

GSCE ICT Microsoft Excel Coursework

Statement of the problem

Sensei Lee Griffin and sensei Mark Seat are the owners of the North London jikishin jiu jitsu association. They train some of the best jiu jitsu fighters in Britain and both Lee and Mark regularly enter competitions. They begin to teach the Japanese martial art to many young children and also to adults. Their training area is state of the art and the facilities are wonderful, one of questions that their students ask them is "where am I in the club rankings?" Currently sensei Lee and sensei Mark are not able to answers these questions, they simply do not have anyway of showing their fighters who is the best in the club. This is a problem because each club from the south east if England gets an opportunity to enter just one fighter into the biggest regional competition of the year, this competition is Southend.

All of the fighters in the North London jiu jitsu club strive to be the best at the club so that they can enter south-end and hopefully bring the regional championship to their club. Sensei Lee currently has sent the same fighter for the past three years, some of the other in the club want a chance to enter Southend so they have suggested that a record of the fights that have taken place in the club are kept. They want to employ a points system and the fighter with the most points at the end of the summer will be entered to represent the North London jiu jitsu club at south-end. Both sensei Lee and sensei Mark have approved and think that it will be a fair way of choosing a fighter to represent the club at the Southend competition.

Consideration of Alternative Solutions

A ladder system could be put in place so if fighter 1 loses to fighter 2, fighter 1 will go above him in the ladder. The problem with this is that each fighter can work there way up the ladder very quickly if they fight those above them. If this system was to be put in place those fighters who are challenged by some one below them will have to accept their challenge, if the challenge is turned down by the fighter, they will automatically lose the fight and therefore they will be overtaken by the challenger.

This ladder system would not be ideal because if a fighter had been at the top of the ladder for the whole year, and then on the last club fight day before Southend he was challenged, and beat by the last person in the table, the fighter who had been consistently at the top would be knocked off and would not represent the club at south-end. If a points system was to be put in place then a fighter can suffer a few losses but still be consistently the best and therefore be able to represent the North London jiu jitsu club at Southend.

Chosen solution

I am going to use a spreadsheet because it's the most ideal programme to use, its easily updated. It's easy to view and will be the best and fairest solution. A well presented league will represent the positions of the fighters and it will display their points

User Requirements

Sensei Lee and sensei Mark have a clear idea in their heads of what they want the table to look like, they want a clear table which is easy to update and which only they can tamper with.

Appropriate Software and Hardware

Since a spreadsheet has been chosen as the most effective solution, which spreadsheet package to use must now be considered.

Lotus 1-2-3 is a popular spreadsheet program and would be quite suitable for having a well presented table of results in. Unfortunately I am not familiar enough with the software to create the table and nor are the club sensei's Lee and Mark, when they update it.

Microsoft Excel is the other alternative that I have. This is the best known package and would be perfect since I do know how to use it. Lee and Mark are also capable of using it on an intermediate level. This would make it easier for them to update the system when the table must be changed on a regular basis. Lee and Mark have already got Microsoft office installed on their computer in the club, this includes Microsoft excel installed on the computer and they would not have to buy any additional software.

Microsoft Excel is the software that I will be using as it does not cost anything extra since Lee and Mark already have it and our knowledge of how to use it is much better than Lotus 1-2-3.

The hardware required will consist of a basic processor, monitor, mouse and keyboard. The system will be used by sensei Lee and sensei Mark only using the computer in their office. The monitor can swivel so that the fighter can see their positions in the league themselves.

Data Required

The data required to build this system will be the information from who has won and lost their bouts. These bouts will be watched by Mark or Lee and then the result recorded onto the spreadsheet.

Data Collection

The information, which will be the winner and the loser of the fights, can be seen on the club's Computer which is in sensei Lee's office, sensei Lee or sensei Mark will have to be asked by the fighters to go and view the table. They will enter the password and the table will be displayed, while a student is looking at the table they will need to be supervised in case they try and tamper with the table in any way. After they have finished viewing the table, Lee or Mark will close it so it can't be changed by anyone.

After a fight, which will be judged by Lee or Mark, the winner and loser of the fight will then be recorded and the information entered into the spreadsheet by Lee and Mark only. Each fighter will get 3 points for each fight they win and 1 point if they draw. If at the end there are 2 or more fighters at the top of the table then there will be a mini play-off to decide the victor.

Data Input

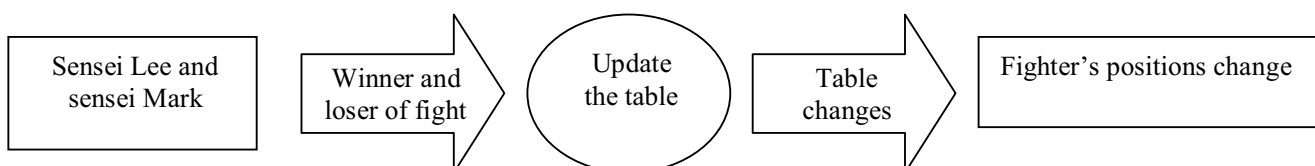
I myself will only be creating the table and showing both of the sensei's how to use it, then it's up to them to keep it updated after each and every fight.

Each time that the table is updated it will be verified by visually checking it once it has been entered.

Data Flow

Updating the table information

Lee and Mark will update the table after each fight. The new information will be added to the spreadsheet and the positions of some fighters will change.



Data Manipulation

The raw fight information will need to be keyed into the spreadsheet. Formulae will be entered into the spreadsheet to update the table.

The data is manipulated as follows:

- Either sensei Mark or sensei Lee will enter the winner and loser of the fight.
- Formulae will be used to calculate the point's loss and points gain for the fighters.
- The table will change accordingly.

Output

The updated version of the table will be shown to the fighters. The aim will be so select the fighter at the top of the table at the end of the year and allow them to represent the North London jiu jitsu club at Southend.

Backup / Security Strategy

At the end of each training session when all of the fights have finished, the table will be saved onto 2 floppy disks. One of the disks will go to Mark and the other to Lee in-case of a fire or flood at the premises.

There will be some password security on the computer so that people can not tamper with the table in any way. This can be done by protecting the worksheet so that nothing can be changed, if someone tries to change anything on the worksheet, Excel will ask for a password. The password should be at least 6 characters and preferably not a common word such as 'Mark' or 'Lee' which can be easily guessed and nor should the password be written down. It should not be too obvious but something sensei Mark and sensei Lee can memorise.

Initial Design

An initial design for the system was drawn up as follows:

The spreadsheet will calculate the points based on what the senseis enter, a win, loss or draw. The system will then sort the table of figures and the fighters positions will change accordingly. This operation will be done at a click of a button using a recorded macro assigned to it.

User Feedback on Initial Designs

Sensei Lee said that he liked the simplicity of the table, this he said would make it easy for either himself or Mark to use the system.

Sensei Mark said that he would like to see some colour to make the column headings stand out from the names of the actual fighters. This change was easy and quick and the change was made within minutes.

Final Design

Implementation of table:

- Inset formula, sum of win lose and draw to make the total fights fought.
- Created a macro to automatically add up the points gained from won, lost and drawn fights.
- The macro was created by going to tools-macro (named the macro) – went back to tools-macro- stop recording, then I created a text box and gave the macro a title, and finally I assigned the macro to the text box.