# Student Management System

## Overview:

This project is about the problem of management of Students, which needs to be more efficient. It would deal with the management of data of Students and also Teachers, which is also necessary. It would be based on the Object Oriented Paradigm.

## Problem Statement:

Most of the schools do not have automated systems for managing their data of students, teachers and also administrators. It is better for the schools and universities to have software based management software.

## Solution:

Our solution is simple. It would allow the universities and schools to manage their data more efficiently with the help of software. It would be fully automated and that would make it easy to use. Our main focus would be efficiency and implementing an Object oriented way of programming.

## Goals:

1. Add Student
2. Remove Student
3. Modifying Data
4. Login Logout System
5. Show Data
6. Grading
7. Add Teacher
8. Remove Teacher
9. Marking of Students
10. GPA Calculations
11. Any related functionality would be added if time permits.

Specifications:

This project will be based on an object oriented way of programming which is the standard of all big tech companies nowadays. As it is also the requirement of our course, it would also enhance our understanding of the OOP.

1. Object Oriented Paradigm:

   It is a very essential part of the solution that we are going to build for the above stated problem statement. It is basically a go to standard for all the companies nowadays and that would make our software up to the mark.

Modules:

1. Admin:

   It would be a class providing the functionality of the Admin. The Administrator will be responsible for all the management tasks which are faced by any manual system. The Administrator will be able to add, modify and remove students and change anything according to the privileges.

2. Student:

   This class will be responsible for all the functionalities related to the Student. The Student class will represent the Students as an object of the real world. It would help in simulating all the real life scenarios involving Students.

3. Teacher:

   This class will be responsible for grading and attendance of the student objects. It will represent the objects of the Teacher. It would also include methods such as assigning assignments to the students.

4. Person:

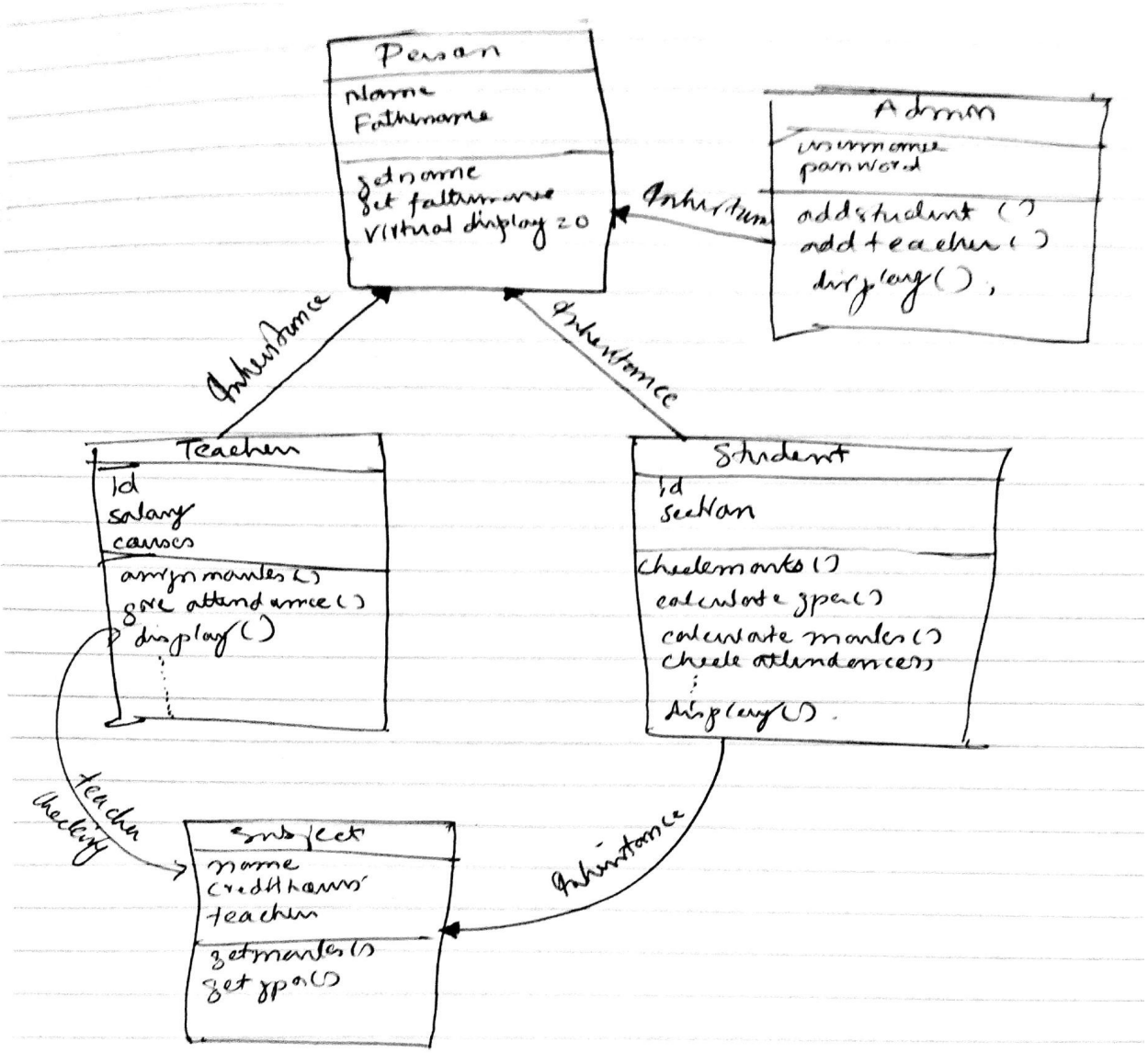
   This class will be kind of the base class for all other classes. It will contain basic functions like adding name, father name and changing them too. One important

thing is to notice here that it would be an abstract class of which we can't make an object. It is done to achieve polymorphism.

5. Subjects:

   This class will give the student class better functionalities as it would deal with all the attributes and behaviours of a subject that a student needs to pass.

Object Diagram:



Member:

1. Bahadur Khan
2. Mukand Krishna
3. Sumsam Channa

Task Distribution:

1. Bahadur: Coded Teacher and rest part of the admin.
2. Sumsam: Coded Student Class along with help from Mukand in Subject Class.
3. Mukand: Report + Object Diagram + Main function + some functions of subject Class.

The END