**README Example**

**Data Cleaning and Value for Money Calculation**

**Overview**

This project involves two main steps:

1. **Data Cleaning**: Preparing the dataset for analysis by addressing missing values and ensuring data types are correct.
2. **Value for Money Calculation**: Computing a metric to evaluate how well a player's performance justifies their wage.

**1. Data Cleaning**

**Objective:** Ensure the dataset is clean and ready for analysis by handling missing values and converting data types.

**Steps:**

1. **Load the Data:**

python

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import pandas as pd

df = pd.read\_csv('players.csv')

1. **Clean the Data:**
   * **Remove Missing Values:**

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df = df.dropna(subset=['overall\_rating', 'wage\_euro'])

* + **Convert Data Types:**

python

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df['birth\_date'] = pd.to\_datetime(df['birth\_date'])

df['wage\_euro'] = pd.to\_numeric(df['wage\_euro'], errors='coerce')

1. **Save Cleaned Data:**

python

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df.to\_csv('cleaned\_players.csv', index=False)

**2. Value for Money Calculation**

**Objective:** Calculate the value\_for\_money metric, which evaluates the performance a player provides per unit of wage spent.

**Steps:**

1. **Load Cleaned Data:**

python

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df = pd.read\_csv('cleaned\_players.csv')

1. **Calculate Value for Money:**

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df['value\_for\_money'] = df['overall\_rating'] / df['wage\_euro']

1. **Save Results:**

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df.to\_csv('players\_with\_value\_for\_money.csv', index=False)

1. **Verify Results (Optional):**

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print(df[['full\_name', 'overall\_rating', 'wage\_euro', 'value\_for\_money']].head())

**Key Points**

* **Data Cleaning**: Ensures that only complete and correctly formatted data is used for analysis.
* **Value for Money Calculation**: Provides insight into how efficiently players' wages translate into performance.

**Benefits**

* **Preparation for Analysis**: Cleaned data ensures accurate and reliable calculations.
* **Decision-Making**: value\_for\_money metric helps in evaluating player acquisition and budget allocation based on performance relative to cost.