

Project Proposal On Report Card Management System

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Batch Code:ANP-D2406

Course Code:ITPR

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Title of the Project:

Report Card Management System

Introduction to Report Card Management System:

- Report Card Management System is a faster and accurate system that stores student data and marks.
- It calculates grades automatically.
- Helps teachers save time and reduce errors.

Objective:

- It reduce manual work.
- Avoid calculation errors.
- Store all student and marks data in one place.
- Auto-calculate total marks, percentage, and grade.
- Provide a simple and secure system.

Project Category:

- Application-Based Project using Java, JDBC, and MySQL

Analysis:

Modules and Description

1. Login Management

Handles secure login

2. Student Management

Add, update, delete, view student details

3. Subject Management

Manage subject code and subject name

4. Attendance Management

Records daily attendance of students

5. Exam Management

Stores exam types (unit test, mid-term, final exam)

6. Schedule Management

Maintains time table / schedule for different exams

7. Marks Management

Enter and update marks for each student

8. Grade Management

Automatically calculates total marks, percentage, and grade

DATABASE DESIGN – Report Card Management System

Table 1: Login

Fields	Datatype	Properties
Username	Varchar(50)	Primary key ,Not null
Password	Varchar(50)	Not null
Role	Varchar(20)	Not null

Table 2: Student

Fields	Datatype	Properties
Student_id	Varchar(30)	Primary key,Not null
Student_name	Varchar(100)	Not null
dob	Varchar(20)	Not null
gender	Varchar(10)	Not null
email	Varchar(100)	Not null
class	Varchar(20)	Not null

Table 3: Exam

Fields	Datatype	Properties
student_id	Varchar(30)	Not null, foreign key
exam_type	Varchar(50)	Primary Key, Not null
is_eligible	Varchar(10)	Not null (Yes / No)
Exam_date	date	Not null (Yes / No)

Table4: Schedule

Fields	Datatype	Properties
exam_type	Varchar(50)	Foreign key, Not null
subject_code	Varchar(20)	Foreign key, Not null
exam_date	date	Not null
start_time	Varchar(20)	Not null
end_time	Varchar(20)	Not null

Table5: Marks

Fields	Datatype	Properties
student_id	Varchar(30)	Foreign Key, Not null
subject_code	Varchar(30)	Foreign Key, Not null
marks	int	Not null

Table 6:Subject

Fields	Datatype	Properties
Subject_code	Varchar(30)	Primary key,Not null
Subject_name	Varchar(200)	Not null
Max_marks	int	Not null
Min_marks	int	Not null

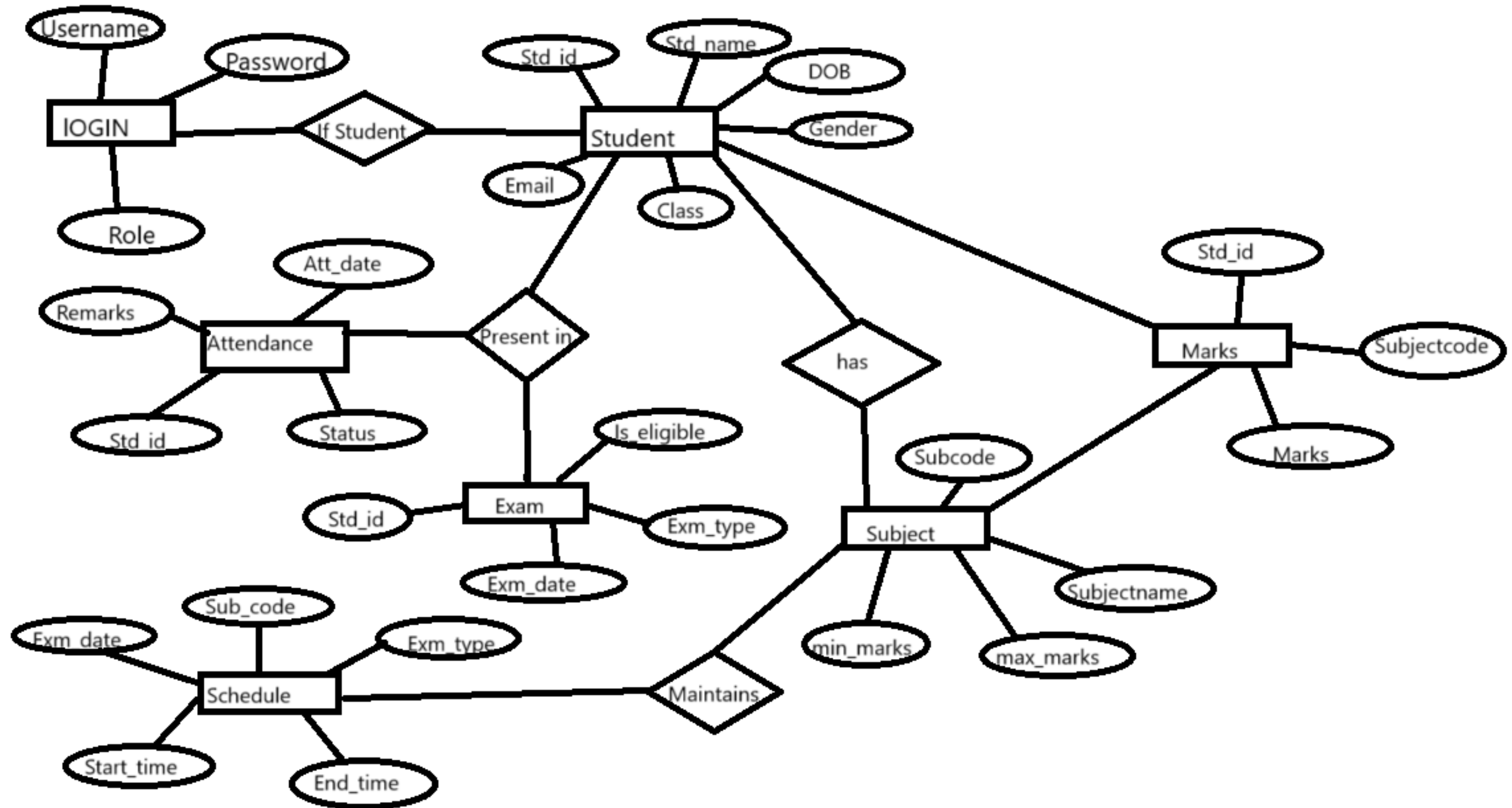
Table 7:Attendance

Fields	Datatype	Properties
Student_id	Varchar(30)	Primary key,Not null
Attendance_date	date	Not null
Status	Enum('P' , 'A')	Not null
Remarks	Varchar(255)	Not null

Relationship Summary :

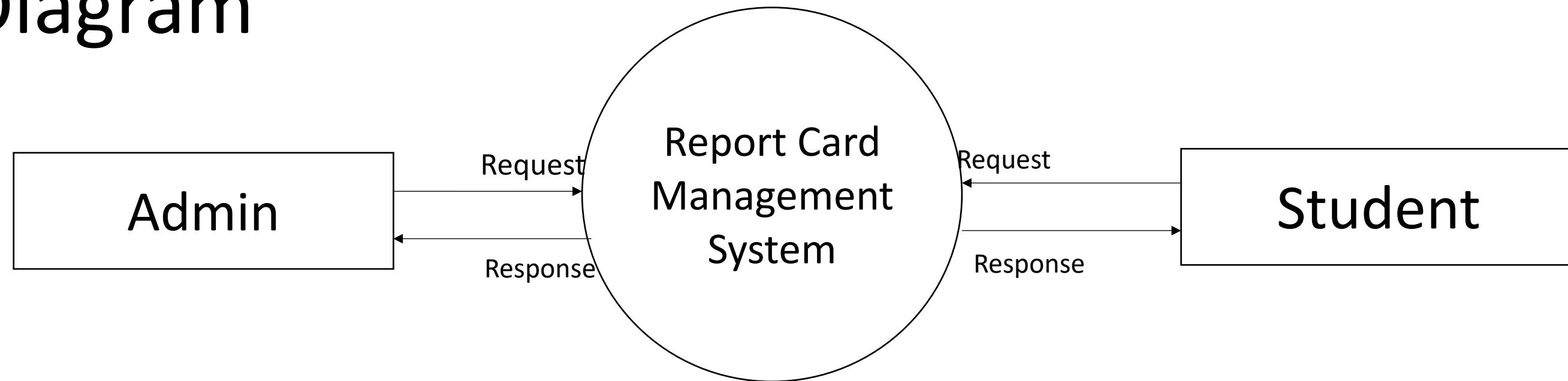
Student connects with Attendance, Exams, Marks through student_id.
Subjects connect with Marks and Schedule through subject_code.
Exam table links with Schedule and Marks using exam_type.
Student + Subject + Exam Type together decide each marks entry.
Login table is independent and only controls user access.

ER DIAGRAM

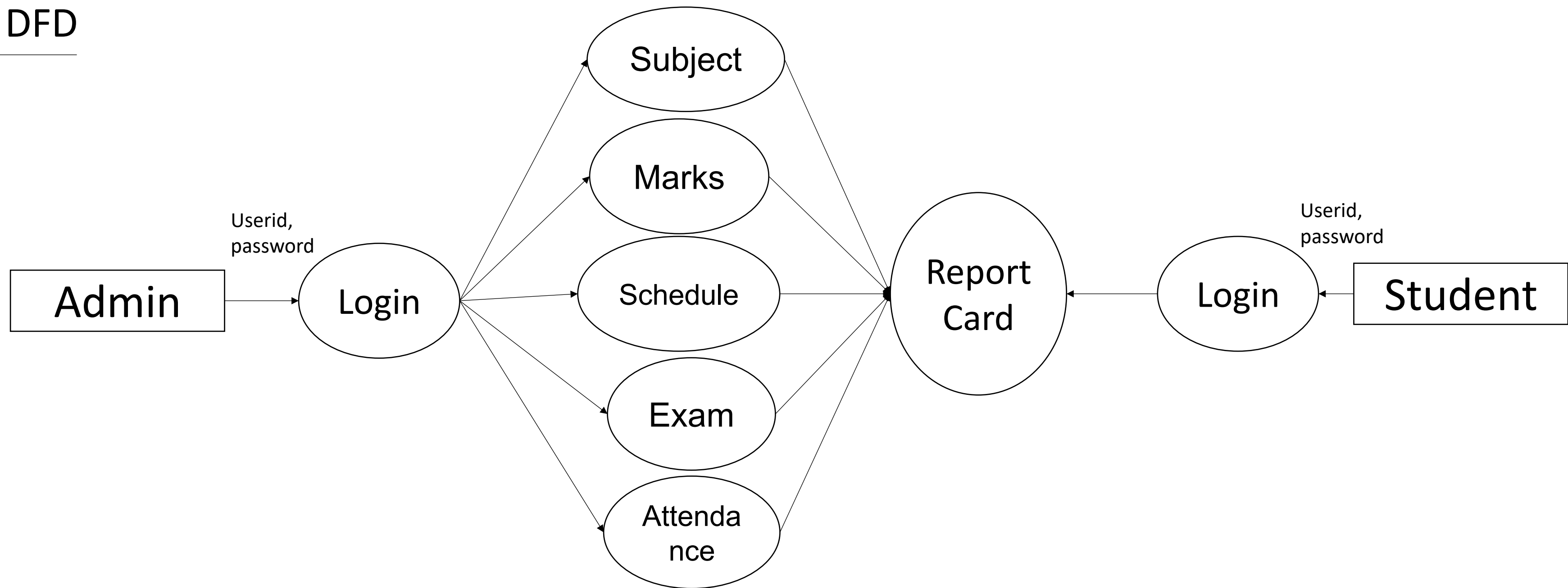


Data Flow Diagram

Zero Level DFD



First Level DFD



Complete Structure:

The system structure includes:

- User login
- Student management
- Subject management
- Attendance management
- Exam management
- Schedule management
- Marks entry
- Automatic grade calculation
- Report card generation
- Database operations

Process Logical Diagram :

Shows flow from:

Login → Students → Subjects → Attendance → Exam → Schedule → Marks → Grade → Report card generation

Platform Used:

Hardware Requirements

- Minimum 4GB RAM
- i3 Processor
- 500MB free disk space

Software Requirements

- java JDK
- MySQL
- JDBC Connector
- Eclipse or IntelliJ
- Maven

Future Scope:

- Can be upgraded to web or mobile application
- Can include attendance and fees module
- Can generate detailed performance reports
- Can add multi-user roles (Admin, Teacher, HOD)

Bibliography :

- Java Documentation
- MySQL Documentation
- Online Tutorials (Oracle, W3Schools)
- Trainer Notes

Thank you