# Univ.ai AI 1 Cohort 2 Project Presentation Format

# \*The Intro of the video will be a cool edit of FIFA in the flesh (44 seconds)

# Time allotment

|  |  |
| --- | --- |
| **Part** | **Time(Secs)** |
| Part A - Rank the Players | 80 (Max) |
| Part B - Classify player position | 100 (Max) |
| Part C - Which Club has the Best Staff | 76 (Max) |
| **Total** | 256 |

**Problem Statement**

FIFA 20

Football is arguably the most popular sport in the world and FIFA is the most popular football (soccer) simulation game by Electronic Arts (EA Sports).

The game is not to be confused with the official International Federation for Football ([FIFA](https://www.fifa.com/)).

You are given the following public dataset, scraped from [https://sofifa.com](https://sofifa.com/). The data lists soccer players from the 2015-2020 editions of EA Sports **FIFA video game**. It consists of player positions, player attributes and personal data.

## Introduction

* Describe the problem
* Explain your approach to the problem
* Explain briefly how your chosen algorithms work

## Methodology

* Describe your dataset, emphasizing the data added by you.

**All the datasets used**

* Describe your code (what packages you used, anything new that you wrote)

**Packages included plus their use**

## Results [Results can be broken down in 3 parts]

* Present your results

**(Metric used for evaluation)**

* Describe their meaning

**(Explanation of all the graphs and stuff)**

## Conclusions

* Discuss what you learned from the problem

**(Best staff/ Best Player / Best Model for the problem along with its accuracy)**

* Speculate on any improvements that can be made

**(Stuff related to including more or less columns or any other factors that contribute to the improvement of the model)**

## Introduction

## Problem

**The player club changes can be tracked using the unique Sofifa id across all years. The problem statement is as follows:**

## Part A - Rank the Players [Adarsh]

The best player in the world?

* Use data from FIFA 19. Predict the Overall (OVR ) skill Statistic for players in the FIFA 20 Edition. Train on all players from FIFA 19
* Graphically represent the Overall data for the players in test set (see below0

## Instructions :

* Sofifa Id, URL, Name, Potential, Real face, URL variables cannot be used during the prediction or learning.
* In case of a change in playing position, alter FIFA 20 position to match FIFA 19 Position
* The final score will be assigned using MSE.
* Test Set: Players from the following Clubs
  + FC Barcelona
  + FC Bayern München
  + Real Madrid
  + Paris Saint-Germain
  + Juventus
  + Manchester City
  + Liverpool FC

## Part B - Classify player position [Nikhil]

Can a professional defender become a forward?

* Train on data from FIFA 19. Predict the player\_position variable using other skill statistics for players in the FIFA 20 Edition. Train on all players from FIFA 19
* Graphically represent the predicted player\_position for the players in Test Set

Details:

* Sofifa Id, URL, Wage, Salary, Name, Real face, URL variables cannot be used during the prediction or learning. \*
* The final score will be assigned using Classification accuracy
* Test Set: Players from the following Clubs
  + FC Barcelona
  + FC Bayern München
  + Real Madrid
  + Paris Saint-Germain
  + Juventus
  + Atlético Madrid
  + Manchester City
  + Liverpool
  + Manchester United

## Part C - Which Club has the Best Staff [Abhineet and Lok]

The best staff always help their players grow, can you identify that using historical data?

* Study player data from Division 1 European League\* players from the last 5 Years. Analyze changes in player stats and value. Rank the clubs according to best increase in statistics of a player
* Graphically represent the scores for the test set

Details :

* Sofifa Id, URL, Wage, Salary, Name, Real face, URL variables cannot be used during the prediction or learning.
* Assign a score to all clubs out of 100, and represent it in an appropriate visualization. With 100 being the highest
* For the test set, your model will be scored using MSE against the average of all models of the class. (Score = MSE( Your Values , Average of all models values))
* The test set is as follows for this problem statement (Division 1 European League):

**Leagues to be considered**

* Premier League - English Premier League
* Bundesliga German 1. Bundesliga
* Ligue 1 French Ligue 1
* La Liga Spain Primera Division
* Serie A Italian Serie A