

# Predicting the best fantasy premier league team to pick per gameweek

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## Abstract

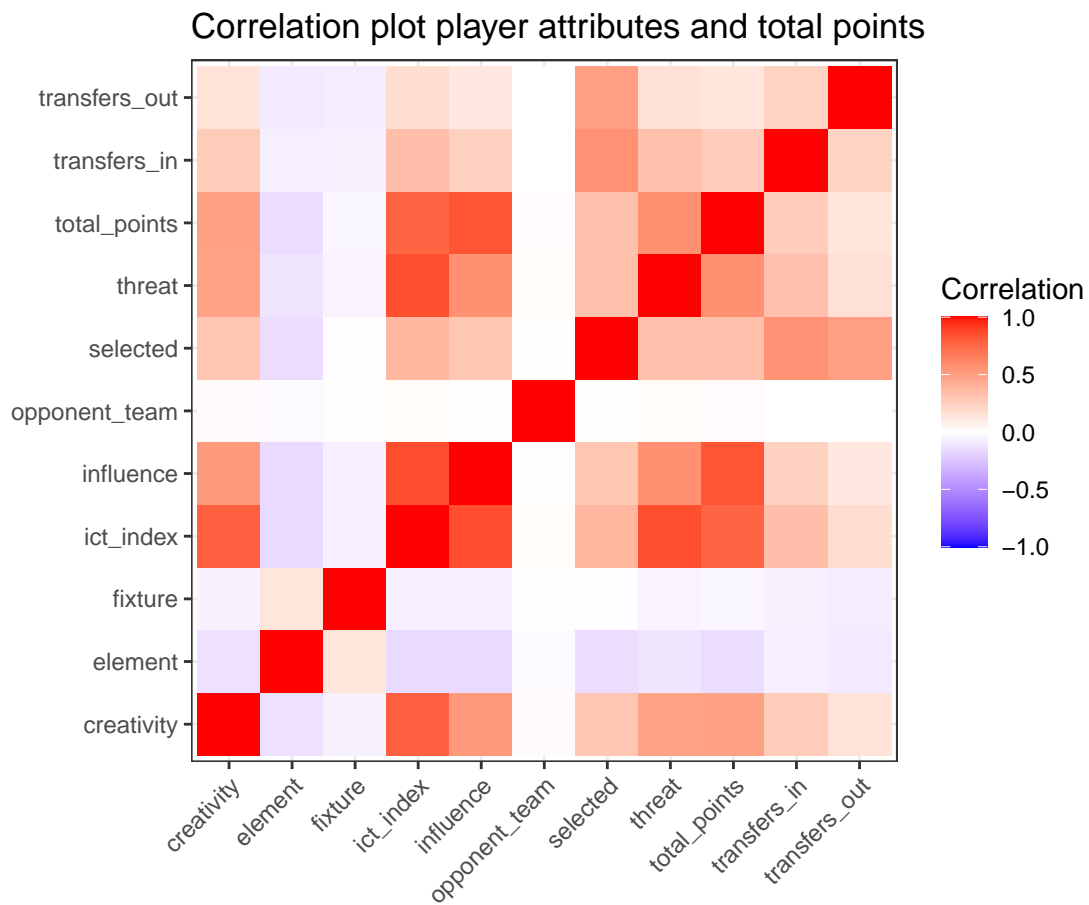
Abstract to be written here. The abstract should not be too long and should provide the reader with a good understanding what you are writing about. Academic papers are not like novels where you keep the reader in suspense. To be effective in getting others to read your paper, be as open and concise about your findings here as possible. Ideally, upon reading your abstract, the reader should feel he / she must read your paper in entirety.

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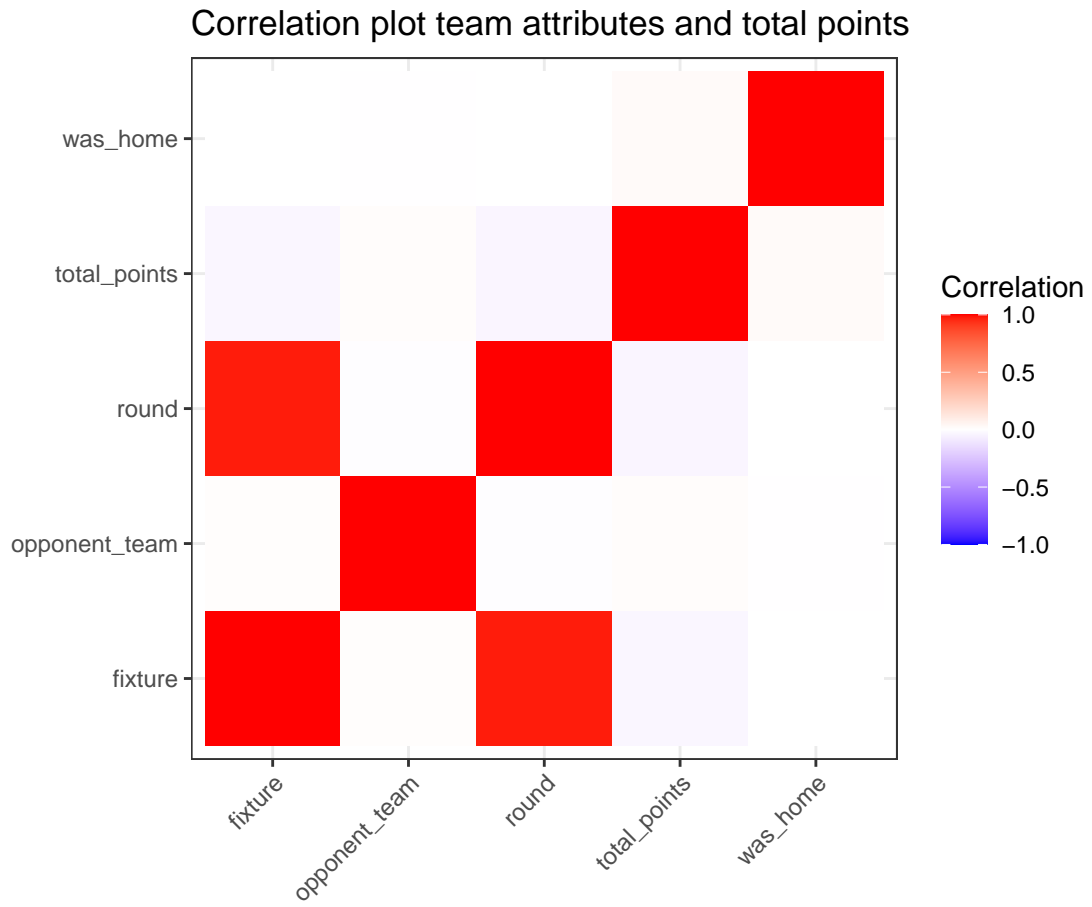
## 1. Introduction

## 2. Data exploration

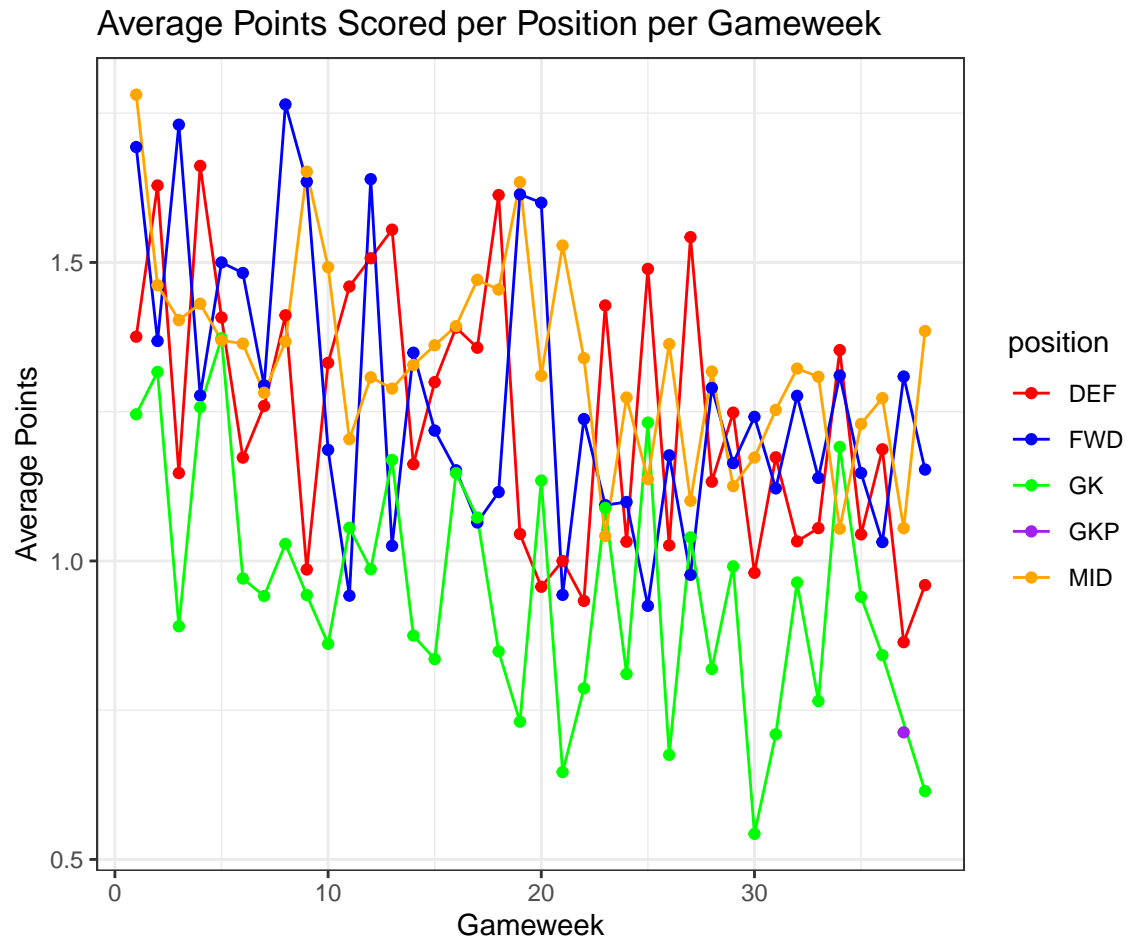
### 2.1. Correlation plot between player attributes and total points



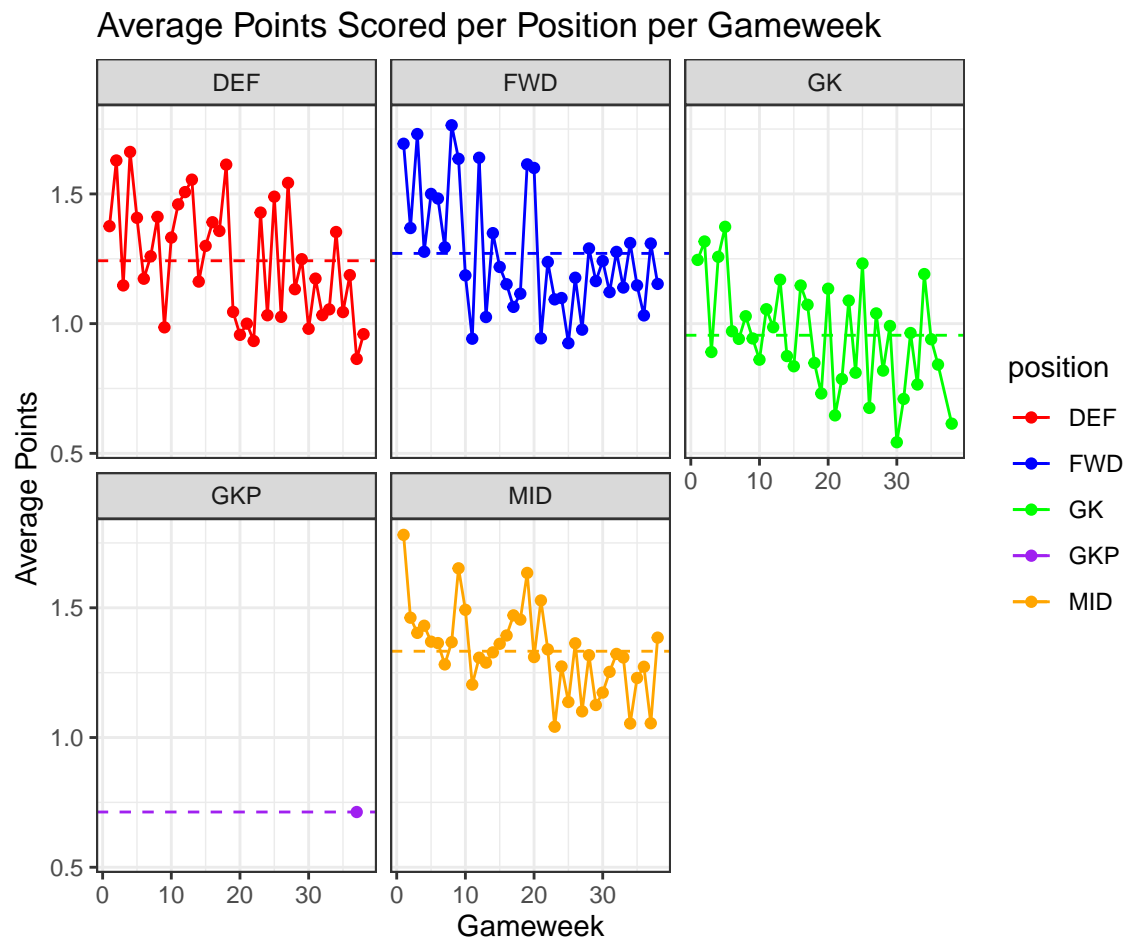
2.2. Correlation plot between team attributes and individual player points



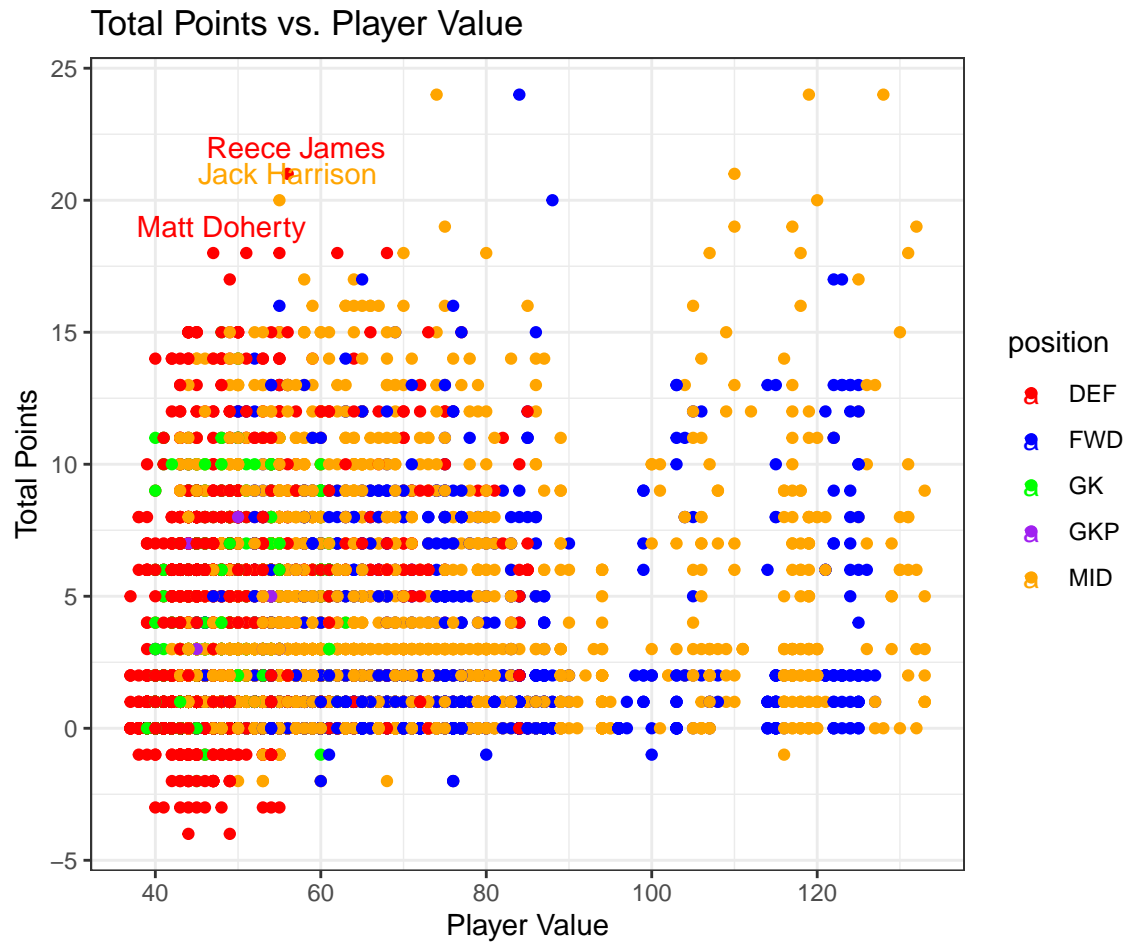
2.3. Plotting the average points scored per position per gameweek:



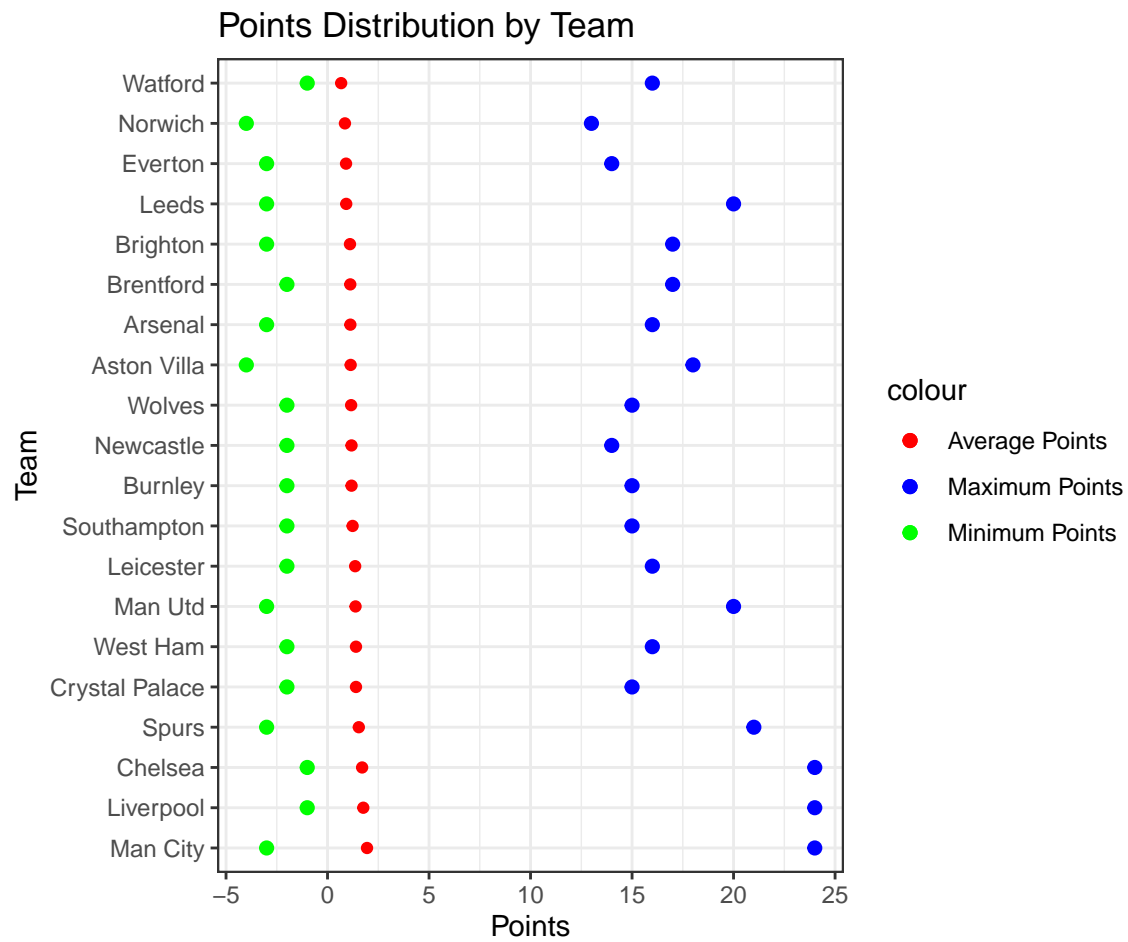
2.4. Now plotting the average points per position on different axis and plotting the overall average points scored per position.



2.5. Scatter plot for points per value:



### 2.5.1. Min/mean and max points per team for a gameweek:



## 3. Machine learning model using Random forests

### 3.1. setup process of machine learning model

#### 3.1.1. Creating the base random forests model

#### 3.1.2. Evaluating the performance of the base line model

```
## [1] 0.3231536
```

```
## [1] 0.6033058
```

### *3.2. Hyper parameter tuning*

#### *3.2.1. mtry hyper parameter tuning*

#### *3.2.2. k-fold Hyper parameter tuning*

### **4. ntree hyper parameter tuning**

#### *4.1. Best model after hyper parameter tuning*

#### *4.2. Evaluating the performance of the tuned model*

```
## [1] 0.3210782
```

```
## [1] 0.6019206
```

### **5. Time for predictions**



## References

## Appendix

### *Appendix A*

Some appendix information here

### *Appendix B*