PDF GENERATOR FOR EMPLOYEES REPORTS

❖ **Introduction**

"PDF Generator for Employee Reports" is a Java-based command-line application that allows users to seamlessly generate professional PDF reports from CSV files or database entries. Without the need to install additional software, users can view and export their data in a clean, well-formatted PDF, which is automatically saved in the Downloads folder of their system.

❖ **Abstract**

This Java-based program operates in a Maven environment and allows users to input data through CSV files or a database. Using external libraries such as OpenCSV, SQLite JDBC, and iText, the application processes the data and generates clean, well-structured PDF reports. It is especially useful for users handling compact datasets, enabling quick analysis, review, or decision-making without the need for additional software. In short, it streamlines both data visualization and report generation.

❖ **Tools Used**

- **IntelliJ IDEA** – Used as the Integrated Development Environment (IDE) for building and managing the Java project.
- **Maven** – For dependency management and project structuring.
- **OpenCSV Library** – To read and process Excel (CSV) files.
- **SQLite JDBC Driver** – To interact with file-based SQLite databases.
- **iText PDF Library** – To generate and format professional PDF reports.

❖ **Procedure**

i.   **Maven Environment Setup** – Maven was used to structure the project and manage external dependencies effectively.

ii.   **Adding Dependencies** – Required libraries such as OpenCSV, SQLite JDBC, and iText were added to the pom.xml file.

iii.   **Importing Packages** – All necessary packages and classes were imported to handle CSV reading, database operations, and PDF generation.

iv.   **Building Core Modules** – Functional classes were written for:
   - Viewing and querying databases using JDBC
   - Reading CSV files using OpenCSV
   - Generating PDFs using iText

v.   **Report Generation** – Final reports were generated from the selected data and automatically saved in the Downloads folder with timestamps.

vi.   **Testing and Debugging** – The application was thoroughly tested with sample data to ensure correctness and stability.

❖ **Conclusion**

This Java-based program provides a simple yet powerful solution for users who need to visualize and extract critical data from CSV and database files without relying on additional software. By integrating tools like OpenCSV, SQLite JDBC, and iText within a Maven-managed environment, the application ensures efficient data processing and professional PDF report generation. It is especially beneficial for generating last-minute reports, aiding in quick analysis and decision-making. In the future, the application can be extended with GUI support and cloud storage options to enhance usability and scalability.