**User Guide for Elasticsearch Data Extractor**

**Overview**

The Elasticsearch Data Extractor is a Streamlit-based application that allows users to:

* Search for indices in an Elasticsearch cluster based on a keyword.
* Select an index and view its available columns.
* Apply date-based and column-based filters to extract relevant data.
* Select specific columns (or all columns) for download.
* Save the extracted data as a CSV file to a specified local path.

**Getting Started**

**Step 1: Launch the Application**

Run the Streamlit application using:

streamlit run app.py

Ensure that your Elasticsearch instance is running and accessible.

**Step 2: Connect to Elasticsearch**

* Enter a keyword in the "Enter keyword to search indices" input field to list available indices.
* Select an index from the dropdown list.

**Step 3: Select Data Filters**

* Choose a **date field** from the available columns.
* Specify a **start date** and **end date** to filter the data by time range.
* Choose a **filter column** and select one or multiple values to refine the data.

**Step 4: Select Columns for Extraction**

* Use the "Select columns to download" multi-select box.
* Choose **"Select All"** if you want to download all columns.

**Step 5: Extract and Preview Data**

* Click the **"Extract Data"** button to fetch and display filtered data.
* If data is found, it will be shown in a table format.

**Step 6: Save and Download Data**

* **Save Locally:** Enter a full file path (e.g., /Users/yourname/Downloads/data.csv) and click **"Save CSV Locally"**.
* **Download CSV:** Click the **"Download CSV"** button to download the extracted data.

**Troubleshooting**

**Issue: File Not Saving to Selected Location**

* Ensure you provide an **absolute path** (not relative) when saving locally.
* Check that you have write permissions for the specified directory.
* If running in a restricted environment, use the **Download CSV** button instead.

**Issue: No Data Found**

* Check if the selected date range is correct.
* Verify that the chosen filters match available data in Elasticsearch.

**Issue: Elasticsearch Connection Failure**

* Confirm Elasticsearch is running and accessible at the configured host.
* Ensure correct credentials are provided in the script.

**Contact & Support**

For any issues or feature requests, please contact the developer team or refer to Elasticsearch documentation for troubleshooting.

Happy Data Extraction! 🚀