Conference Registration System
5.0 Submit Level 1 Diagram



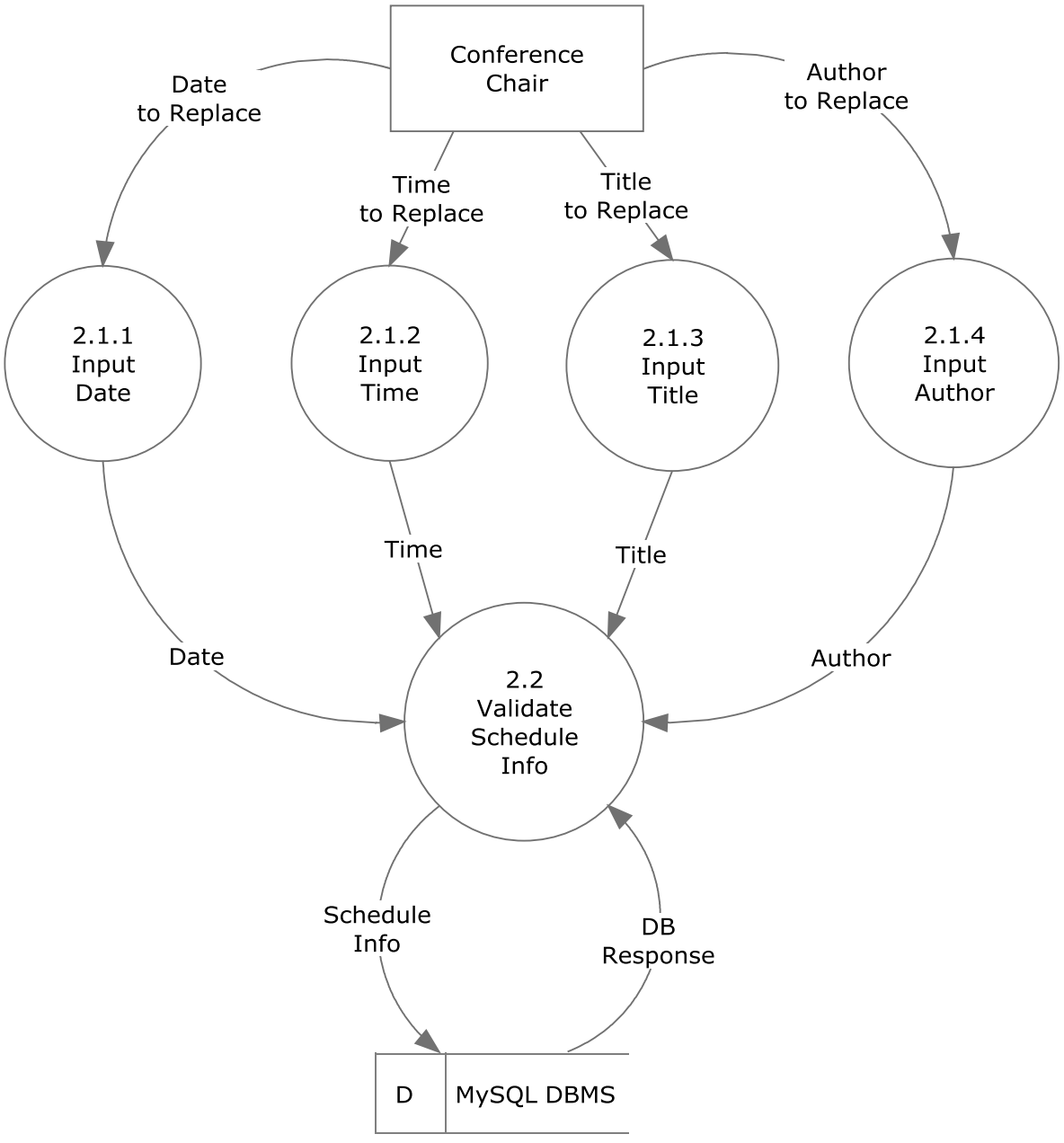
Comprehensive Conference Registration System
6.0 Register Level 1 Diagram



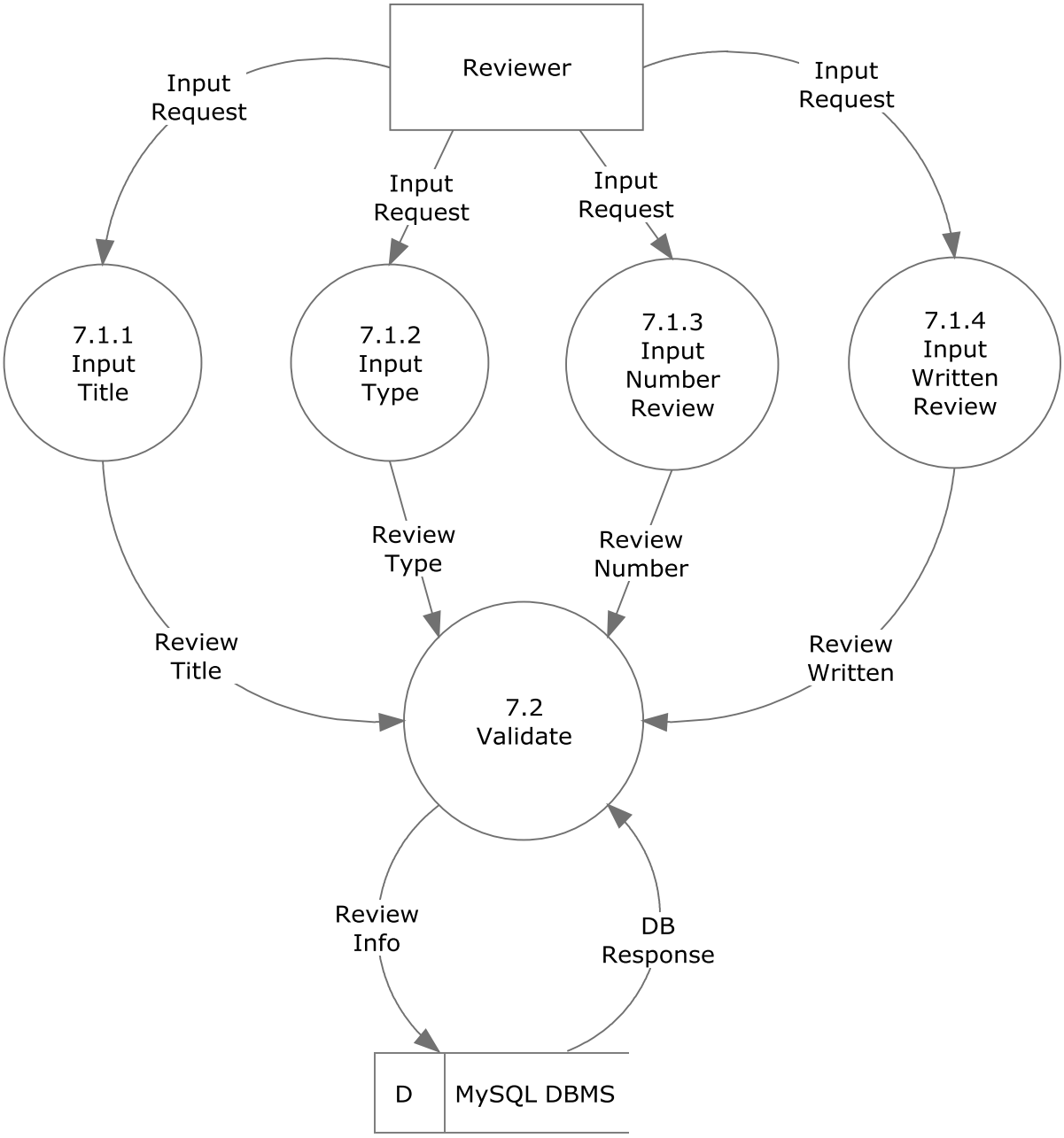
Comprehensive Conference Registration System
7.0 Review Level 1 Diagram



Comprehensive Conference Registration System
2.1 Input Schedule Information Level 2 Diagram



Comprehensive Conference Registration System
7.1 Input Review Information Level 2 Diagram



1.6 Functional Requirements Inventory

CCRS will need to be tested on and function properly on the four most popular browsers: Internet Explorer, Mozilla Firefox, Google Chrome, and Safari.

1.1.1. All Users

All users have the following functional requirements:

- Will be able to log into CCRS with a provided username and password
    - An incorrect username and/or password will result in an appropriate error message

1.7.2 Conference Chair

- Will be able to configure user accounts for other users
    - Accounts will be inserted into appropriate database tables
- Will be able to configure payment for users
    - Proper fields will be updated in database tables
- Will be able to configure or edit schedule for event

1.7.3 Committee Chair

- Will be able to notify appropriate users based on membership in committee

1.7.3.1 Regular Chair

- Will be able to notify appropriate users based on membership in committee

1.7.3.2 Review Chair

- Will be able to notify appropriate users based on membership in committee

1.7.4 Attendee

- Will be able to register for conference including personal information, meal selection, and payment
    - All required fields will be checked for proper input for nulls and format and error message produced for any issues
    - Accounts and appropriate information will be inserted to appropriate database tables

1.7.4.1 Vendor

- Will be able to register for conference including personal information, meal selection, and payment
  - All required fields will be checked for proper input for nulls and format
  - Accounts and appropriate information will be inserted to appropriate database tables

1.7.4.2 Presenter

- Will be able to register for conference including personal information, meal selection, and payment
  - All required fields will be checked for proper input for nulls and format
  - Accounts and appropriate information will be inserted to appropriate database tables**.**

1.7.5 Programming Contest Participant

- Will be able to register for conference including personal information, meal selection, and payment
  - All required fields will be checked for proper input for nulls and format
  - Accounts and appropriate information will be inserted to appropriate database tables

1.7.5.1 Faculty Advisor

- Will be able to register for conference including personal information, meal selection, and payment
  - All required fields will be checked for proper input for nulls and format
  - Accounts and appropriate information will be inserted to appropriate database tables

1.7.6 Reviewer

- Will be able to review appropriate material (panel, poster, tutorial, demo, workshop, paper submissions) assigned to user
  - Reviewed comments and results will be added to appropriate database tables and/or appropriate location on web server

1.7.7 Submitter

- Will be able to submit appropriate material (panel, poster, tutorial, demo, workshop, paper submissions) based on submission desire
    - Submitted comments and results will be added to appropriate database tables and/or appropriate location on web server

1.7 Non-Functional Requirements

The non-functional requirement inventory is a list of non-functional system requirements. This list is composed of requirements that specify how the system should function. This list is subject to change:

- The system will be easily maintained.
- The system will be stable.
- The system will be viewable on multiple browsers.
- The system will run efficiently.
- The system will be user friendly.

1.8 Exception Handling

CCRS will be able to handle any exception that occurs so that in the event of an error the system will still be able to operate. All input to CCRS will be sanitized and validated before being used in the system. If a site user submits a form without required fields completed, CCRS will not accept the form into the database and the site user must complete the required fields in order to continue. All site users must be authenticated and logged into the system to manipulate data in CCRS. User roles prevent unwarranted access to confidential data so that only users who have permission to view data will be able to view the data. As CCRS is implemented, any exception that occurs will be handled accordingly.

1.9 Implementation Priorities

S.E.E. Solutions will look to implement all of the functional requirements, however the following have been decided as the priorities:

- Set up Schedule for the conference
- Easy and clean interface
- Ability to register for specified position
- Ability to review papers

1.10 Foreseeable Modifications and Enhancements

At this time Dr. Lim does not see any modifications or enhancements that will need to be made to CCRS. After all the requirements have been met if there are modifications or enhancements to be made they will be done when necessary. If modifications or enhancements arise while working on CCRS, S.E.E. Solutions will make the changes needed to meet the needs and wants of Dr. Lim. Some possible enhancements to CCRS is making CCRS compatible with mobile devices and adding a payment system into CCRS.

1.11 Testing Requirements

CCRS will be tested to meet all requirements for all users. A formal testing plan will be presented in the next document.

1.12 Acceptance Criteria

The acceptance criteria for CCRS will be defined by the functional requirements inventory, listed previously in the requirements specification. Additionally used will be the non-functional requirements inventory. By definition the functional requirements include the abilities of the system and their ability to be tested. Non-functional requirements define how the system should behave and are not able to be tested. After the completion and testing of CCRS, S.E.E. Solutions will determine which and to what extent functional requirements were fulfilled.

1.13 Design Hints and Guidelines

As S.E.E. Solutions is very early in the development stage, there are little to no hints that can be described at this time. As the development progresses hints will be determined based on client meetings with Dr. Lim.

Appendices

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Appendix B – Sources of Information

Appendix C – Glossary of Terms

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Appendix A – Cross Reference Index

Comprehensive Conference Registration System Context Diagram

Comprehensive Conference Registration System Level 0 Diagram

Comprehensive Conference Registration System 1.0 Configure Level 1 Diagram

Comprehensive Conference Registration System 2.0 Set Up Schedule Level 1 Diagram

Comprehensive Conference Registration System 3.0 Notify Level 1 Diagram

Comprehensive Conference Registration System 4.0 Authenticate Level 1 Diagram

Comprehensive Conference Registration System 5.0 Submit Level 1 Diagram

Comprehensive Conference Registration System 6.0 Register Level 1 Diagram

Comprehensive Conference Registration System 7.0 Review Level 1 Diagram

Comprehensive Conference Registration System 2.1 Input Schedule Information Level 2 Diagram

Comprehensive Conference Registration System 7.1 Input Review Information Level 2 Diagram

Appendix B – Sources of Information

The information in this Requirements Specification has been obtained through various resources. Our main resource for information is through client meetings with our client, Dr. Lim. In addition to client meetings another source of our information is through Requirements Specification documents from previous years. These were the two main sources of information. Other minor sources include lectures from Dr. Lederman in class and through different internet resources.

Appendix C – Glossary of Terms

CCRS – Comprehensive Conference Registration System : The name of the project S.E.E. Solutions is creating

CCSCNE – Consortium for Computing Sciences in Colleges – Northeastern Region: The name of the conference CCRS is being made for

MySQL: open source relational database management system

UML – Unified Modeling Language: general purpose language to model object-oriented designs

Appendix D – Timeline (Gantt Chart)

ID	Task Name	Duration	Start	Finish
1	Team Established	0 days	Fri 9/7/12	Fri 9/7/12
2	Software Plan	9 days	Fri 9/7/12	Thu 9/20/12
3	Software Plan Due	0 days	Thu 9/20/12	Thu 9/20/12
4	Software Plan Presentation	0 days	Fri 9/21/12	Fri 9/21/12
5	Requirement Specifications	27 days	Fri 9/21/12	Fri 10/26/12
6	Requirement Documents Due	0 days	Fri 10/26/12	Fri 10/26/12
7	Requirement Presentation	0 days	Mon 10/29/12	Mon 10/29/12
8	Preliminary Design	30 days	Mon 10/29/12	Fri 12/7/12
9	Preliminary Design Due	0 days	Fri 12/7/12	Fri 12/7/12
10	Preliminary Presentation	0 days	Mon 12/10/12	Mon 12/10/12
11	Team Meeting	65 days	Wed 9/12/12	Fri 12/7/12
38	Client Meeting	61 days	Mon 9/17/12	Thu 12/6/12