# Graduate School Project

Team Strawberry
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# Plan: Oct 24th - Oct 31st

- Database ERD - Version 2 (cont.)
- Manage Users & Projects Pages
  - Modify/Delete Users (cont.)
- System Settings Page
  - Category Settings
- Scores Page
- LDAP
- Rally! - Transfer backlog, test plans (cont.)

# Oct 15th - Oct 22nd

Priority:

- Database ERD - Version 2 (Next Iteration)
- Manage Users & Projects Pages
  - Modify/Delete Users (Continue)
- System Settings Page - Layout, Functionality
  - General Settings
  - Category Settings (Next Iteration)
- Rally! - Transfer backlog, test plan (Continue)
- Learning Cucumber

Time Permits:

- Scores Page - Layout (Next iteration)

# Oct 8th - Oct 15th

- Manage Users
  - View Users
  - Add Users
  - Search & Clear
- Registration Field Requirements
  - Password - Six characters, alphanumeric
  - Project Description - 250 word maximum
- Database ERD
  - Version 1 complete - Not satisfactory. Continue in next iteration.
- Test Plan

# Oct 1st - Oct 8th

- Continue migration to CodeIgniter framework - Done
- Database ERD - Moved to next iteration
- Complete Layouts of:
  - Registration - Done
  - Sign In - Done
  - Projects-Participants - Need Reports, Pagination
  - Projects-Judges - Need Reports, Pagination

# Sept 24th - Oct 1st

- Confirmed LDAP requirements will be postponed until later in the project
  - Updated registration flow chart
- Decided to use PHP with CodeIgniter framework
- Researched Bootstrap, PHP, CodeIgniter
- Converted Home and Projects pages from HTML/CSS to PHP
- Started sign in validation, adding users, session ids, and populating tables with database records
- Linux server environment

# Scope

This project will produce a web application to manage student registration, judge assignment, score tabulation and award assignment for the Wayne State University Graduate School's yearly Graduate Exhibition in this and future years.

# Functional Requirements: User Registration

1 - All users must have a unique username and secret password.

    1.1 - WSU login credentials (LDAP)

2 - The functionality exposed to each user should be restricted by the role they play in the exhibition.

3 - Allow grad students to register themselves and their projects as participants via the world wide web.

    3.1 - A date after which registration is closed may be specified by an administrative user.

# Functional Requirements: Administrative Privileges

4 - Allow administrative users and their delegates to register judges for the exhibition.

5 - Administrative users should be able to add, view and modify all types of user accounts.

6 - Allow for the entry, modification and viewing of project categories

- 6.1 - Each category should have a default set of sub score categories that are editable by administrator.
- 6.2 - Each category should have a default set of awards and the formula by which they are awarded which may be edited by an administrative user.

# Functional Requirements: Assigning Judges

7 - Assign judges to evaluate projects.

7.1 - The number of judges per project may be specified by an administrative user.

7.2 - The number of projects per judge may be specified by an administrative user.

7.3 - Refrain from assigning judges to projects for which they may have a conflict of interest.

7.4 - The following reports should be available:

7.4.1 - Judges grouped by their assigned projects.

7.4.2 - Projects grouped by their assigned judges.

7.4.3 - Scorecards with the judge and project details

# Functional Requirements: Inputting & Summarizing Scores

8 - Input evaluation scores.

8.1 - Task may be performed by judges, administrative users or score entry users.

8.2 - Judges can only enter scores for the projects they have evaluated.

# Functional Requirements: Inputting & Summarizing Scores

9 - Summarize the scores of all participants.

9.1 - The following reports should be available:

9.1.1 - Scores grouped by category and sorted by any field.

9.1.2 - The top n participants in any category.

9.1.3 - The breakdown of all participants' scores.

9.2 - Administrative, score entry and judge users should be able to search by name for participants to see their score breakdown.

# Non-Functional Requirements: Security

10 - All reasonable measure to prevent a user from modifying, viewing or deleting a record that they do not have permission to modify, view or delete should be taken.

- 10.1- All databases secured by username and password.
- 10.2 - Transmission of information between the client and server should not be in the clear.

# Non-Functional Requirements: Documentation

11 - All functionality implemented in the GERSP system must be documented. (i.e., user action to activate the feature and expected output should be defined.)

12 - All database fields must have some meta data associated with them giving precise descriptions and examples of the data they should contain.

13 - All Java code should be documented using Javadoc comments.

# Non-Functional Requirements: Performance

14 - Each user of the system should interact primarily with a single screen to perform their task to minimize the number of clicks and therefore the amount of time interacting with the electronic system.

15 - Score summary and award assignment must occur within 10 minutes after activation by the user.

16 - Judge assignment must occur within 10 minutes after activation by the user.

# Non-Functional Requirements: Reliability

17 - A daily backup of system data should be scheduled.

- 17.1 - Each backup must occur in two places, only one of which may be located physically near to the server.

18 - Manually triggered backups should be available to administrative users.

- 18.1 - This backup may be saved to the media of the user's choice. (e.g., a flash drive or a networked drive.) or to the default backup locations.

# Non-Functional Requirements: Availability

19 - Once opened for registration, the GERSP system servers should remain online and available 24/7 to allow students and judges to register.

20 - On the day of the exhibition, the system may be restricted to only essential users to ensure a timely response.

# Team Organization

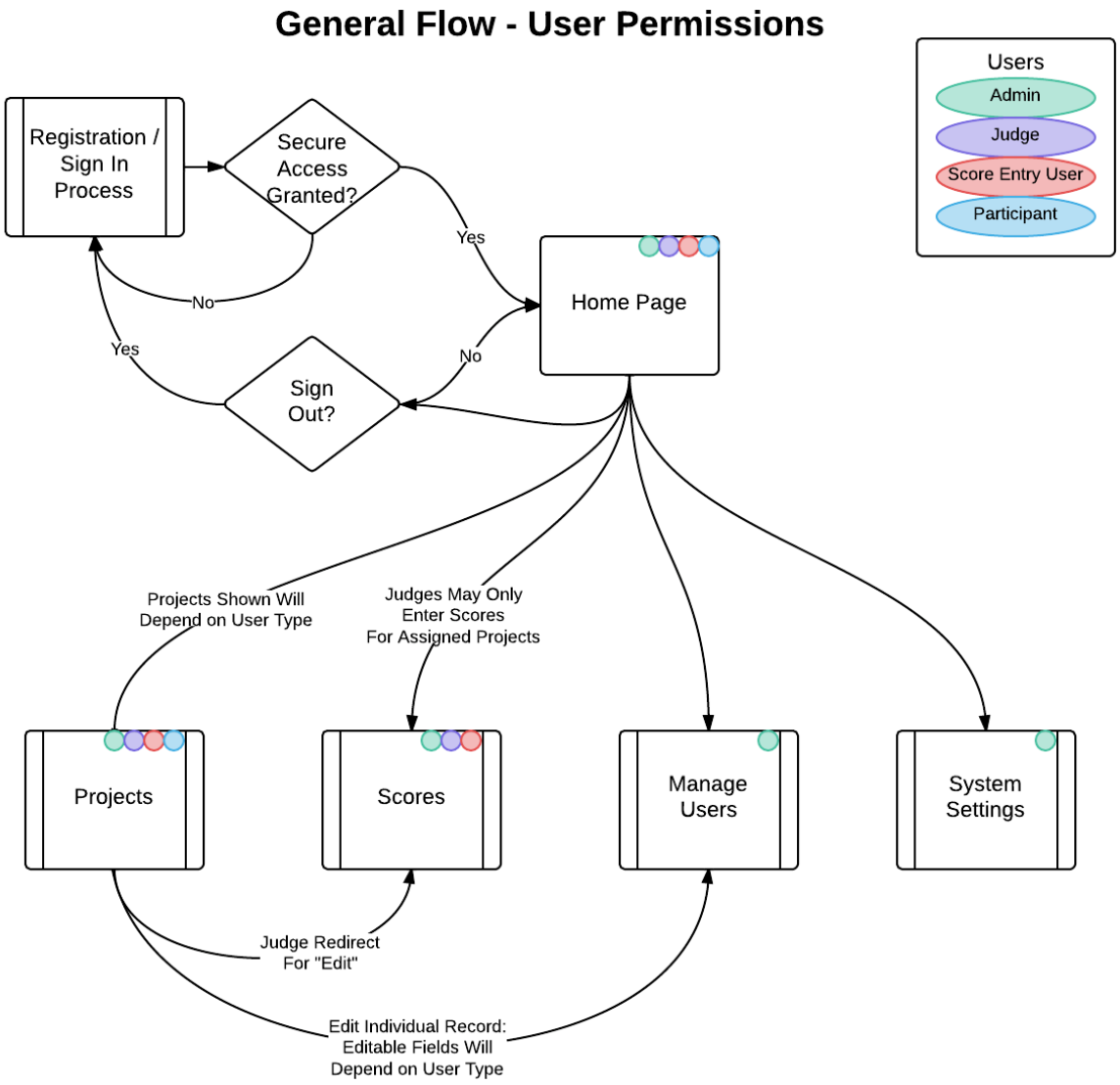
- Team Leaders
  - Amanda, Plamen
- Development
  - Amanda, Plamen
- Testing
  - Vishi, Dhaval
- Documentation
  - Vishi, Dhaval

# Architecture & Technology Choices

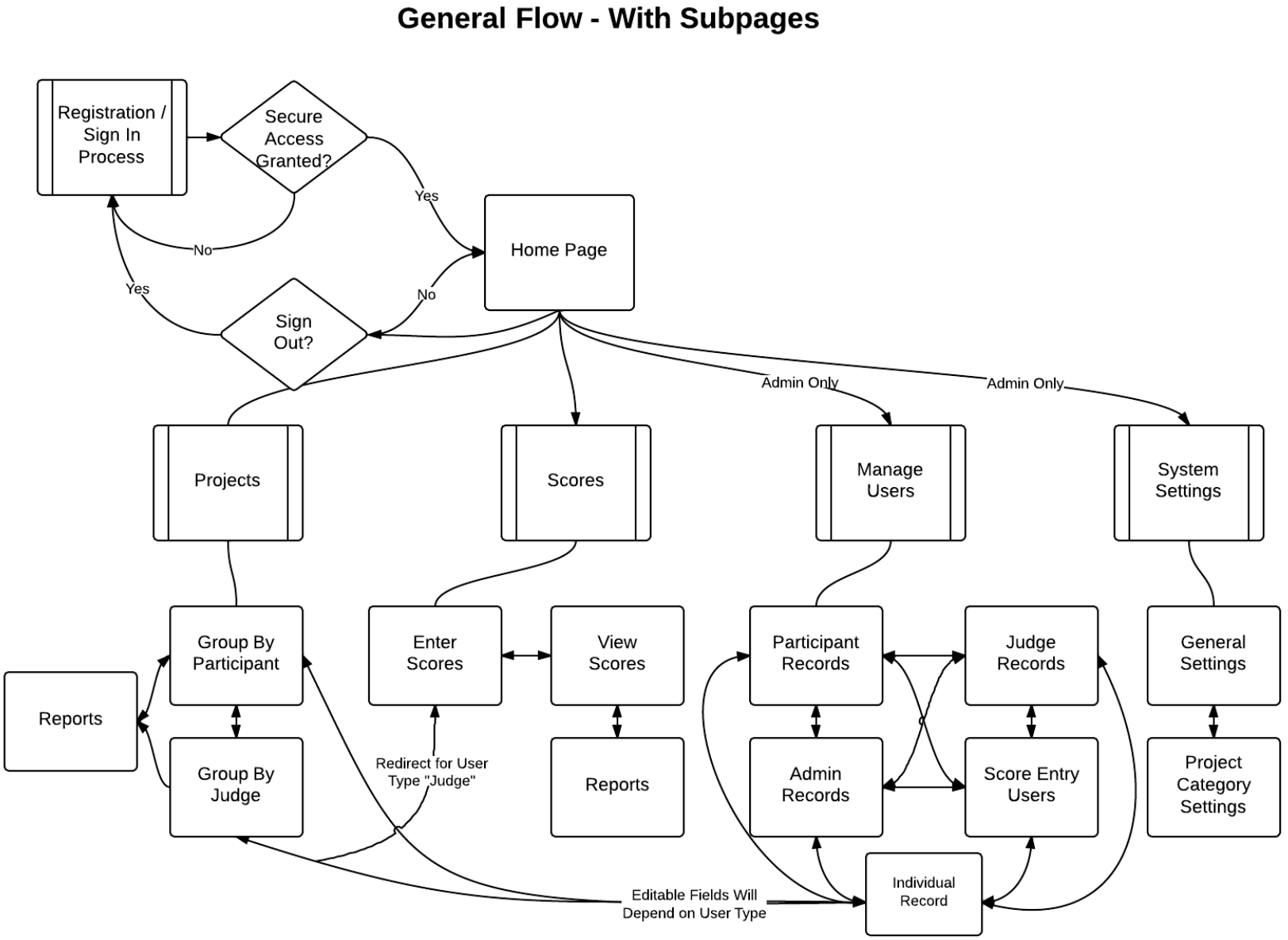
- Presentation Tier
  - HTML/CSS - WSU CSS attributes
  - Bootstrap (Responsive Design)
  - Javascript
- Logic Tier
  - PHP - CodeIgniter: PHP Open Source Framework
  - ~~JSP~~
- Data Tier
  - MySQL
  - WSU LDAP
  - Apache - Tomcat Server

# Analysis & Modeling

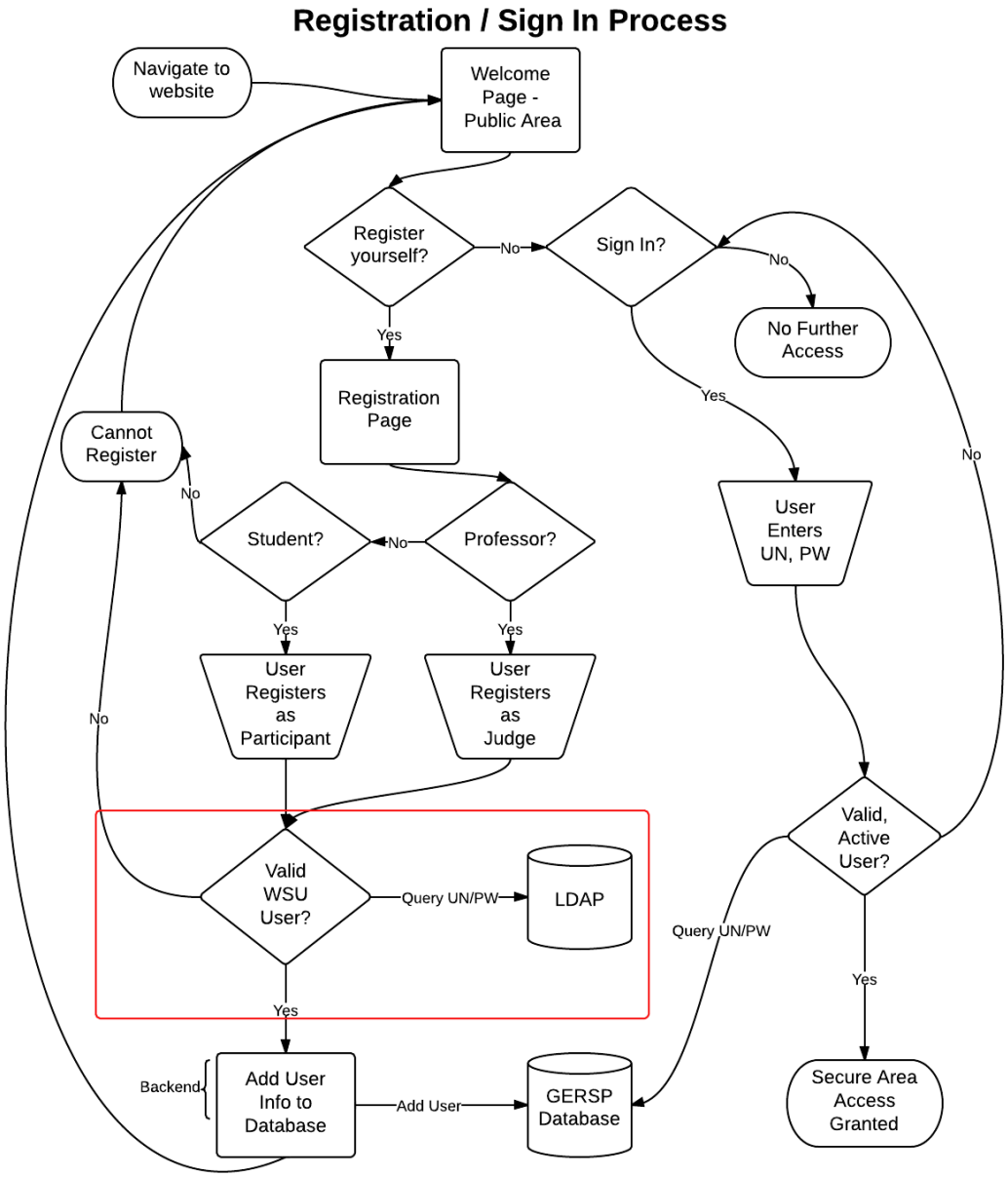
- High Level Flow - Main Pages & User Permissions
- High Level Flow - Main & Sub Pages
- Registration & Sign In Flow
- Use Case & Flow - Main Pages
  - Projects
  - Scores
  - Manage Users
  - System Settings
- Website Mockups
- Database ERD - In progress



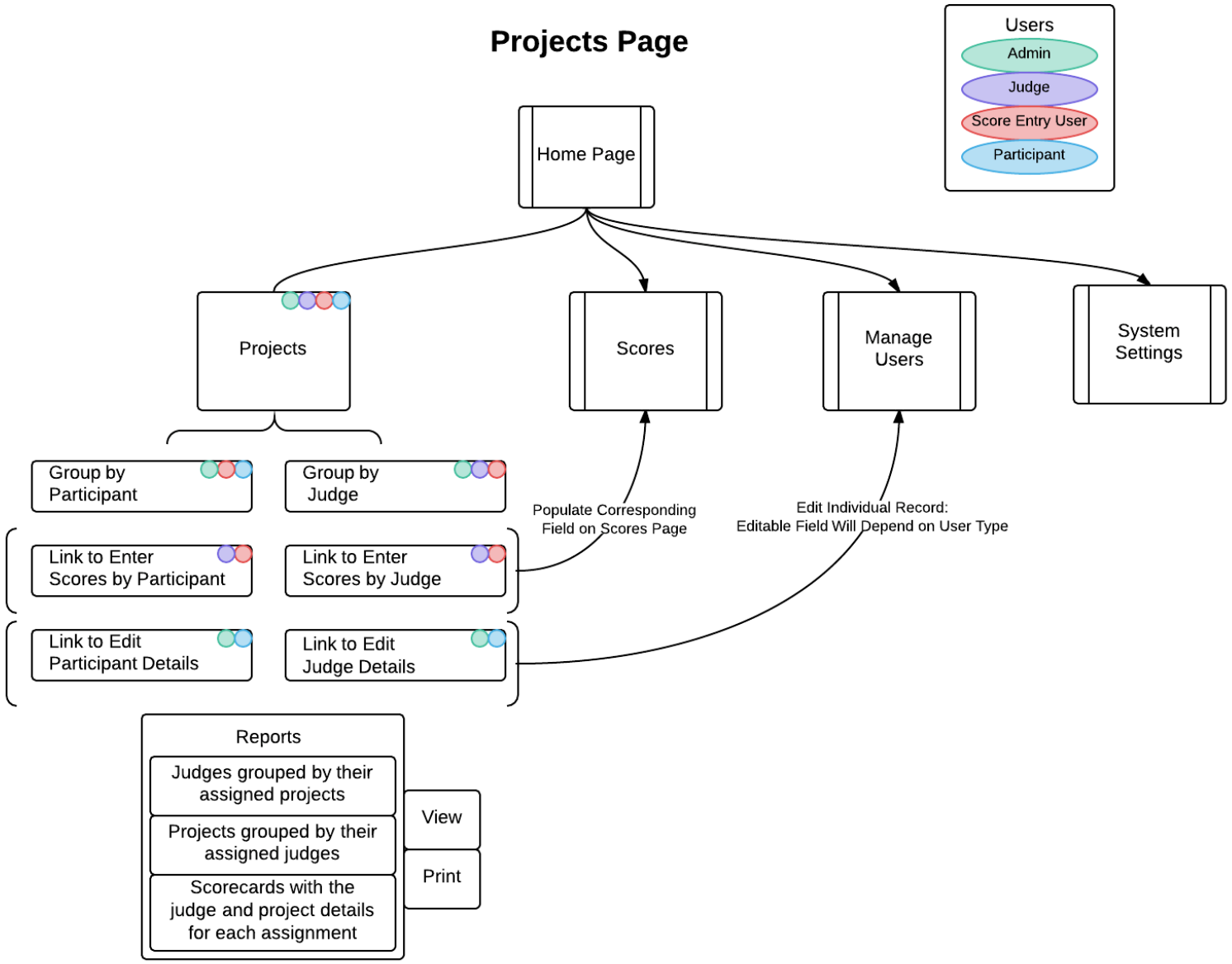

# High Level Flow: Main Pages with User Permissions



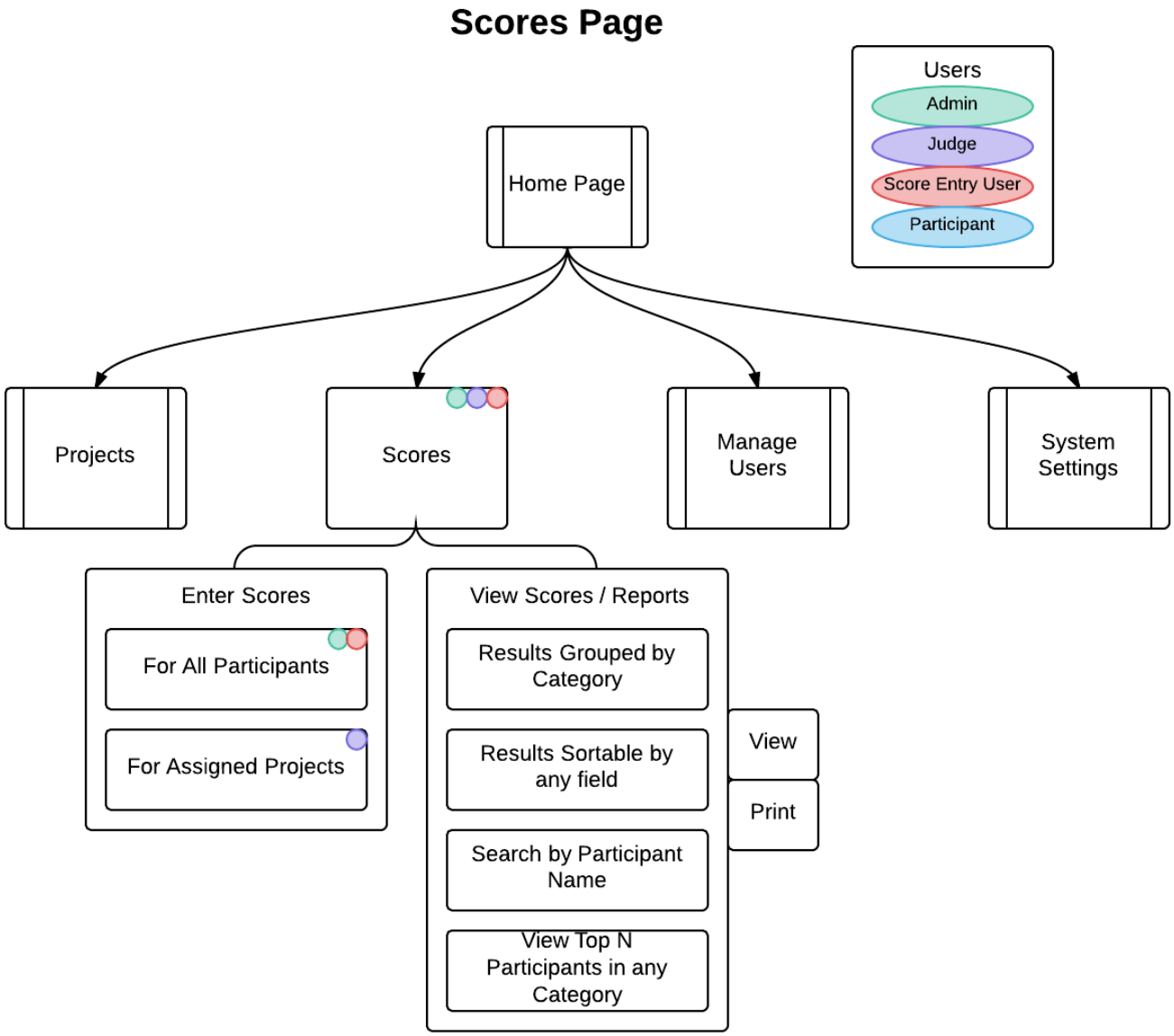

# High Level Flow: Main & Sub Pages



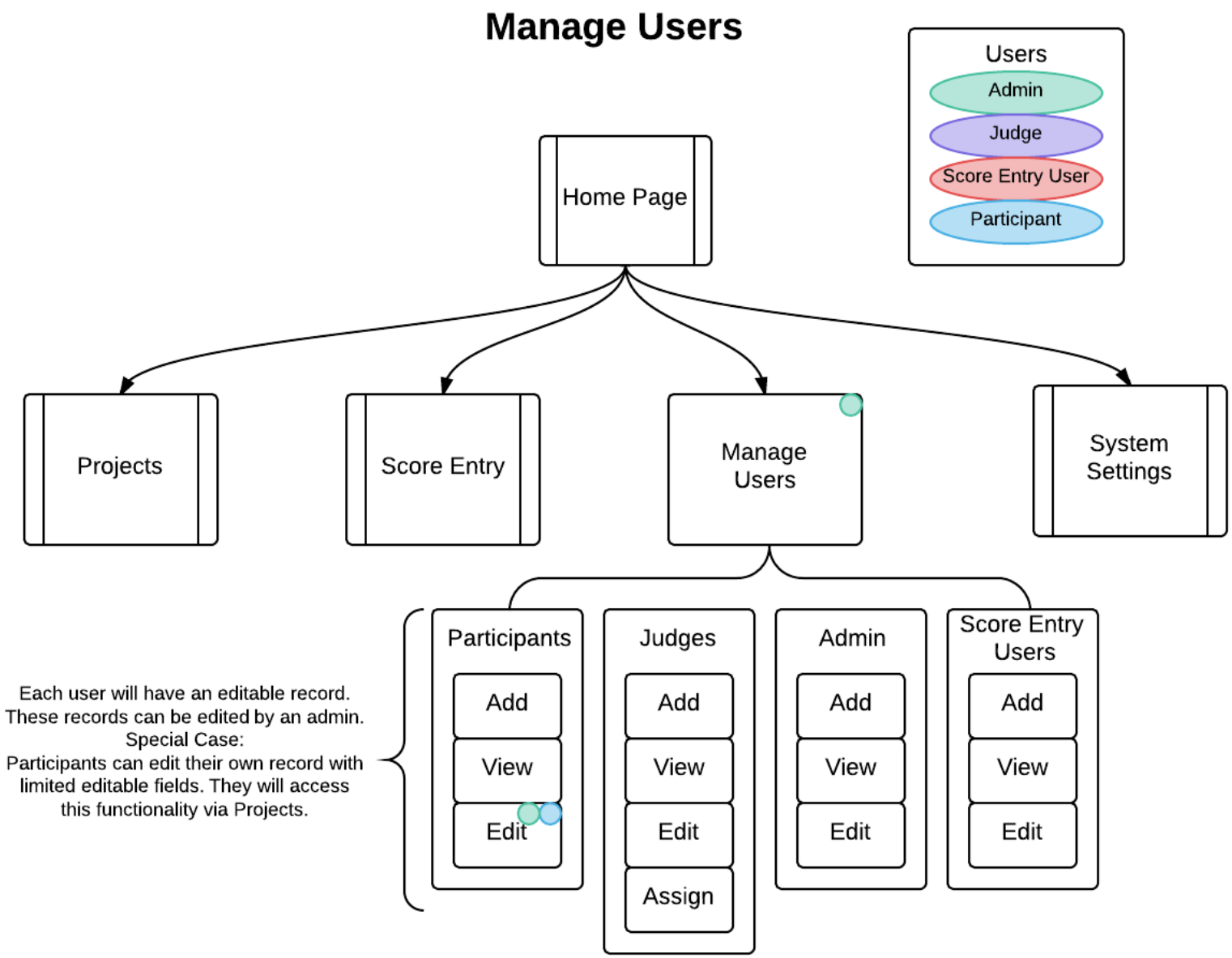

# Registration & Sign In Flow



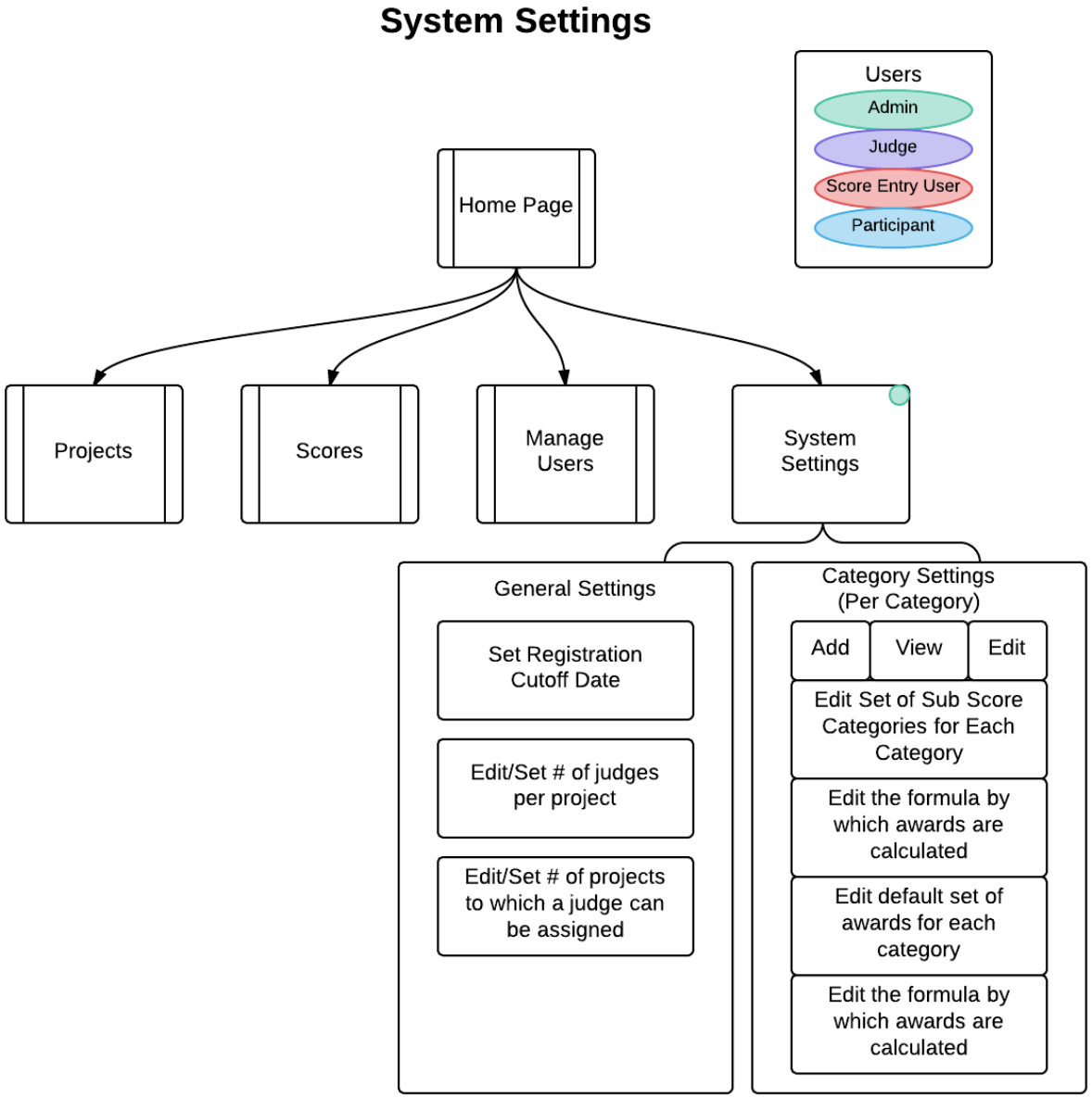

# Projects Page


Scores Page
Users
Admin
Judge
Score Entry User
Participant
Home Page
Projects
Scores
Manage Users
System Settings
Enter Scores
For All Participants
For Assigned Projects
View Scores / Reports
Results Grouped by Category
Results Sortable by any field
Search by Participant Name
View Top N Participants in any Category
View
Print

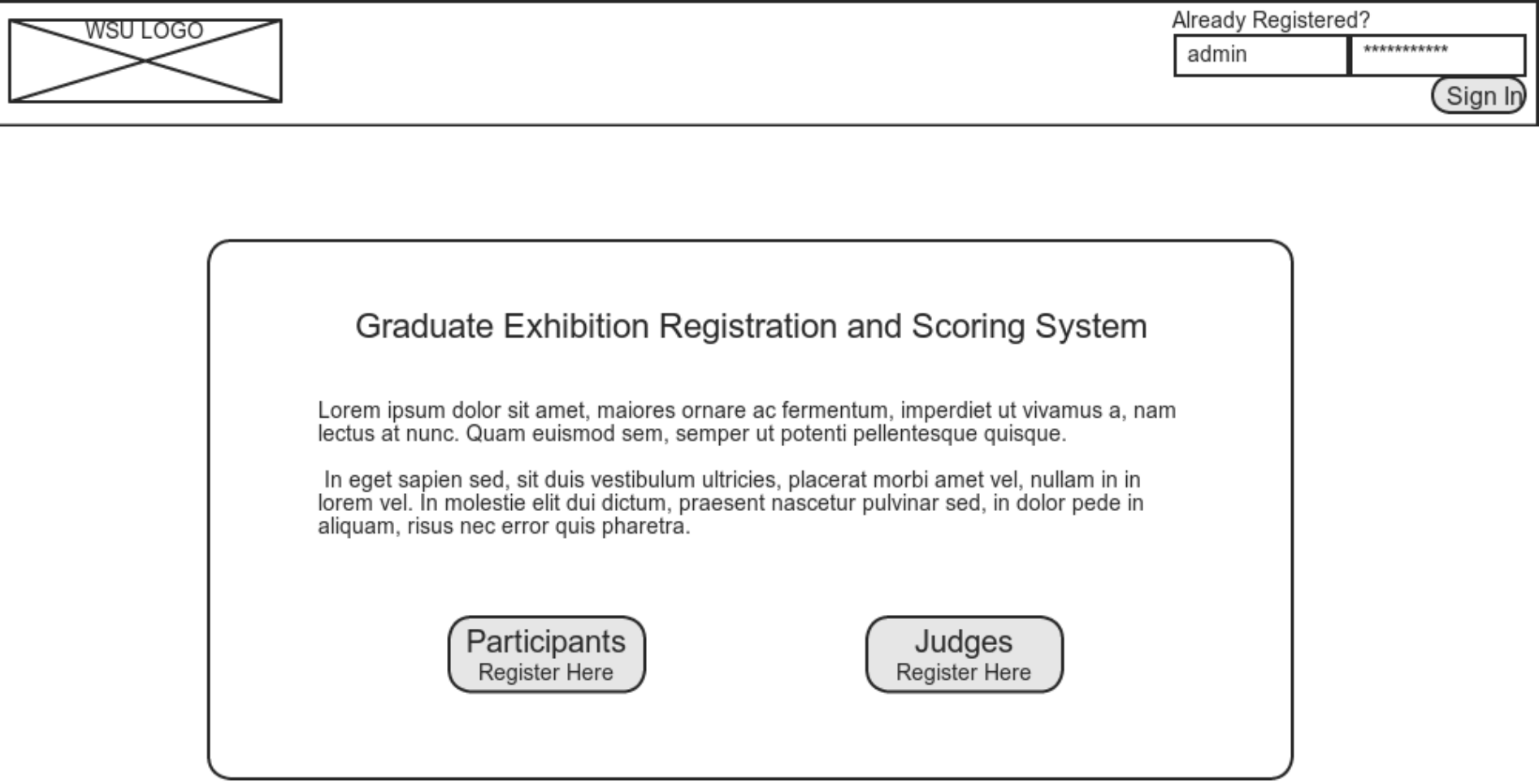
# Scores Page



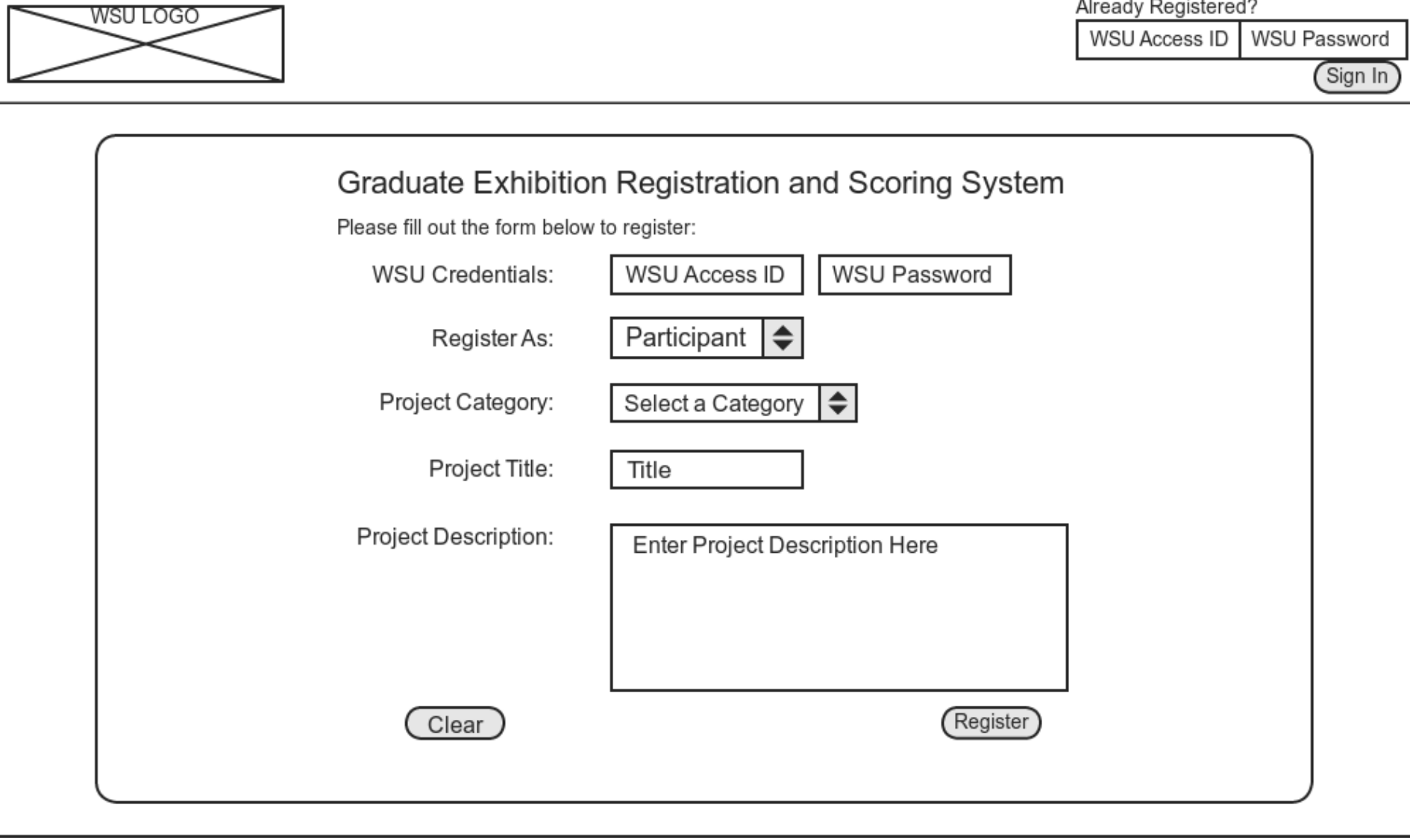

# Manage Users Page



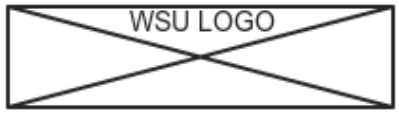

# System Settings Page




# Mockups: Home Page




# Mockups: Participant Registration




Graduate Exhibition Registration and Scoring System

Sign Out

Projects | Scores | Manage Users | System Settings

Search by Last Name

Participants | Judges

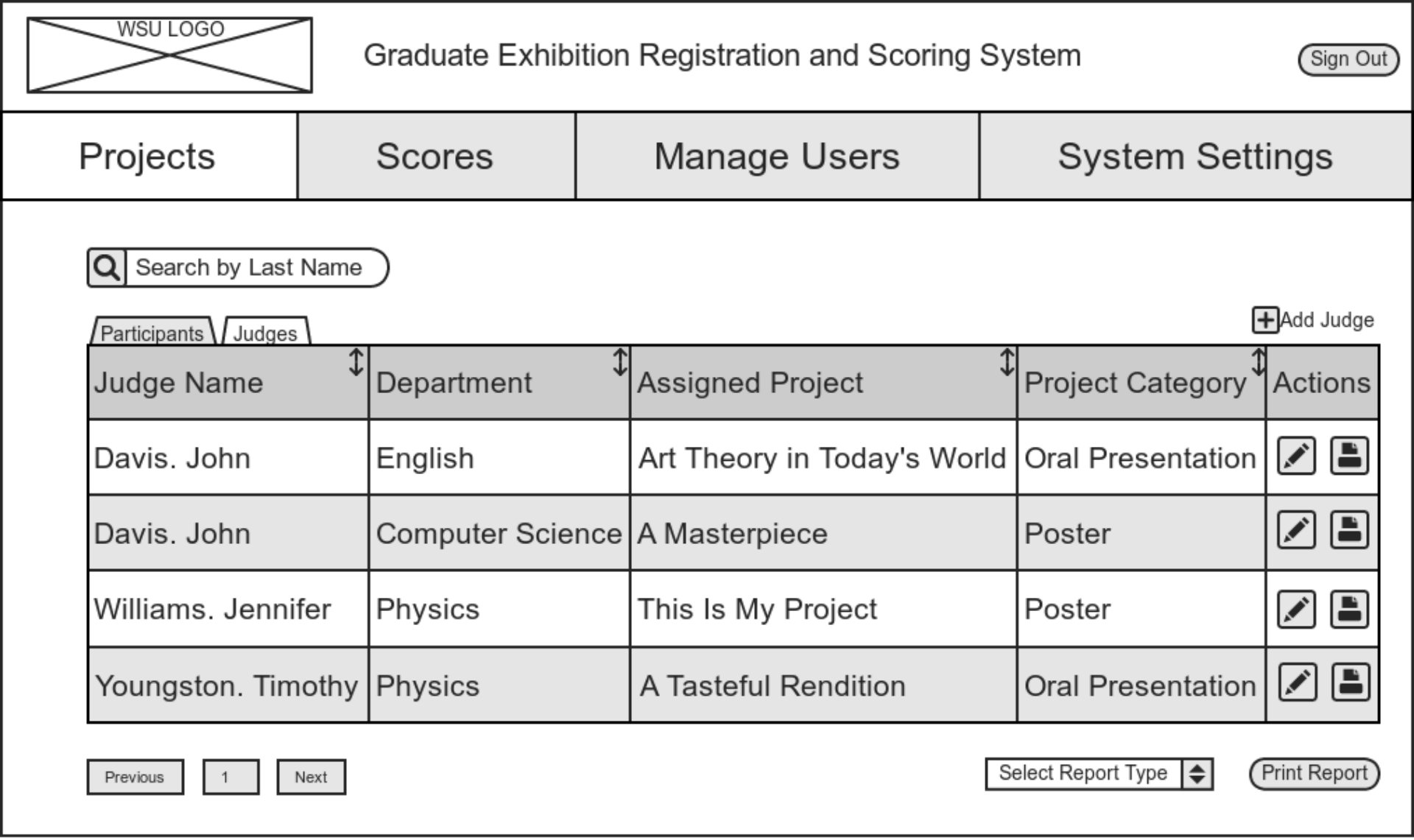
Add Participant

| Participant Name | Project Title | Project Category | Judges Assigned | Actions |
|---|---|---|---|---|
| Bettis. Joe | Art Theory in Today's World | Oral Presentation | 2/3 | |
| Jackson. Tom | A Masterpiece | Poster | 0/3 | |
| Thompson. Nicole | This Is My Project | Poster | 3/3 | |
| Zhinger. Allen | A Tasteful Rendition | Oral Presentation | 1/3 | |

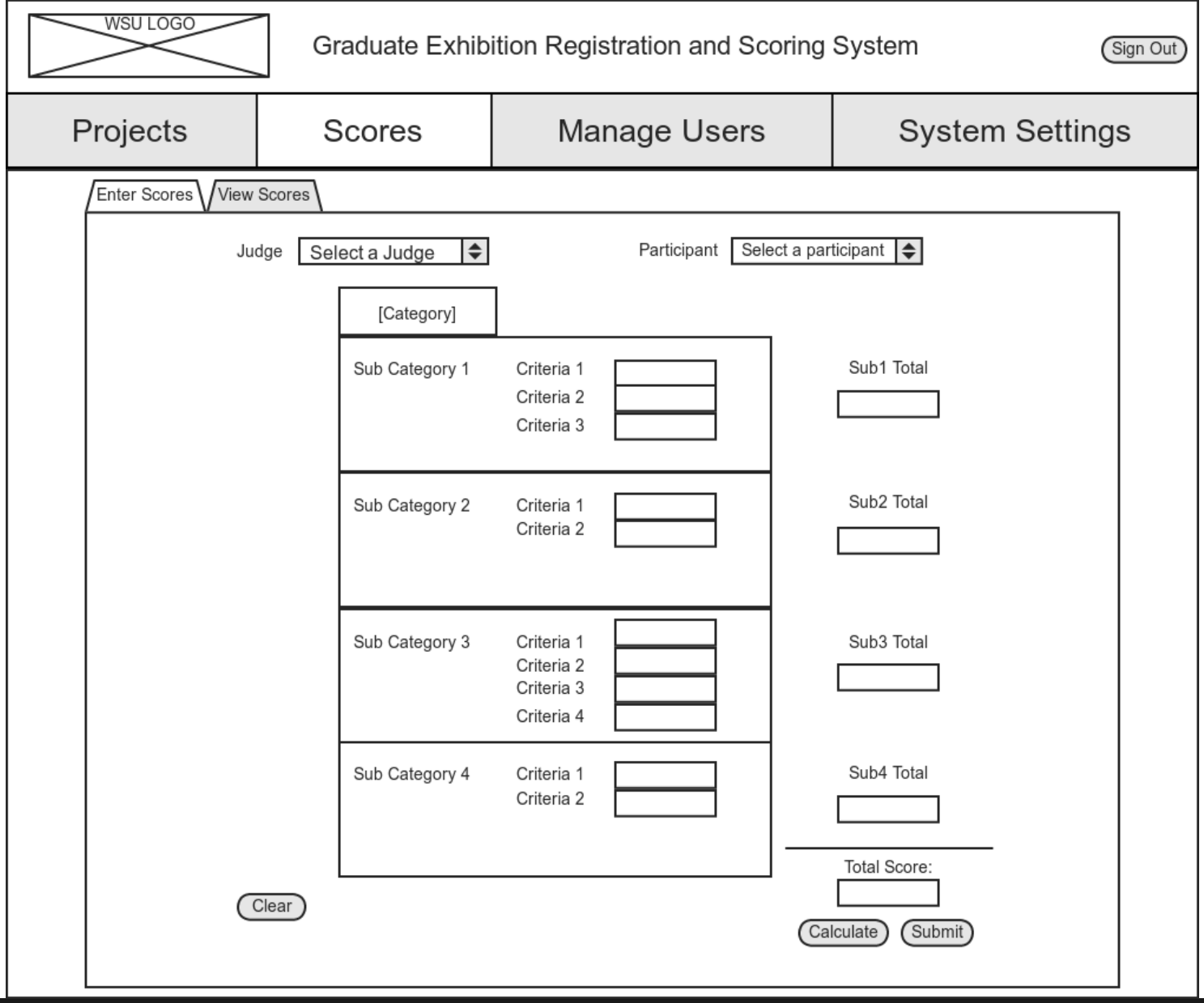
Previous | 1 | Next

Select Report Type | Print Report

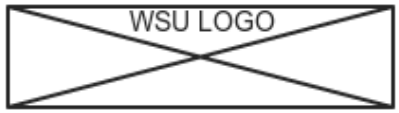
# Mockups: Project Page - Grouped by Participants




# Mockups: Projects Page - Grouped by Judges




# Mockups: Scores Page - Enter Scores




Graduate Exhibition Registration and Scoring System

Sign Out

Projects | Scores | Manage Users | System Settings

Search by Last Name

Enter Scores | View Scores

Select a Category: All

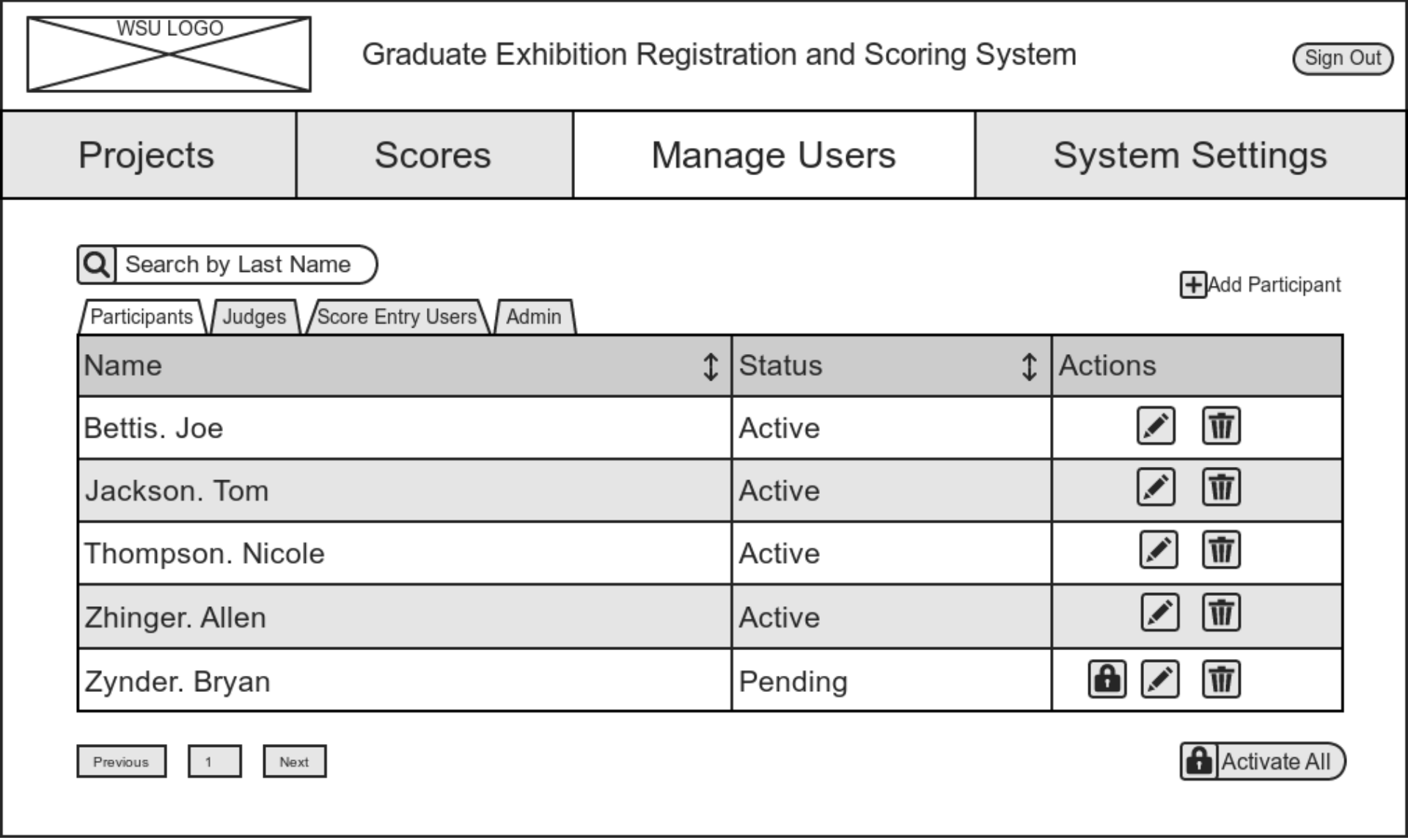
Entries Shown: ##

| Participant Name | Project Title | Project Category | Total Score |
|---|---|---|---|
| Bettis. Joe | Art Theory in Today's World | Oral Presentation | 240/300 ⊟ |
| Score Breakdown: | Content: 65/100 | Style: 75/100 | Length: 100/100 |
| Jackson. Tom | A Masterpiece | Poster | 235/300 ⊞ |
| Thompson. Nicole | This Is My Project | Poster | 189/300 ⊞ |
| Zhinger. Allen | A Tasteful Rendition | Oral Presentation | 150/300 ⊞ |

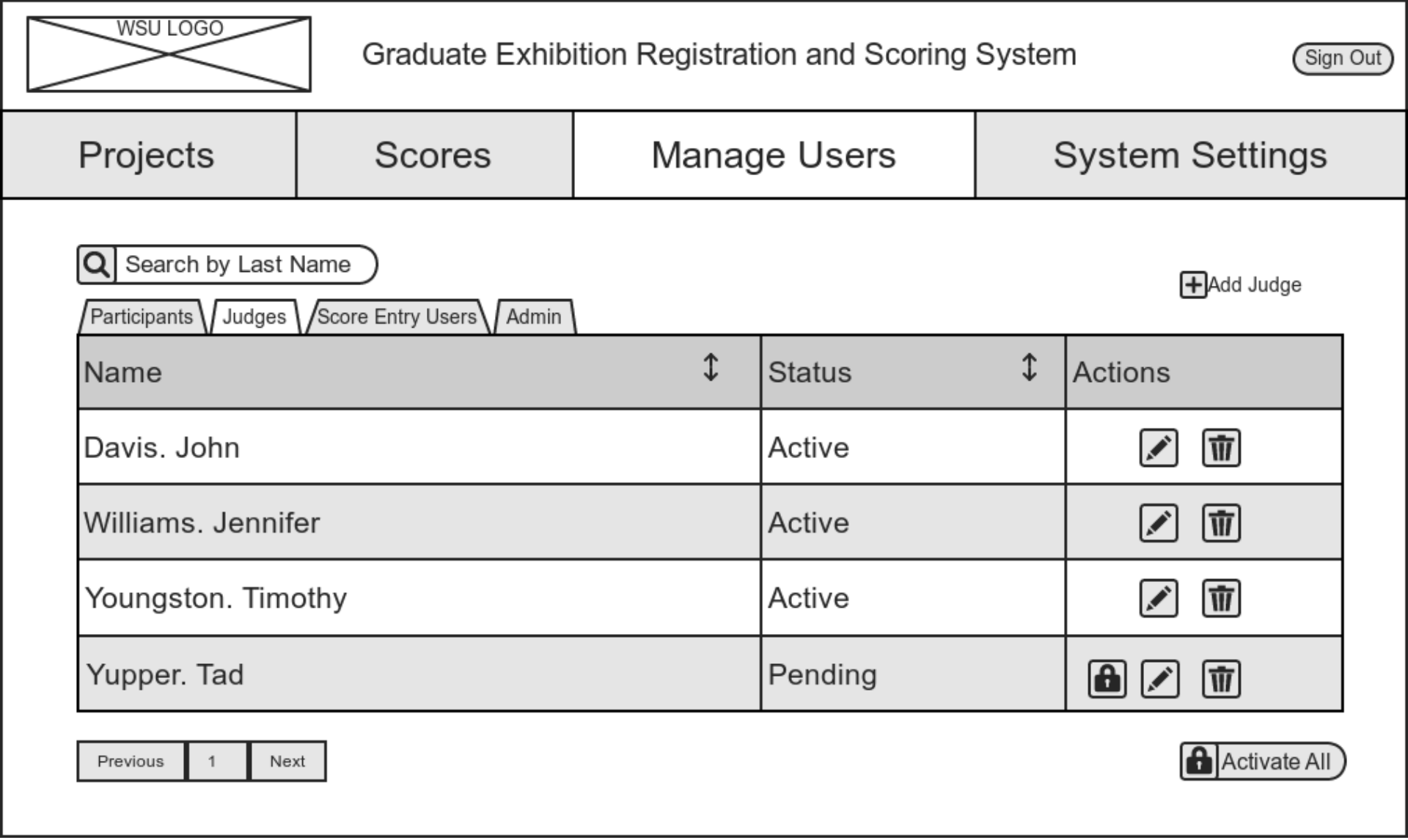
Previous | 1 | Next

Select Report Type | Print Report

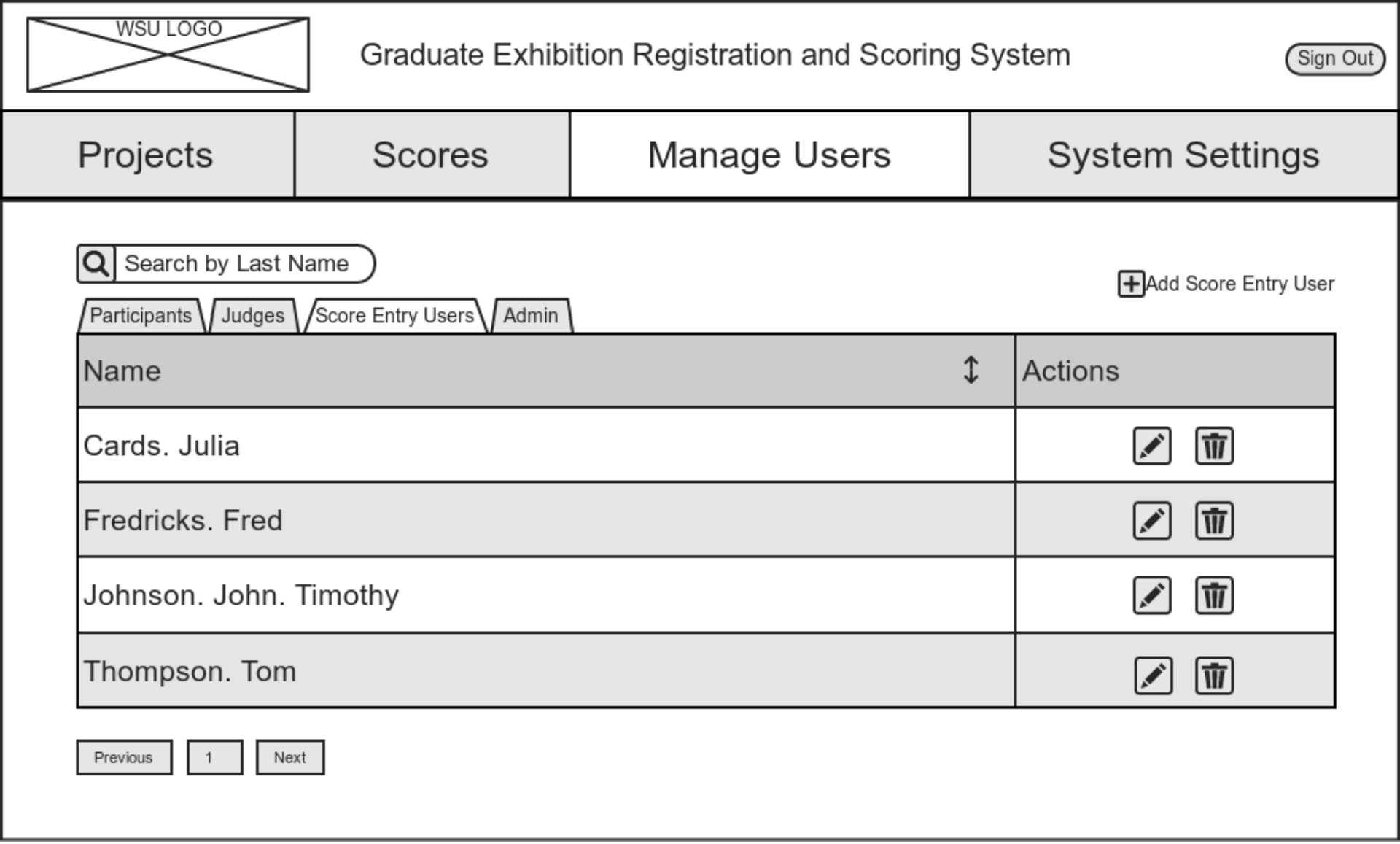
# Mockups: Scores Page - View Scores



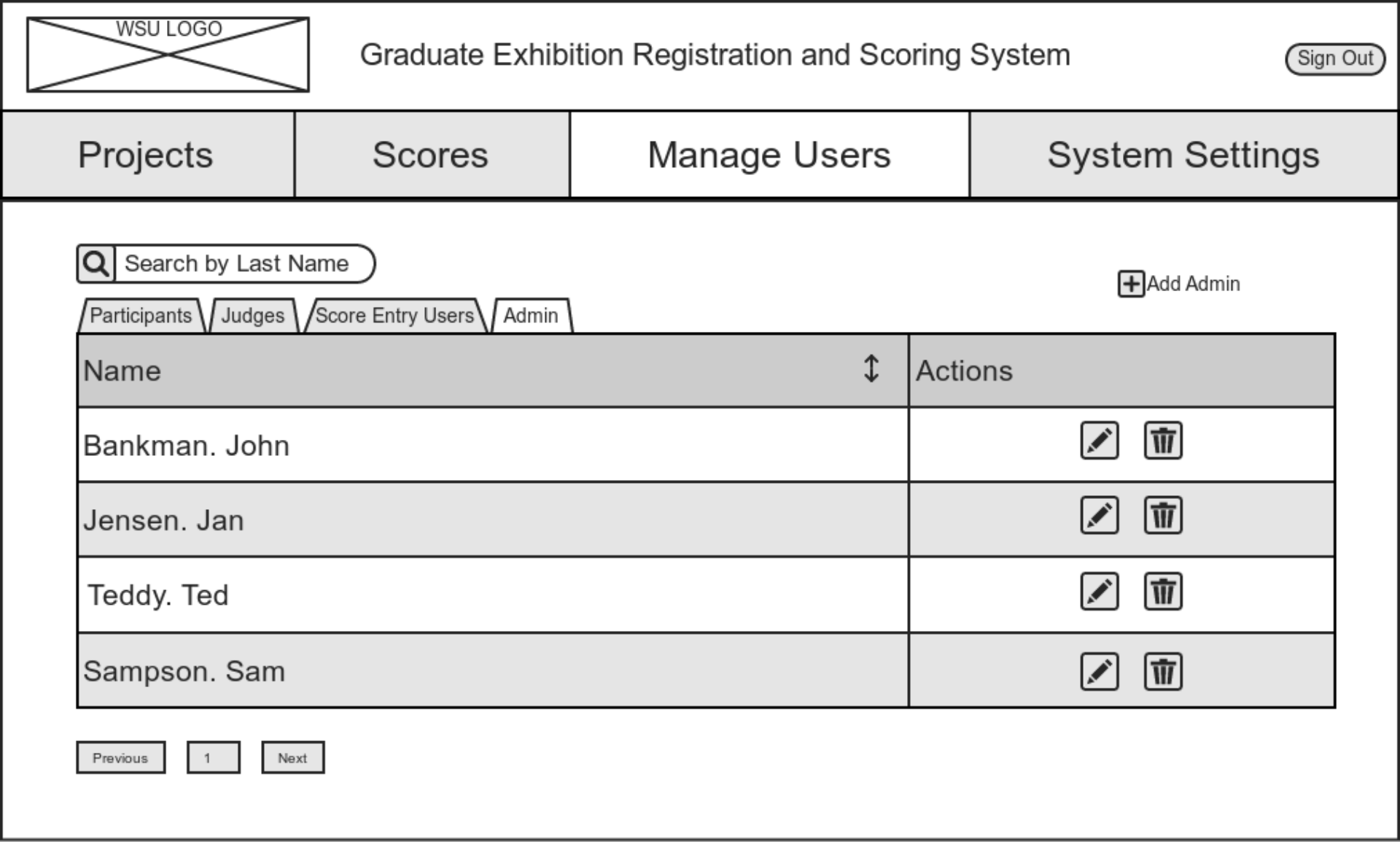

# Mockups: Manage Users Page - Participants



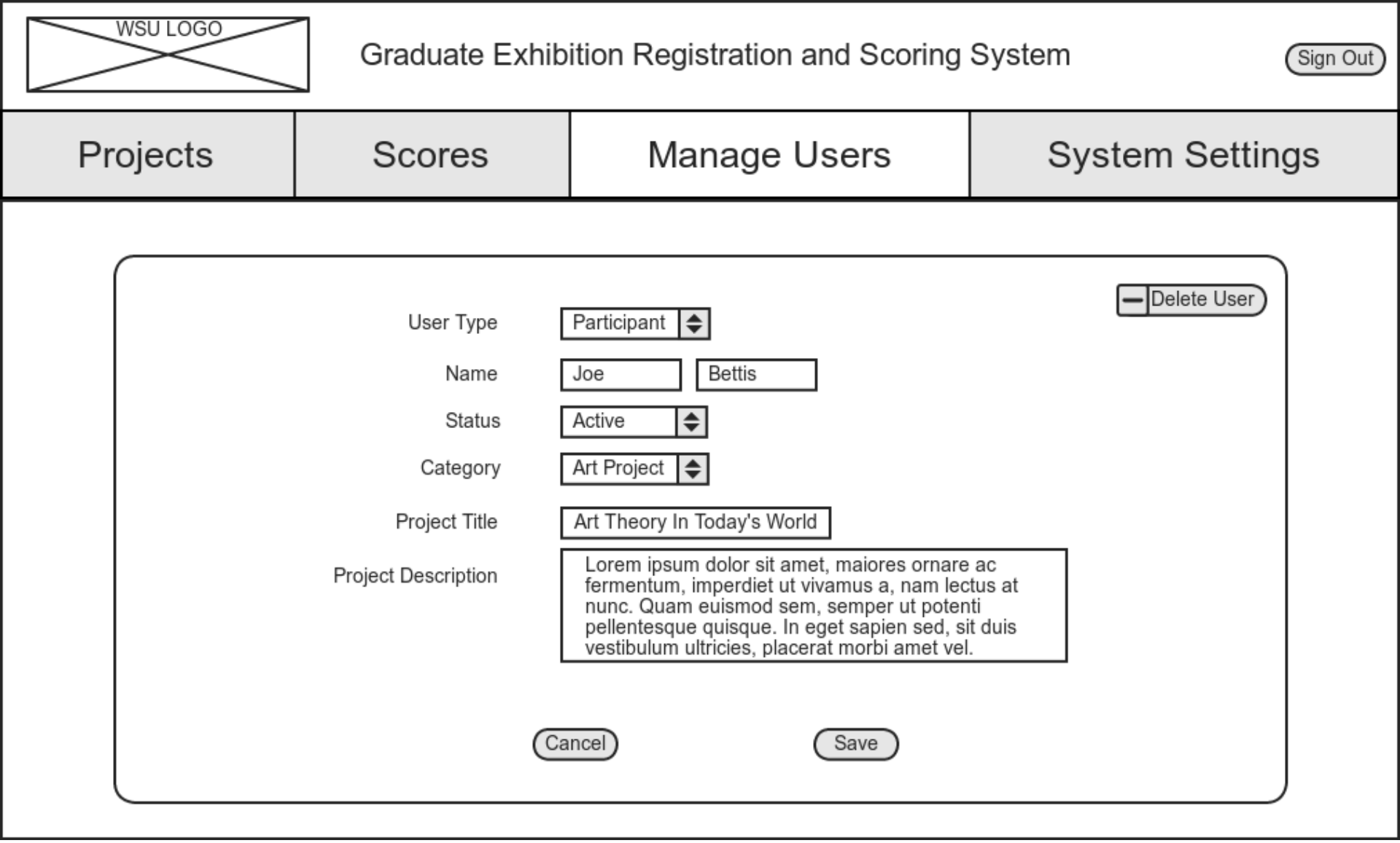

# Mockups: Manage Users Page - Judges



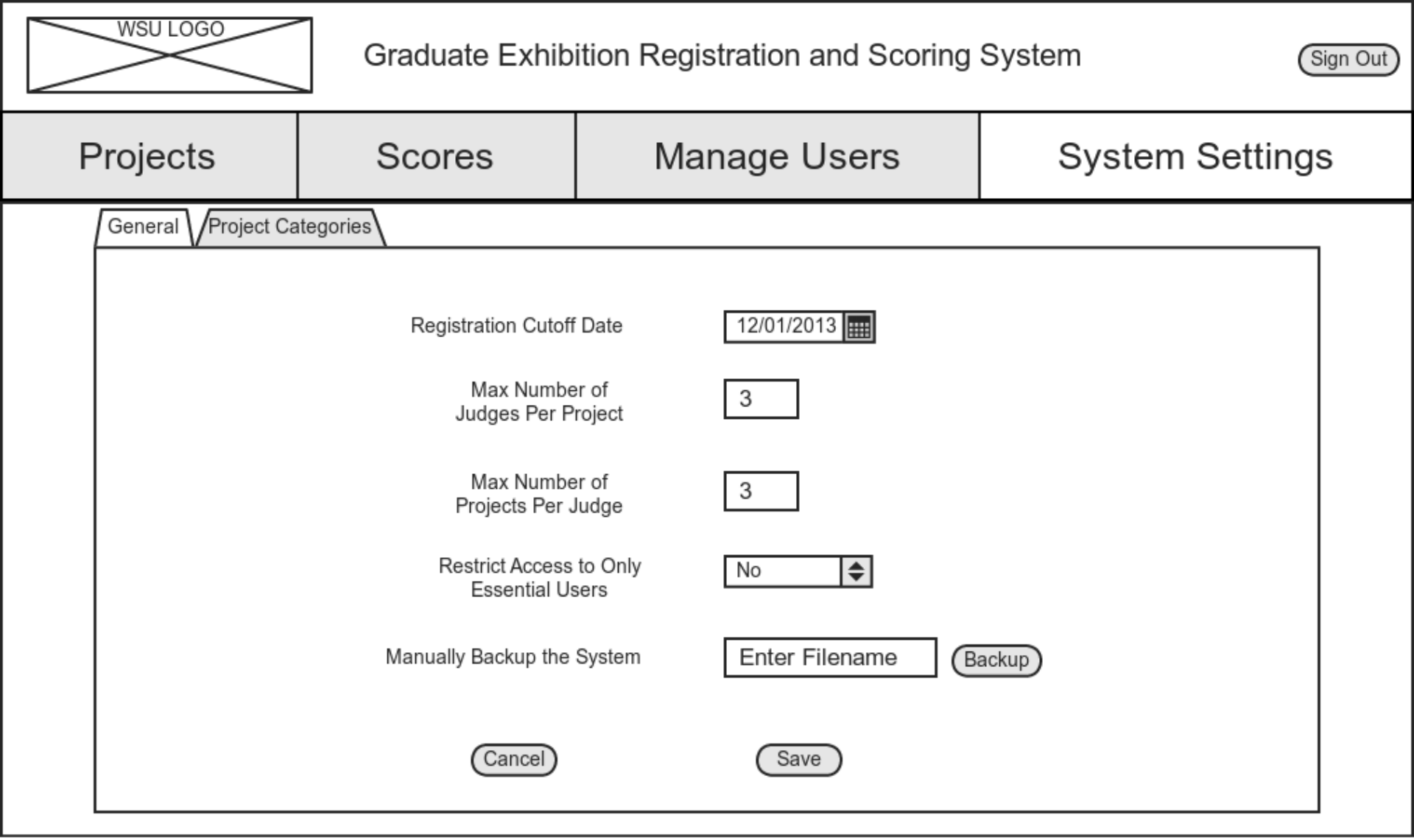

# Mockups: Manage Users Page - Score Entry Users



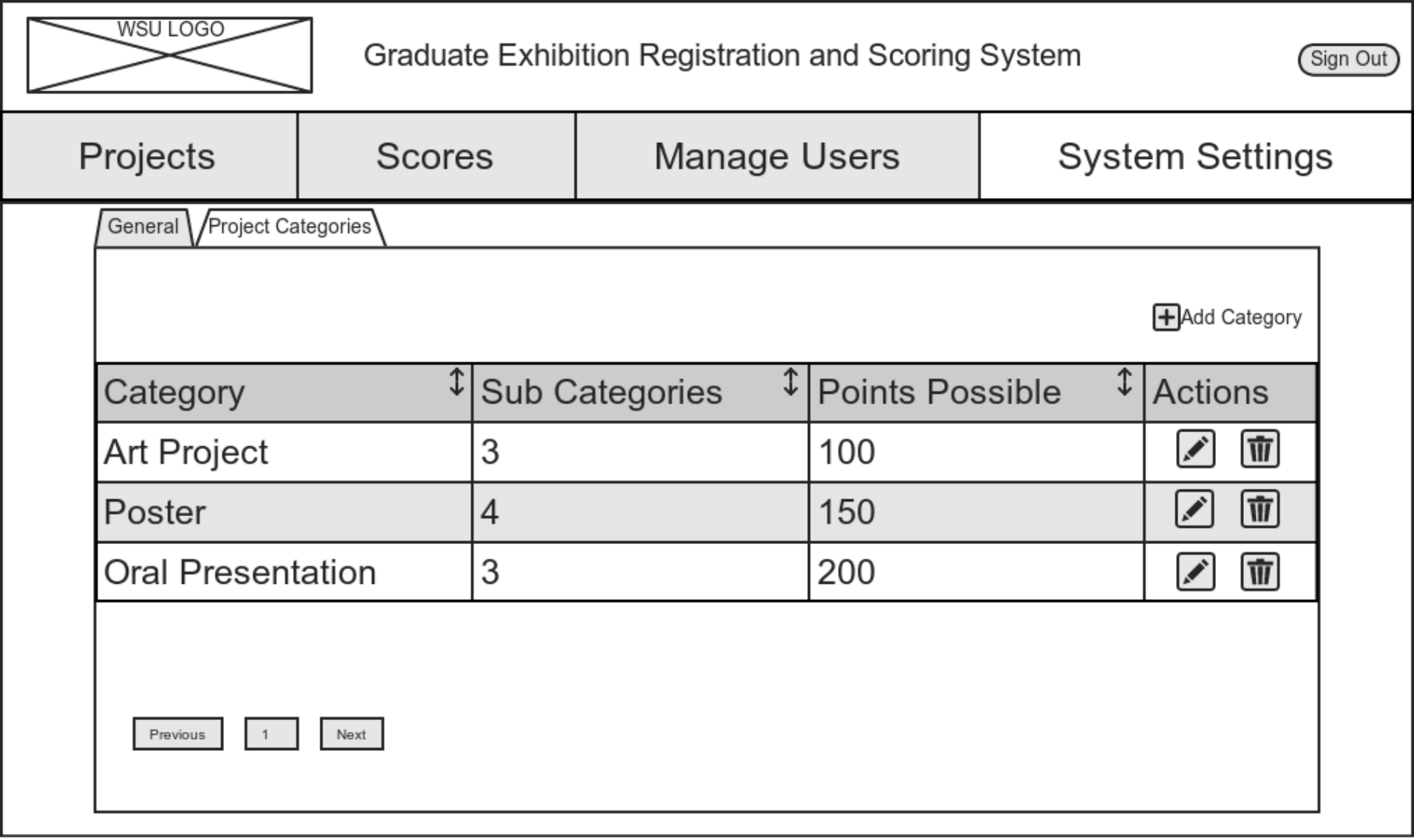

# Mockups: Manage Users Page - Admin



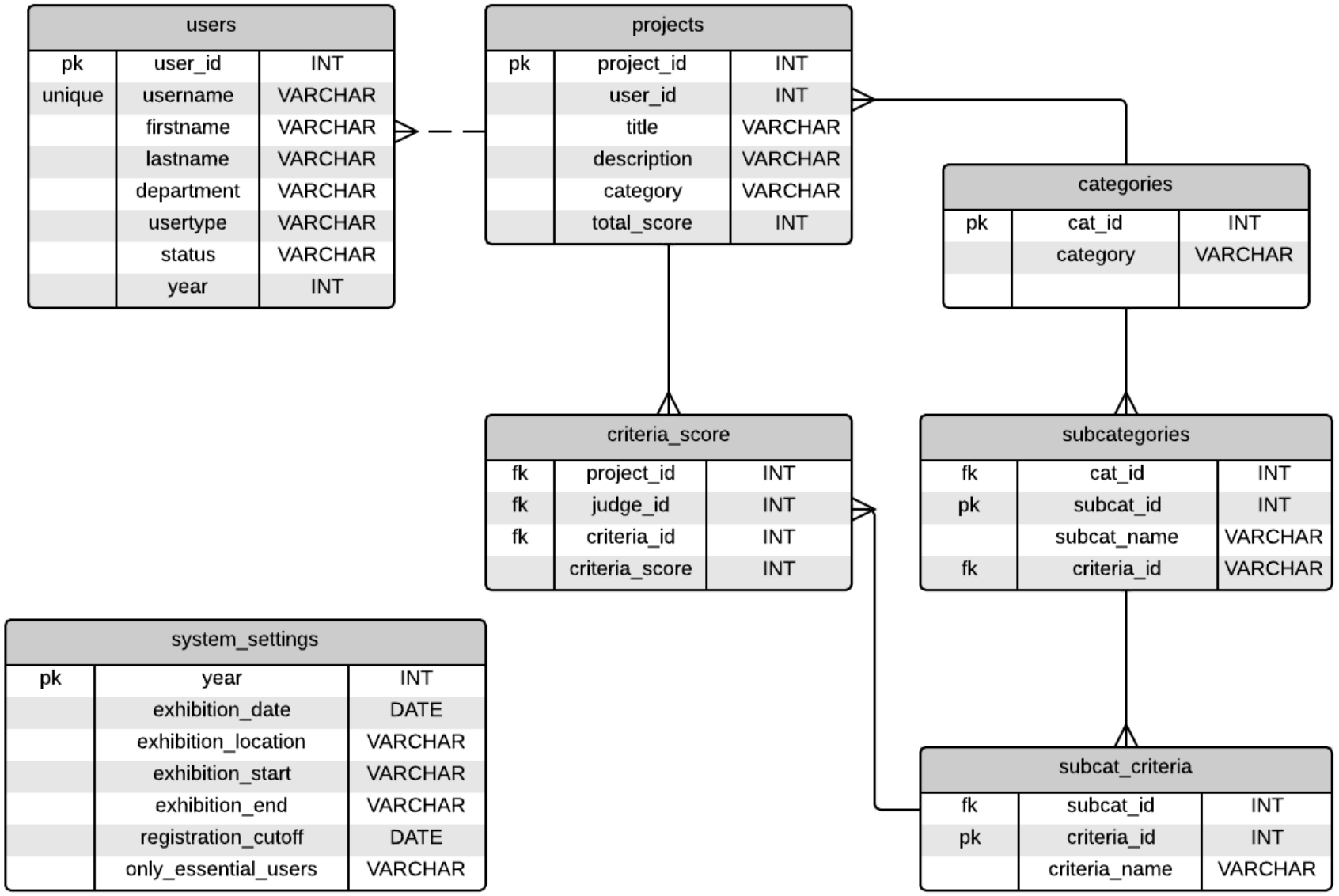

# Mockups: Manage Users Page - Edit Individual Record




# Mockups: System Settings Page - General Settings




# Mockups: System Settings - Category Settings




# Database ERD - Work in Progress