



Data for your
perfect team

MVP



1

**A database
of the players
with their
stats**

2

**A program
that finds
similar
players**

3

**A program
that makes
good teams**

4

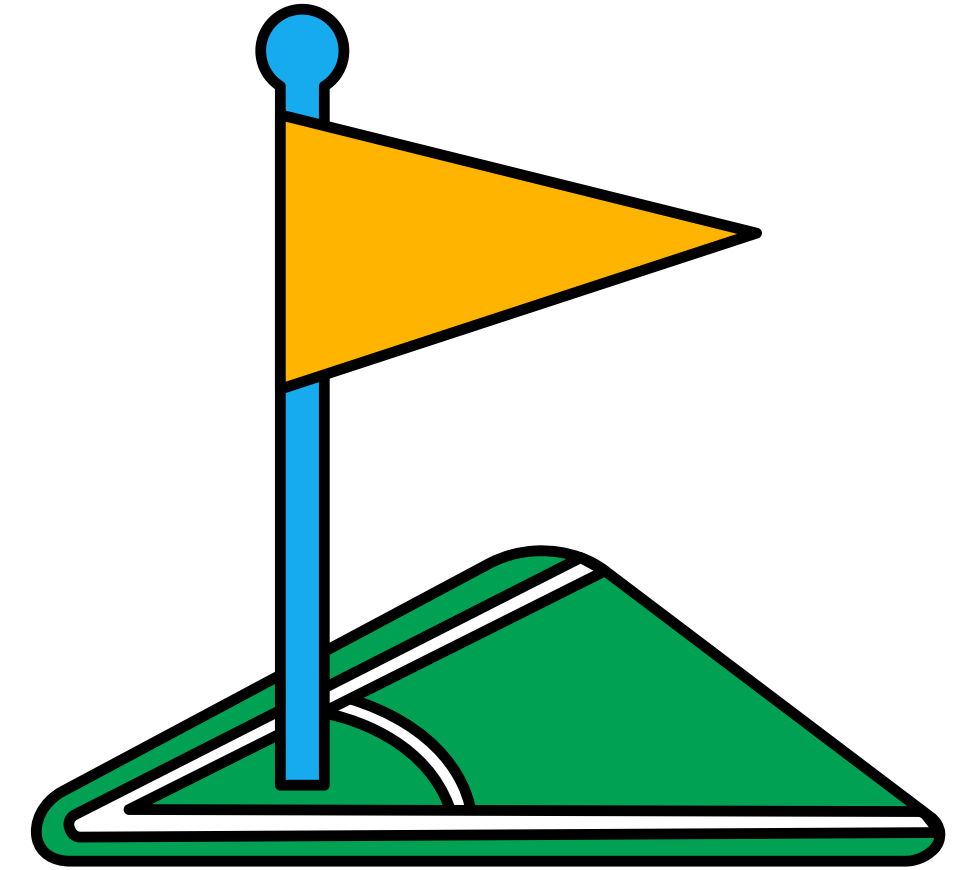
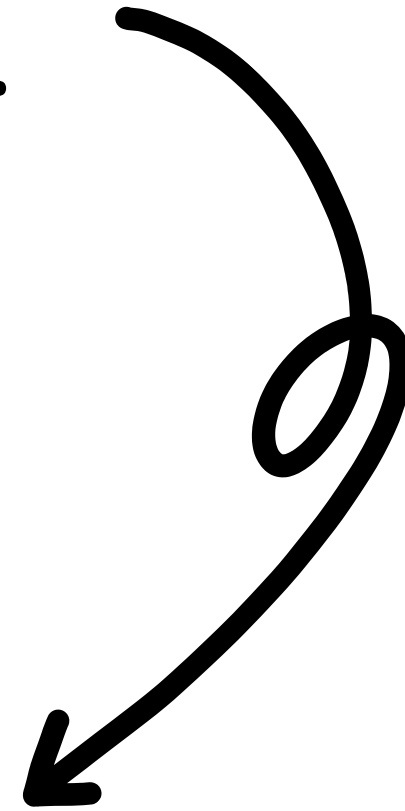
**A notebook
where we can
get the
queries
results.**

The problem

Currently exist many players in ultimate team of Fifa and they want the best team in their possibilities.

A lot of this individuals are willing to pay for a software that can help them.

In that moment we came to the equation

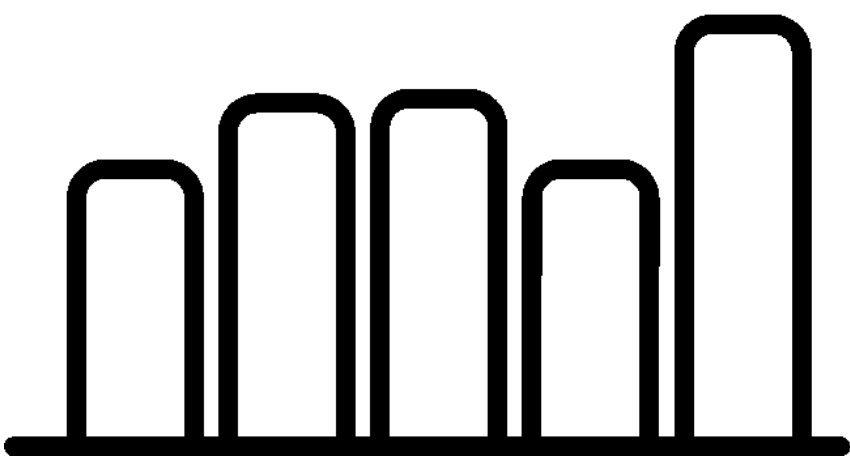


Find similarities between players using KNN .

With the help mathematical models find the perfect team.



Players of FIFA 22?

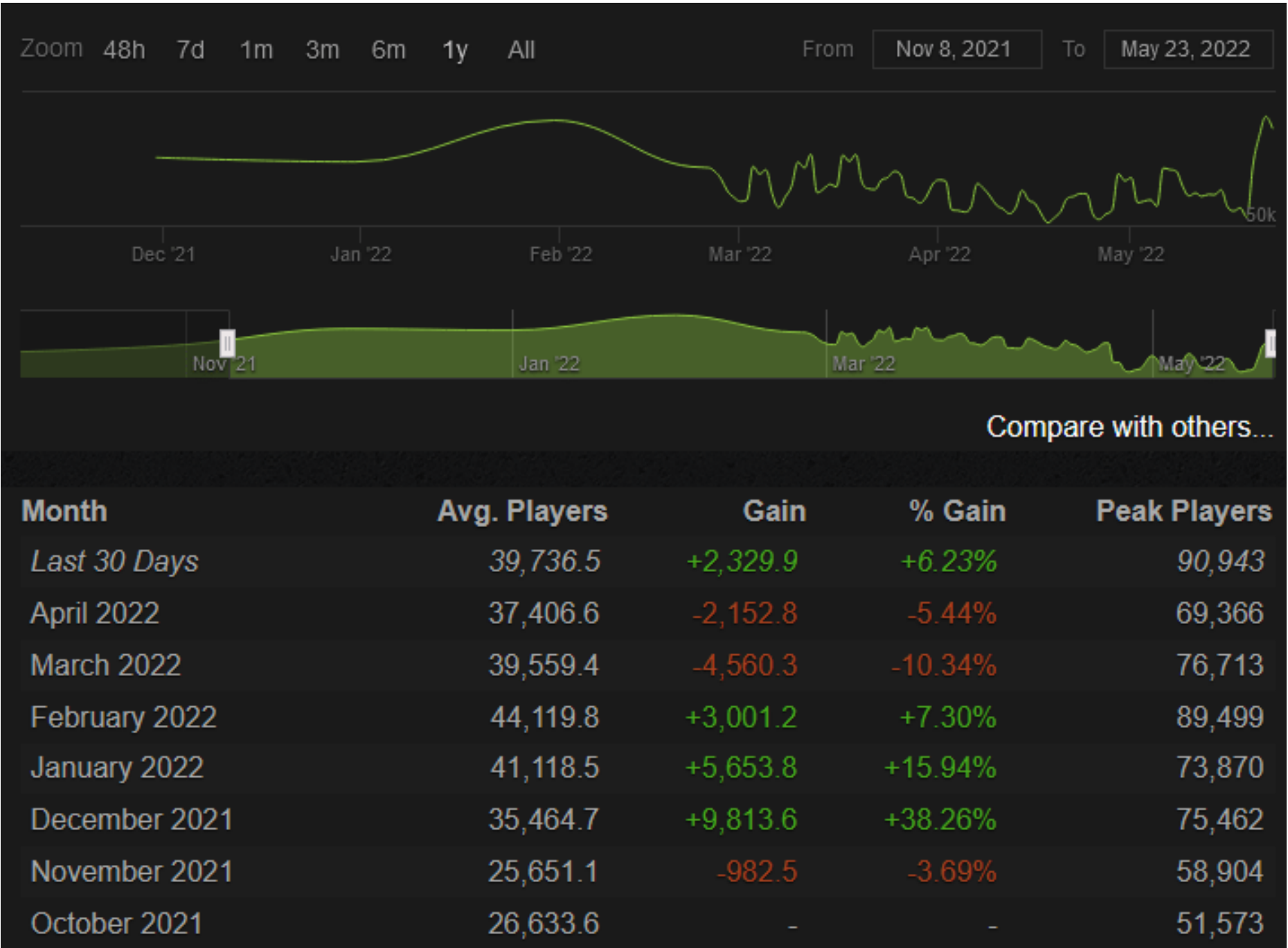


By December of 2021

the game already had 9.1 million players join the game

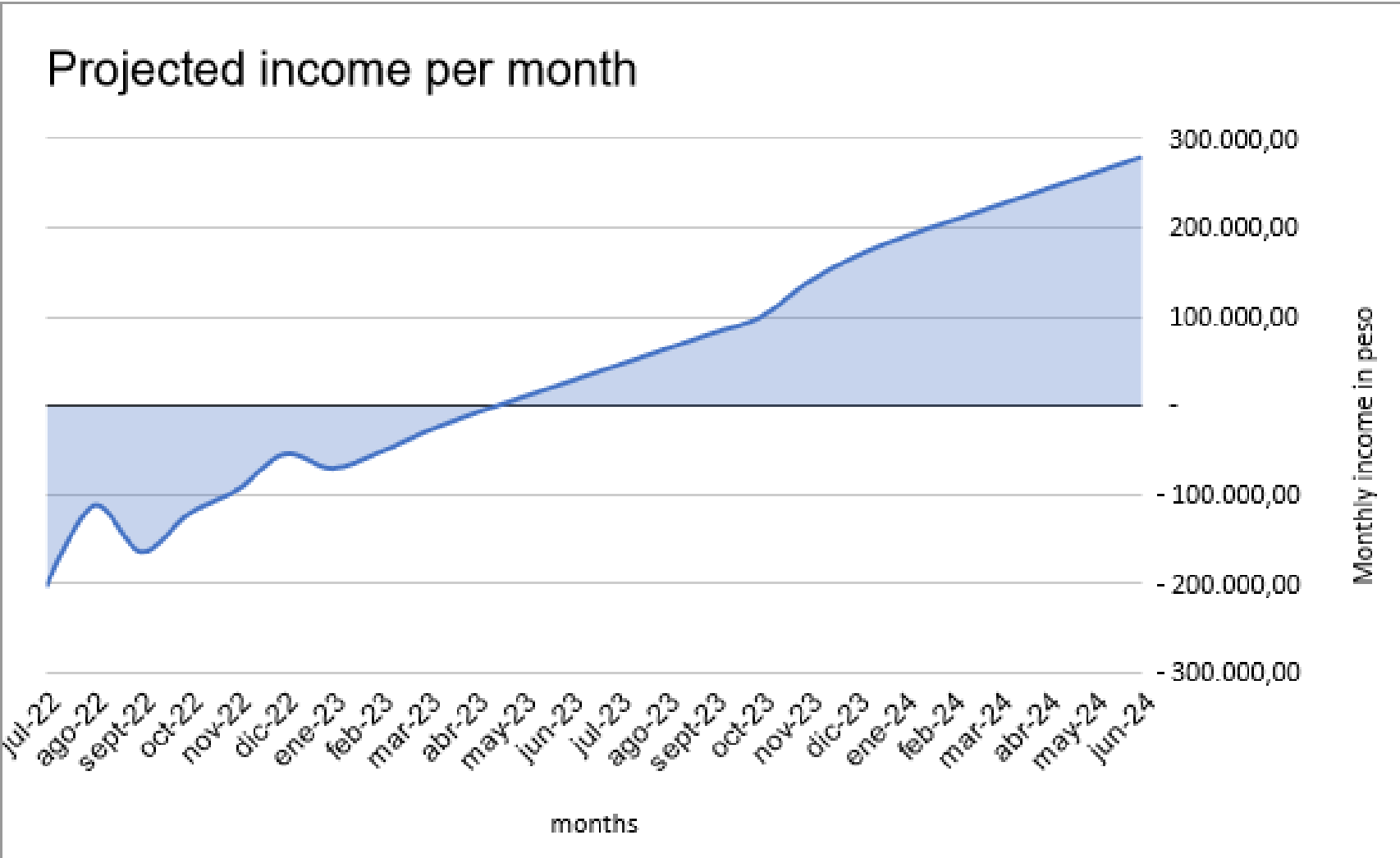
about 460 million matches were played

7.6 million Ultimate Team squads were created

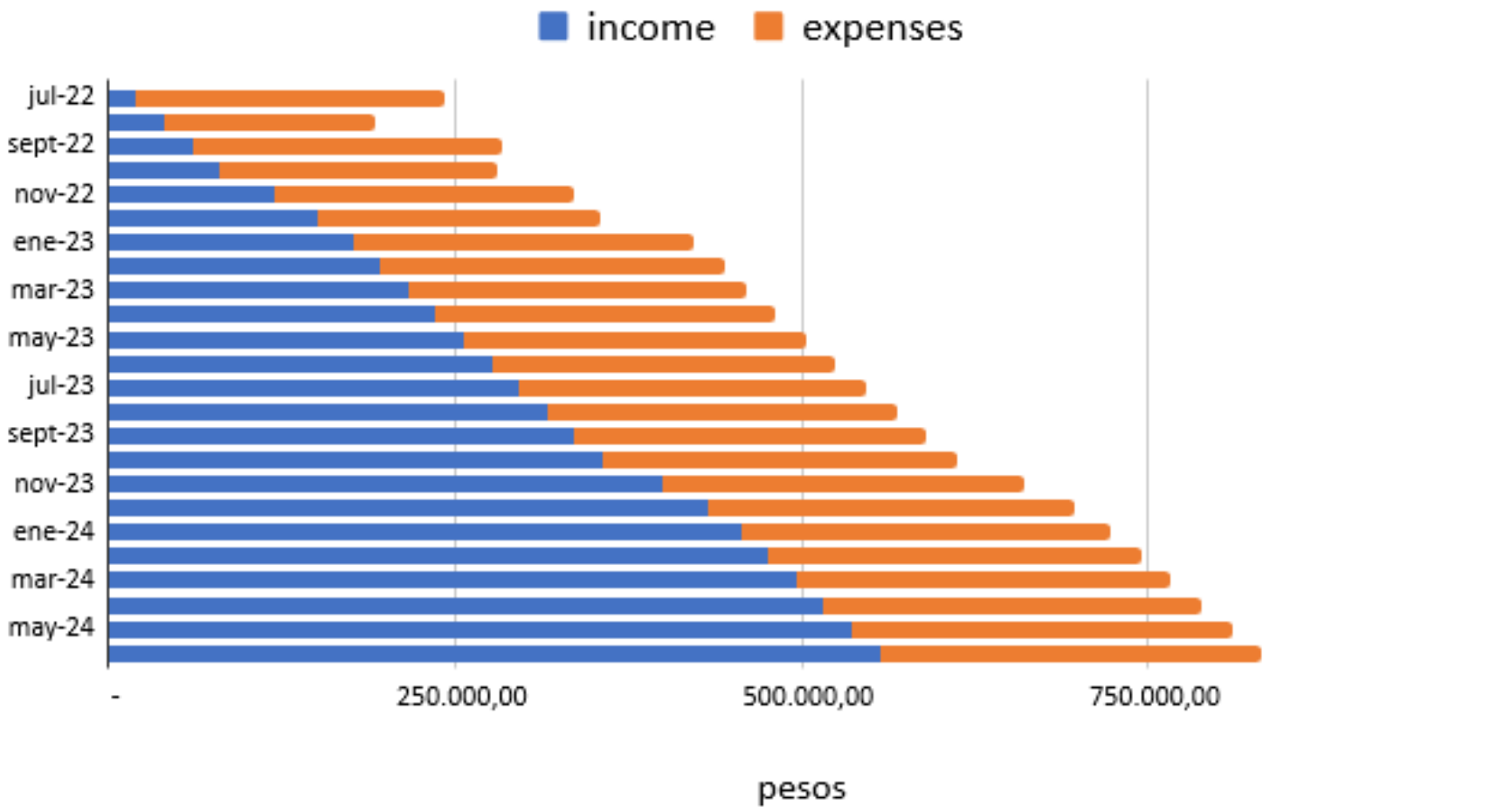


STEAM

Our projections



income vs expenses



Similar players

```
jugadormcercercano('Luis Alberto Suárez Díaz',5500000,5,17)
```

Tu jugador posee esta posiciones ST

```
[[ 'Jefferson Agustin Farfán Guadalupe', 'RM, ST', 4500000],  
[ 'Lukas Podolski', 'CAM, ST, RW', 3400000],  
[ 'David Villa Sánchez', 'ST, LW', 4500000],  
[ 'Ignacio Martin Scocco', 'ST', 4700000],  
[ 'Rodrigo Sebastián Palacio', 'ST, CAM', 2800000],  
[ 'Carlos Alberto Tevez', 'CAM, ST', 4500000]]
```

```
jugadormcercercano('John Terry',5500000,5,16)
```



Tu jugador posee esta posiciones CB

```
[[ 'Nombre del Jugador', 'Posiciones', 'Precio'],  
[ 'José Miguel da Rocha Fonte', 'CB', 5500000],  
[ 'Andreas Granqvist', 'CB', 3800000],  
[ 'Gary Cahill', 'CB', 4200000],  
[ 'Dimitrios Siovas', 'CB', 6000000],  
[ 'Shane Duffy', 'CB', 11000000],  
[ 'James Tomkins', 'CB', 8500000]]
```

```
jugadormcercercano('Philipp Lahm',5500000,5,15)
```

Tu jugador posee esta posiciones CDM, RB, CM

```
[[ 'Marco Verratti', 'CM, CDM', 54500000],  
[ 'Frenkie de Jong', 'CM, CDM', 52000000],  
[ 'Alejandro Grimaldo García', 'LB', 29500000],  
[ 'Juan Bernat Velasco', 'LB, LM', 16000000],  
[ 'Trent Alexander-Arnold', 'RB', 32000000],  
[ 'Wellington Kauê Dano Nascimento', 'LB, LM', 10500000]]
```

Best Possible Team

```
--- equipo 1 ---
['CM', 'Daler Kuzyaev', 0]
['LM', 'Leandro Agustín Baezo', 0]
['ST', 'Andrés Daniel Píriz', 0]
['GK', 'Sebastián Bruno Luna', 0]
['CB', 'Vicente Damián Castro', 0]
['RW', 'Yuriy Zhirkov', 0]
['CAM', 'Alan Zamorado', 0]
['RM', 'Sibusiso Vilakazi', 0]
['LB', 'Abdalla Mahmoud El Said Bekhit', 0]
['RB', 'Carlos Lendezo', 0]
['LW', 'Birkir Bjarnason', 0]
--- equipo 2 ---
['LM', 'Vitorino Hilton da Silva', 0]
['RW', 'Héctor Alfredo Moreno Herrera', 0]
['CB', 'Guillermo Luis Ichazo', 0]
['GK', 'Miloš Degenek', 0]
['LW', 'Kristoffer Olsson', 0]
['CAM', 'Clinton Mua N'Jie', 0]
['CM', 'Aron Einar Gunnarsson', 0]
['ST', 'Björn Bergmann Sigurðarson', 0]
['RB', 'Alexandru Mihăiță Chipciu', 0]
['RM', 'Kári Árnason', 0]
['LB', 'Aron Sigurðarson', 0]
```

Additionally our program lets
you build the best possible
team

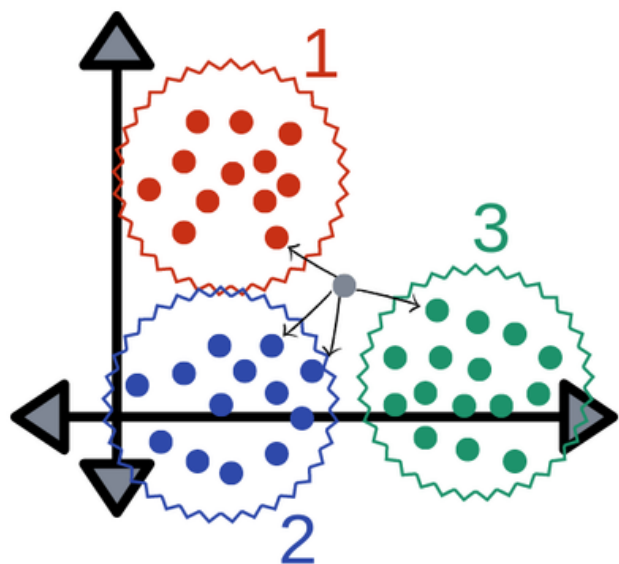
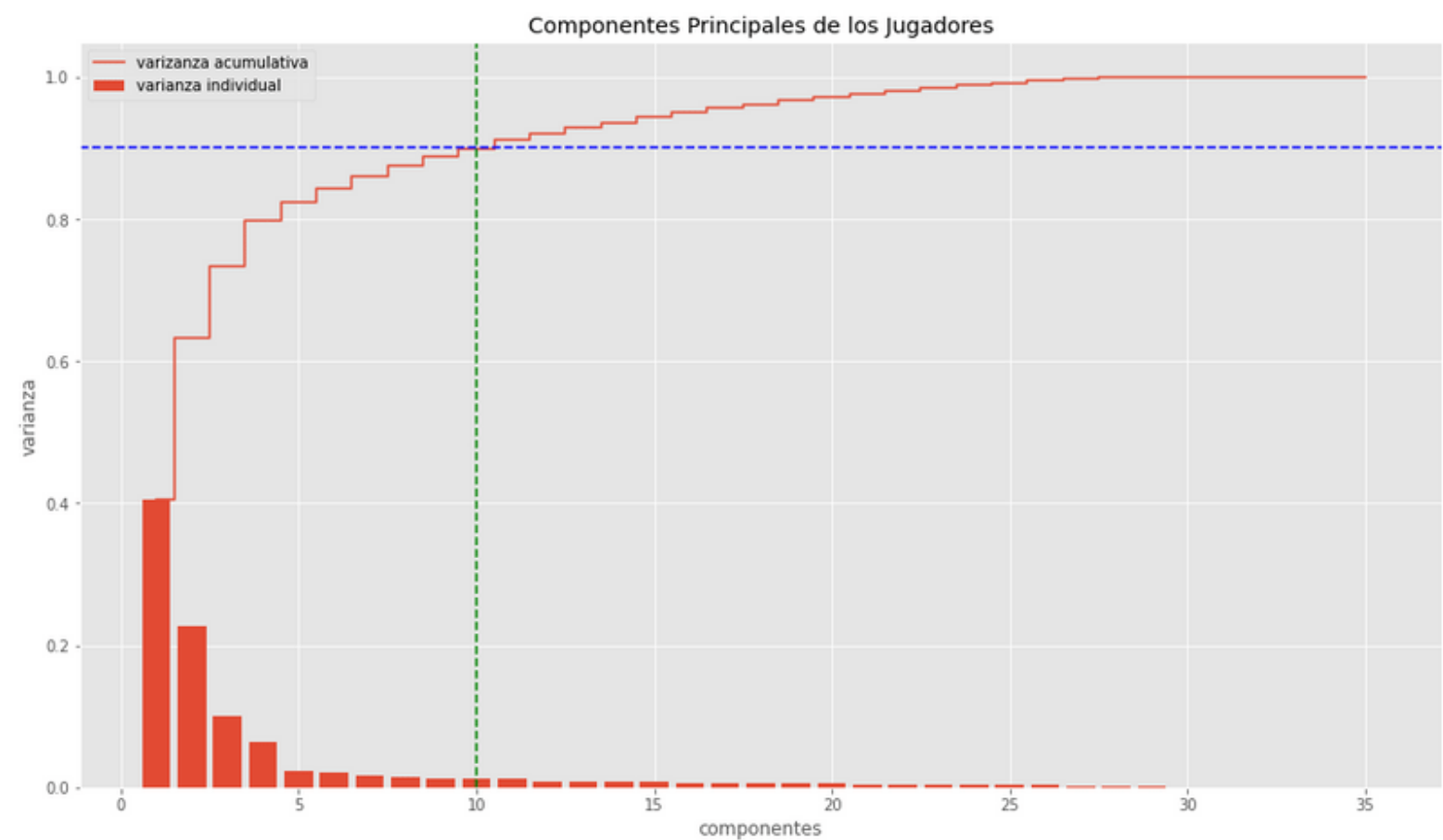
Taking into account things
such as:

- Year
- Price
- Formation

About our model



	precision	recall	f1-score	support
Attacker	0.94	0.92	0.93	1994
Central Defender	0.90	0.90	0.90	988
Lateral Defender	0.83	0.83	0.83	843
Midfielder	0.78	0.80	0.79	1048
accuracy			0.88	4873
macro avg	0.86	0.86	0.86	4873
weighted avg	0.88	0.88	0.88	4873



The perfect Team

Central European Journal
of **Operations
Research**

Our model is strongly based on an article
published by the Central European
Journal of Operations Research

$$\text{Maximize } z = \sum_{i=1}^m \sum_{j=1}^n \sum_{y=1}^k SS_{iy} SM_{yj} MS_j x_{ij}$$

subject to

$$\sum_{j=1}^n x_{ij} \leq 1,$$

$$i = 1, \dots, m$$

$$\sum_{i=1}^m x_{ij} = 1,$$

$$j = 1, \dots, n$$

$$\sum_i SS_{iy} x_{ij} \geq TH_{jy},$$

$$j = 1, \dots, n, y = 1, \dots, k$$

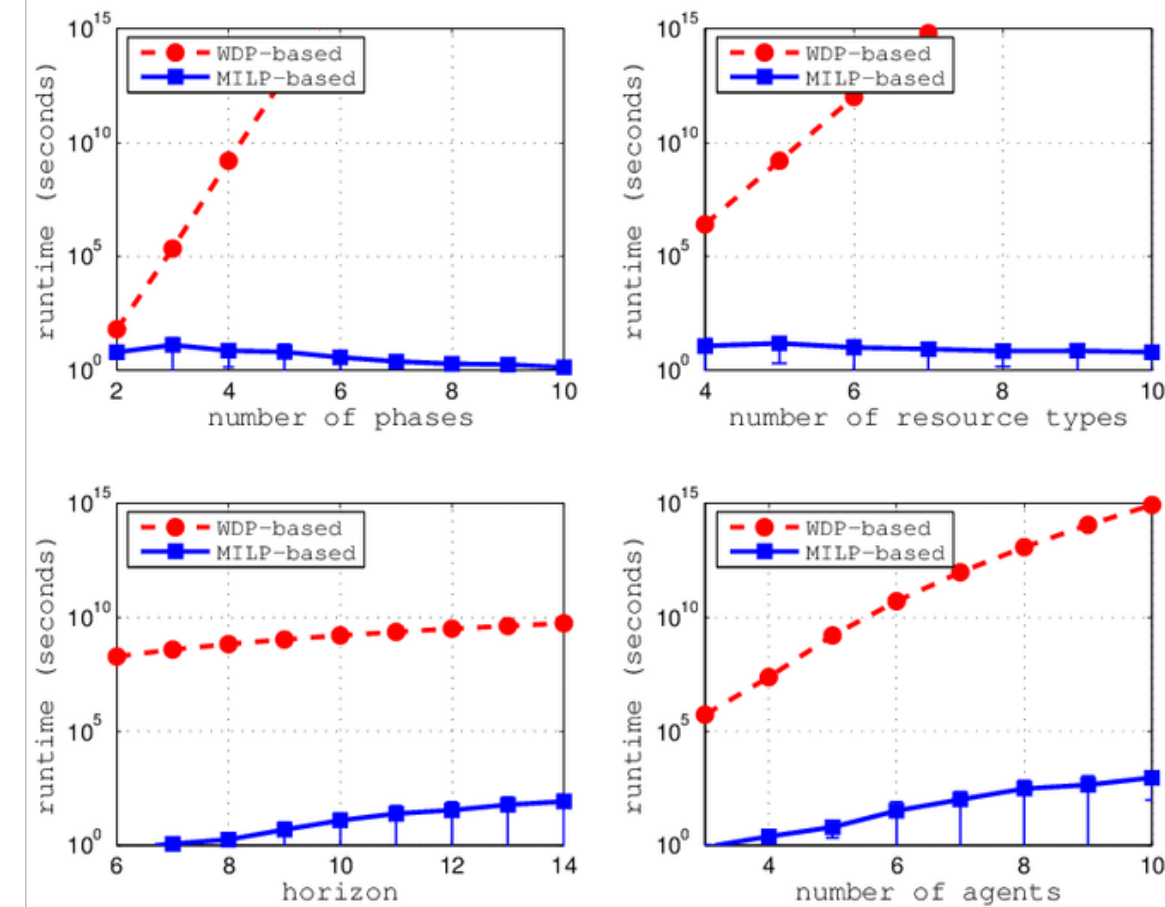
$$x_{ij} \leq PM_{ij},$$

$$i = 1, \dots, m, j = 1, \dots, n$$

$$x_{ij} \in \{0, 1\},$$

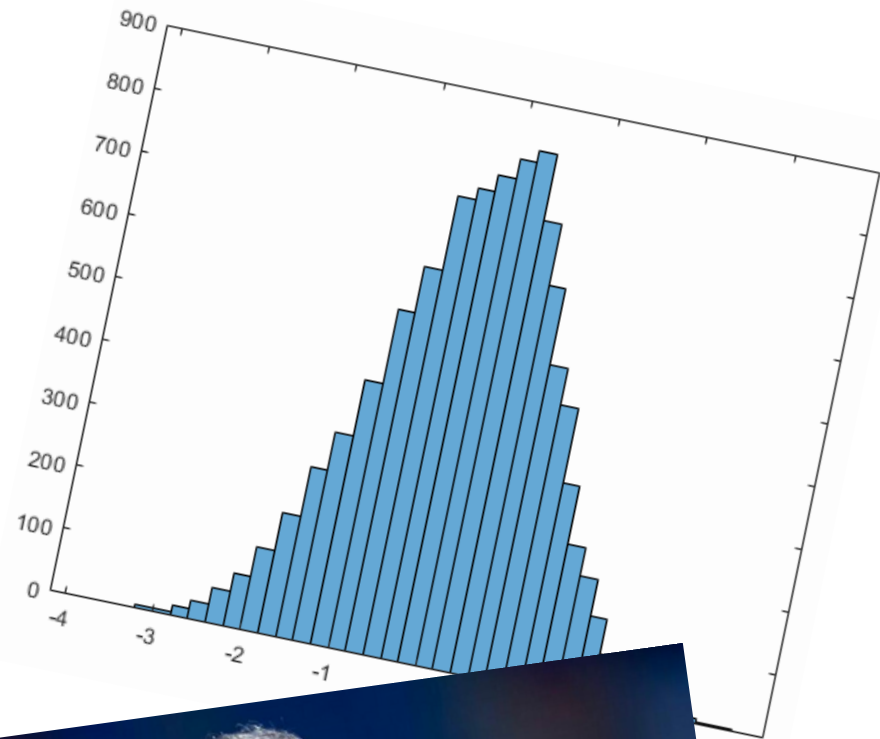
$$i = 1, \dots, m, j = 1, \dots, n$$

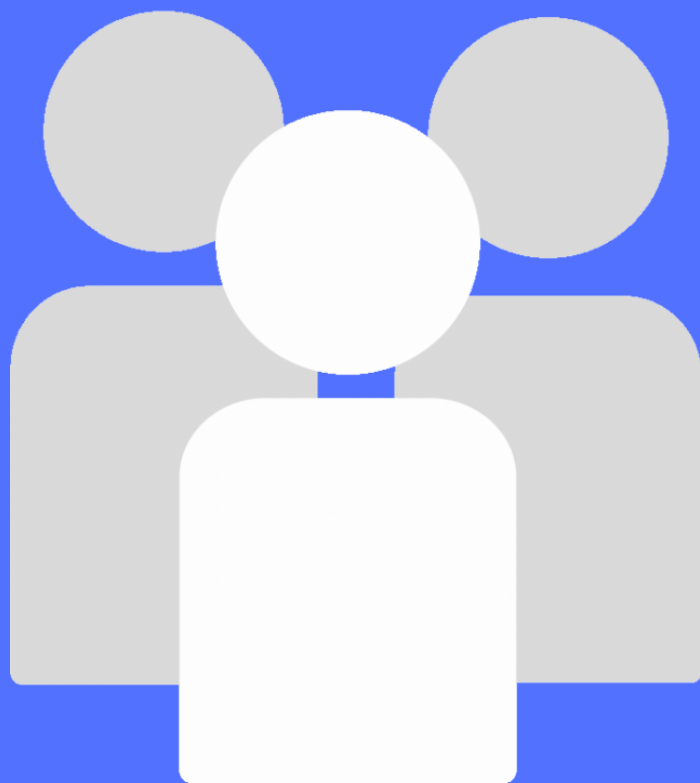
The algorithm is a MILP optimization
problem which are generally faster than
other algorithms



Our future:

- Find investors so we can improve our models and advertise our services.
- A steady grow of clients at the near future
- Get more personal with new approaches, and more knowledge of soccer





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