PAST&E Project: Tennis Case

I. **Introduction:**
   1. **Goals and Objectives:**
      Create a scheduling and notification system for use by the volunteers and staff of PAST&E. The system should be easy to use, allowing the volunteer to access and update their schedule and facilitate messaging between volunteers and staff.
   2. **Statement of Scope:**
      Input: Volunteer's name with date and time assigned. The system will update the schedule for that volunteer.
      Output: messages from users to users, report of specific users, notification emails.
   3. **Software context:**
      This system is implemented under the Portland State University Computer Science Capstone program.
   4. **Major constraints:**

II. **Usage Scenario:**
   1. **User Profiles:**
      There are three main categories of users that will interact with the system at high frequency: Volunteers, Staff, and Administrators. However, there is also a Parent/Child user, which is listed as a stretch goal implementation.
   2. **Use Cases:**
      i. Volunteers: Currently there are around five to ten checking in and out daily. All users that lie under the volunteer category will be able to:
         * Check in/out (with specific staff member),
         * Review current schedule,
         * Create/Update/Delete (C/U/D) schedule entry,
         * C/U/D personal data (available on profile). Currently, all the personal data are available in Google docs, which are stored in Excel sheets later,
         * Send messages to staff,
         * Read messages sent to them. Method of reading messages without using web browser (via texts, email) is preferred.
         * Send feedback to staff.
      ii. Staffs: Currently there are five staffs. All users that lie under staff category will be able to perform all the volunteers' tasks and:
         * Check in/out volunteers,
         * Update volunteer profile and make it available for volunteer (visible data),
         * Run reports: hours of volunteering, feedback, and head counts,
         * Broadcasting messages to all staffs and volunteers,
         * Review messages to staffs,
         * C/U/D volunteer schedule entry,
         * Create volunteer task in schedule,

- Assign volunteers to specific group at specific time,
  - iii. Administrators: basically, the administrator category will be able to perform all the staff's task and:
    - C/U/D staff user,
    - Send administrative messages to staff,
    - Create/Activate/Deactivate volunteer profile,
    - C/U/D groups (groups of children, each volunteer will be assigned to a group).
- **3. Special Usage Considerations:**
  Parents/Children: as mentioned above this category will be listed as a stretch goal for this project. Users under this category will be able to send messages to staff: absence announcement, when/where to pick up kids… Currently, this type of communication is via by directly emailing, calling, sending texts to staff members.

III. Data Model and Description:
1. Data Objects:
   - i. Volunteers: Lowest users of the program, who will be placed under management of staffs and administrators.
   - ii. Staffs: The low level manager of the program, who are in charge of the management of all volunteers.
   - iii. Administrators: The high level managers of the program, who are in charge of the management of all volunteers.

IV. Functional Model and Description: this part will list and describe all features of the program with the most up-to-date info (can be changed from time to time when requirement is changed)
- Receive messages from users and send it to designated users (destination users).
- Store all the info of users into a database system (it could be a SQL).
- Has a calendar feature that can be updated by users ➔ I think this is still too general. We need to be more specific on this.
- Send a notification or a reminder email to volunteers when they will have their next assigned hour work (this could be considered as reminder from Google calendar, sending a notification email 1hour before the start of the event; or at the beginning of the day) ➔ Core success 1.
- Allow users read messages that are sent to them via specific interface.
- Allow volunteers to check in and check out. The output of this will be the number of hours volunteering of one ➔ Core success 2.
- Allow users to update their own info and their schedule.
- Allow management-level users create/update/activate/deactivate/delete lower-level users.
- Allow management-level users update lower-level users' schedule.
- Allow management-level users to run reports on lower-level users' profile. The output of this feature is hours of volunteering of each user

➔ Core success 3.
- Allow administrators create groups for volunteers.
- Allow staffs assign volunteers to specific groups.
- Allow volunteers to run report on their own profile. The output is hours of volunteer.
- Automatically run reports on all volunteers at weekend and return hours of volunteering.
- Automatically send a thank-you email to volunteers whenever they check out (spam!!!!) ☺

V.   Glossary of terms:
- Scholar Athletes: participants of PAST&E (kids, children who come to learn playing tennis).
- Chimpanzee: groups of scholar athletes who are in 3rd grade.
- Elephant: groups of scholar athletes who are in 4th and 5th grades.
- Cheetah: groups of scholar athletes who are in 6th grade.
- Tutor/Teacher/Coach: volunteers that participate in educating and teaching scholar athletes in tennis and other fields of education.
- Ding-dong: A game played with the students where one side of the court is controlled by the 'champion' team. All other teams rotate on the non-champion side. Each time a non-champion team beats the champion team, the non-champion team get one point. When a team has three points, they become the new champion team and take control of the champion side. When a team has two points, they must shout Ding-Dong to the champion team when the match starts, hence the name.