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Full Project Description — Chess Lichess Analysis (Power BI Project)

Tools: Microsoft Power BI

Data Cleaning Tool: Power Query, Python

Overview

This project presents a complete, production-ready Power BI dashboard designed to analyze chess game data exported from Lichess, Lichess is a free, open-source online chess platform where players can play games, join tournaments, solve puzzles, and analyze their matches — all with no ads and a fast, easy experience. The goal is to convert raw, unstructured CSV files into an intelligent analytical model that provides insights into openings, moves, time controls, player behavior, and performance trends. Build a set of KPI visuals that answer business questions about openings, move patterns, and game tempo, Provide a polished, user-friendly Moves Analysis page with images and dynamic labels Key KPIs implemented and validated.

Purpose

The goal is to provide an interactive, production-ready Power BI dashboard that is capable of analyzing games exported from Lichess solely to reveal insights related to :

Opening patterns and performance.

Distribution of moves and game length.

Last-move behavior and piece usage.

Time-control preferences and their effect on results Player strengths, weaknesses, and rating evolution.

Relationship between openings, time controls, and match outcomes.

The solution supports decision-making for players, analysts, and product owners.

The dashboard is structured into multiple analytical pages covering:

Piece Explanation: Clarifies how each chess piece moves for non-chess audiences.

Performance Analysis: Victory status, rating differences, rating progression, and time-control impact.

Player Analysis: Most active players, win/loss/draw patterns, color advantage, streaks, and behavior trends.

Moves Analysis: Move distribution, last-move patterns, game length, and piece usage.

Opening Analysis: Opening popularity, win rates, opening families, and draws.

Audience

The dashboard serves: From open-source professional to competitive players to product owners and analysts, everyone who wants to measure and understand their play style and perform over several games, Competitive players reviewing long-term trends, Anyone wanting to understand and improve their game through data.

Stakeholders

Product Owner / Data Consumer: Requests KPIs and regular reports

Coaches & Players: Use insights to tailor training and opening preparation

Analysts: Explore player tendencies and long-term behavioral trends