**MultiInsight-Text-to-SQL\_Results\_Comparison: Revolutionizing Performance Testing Analysis**

**Introduction**

Welcome to **MultiInsight-Text-to-SQL\_Results\_Comparison**! This GenAI application addresses a major challenge faced by performance teams during System Functional Testing (SFT) execution. It simplifies the process of analyzing test results from multiple runs, each comprising more than 200 testing steps, typically maintained in different Excel files.

**Problem Statement**

Performance teams conduct multiple runs during SFT execution with simultaneous hit applications and varying loads to evaluate application stability after each code check-in. The manual analysis of results from over 200 testing steps in each run is a tedious, time-consuming, and error-prone process.

**Solution**

**MultiInsight-Text-to-SQL\_Results\_Comparison** offers a streamlined solution to these problems:

* **Automates Analysis**: Allows users to upload multiple Excel sheets or one at a time using the "Browse file" option. The application converts Excel data into tables for efficient analysis.
* **Comprehensive Comparison**: Provides a detailed comparison analysis of all testing steps across different cycle runs (e.g., WPC cycle one and cycle two).
* **Insightful Reporting**: Highlights performance improvements and degradations with in-depth analysis and recommendations. Generates downloadable Excel sheets and Word documents for further analysis.

**Features**

* **Multi-LLM Support**: Offers the option to choose from different Language Learning Models (LLMs) available on the IBM BAM platform.
* **User-Friendly Interface**: An easy-to-navigate UI for selecting and comparing query results.
* **Detailed Comparison**: Provides an in-depth comparison of query results, highlighting differences and similarities.
* **Performance Metrics**: Analyzes the performance of different models based on various criteria such as response time, execution time, and result quality.
* **Complete Analysis**: Allows downloading of complete analysis of each testing step with over 200 records into an Excel sheet for local storage and further examination.
* **Automated Analysis**: Converts uploaded Excel data into tables for automated analysis.
* **Comprehensive Reporting**: Offers detailed summaries, insights, and recommendations, highlighting performance improvements and degradations.

**Getting Started**

**Prerequisites**

Before you begin, ensure you have the following installed:

* Python 3.12 or higher
* Required Python libraries (specified in requirements.txt)

**Installation**

1. Clone the repository:

bash

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git clone https://github.com/your-username/MultiInsight-Text-to-SQL\_Results\_Comparison.git

cd MultiInsight-Text-to-SQL\_Results\_Comparison

1. Install the dependencies:

bash

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pip install -r requirements.txt

**Contact**

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