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| RAZDA Co. | | |
| **Filename: [logs\_viewer.py]** | | |
| **Summary***:*  This file provides functionality for viewing, exporting, and analyzing system logs in Razda Market. As a vital part of the administration toolkit, it allows administrators to filter logs by category, severity, and date range, enabling efficient monitoring of system events and issues. The file also includes exporting capabilities, allowing logs to be saved as CSV or JSON files, and provides statistical insights into log levels, helping with system maintenance and issue resolution. | | |
| ***Processes*** | | |
| |  | | --- | | **Log Viewing** |  |  | | --- | |  | | **Displays logs filtered by category, severity, and date range for targeted review.** | |
| |  | | --- | | **Log Exporting** |  |  | | --- | |  | | **Exports filtered logs in CSV or JSON formats, aiding in record-keeping and offline review.** | |
| **Log Statistics**     |  | | --- | |  | | **Generates statistics on log levels, providing insights into the frequency of different log types (e.g., INFO, WARNING, ERROR).** | |
| **Files it Gets Information From:** | | **Files it Sends too:** |
| * Database Configuration (MySQL): Retrieves logs from the system\_logs table using SQL queries | | * Logs: logs\_viewer.log for tracking all log viewing and export actions |
| * Enviroment Variables: DB\_HOST, DB\_USER, DB\_PASSWORD, DB\_NAME from .env for connecting to the database | | * Exported Files: Generates. Files like exported\_logs.csv or exported\_logs.json based on user input |
|  | | * Console Output: Displays filteed logs and statistics to the administrator |
| **Expected input into file:** | | **Expected output from file:** |
| Enviromental Variables: For database connection details  ‘’’python  DB\_HOST, DB\_USER, DB\_PASSWORD, DB\_NAME  ‘’’  User Input (CLI):  ‘’’python  Args = parser.parse\_args()  Category, level, start\_date, end\_date  ‘’’ | | Console Output: Filtered logs, statistics summaries, and export confirmations.  ‘’’python  print(tabulate(table, headers, tablefmt=”grid”))  ‘’’  Exported Files: CSV or JSON files with selected logs  ‘’’python  with open(filename, mode=’w’) as file:  ‘’’ |
| **Things that need to be taking place:** | | |
| |  | | --- | | **● Database Connection Validation: Ensures successful connection to the MySQL database for log retrieval.** |  |  | | --- | | **● Error Handling and Logging: Logs errors (e.g., connection issues, unsupported formats) and all actions for transparency.** |  |  | | --- | | **● Command-Line Argument Parsing: Uses argument parsing to handle various user commands and filters, offering flexible log management.** |  |  | | --- | |  | | | |
| Edit log (update each time you make changes to doc or file). | | |
| * Oliver Smith (Razda Admin) Nov 8, 2024: Implemented log viewing, export, and statistics functions, added filtering options. | | |