

■ PHASE VII – Advanced Database Programming and Auditing (Detailed Introduction)

In this final phase, the Tuition Aid System was enhanced using advanced PL/SQL programming to improve its security, accountability, and automation. Real-world systems require more than just basic data operations — they must also enforce **rules**, **track user activity**, and **prevent risky changes**, especially when dealing with sensitive financial and personal data. Using features like **triggers**, **packages**, **auditing tables**, and **business logic enforcement**, this phase ensures that the database behaves intelligently and securely, even without manual supervision. It also allows the system to **log every interaction**, detect unusual activity, and automatically **block unsafe operations** during restricted periods such as weekdays or public holidays.