**Data Management System for a University Case Study**

**Objective:**

The objective of this project is to design and implement a comprehensive data management system for a university using SQL, PLSQL, Advanced PLSQL, Red Hat, Bash scripting. The project encompasses various aspects, including database design, SQL and PLSQL implementation, automation scripts.

**Milestones:**

1. **Database Design (Day 1):**

* Define a relational database schema including tables for students, courses, departments, and grades.
* Normalize the schema to ensure data integrity.
* Document the database design.

1. **SQL Implementation (Day 2):**

* Create SQL scripts to build the database schema.
* Populate the database with sample data.
* Test and validate the correctness of the database.

1. **PLSQL Implementation (Day 3):**
   * Write PLSQL procedures for:
   * Updating student information.
   * Calculating GPA.
   * Test the PLSQL procedures with sample data.
2. **Automation Scripts (Day 4):**
   * Bash script for database backup.
   * Bash script for monitoring disk space and sending alerts.
   * Schedule a script to check for anomalies and send notifications.

**Final Deliverables (End of Week):**

1. Documented database schema and SQL scripts.
2. PLSQL procedures for data manipulation.
3. Bash scripts for automation tasks.
4. **Project Presentation (5 minutes):**
   * Prepare a concise and engaging presentation summarizing the key aspects of the project.
   * Highlight the database design, key SQL queries, PLSQL procedures, automation scripts, and Java application features.
   * Showcase the integration between the Java application and the database.
   * Discuss any challenges faced during the project and how they were addressed.
   * Emphasize the strengths and unique features of the data management system.
   * Demonstrate the generated report and its significance.
   * Allocate time for questions and answers.