High Level Design

FIFA 19

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DOCUMENT CONTROL

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Contents

Abstract

FIFA 19 stands as a pinnacle in the realm of virtual football simulations, offering players an immersive experience that mirrors the excitement and passion of real-world football. Developed by EA Sports, FIFA 19 builds upon its predecessors with enhanced gameplay mechanics, stunning graphics, and an extensive array of features that captivate gamers worldwide.

At its core, FIFA 19 offers players the opportunity to engage in authentic football matches, whether they're competing against AI opponents, challenging friends in multiplayer mode, or testing their skills in competitive online leagues. With its wide range of gameplay modes, from Career Mode and Ultimate Team to Kick-Off and The Journey, FIFA 19 caters to diverse preferences and playstyles.

With FIFA being in the blood as many people of the world. We are tasked to tell the story of unsung analysts who put great efforts to provide accurate data to answer every question of fans.

1 Introduction

1.1 Why this High-Level Design Document?

The purpose of this High-Level Design (HLD) Document is to add the necessary detail to the current project description to represent a suitable model for coding. This document is also intended to help detect contradictions prior to coding, and can be used as a reference manual for how the modules interact at a high level.

The HLD will:

• Present all of the design aspects and define them in detail

• Describe the user interface being implemented

• Describe the hardware and software interfaces

• Describe the performance requirements

• Include design features and the architecture of the project

• List and describe the non-functional attributes like:

o Security

o Reliability

o Maintainability

o Portability

o Reusability

o Application compatibility

o Resource utilization

o Serviceability

1.2 Scope

The HLD documentation presents the structure of the system, such as the database architecture, application architecture (layers), application flow (Navigation), and technology architecture. The HLD uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.

2 General Description

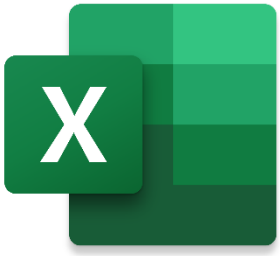
2.1 Product Perspective & Problem Statement

A banking domain is comprised of all the components needed to run a financial service end-to-end It covers the transaction and distribution process; the ways in which customers interact with the system, products, and services the organization offers; and the technology involved.

The objective of the project is to perform data visualization techniques to understand the insight of the data. This project aims apply various Business Intelligence tools such as Tableau or Power BI to get a visual understanding of the data and helps in getting the clear insights from the data.

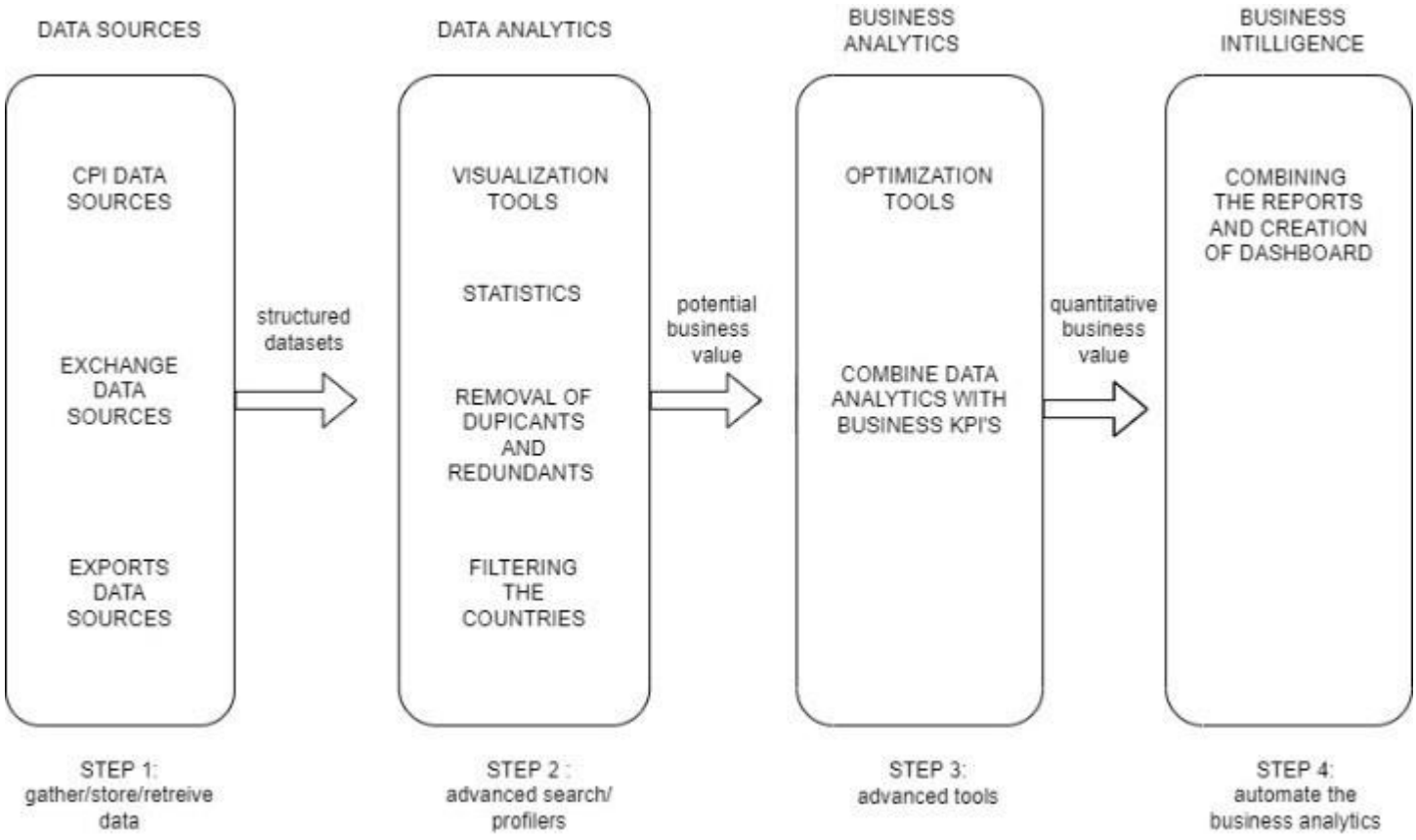
2.2 Tools used

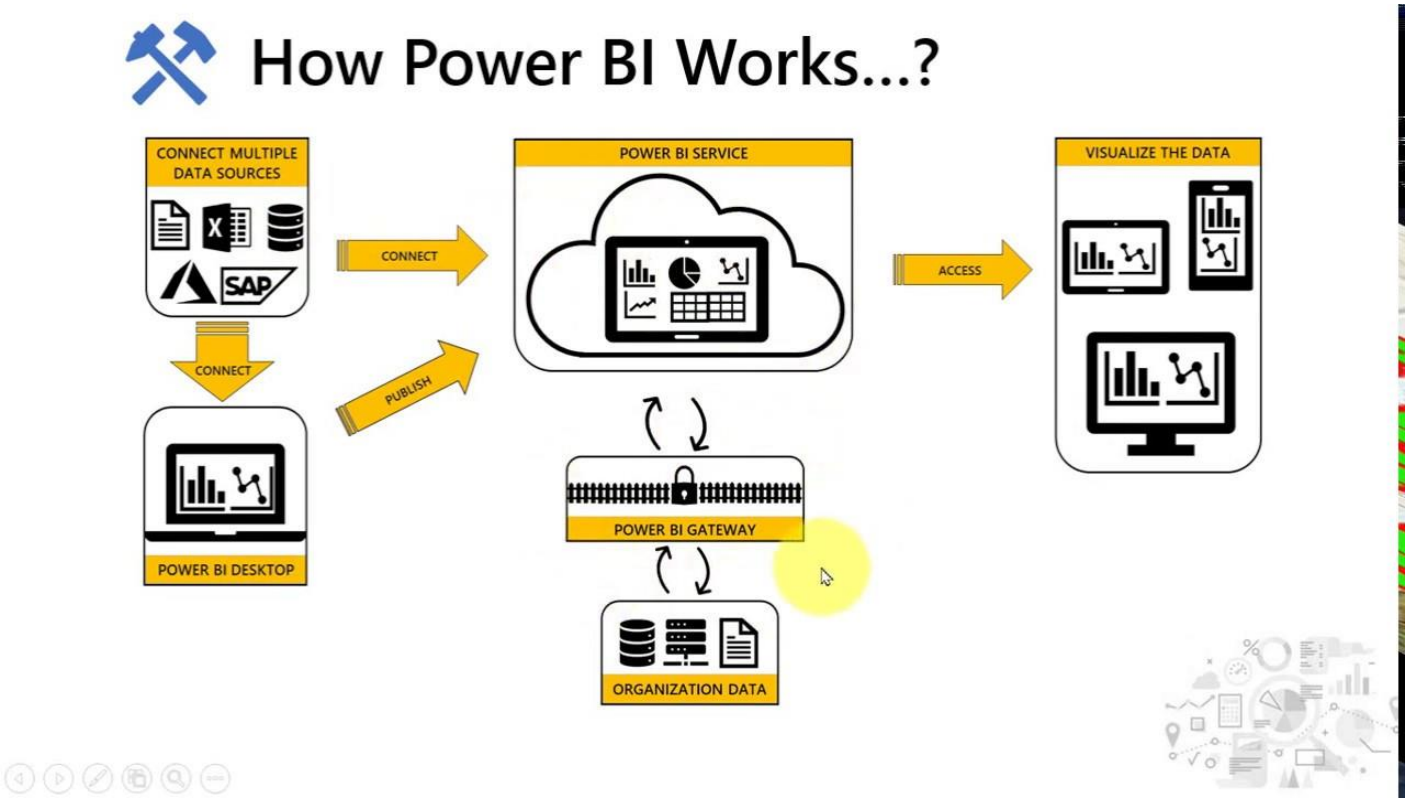
Business Intelligence tools and libraries works such as NumPy, Pandas, Excel, Python, Power BI are used to build the whole framework.



3 Design Details

3.1 Functional Architecture





3.2 Optimization

- Replacing Null values with 0 from the datasets.
- Conversion of monthly data to yearly and quarterly data.
- Filtering the countries
- Reshaping the data from wide data type to long data type for analysis

4 KPIs

Key indicators displaying a summary of effect on different countries by CPI, EXCHANGE and EXPORTS rate

1. Overall Rating: A comprehensive rating that represents a player's overall skill level and performance.

2. Positional Ratings: Specific ratings for different positions such as striker (ST), midfielder (CM, CAM, CDM), defender (CB, LB, RB), and goalkeeper (GK).

3. Physical Attributes: Attributes related to physical characteristics such as speed, strength, agility, and stamina.

4. Technical Skills: Abilities related to ball control, dribbling, passing accuracy, shooting accuracy, and free-kick taking.

5. Mental Attributes: Attributes related to decision-making, positioning, vision, and composure.

5 Deployment

The migration of data sources to Power BI Cloud enables the deployment of a link, granting users access to interactive visualizations. With the deployed link, users can select any country, club, and player from the available range. Once the country, club, and player are chosen, users can analyze valuation, wages, age distribution, and player positions. Additionally, users can create their own teams by selecting formations such as 4-2-3-1, 4-4-2, and 3-5-2.

6 Scope

In our FIFA 19 project, the primary scope revolves around analyzing player data encompassing attributes like overall rating, position, club affiliation, nationality, and age. The project aims to provide users with interactive tools to explore and understand player statistics, trends, and performance across different dimensions. Through intuitive visualizations and filtering options, users can gain valuable insights into player attributes, team compositions, and the broader dynamics of the football world represented in FIFA 19.