INSTRUCTIONS FOR

MEAN MARK'S EPL CHALLENGE

You have in your possession a soccer (hereafter referred to as football) game with all the features of the English Premier League. Professional players will perform for you according to their records and your managerial decisions.

This game is intended as a replay simulation that can be played head-to-head with an opponent or that can be played solitaire. The design of a sports simulation entails a trade-off between playing detail and playing time. This simulation has sacrificed some level of playing detail in exchange for reduced playing time. That said, this simulation will reproduce all the shots, goals, bookings, and penalties that may have occurred in the course of the match which fully enable one to capture the "story of the match" in full statistical detail all in roughly one hour of playing time.

There are no team ratings in the EPL challenge. While keeping the teams intact will allow one to replay the most recent EPL season with a high level of statistical accuracy, the game also allows a maximum of flexibility: players can be traded between teams, All-Stars games may be played, and the game is perfectly compatible with a draft league format.

All rules of football apply. Each manager selects his squad: 10 outfield players, a goalkeeper, and 7 reserve substitutes. Any starting formation may be chosen (4-4-2, 4-3-3, 5-4-1, etc.) with the advisory that significant deviations from "standard formations" (for example, 5 strikers or 0 defenders) may lead to significant deviations from statistical realism. It must be decided before the match which of the two clubs is playing at home (NOTE: if a neutral site is preferred both clubs are considered to be playing "away"). The match is played in two 45-minute halves plus stoppage time.

Before play may begin there are three charts that need to be constructed for each side: a shot chart, to determine the appropriate shooter when a shot opportunity arises for that side, an assist chart, to determine who gets the assist to the shot (if the shot is assisted), and a player identification chart.

CONSTRUCTING THE SHOT CHART— The shot chart for each team is constructed based upon the shooting ratings (found in the upper-right hand corner of each *outfield* playing card) for each player. *The goal-keeper is not included in this chart*. Sort the players for each side by their '**SHOOTING**' rating from highest to lowest. Consider the highest as rank #1 and the lowest as rank #10. Place the players based on their rank into the following chart as follows:

DICE ROLL	RANKED PLAYER
2 (1-4)	Rank #9
2 (5-6)	Rank #10
3	Rank #7
4	Rank #5
5	Rank #3
6	Rank #2
7	Rank #1
8	Rank #1
9	Rank #2
10	Rank #4
11	Rank #6
12	Rank #8

While these 10 players are on the pitch, a roll of 2 six-sided die will determine who shoots when a shot occurs for this team. (Note: any player substitutions necessitate the chart to be redone). For example, if the result of the toss of 2 die is ten, then the fourth ranked shooter will take the shot. Note that a result of 2 is shared between 2 players. In this case, roll an additional six-sided die (6d) to determine who shoots—a roll of 1-4 indicates that the player ranked #9 will be shooting while a roll of 5-6 indicates that the player ranked #10 will shoot.

As an example, consider the Norwich City lineup that manager Paul Lambert put out against Tottenham Hotspur on April 9, 2012 at White Hart Lane, London. Norwich City starting lineup was John Ruddy in goal; a back four of Russell Martin, Adam Drury, Elliott Ward and Ryan Bennett; a midfield of Bradley Johnson, Anthony Pilkington, Elliott Bennett, and Jonathan Howson; and a striker duo of Grant Holt and Aaron Wilbraham. Below are the shooting ratings (in one column by position and in the second by rank, highest to lowest):

BY POSITION		BY RANK	
Russell Martin	0.63	1. Aaron Wilbraham	3.16
Adam Drury	0.00	2. Grant Holt	2.99
Elliott Ward	0.59	3. Anthony Pilkington	1.80
Ryan Bennett	0.88	4. Bradley Johnson	1.78
		5. Elliott Bennett	1.40
Bradley Johnson	1.78	6. Jonathan Howson	1.38
Anthony Pilkington	1.80	7. Ryan Bennett	0.88
Elliott Bennett	1.40	8. Russell Martin	0.63
Jonathan Howson	1.38	9. Elliott Ward	0.59
		10. Adam Drury	0.00
Grant Holt	2.99		
Aaron Wilbraham	3.16		

Based upon the ratings above, the shot chart for Norwich City would be as follows:

DICE ROLL	RANKED PLAYER
2 (1-4)	Elliott Ward, D
2 (5-6)	Adam Drury, D
3	Ryan Bennett, D
4	Elliott Bennett, M
5	Anthony Pilkington, M
6	Grant Holt, F
7	Aaron Wilbraham, F
8	Aaron Wilbraham, F
9	Grant Holt, F
10	Bradley Johnson, M
11	Jonathan Howson, M
12	Russell Martin, D

Thus, the majority of the shots taken by Norwich with this player personnel on the pitch would be taken by strikers Holt and Wilbraham (approximately 56%), the midfielders are expected to take about 33% of the shots, while the defenders will be expected to account for the remaining 11%.

CONSTRUCTING THE ASSIST CHART— The assist chart for each team is constructed based upon the assist ratings (found in the upper-right hand corner of each *outfield* playing card beneath the shooting ratings) for each player. *The goal-keeper is included in this chart since goalkeepers may provide the assist for a shot.* Sort the players for each side by their '**ASSIST**' rating from highest to lowest. Consider the highest as rank #1 and the lowest as rank #10. Place the players based on their rank into the following chart as follows:

DICE ROLL	RANKED PLAYER
2 (1-4)	Rank #10
2 (5-6)	GOAL KEEPER
3	Rank #8
4	Rank #6
5	Rank #4
6	Rank #2
7	Rank #1
8	Rank #3
9	Rank #5
10	Rank #7
11	Rank #9
12	Rank #1

While these 10 players are on the pitch, a roll of 2 six-sided die will determine who assists when a shot occurs for this team. (Note: any player substitutions necessitate the chart to be redone). For example, if the result of the toss of 2 die is six, then the second ranked assist man will make the assist on the shot. Note that a result of 2 is shared between 2 players—the lowest ranked outfield player and the goalkeeper. In this case, roll an additional six sided die (6d) to determine who assists—a roll of 1-4 indicates that the player ranked #10 will provide the assist while a roll of 5-6 indicates that the goalkeeper has made the assist.

We consider once again the Norwich City lineup against Spurs, however, this time we use the assist ratings.

BY POSITION		BY RANK	
Russell Martin	0.36	1. Anthony Pilkington	1.59
Adam Drury	0.25	2. Aaron Wilbraham	1.44
Elliott Ward	0.59	3. Grant Holt	1.36
Ryan Bennett	0.25	4. Elliott Bennett	1.23
		5. Jonathan Howson	1.01
Bradley Johnson	0.95	6. Bradley Johnson	0.95
Anthony Pilkington	1.59	7. Elliott Ward	0.59
Elliott Bennett	1.23	8. Russell Martin	0.36
Jonathan Howson	1.01	9. Ryan Bennett	0.25
		10. Adam Drury	0.00
Grant Holt	1.36		
Aaron Wilbraham	1.44		

In the event that two players have the same rating (as is the case with Ryan Bennett and Adam Drury above), the player with the higher shooting rating takes the higher rank.

Based upon the ratings above, the assist chart for Norwich City would be as follows:

DICE ROLL	RANKED PLAYER
2 (1-4)	Adam Drury, D
2 (5-6)	John Ruddy, GK
3	Russell Martin, D
4	Bradley Johnson, M
5	Elliott Bennett, M
6	Aaron Wilbraham, F
7	Anthony Pilkington, M
8	Grant Holt, F
9	Jonathan Howson, M
10	Elliott Ward, D
11	Ryan Bennett, D
12	Anthony Pilkington, M

It is not possible for a player to assist themselves. Consequently, in the event that the shooter is the same individual as the assister use the '*slide approach*' to resolve the identity of the player who has assisted. In this approach, in the event that the shooter is the same individual as the assister, slide up the chart if the roll for the assist chart is below 7 (that is, slide up from 2 to 3, 3 to 4, 4 to 5, 5 to 6, and 6 to 7) and slide down the chart if the roll for the assist chart is at or above 7 (that is, slide down from 7 to 8, 8 to 9, 9 to 10, 11 to 12).

For example, suppose that for a given shot by Norwich City a 7 was rolled for the shot chart (indicating that Aaron Wilbraham is shooting) and a 6 was rolled for the assist chart (indicating that Aaron Wilbraham provided the assist). Wilbraham cannot act as both shooter and assister. As per the '*slide approach*', we would *slide up* the assist chart from 6 to 7 to resolve this conflict. Aaron Wilbraham will remain the shooter; however, it will be now Anthony Pilkington rather than Wilbraham who will be credited with the assist.

To identify the players involved in a sequence construct a quick chart as follows. List the players on the pitch for both clubs (in any order) and assign the player identification as in the example below:

NORWICH CITY	PID	TOTTENHAM HOTSPUR	PID
Russell Martin	1-2	Younes Kaboul	1-2
Adam Drury	3-4	Ledley King	3-4
Elliott Ward	5-6	Kyle Walker	5-6
Ryan Bennett	7-8	Benoit Assou-Ekotto	7-8
Bradley Johnson	9-10	Gareth Bale	9-10
Anthony Pilkington	11-12	Aaron Lennon	11-12
Elliott Bennett	13-14	Luca Modric	13-14
Jonathan Howson	15-16	Jake Livermore	15-16
Grant Holt	17-18	Luis Saha	17-18
Aaron Wilbraham	19-20	Jermain Defoe	19-20

Once the lineups have been selected and the shot and assist charts have been constructed for both sides, then the match is ready to begin.

GAME SEQUENCES— This football game does not track each pass, cross, corner, foul or free kick that would occur during the course of a match. Instead the game breaks down the match into sequences during which significant events may occur. These events include: shots, possible bookings, penalty appeals, and injuries.

The start of the match is identical to the start of all subsequent sequences throughout the match. There is a roll of three die—one six sided die (6d) and two twenty sided die (20d). The six sided die will indicate which of the two teams has initial possession of the ball. This is determined by the outcome of the die roll as follows:

- **A roll of 1 indicates that the HOME side has initial possession—Referee's decision**
- **A roll of 2 indicates that the HOME side has initial possession—Shot opportunity**
- **A roll of 3 indicates that the HOME side has initial possession—Shot opportunity**
- **A roll of 4 indicates that the AWAY side has initial possession—Referee's decision**
- **A roll of 5 indicates that the AWAY side has initial possession—Shot opportunity**
- **A roll of 6 indicates that the AWAY side has initial possession—Shot opportunity**

The two 20-sided die are used to identify the players on each club involved in the possession battle for each club. Each of the players on the pitch for the two clubs is equally likely to be selected.

Suppose that the game begins with a roll of 4 with the 6d and a roll of 14 on the 20d for Norwich City and a roll of 7 on the other 20d for Tottenham Hotspur.

The roll of 4 with the 6d indicates that the AWAY side, in this case Norwich City, has the initial possession of the ball. The roll of 14 on the 20d for City indicates it is Elliott Bennett with possession. The roll of 7 on the 20d for Spurs indicates it is Benoit Assou-Ekotto defending.

The roll of 4 with the 6d indicates that a referee's decision that will occur. The result of the sequence will be found on Elliott Bennett's playing card under the **A REF** column (it is A REF since Norwich City is the away side).

REFEREE'S DECISIONS— A referee's decision will result in one of the following outcomes:

> **INJ**- The player in possession has been injured and must be substituted for (if there are remaining substitutions remaining).

GK- The referee's decision concern's the goalkeeper of the side in possession. If this result occurs, then roll 2 six sided die and refer to the outcome from the appropriate column on the goalkeepers card.

Y 1-19, R-20- The player in possession has been adjudged to have gained possession unfairly and has been booked by the referee. Roll a 20d: if the result is 1-19, then the booking is a yellow card. However, a roll of 20 will result in a straight red card for the player in possession. The player has been sent off by the referee. As is proper football, the second yellow issued to a player results in a red card and immediate dismissal from the match.

PK- The player in possession may have won a penalty kick. Consult the **CP** rating for the defending player (in this example, Benoit Assou-Ekotto). Roll 2 six sided die, if the result of the roll falls within the range of the defender CP rating, then that defender has conceded the penalty. If it is not in range, then the defender has not conceded the penalty. On Benoit Assou-Ekotto's card there is the following rating: **CP 6-7.** If a roll of 6 or 7 were thrown, then in this example, Assou-Ekotto has conceded a penalty to Elliott Bennett. If the throw is not 6 or 7, then the penalty appeal of Elliott Bennett has been turned down by the referee.

Consult the **CONCEDED/NOT CONCEDED** chart for the details of the decision. The defender may have been booked or sent off in addition to the awarded penalty.

All blank readings under the **H REF** or **A REF** columns indicate that there was no booking, injury, or penalty appeal and that the sequence is over.

The defensive player contributes a very important element during each sequence. It is the defender which determines how much clock has elapsed since the last sequence. The rating of interest (**FH CLOCK)** for the defender, Benoit Assou-Ekotto, can be found on his player card on the upper left hand column**.** Each player has a **FH CLOCK** and a **SH CLOCK** rating: the former is the amount of time elapsed since the last segment occurred in the first half of the match, the latter is the amount of time elapsed since the last segment occurred in the second half of the match. On Assou-Ekotto's card the rating reads: **FH CLOCK: 3**

This rating indicates that three minutes have elapsed since the last segment. The match begins with minute 1 (the second half begins in minute 46), thus if this referee's decision occurred as the first sequence of the match, then it would have occurred in the 1+3= **4th** minute of the match. If this referee's decision occurred as the within the first half of the match, and the most recent sequence occurred in the 14th minute of the match, then decision would have occurred in the 14+3= **17th** minute of the match.

POSSESSION— Suppose that the next segment begins with a roll of 2 with the 6d and a roll of 5 on the 20d for Norwich City and a roll of 19 on the other 20d for Tottenham Hotspur.

The roll of 2 with the 6d indicates that the HOME side, in this case Spurs, has the initial possession of the ball. The roll of 5 on the 20d for City indicates it is Elliott Ward defending. Ward's FH CLOCK rating is 5, so the clock is advanced by 5 minutes. The roll of 19 on the 20d for Spurs indicates it is Jermian Defoe in possession.

The roll of 2 with the 6d also indicates that a shot will occur. What must be resolved is which team will take the shot. This is determined by the **POSSESSION** rating of the player in possession (in this example, Jermain Defoe). Consult the **POSSESSION** rating on Jermain Defoe's player card in the upper left hand corner of the card.

The rating reads: **POSSESSION: 12/9.** This 'split' rating details Defoe's rating at home and his rating on the road. Since Spurs are at home, then the first (home) rating is used (12). Roll a 20d to determine which side will take the shot: if the result is less than or equal to the rating, then Spurs will take a shot. However, if the result is greater than the rating, then Defoe has lost possession and it will be Norwich City to take the shot during this sequence. When the team that will be shooting has been determined, then consult the shot chart for the shooting team to determine who will be doing the shooting.

SHOT OPPORTUNITY— A result of 2,3,5 and 6 on the six-sided die rolled at the outset of each sequence will result in a shot by one side or the other. Recall the previous example: Spurs striker Jermain Defoe has the initial possession of the ball. Roll a 20d to determine which side will take the shot: suppose the result is 13. Defoe lost possession and Norwich City will be shooting.

A throw of 2 six-sided die is thrown, and the Norwich City shot chart would be consulted. Suppose that the throw result is 5, indicating that midfielder Anthony Pilkington will be shooting. At this point, cast a 20d and consult the Tottenham player identification table to determine the player which defends against the shot. (NOTE: The defender in the initial stage of the sequence merely serves to advance the playing clock.) Suppose the result of the 20d throw was 12, indicating that Aaron Lennon is the defender.

When a shot opportunity arises, indentify the defender and consult the **DEFENSE** column on the defender's card. The following outcomes are possible under the **DEFENSE** column:

> **SHOOTER**- Consult the **OFFENSE** column on the shooter's card for the result of the shot.
>
> **GOALKEEPER**- Consult the **GOALKEEPING** column on the goalkeeper's card for the result of the shot.

MISSED- The defender has forced the shooter into a rushed shot which has been missed; the sequence is over.

BLOCKED- The defender has blocked the shot; the sequence is over.

BLK + REB- The defender has blocked the shot; there is a follow up shot. In this event, roll a twenty-sided die followed by a roll of a six-sided die:

- If the role of the twenty sided die is 1 to 6, then the original shooter has a follow up shot. If the roll of the twenty sided die is 7 to 20, find the shooter using the shot cart.
- If the roll of the six-sided die is 1 to 5, treat the resultant shot just like any other shot. Roll to select a defender, and consult the 'defense' column of the defender.
- If the roll of the six-sided die is 6, then the rebounded shot is completely unmarked. Roll another 20d:
    - If the 20d result is 1 to 15, the rebounded shot is a goal.
    - If the 20d result is 16-17, consult the goalkeepers' GOALKEEPING column to resolve the final outcome.
    - If the 20d result is 18-20, then consult the shooters OFFENSE column to resolve the final outcome.

BLK + OG- The defender has blocked the shot; however, the ball ends up in the back of the net as an OWN GOAL. Score a goal for the attacking side. Advance the clock by one minute.

CLEARED- The defender has cleared the shot off the line; the sequence is over

CLR + REB- The defender has cleared the shot off the line; there is a follow up shot. In this event, roll a twenty-sided die followed by a roll of a six-sided die:

- If the role of the twenty sided die is 1 to 6, then the original shooter has a follow up shot. If the roll of the twenty sided die is 7 to 20, find the shooter using the shot cart.
- If the roll of the six-sided die is 1 to 5, treat the resultant shot just like any other shot. Roll to select a defender, and consult the 'defense' column of the defender.
- If the roll of the six-sided die is 6, then the rebounded shot is completely unmarked. Roll another 20d:
    - If the 20d result is 1 to 15, the rebounded shot is a goal.
    - If the 20d result is 16-17, consult the goalkeepers' GOALKEEPING column to resolve the final outcome.
    - If the 20d result is 18-20, then consult the shooters OFFENSE column to resolve the final outcome.

CLR + OG- The defender has blocked cleared the shot off the line; however, the ball ends up in the back of the net as an OWN GOAL. Score a goal for the attacking side. Advance the clock by one minute.

Approximately 50% of the time, the result found under the **DEFENSE** column will be **SHOOTER**. When this result occurs, then consult the playing card of the shooter under the **OFFENSE** column. The following outcomes are possible under the **OFFENSE** column:

GOAL- The shot has resulted in a goal for the shooter. The sequence is over. Advance the clock by one minute.

MISSED- The shooter has missed the shot. The sequence is over.

NEAR MISS- The shooter has narrowly missed the shot. The sequence is over.

BAD MISS- The shooter has missed the shot badly. The sequence is over.

SAVED- The shooter has had the shot comfortably saved by the opposing goalkeeper. The sequence is over.

SAVED + REB- The shooter has had the shot parried by the opposing goalkeeper. There is a follow up shot. In this event, roll a twenty-sided die followed by a roll of a six-sided die:

- If the role of the twenty sided die is 1 to 6, then the original shooter has a follow up shot. If the roll of the twenty sided die is 7 to 20, find the shooter using the shot cart.
- If the roll of the six-sided die is 1 to 5, treat the resultant shot just like any other shot. Roll to select a defender, and consult the 'defense' column of the defender.
- If the roll of the six-sided die is 6, then the rebounded shot is completely unmarked. Roll another 20d:
  - If the 20d result is 1 to 15, the rebounded shot is a goal.
  - If the 20d result is 16-17, consult the goalkeepers' GOALKEEPING column to resolve the final outcome.
  - If the 20d result is 18-20, then consult the shooters OFFENSE column to resolve the final outcome.

HWK- The shooter has had the shot hit the woodwork. The sequence is over.

HWK + REB- The shooter has the shot hit the woodwork. There is a follow up shot. In this event, roll a twenty-sided die followed by a roll of a six-sided die:

- If the role of the twenty sided die is 1 to 6, then the original shooter has a follow up shot. If the roll of the twenty sided die is 7 to 20, find the shooter using the shot cart.
- If the roll of the six-sided die is 1 to 5, treat the resultant shot just like any other shot. Roll to select a defender, and consult the 'defense' column of the defender.
- If the roll of the six-sided die is 6, then the rebounded shot is completely unmarked. Roll another 20d:
  - If the 20d result is 1 to 15, the rebounded shot is a goal.
  - If the 20d result is 16-17, consult the goalkeepers' GOALKEEPING column to resolve the final outcome.
  - If the 20d result is 18-20, then consult the shooters OFFENSE column to resolve the final outcome.

To determine what type of shot has been attempted, roll 2 six-sided die and consult the **TYPE** section of the shooters playing card (far right column). The following outcomes are possible under the **TYPE** column of the shooter:

PASS- The shot was a result of a pass. If asterisks are found under **PASS** (***) then the shot took place within the 18 yard box. If asterisks are not found under **PASS** then the shot took place outside the 18 yard box. Consult the **ASSIST chart** for the shooting team to determine the credit for the pass. Use the '*slide approach*', if necessary.

CROSS- The shot was a result of a cross into the 18 yard box. Consult the **ASSIST chart** for the shooting team to determine the credit for the cross. Use the '*slide approach*', if necessary.

CRN- The shot was a result of a corner kick. If asterisks are found under **CRN** (***) then the shot took place within the 18 yard box. If asterisks are not found under **CRN** then the shot took place outside the 18 yard box. Consult the **ASSIST chart** for the shooting team to determine the credit for the assist from the corner. Use the '*slide approach*', if necessary. Only those players with an **ASSIST** rating greater than 1 get an assist directly from the corner. For those players with an **ASSIST** rating less than 1, the assist from the corner comes from a flick on or lay off within the area. Goalkeepers may not assist on corners. Slide up on the assist chart in that case.

FK- The shot was a result of an indirect free kick. If asterisks are found under **FK** (***) then the shot took place within the 18 yard box. If asterisks are not found under **FK** then the shot took place outside the 18 yard box. Consult the **ASSIST chart** for the shooting team to determine the credit for the assist from the free kick. Use the '*slide approach'*, if necessary. Only those players with an **ASSIST** rating greater than 1 get an assist directly from the free kick. For those players with an **ASSIST** rating less than 1, the assist from the free kick comes from a flick on or lay off within the area.

DFK- The shot was a result of a direct free kick. There is no assist for this type of shot. It is therefore unnecessary to consult the **ASSIST** chart for the shooting team. All direct free kicks occur outside the 18 yard box.

A **blank** rating means that the result occurred in some other fashion. There is no assist for this type of shot. It is therefore unnecessary to consult the **ASSIST** chart for the shooting team. If asterisks are found in an otherwise blank box then the unassisted shot took place within the 18 yard box. If asterisks are not found then the unassisted shot took place outside the 18 yard box.

Approximately 31% of the time, the result found under the **DEFENSE** column will be **GOALKEEPER**. When this result occurs, then consult the playing card of the defending goalkeeper under the **GOALKEEPING** column. The following outcomes are possible under the **GOALKEEPING** column:

SAVE- The shooter has had the shot saved by the opposing goalkeeper. The sequence is over.

FANTASTIC SAVE- The shooter has had the shot saved by the opposing goalkeeper in fantastic style. The sequence is over.

GOAL- The shot has resulted in a goal for the shooter. The goalkeeper has failed to make the save. The sequence is over. Advance the clock by one minute.

SAVE + REBOUND- The shooter has had the shot parried by the opposing goalkeeper. There is a follow up shot. In this event, roll a twenty-sided die followed by a roll of a six-sided die:

- If the role of the twenty sided die is 1 to 6, then the original shooter has a follow up shot. If the roll of the twenty sided die is 7 to 20, find the shooter using the shot cart.
- If the roll of the six-sided die is 1 to 5, treat the resultant shot just like any other shot. Roll to select a defender, and consult the 'defense' column of the defender.

- If the roll of the six-sided die is 6, then the rebounded shot is completely unmarked. Roll another 20d:
    - If the 20d result is 1 to 15, the rebounded shot is a goal.
    - If the 20d result is 16-17, consult the goalkeepers' GOALKEEPING column to resolve the final outcome.
    - If the 20d result is 18-20, then consult the shooters OFFENSE column to resolve the final outcome.

POOR GOALKEEPING--GOAL- The shot has resulted in a goal for the shooter. The goalkeeper has failed poorly to make the save. Goalkeeping error. The sequence is over. Advance the clock by one minute.

SAVE + OG- The shooter has had the shot saved by the opposing goalkeeper; however, the ball ends up in the back of the net as an OWN GOAL. Score a goal for the attacking side. Advance the clock by one minute.

STOPPAGE TIME-- The first half continues until the clock exceeds 45 minutes. However, there may be sequences to be played in first half stoppage time. To determine how many, roll 2 six sided die and do the following:

- If the result of the throw is 2-5 then there are no first half stoppage time sequences.
- If the result of the throw is 6-12 then there is a first-half stoppage sequence to be played.
    - After this sequence has been completed throw another 2 six sided die:
        - If the result is 2-6, then the whistle has been blown and the half is over.
        - If the result is 7-12 there is another first-half stoppage sequence to be played
            - After this sequence has been completed throw another 2 six sided die:
                - If the result is 2-8, then the whistle has been blown and the half is over.
                - If the result is 9-12 there is another first-half stoppage sequence to be played.
                    - After this sequence has been played throw another 2 sided die:
                        - If the result is 2-11, then the whistle has been blown and the half is over.
                        - If the result is 12 there is another first-half stoppage sequence to be played.
                            - After this sequence has been completed the half is over.

The second half continues just as the first (starting at minute 46) until the clock exceeds 90 minutes. However, there may be sequences to be played in second half stoppage time. To determine how many, roll 2 six sided die and do the following:

- If the result of the throw is 2-4 then there are no second half stoppage time sequences. The match is complete.
- If the result of the throw is 5-12 then there is a second-half stoppage sequence to be played.
    - After this sequence has been completed throw another 2 six sided die:
        - If the result is 2-5, then the whistle has been blown and the match is over.
        - If the result is 6-12 there is another second-half stoppage sequence to be played
            - After this sequence has been completed throw another 2 six sided die:
                - If the result is 2-6, then the whistle has been blown and the match is over.
                - If the result is 7-12 there is another second-half stoppage sequence to be played.
                    - After this sequence has been played throw another 2 sided die:
                        - If the result is 2-8, then the whistle has been blown and the match is over.
                        - If the result is 9-12 there is another first-half stoppage sequence to be played.
                            - After this sequence has been completed throw another 2 six sided die:
                                - If the result is 2-10, then the whistle has been blown and the match is over.
                                - If the result is 11-12, repeat the last step (2-10) until the match is finally ended.

SUBSTITUTIONS—Substitutions can be made after any sequence ends. Each side is allowed a maximum of three substitutions. If an injury occurs after the final substitution has been made by a club, then that club must play a man down. Advance the clock one minute after the substitution is made.

PENALTY KICKS—Penalty appeals are dependent on the CP (concede penalty) rating of the appropriate defender (or goalkeeper). The appeal can result in a penalty conceded or a penalty waved off.

If a penalty has **not** been conceded then roll 2 six-sided die and consult the following chart for details:

PENALTY NOT CONCEDED

2	-	**There was no contact at all!!! Consult the attacking players REF column. Roll 2-6d. If a card is issued, then player has been booked for simulation (yellow).**
3	-	**Questionable handball in the area; Referee correctly waves play on…**
4	-	**Contact in the area; the referee has none of it…**
5	-	**Contact in the area; the referee hesitates…then waves play on…**
6	-	**Contact in the edge of the area; the referee waves play on…**
7	-	**Reckless challenge, defender must have gotten the ball first since no call was made…**
8	-	**Rash challenge in the area but the ref waves play on!!! That's almost always a penalty…**
9	-	**Clumsy challenge; nothing in it says the referee…**
10	-	**Stonewall penalty; but the ref controversially lets it go…**
11	-	**Obvious handball in the area; seen by everyone except the referee…**
12	-	**The last defender cynically pulls attacking player down; the referee inexplicably waves play on!!!**

If a penalty kick has been conceded. The manager of the team that has won the first penalty designates a penalty taker. Second, roll 2 six-sided die and consult the following chart for details:

PENALTY CONCEDED

2	-	**Oh, Referee!!! That was clearly a dive. Harsh penalty!!!**
3	-	**Questionable handball in the area; Referee controversially points to the spot…**
4	-	**Contact in the area; rather soft penalty, but it is given nonetheless…**
5	-	**Contact in the area; the referee hesitates…then awards the penalty…**
6	-	**Contact in the edge of the area; the referee awards the penalty…**
7	-	**Reckless challenge results in a penalty!!! Possible booking for defender. (YELLOW 1-5, RED 6)**
8	-	**Rash challenge in the area; Penalty kick! Possible booking for defender. (YELLOW 1-5, RED 6)**
9	-	**Clumsy challenge; the referee has no choice but to award the spot kick…**
10	-	**Stonewall penalty; Referee without hesitation awards the penalty… Possible booking for defender. (YELLOW 1-7, RED 8-10)**
11	-	**Obvious handball in the area; Referee immediately points to the spot… Possible booking for defender. (YELLOW 1-7, RED 8-14)**
12	-	**The last defender cynically pulls attacking player down; a professional foul!!! Defender is sent off! (RED 1-20)**

For the resultant penalty kick result consult the following charts:

If the PK taker is playing at HOME, roll a 20d:

- o If the result is 1-13 the penalty is a goal.
- o If the result is 14-18 then consult the GOALKEEPING column on the opposing goalkeepers' playing card. Roll 2 six-sided die for the result.
- o If the result is 19-20 then consult the OFFENSE column on the designated penalty takers playing card. Roll 2 six-sided die for the result.

If the PK taker is playing AWAY, roll a 20d:

- o If the result is 1-11 the penalty is a goal.
- o If the result is 12-16 then consult the GOALKEEPING column on the opposing goalkeepers' playing card. Roll 2 six-sided die for the result.
- o If the result is 17-20 then consult the OFFENSE column on the designated penalty takers playing card. Roll 2 six-sided die for the result.

PLAYING A MAN DOWN—It is possible that a side may go a man down. This may occur when a player has been sent off or when an injury forces a substitution after the side has expended all of its allotted substitutions.

In this event the sequence chart used to begin each sequence is amended as follows:

- • **A roll of 1 indicates that the HOME side has initial possession—Referee's decision**
- • **A roll of 2 indicates that the team up a man has a shot opportunity—go straight to the shot without the possession roll**
- • **A roll of 3 indicates that the HOME side has initial possession—Shot opportunity**
- • **A roll of 4 indicates that the AWAY side has initial possession—Referee's decision**
- • **A roll of 5 indicates that team up a man has a shot opportunity—go straight to the shot without the possession roll**
- • **A roll of 6 indicates that the AWAY side has initial possession—Shot opportunity**

Hence, when a team is down a man, the opposition will get a much higher percentage of the shots that subsequently occur. When a player is no longer in the match (whether through expulsion or injury), he may no longer can contribute shots or assists to the team. Slide past him on the shot and assist chart. Set the inactive players possession rating to 0.

It is also possible that the goalkeeper for a side may be sent off or injured and there may be no other goalkeeper to replace him (either because there is no other goalkeeper on the substitutes bench or because all substitutions have been made. In this case, an outfield player will be forced to play keeper. Select the player with the lowest shooting rating, slide past this player on the shot chart, and use the card below as the goalkeepers' card when that need arises:

OUTFIELD PLAYER			GOALKEEPER

GOALKEEPING	H-REF	A-REF	CP
2. POOR GOALKEEPING-- GOAL 1-19 SAVE + OWN GOAL 20	2.	2.	2.
3. SAVE + REBOUND	3.	3.	3. X
4. GOAL	4.INJ	4.INJ	4. X
5. FANTASTIC SAVE 1 GOAL 11-20	5.	5.	5. X
6. FANTASTIC SAVE 1 GOAL 2-20	6.	6.	6. X
7. GOAL	7.	7.	7. X
8. GOAL	8. T 1-19 R 20	8. T 1-19 R 20	8. X
9. SAVE + REBOUND	9. T 1-19 R 20	9. T 1-19 R 20	9. X
10. POOR GOALKEEPING-- GOAL 1-19 SAVE + OWN GOAL 20	10.	10.	10. X
11. SAVE + REBOUND	11.	11.	11.
12. FANTASTIC SAVE	12.	12.	12.

2011-2012 EPL STATISTICS

STARTS: 0   SUB: 0   UNUSED SUB: 0
YELLOW CARDS: 0   RED CARDS: 0
SAVES: 0   GOALS CONCEDED: 0   SAVE PCT: --

PLAYING CARDS AND STRATEGY— The following is a brief description of the ratings found on the playing cards, upon what statistics the rating are based, and their strategic importance.

Starting on the upper-left hand corner of outfield playing cards:

FH CLOCK- This rating is used to advance the game clock in the first half of play. The defender is the possession battle determines how much the clock advances between playing sequences. Attacking minded players have low ratings; defensive minded players have high ratings. The ratings can be considered a *tempo rating* and are based upon the combined number of shots (the team and their opposition) that occurred during the matches of the team. Some clubs, like Tottenham Hotspur or Manchester United play up-tempo; their matches have an above average number of combined shots. Other clubs, like Stoke City or Everton, play down-tempo; their matches have a below average number of combined shots.

Defensive minded players have higher ratings than offensive minded players; therefore the selection of personnel chosen by a manager will influence how many shots are taken during a match.

Lesser teams may wish to "slow the match down" by inserting more defensive minded players into the lineup. This may reduce their own slim shooting chances but, more importantly, also reduce the more considerable chances of their opponent. Better teams may wish to "speed the match up" by inserting more attack minded players into the lineup. This may increase the chances of their lesser rival but, more importantly, also increase their more considerable.

To 'kill the clock' a manager with a tenuous lead may wish to substitute off an offensive player for a defensive minded player. The substitution advances the clock and the addition of the defensive minded player will increase the expected value of the minutes between sequences thus shortening the match. Conversely, a manager looking to get back into a game may wish to substitute off defensive player for an attacking minded player. The addition of the offensive minded player will decrease the expected value of the minutes between sequences thus lengthening the match.

SH CLOCK- This rating is used to advance the game clock in the second half of play. It is precisely one minute lower than **FH CLOCK**. This is so since, in the EPL, there are substantially more shots and bookings in the second 45 minutes of matches than in the first 45 minutes of play.

POSSESSION- This is a crucial rating in the game. Higher ratings will mean a higher percentage of the shots taken in the match will occur for the side than would lower ratings. This rating is based on the percentage of shots taken by a team relative to their opponents. Thus dominant clubs like Manchester City have much higher ratings than average, bottom of the table sides like Wolves have much lower ratings than average. The rating is provided both home and away. Within a team, the highest ratings are given to those players who played the most when available to play. Therefore, a side of bench players will win a lower percentage of shots than would starters. The more shots a team takes, the more likely they are to score.

SHOOTING- This rating is used in the construction of shot charts. It represents the number of shots taken by the player rated per 90 minutes of play (using OPTA stats). Higher rated players will shot more than lower rated players.

ASSIST- This rating is used in the construction of assist charts. It represents the number of assists plus key passes made by the player rated per 90 minutes of play (using OPTA stats). Higher rated players will assist more than lower rated players.

CP- The concede penalty (CP) rating determines whether an opposition penalty appeal is conceded or not conceded. This rating is based on the number of penalties conceded by the club, and the shooting rating of the player rated. Higher shooting ratings will have smaller CP ranges; Lower shooting ratings will have higher CP ranges. It is usually defenders who concede penalties.

OFFENSE- The offence column is used when the "SHOOTER" result is found on the defenders' card. The results in the column are based on the number of shots taken by the player, the number of shots on target (that is, saved by the goal keeper), and the number of shots scored.

DEFENSE- The defense column is determines whether a shot is blocked, cleared off the line or whether the result is read off the shooter or the goalkeepers card. This is based on the number of blocked shot made by the player (as per OPTA stats), as well as the number of shots on target the team allowed. Players who can block shots take a tremendous amount of pressure off from the goalkeeper and greatly reduce the ability of shooters to score.

H-REF- This column is referred to for a referee's decision when a player is at home. The ratings are based on the number of bookings issued to the player and the number of bookings the team had at home relative to away. The PK ratings are based on the shooting rating and the number of penalties won by the club. Generally, clubs win more penalties at home than on the road.

A-REF- This column is referred to for a referee's decision when a player is on the road. The ratings are based on the number of bookings issued to the player and the number of bookings the team had at home relative to away. Generally, a player is more likely to be booked on the road than at home.

TYPE- This column details the type of shot the shooter is attempting. This is based on the actual distribution of the type of shots (and distance) taken by the shooter according to OPTA stats. It also details whether the shot occurs inside the 18 yard box or outside the 18 yard box, and whether an assist has been made on the shot.

Starting on the left hand side of goalkeeper playing cards:

GOALKEEPING- This column determines whether a goal keeper has saved a shot that is on target. This column is based on the number of goals conceded relative to saves for the goalkeeper.

H-REF- This column is referred to for a referee's decision when a player is at home. The ratings are based on the number of bookings issued to the player and the number of bookings the team had at home relative to away.

A-REF- This column is referred to for a referee's decision when a player is on the road. The ratings are based on the number of bookings issued to the player and the number of bookings the team had at home relative to away. Generally, a player is more likely to be booked on the road than at home.

CP- The concede penalty (CP) rating determines whether an opposition penalty appeal is conceded or not conceded. This rating is based on the number of penalties conceded by the club. An 'X' in this column indicates that the goalkeeper has conceded the penalty.