# Scoring System

1. Description of user requirement

This is a scoring system for gymnastics men's six events. When the athletes are performing competition, the judges need to mark down the deductions on paper. After the players finish their performance, the staff will put down all the deductions to the system and the system will automatically calculate the final score of each player and if there are any controversial scores, the system will ask the judges to score again. Finally, the total score will be shown on the large screen including the players' name, players' number, the difficulty score, the execution score, the chance number and final score.

Here are some setting requirements of the new scoring system:
- Use of language: English

- Design of interfaces: fewer wordings

- Scoring: if there are more than 5 E-judges, just simply remove the highest and lowest one (E: Execution   D: Difficulty)

- Judges: only need to input the score

- Head of judges: receive scores from other judges for checking and change the scores if necessary

- Admin: create performance orders of athletes and update to excel file
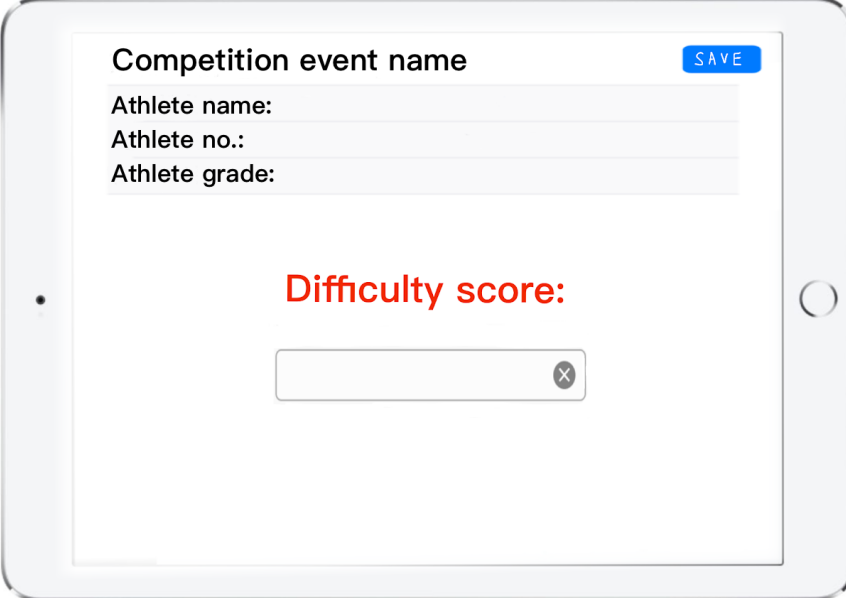
- Special calculation: vaulting horse

2. Existing workflow of current scoring system

When an Athlete is performing in a competition, D Judges and E Judges would observe the Athlete. Some scores will be deducted if the Athlete has made any mistake during the competition. The information of score deduction would be marked down by D Judges and E Judges on a paper. After the Athlete finishes his competition, all Judges would calculate their own scores and then submit all the score papers manually to a Scorekeeper. The scores would be typed into MS Excel file, and the process of final score calculation would be executed in MS Excel. In the calculation process, the highest E score and lowest E would be removed. Average final score would then be calculated. After that, if there is any dispute on the final score, Chief Judge would make amendments when necessary. Finally, the final score of the Athlete is determined and would be displayed on a large screen.
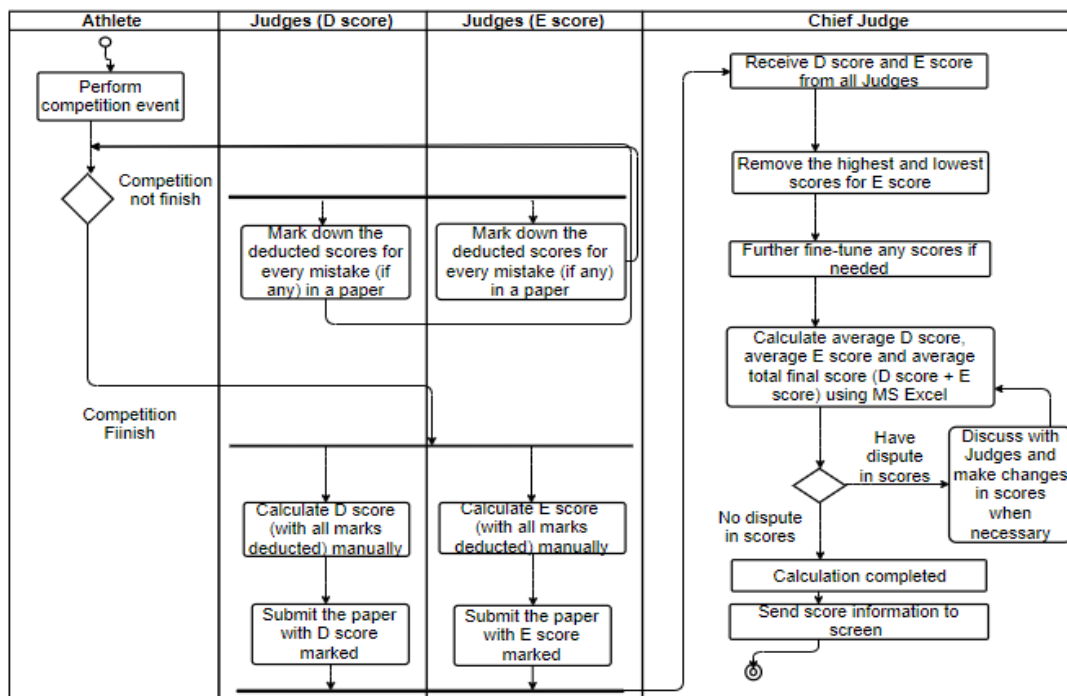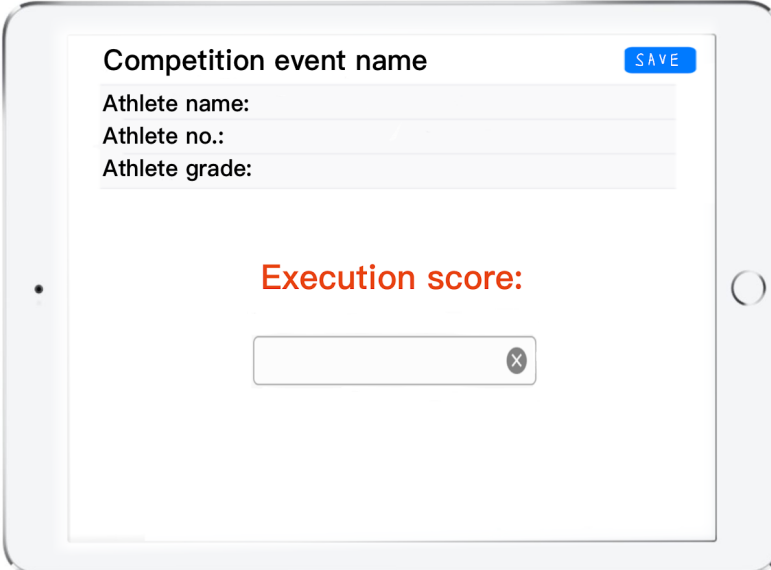
3. Design of user interfaces

- D-judge

Competition event name

	SAVE

Athlete name:
Athlete no.:
Athlete grade:

Difficulty score:

- E-judge

Competition event name

	SAVE

Athlete name:
Athlete no.:
Athlete grade:

Execution score:

- Head of judges

- By clicking the edit score button, the following screen will be shown up and the final judge is able to edit the score. Click "submit" when finished editing, the screen will then go back to the above one and the scores will be changed.

- Admin

[Home page] : Select competition event

Home Transcript   Hi, Admin 1

Competition event

Event 1
Event 2
Event 3
Event 4
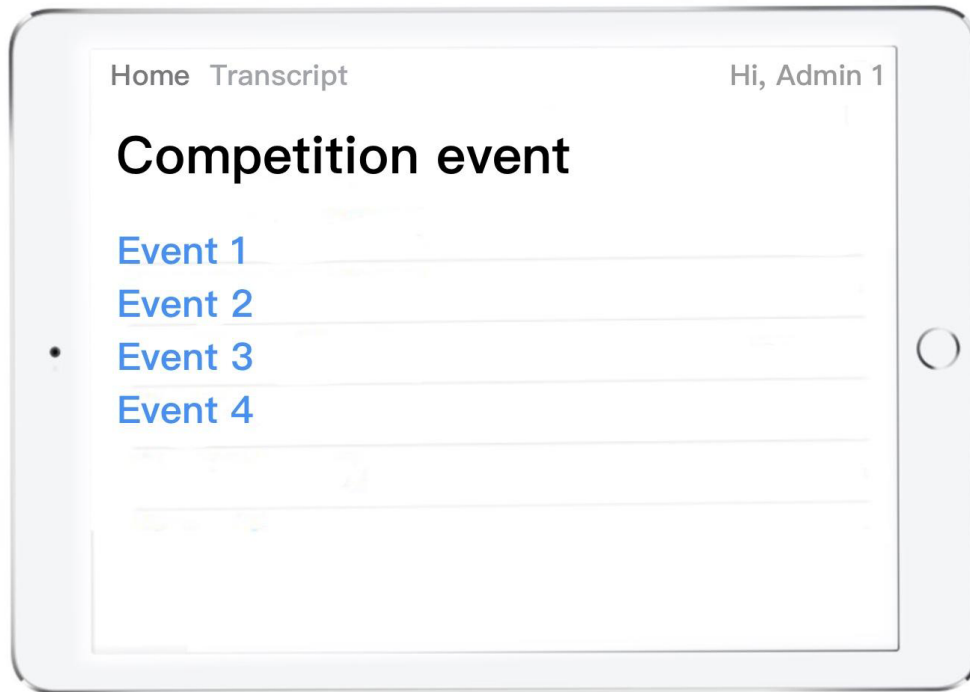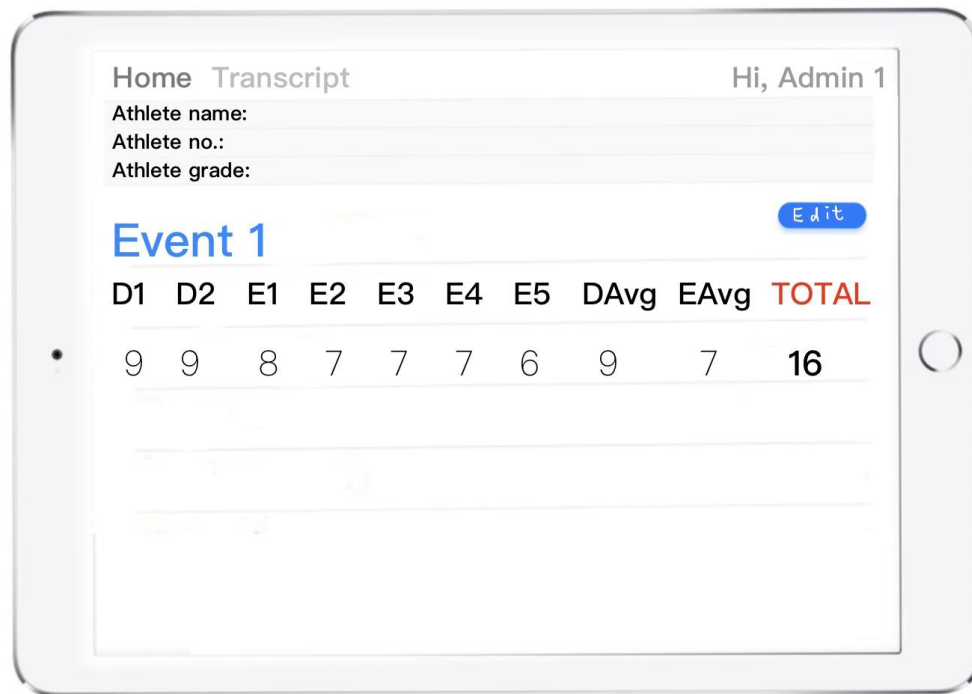
Event 1>
- able to arrange the sequence of athletes

Home Transcript   Hi, Admin 1

Event 1   Edit

Sequence	Athlete Name	Athlete No.	Athlete Grade
1	xxx	123	A
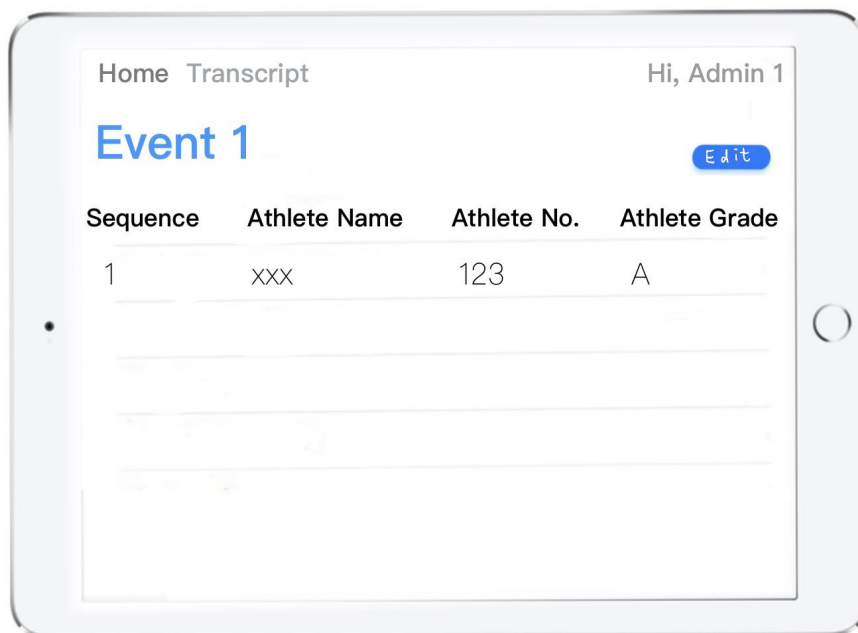
Athlete 1>
● able to edit the details and scores of an athlete
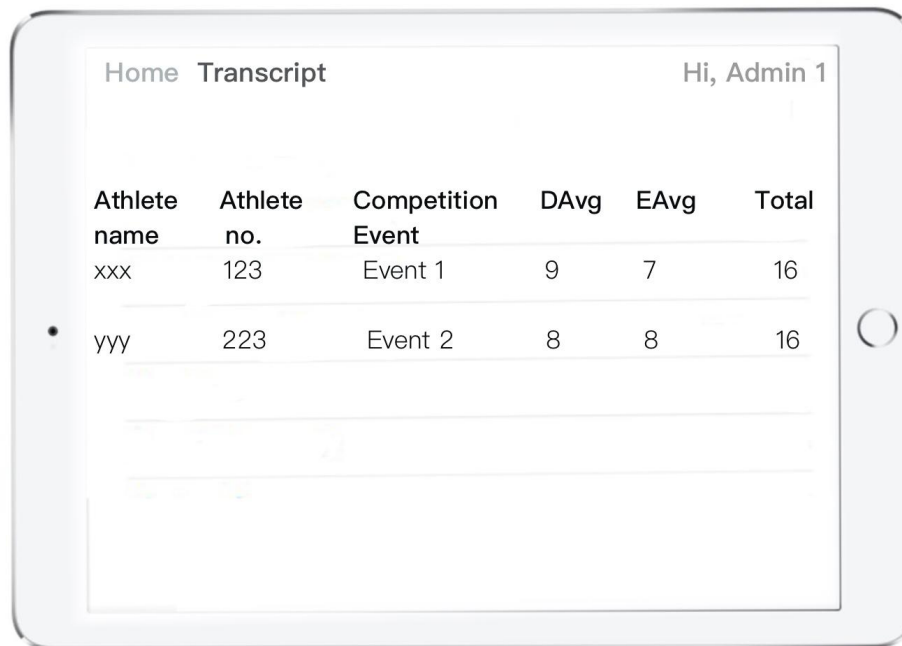
Athlete name:
Athlete no.:
Athlete grade:

Edit

Event 1

D1	D2	E1	E2	E3	E4	E5	DAvg	EAvg	TOTAL
9	9	8	7	7	7	6	9	7	16

[Transcript] : see all the scores of all athletes

Athlete name	Athlete no.	Competition Event	DAvg	EAvg	Total
xxx	123	Event 1	9	7	16
yyy	223	Event 2	8	8	16

4. New workflow of proposed system

The new workflow is trying to manage the athletes' score record in international gymnastics competitions through a scoring system instead of using MS excel. It begins with a signal given to indicate which event and group is going to be scored. Then, an interface with that athlete's information will be popped out on the screen of judges' iPad (for judges to type in the Difficulty Score or Execution Score). **Judges will start to grade that athlete at this moment.

When that athlete gives signal to the judges in order to indicate his/her readiness, performance will be started afterwards. The judges will keep observing the performance. If mistakes are being shown, judges will first mark down on paper(s) to indicate the marks deductions. After that athlete completed his/her performance, judges will type in the Difficulty Score or Execution Score on iPad and submit it to the score system. The system will calculate the average marks for both Difficulty Score and Execution Score respectively, as well as adding up the two average marks to be the total marks of that athlete (for Execution Score, if there are 4 judges or more, the highest and lowest one will be ignored and average marks will be calculated). Subsequently, the chief judge will see the marks evaluations from all judges. If there is no problem, the chief judge will submit the confirmed score to the system. As a result, athlete's information and his/her scores will be displayed on the big screen.

Activity Diagram