

# Student report card generator

# **Team Members**

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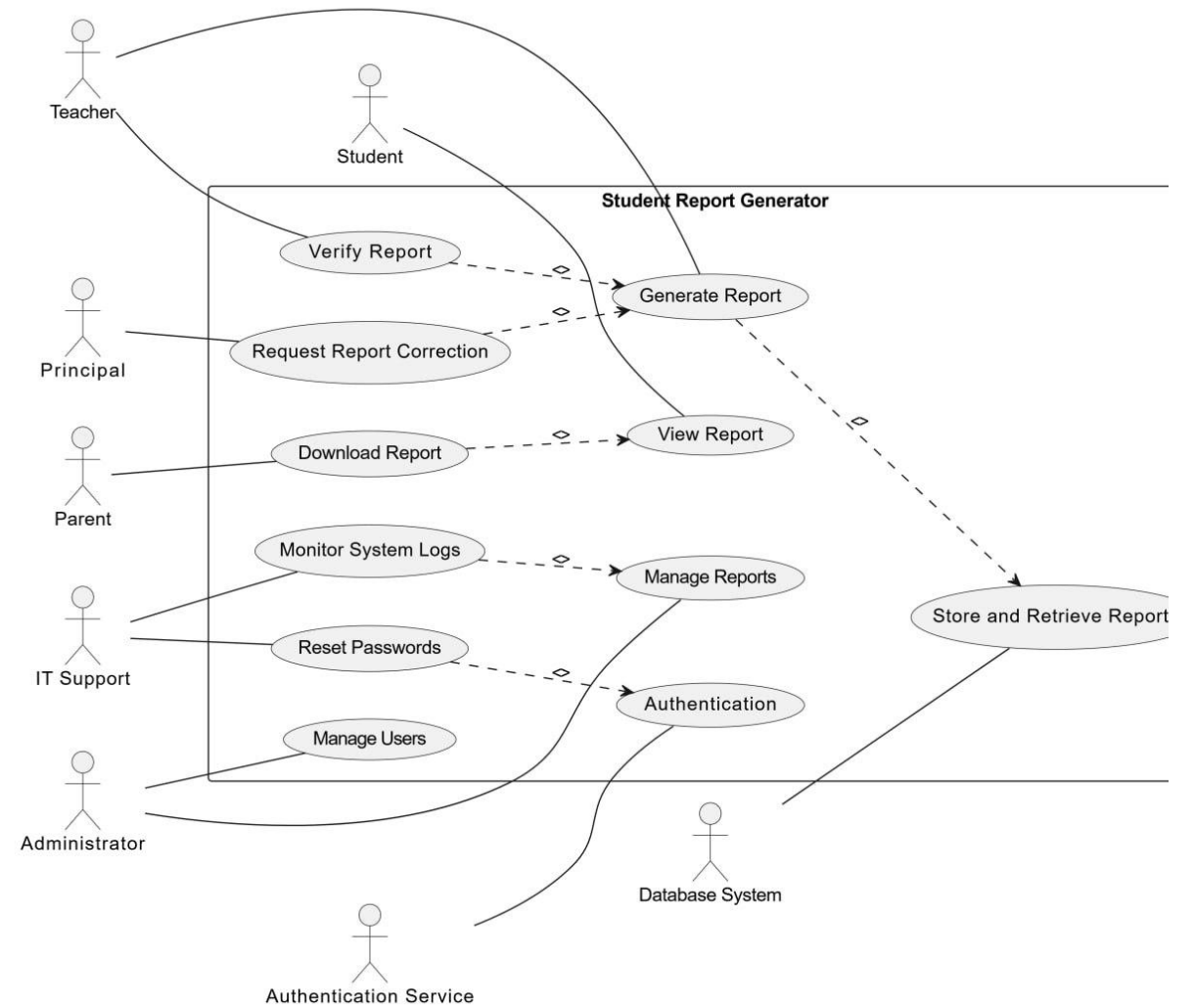
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# Modules

- 1. Authentication Module :**
  - **User login Password management Role-based access control**
- 2. Student Management Module:**
  - **Add/update student details View student profile Manage student enrollment**
- 3. Data Collection Module:**
  - **Fetch student grades from the database Retrieve attendance records Collect extra-curricular activity data**
- 4. Grading & Evaluation Module:**
  - **Define grading criteria (GPA, percentage, letter grades) Automatic grade calculation Teacher input for remarks and feedback**

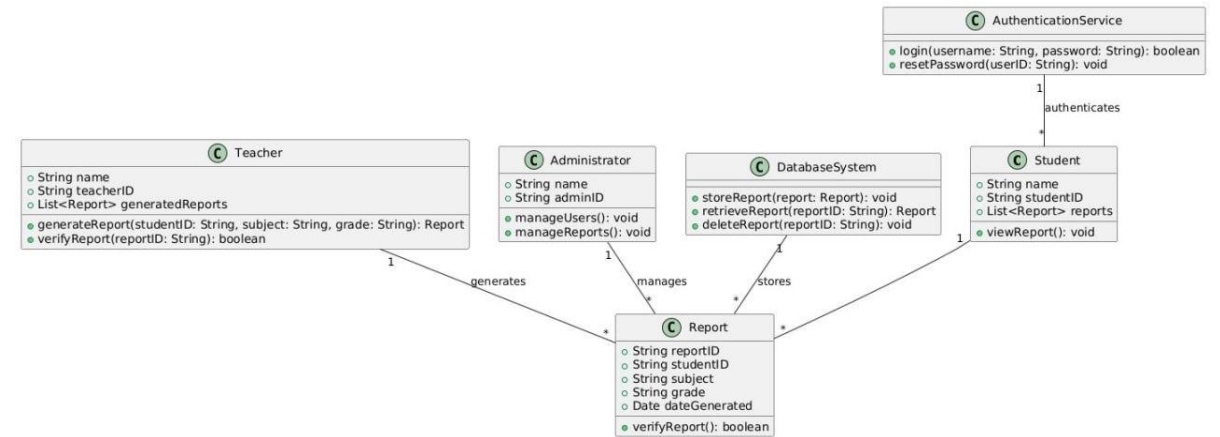
# UML diagram



# UML DIAGRAM

- UML (Unified Modeling Language): A standardized visual modeling language for software systems.
- Structural Diagrams: Class, Object, Component, Deployment.
- Behavioral Diagrams: Use Case, Sequence, Activity, State.
- Purpose: Enhances communication, simplifies design, improves documentation.
- Benefit: Makes software development structured, efficient, and understandable.

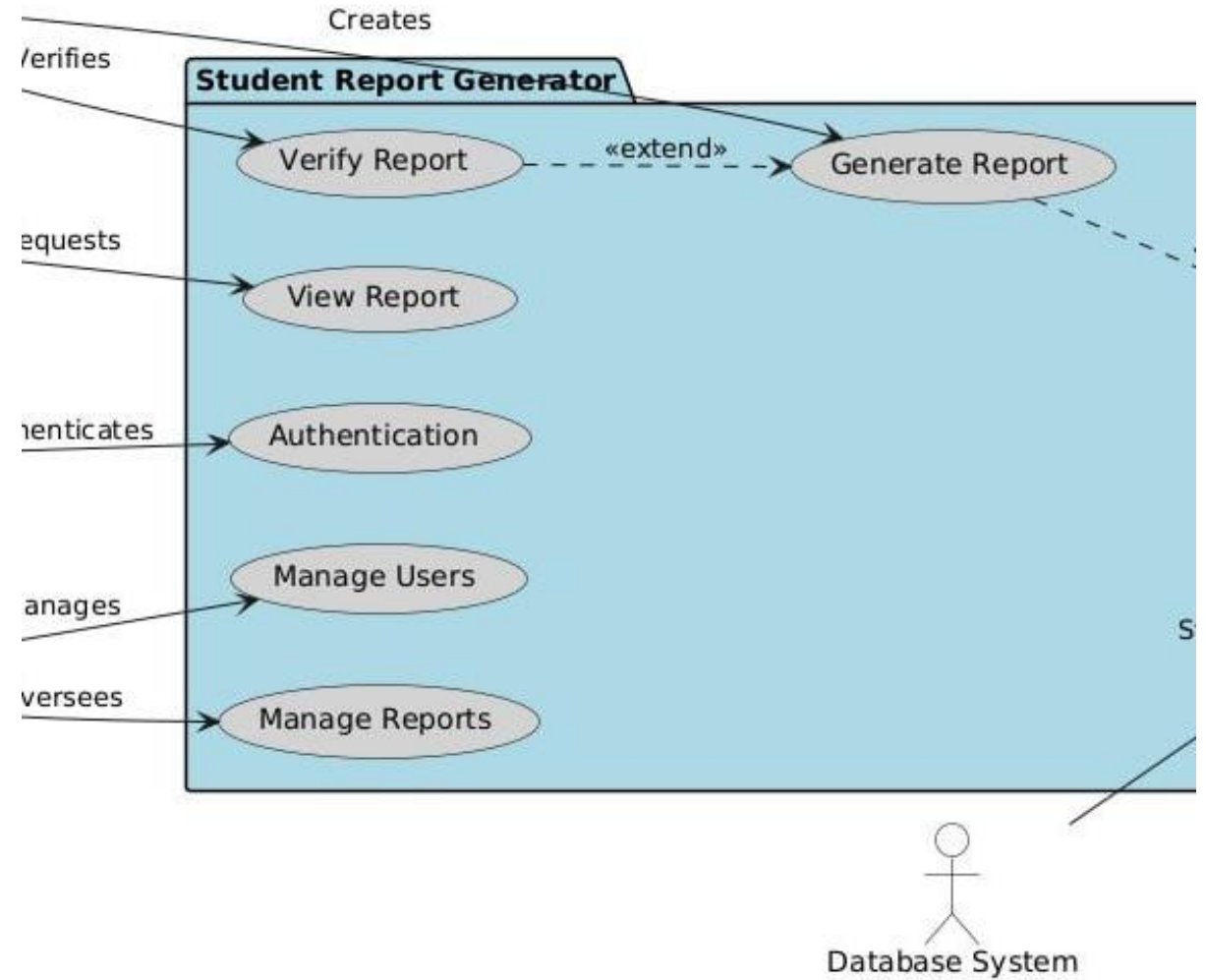
# Class diagram:



# CLASS DIAGRAM

- Class Diagram models a system's structure using classes, attributes, methods, and relationships.
- Helps in object-oriented design by defining interactions between entities.
- Student Report Generator System:
- Teacher: Generates and verifies reports.
- Student: Views reports.
- Administrator: Manages users and reports.
- DatabaseSystem: Stores reports securely.
- AuthenticationService: Ensures secure access.

# Use case diagram

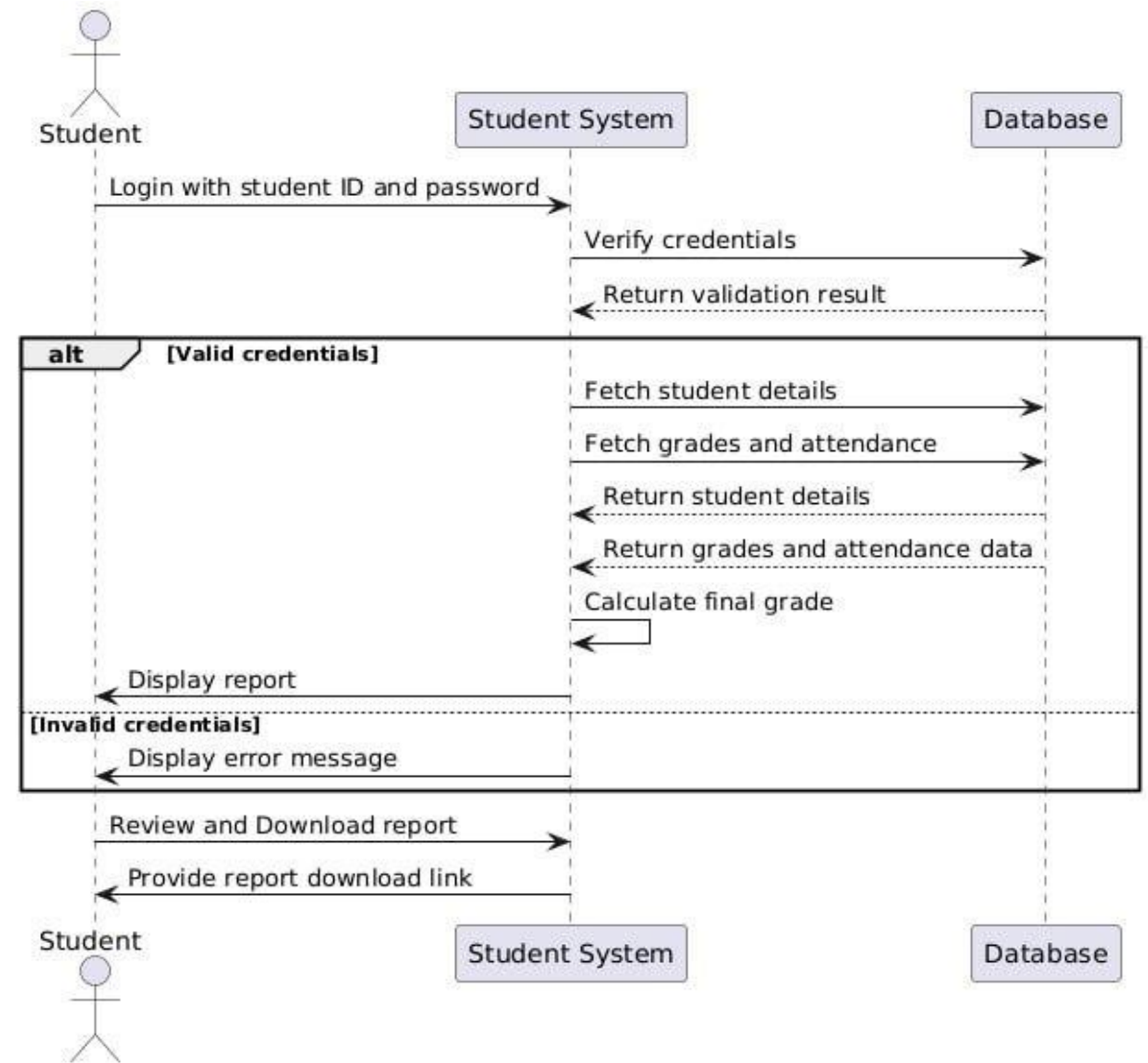




# USE CASE DIAGRAM

- Use Case Diagram represents system functionalities and user interactions.
- Actors: Teacher, Student, Administrator, Parent, IT Support, Authentication Service, Database System.
- Use Cases: Generate, Verify, View, Download, Manage Reports, Reset Passwords, Authenticate Users.
- Purpose: Defines system functions, improves communication, and enhances system design

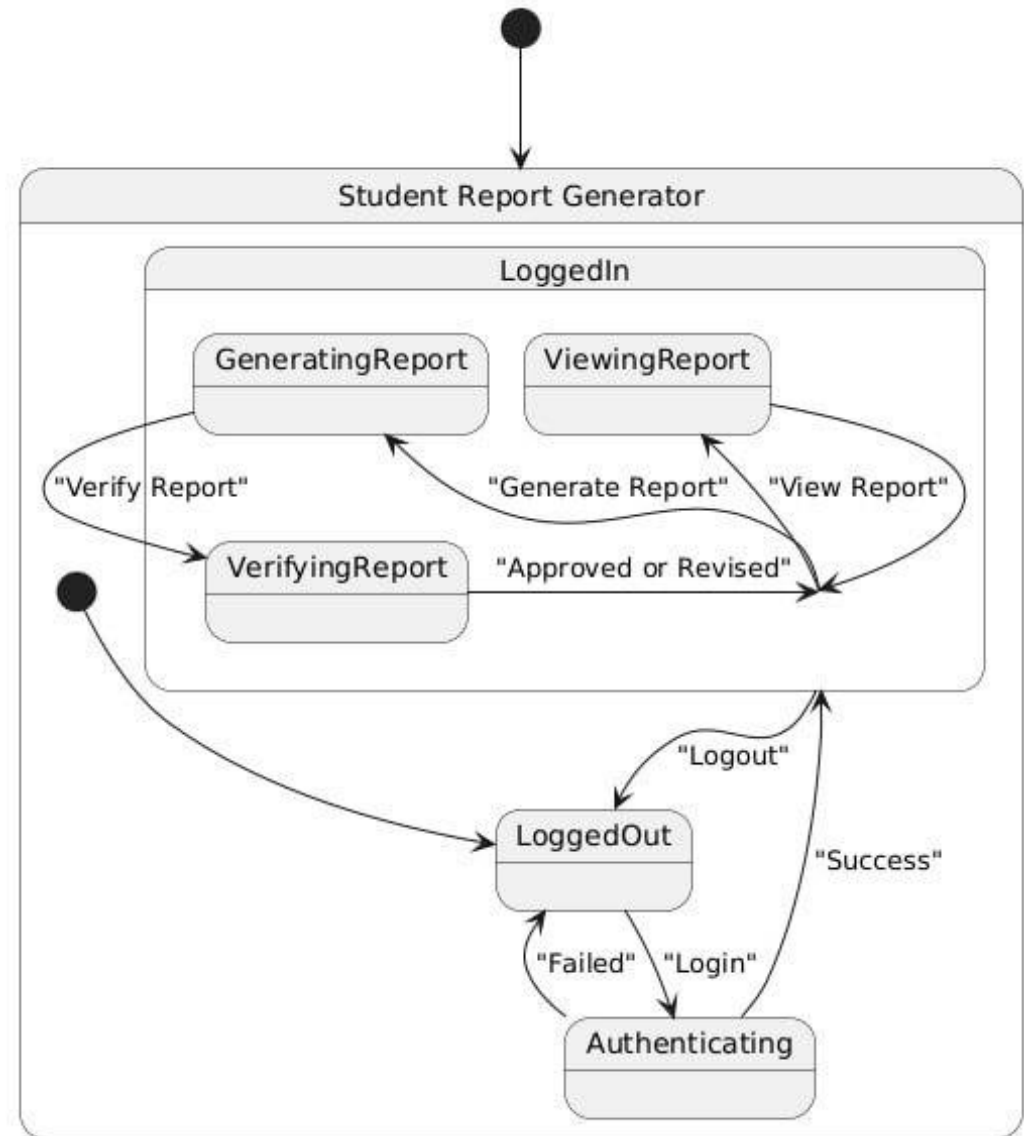
# interaction



# INTERACTION

- Interaction Diagrams represent object interactions in a system's dynamic behavior.
- Types: Sequence Diagram – Shows message flow over time.
- Collaboration Diagram – Displays object relationships and interactions.
- Student Report Generator Interactions: Teachers generate and verify reports. Students view reports.
- Administrators manage users and reports.
- Authentication service ensures secure access.
- Database stores and retrieves reports

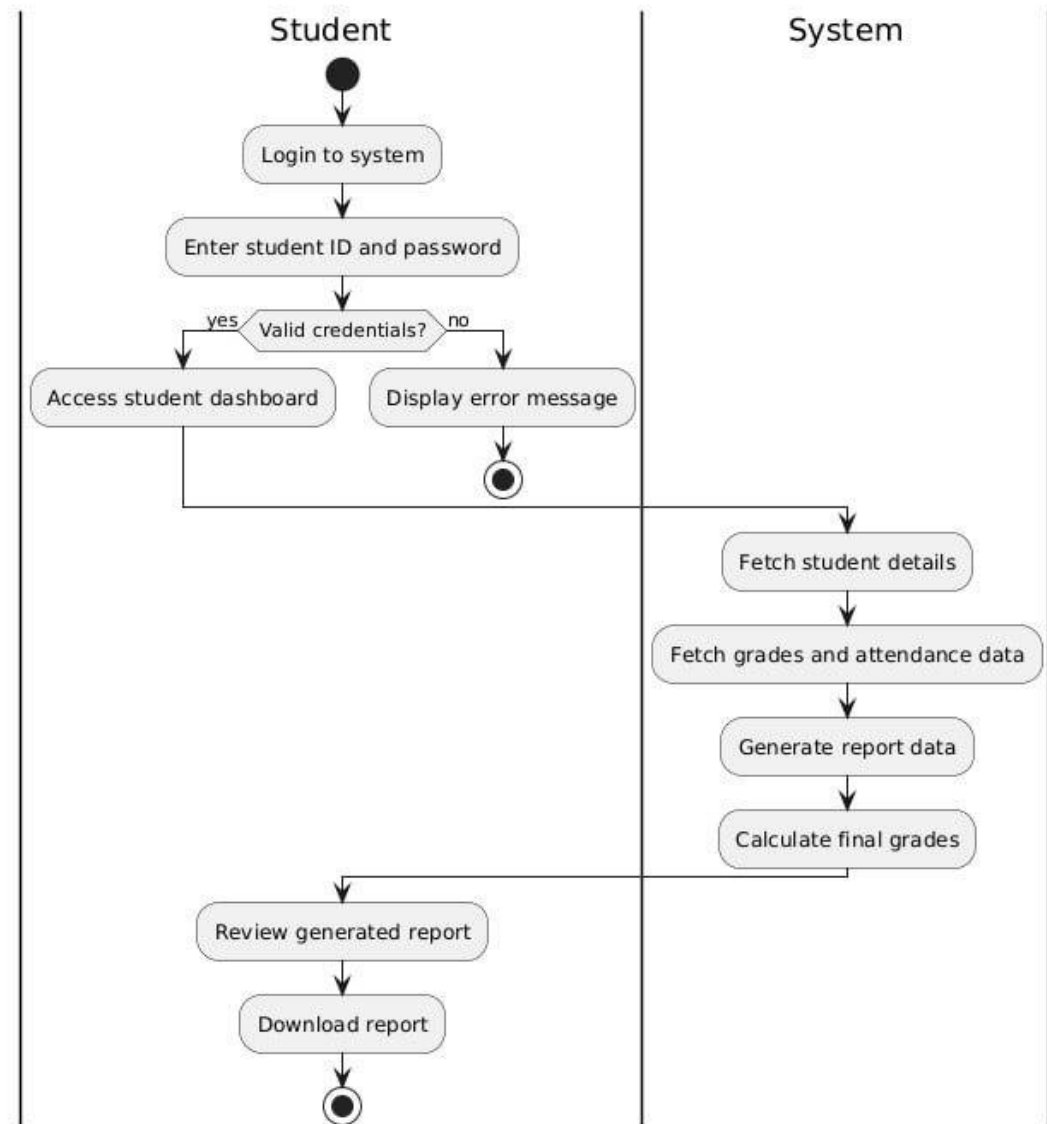
# STATE CHART DIAGRAM



# STATE CHART DIAGRAM

- State Chart Diagram models an object's states and transitions.
- Components: States – Different conditions of an object.
- Transitions – Changes between states triggered by events.
- Student Report Generator States: Report Created by teacher. Report Verified by teacher. Report Viewed by student.
- Report Downloaded by parent. Report Updated if corrections are needed. Report Stored in the database.

# Activity diagram



# ACTIVITY DIAGRAM

- This Activity Diagram represents a Student Report Generation process, divided into Student and System swimlanes.
- The student logs in, enters credentials, and accesses the dashboard if valid.
- The system fetches student details, grades, and attendance, generates the report, and calculates final grades.
- The student then reviews and downloads the report.

**Thank you**