

InsightCore Agent - Summary

The InsightCore Agent is a behavior-tracking system designed to simulate a smart assistant that analyzes user productivity patterns. It consists of two main Python scripts. The first, `data_logger.py`, allows users to log tasks in real-time by entering the task name and its status (completed, skipped, or repeated). Each entry is saved in `user_behavior_log.csv` along with a timestamp and an RL-style reward value: +1 for completed tasks, -1 for skipped ones, and 0 for repeated tasks. This reward mechanism simulates reinforcement learning feedback to score user performance over time.

The second script, `insights_generator.py`, reads the log file and analyzes user behavior by calculating key insights such as task completion rate, most productive hour of the day (based on completed tasks), the most skipped task, and the most repeated task. These insights are printed to the console and also saved to a separate file named `insights_report.csv` for further use.

Both CSV files can be imported into a Power BI dashboard (`dashboard_powerbi.pbix`) to visually represent the data. The dashboard includes bar charts, KPI cards, and tables to display trends, productivity scores, and suggestions for optimal task scheduling. This end-to-end system not only tracks actions but also provides meaningful feedback to help improve user habits and productivity.