

## Assignment # 1

Please read the following instructions:

1. Please provide a complete solution.
2. Plagiarism or Cheating is not allowed. Even if you cheat in only one question, you will be marked zero in the entire assignment.
3. To submit: Submission folder will be created on portal
4. Solution should be handwritten and pictures must be added in word file.
5. SECTION: \_\_\_\_\_
6. ROLL NUMBER: \_\_\_\_\_
7. NAME: \_\_\_\_\_

### **Case Study Project**

Education system outlines the backbone of every nation. Technology can play a very crucial role in streamlining the whole system of education. Exploring the technological approach to education, streamlining education process and spiraling acquaintance amongst students, staff, parents and management becomes essential for today's fast growing educational environment. Today every school needs to manage more information than ever before. Without a solid internal infrastructure for teachers, administrators and departments to share data, critical school and student information can be lost, or worse — communicated incorrectly — leading to a host of problems that can affect your school's image and endurance. To remain competitive, school needs a simple solution that can run individual functions, connect their entire operation, use the web as a key communication tool and simplify day-to-day operational responsibilities, giving staff more time with students. The proposed project will be a simple state of the art solution to these problems. Implementing all the operations from basic to advance, it will be a great help for schools at various level to automate their routine tasks including **examinations process, grading system, fee payment, student attendance, and news and event management**. Functional Requirements: **School Management System** will be a web based online application which is divided into modules and every module providing following tasks:

**Module – 1: User Management** Students, parents and teachers will have to register with system to use it. **Admin staff member** will create account of students, teachers and share account details with them. Parents will be able to register from any location which will be approved by admin. For registration, user name, email id, password, confirm password is required.

**Module – 2: Class Room Management** Student class information like record of each class and subjects offered in particular class. Students in each class and teachers information for particular class will be maintained in this module. **Admin staff** will be able to maintain information of all courses offered, creation of class like which students are in a particular class, courses offered and teachers who will teach the class.

**Module- 3: Examination Management** Exams scheduling, date sheet, and results will be managed in this module. Students, teachers and parents will be able to see the report/result card. Teachers will enter student's marks through this module and admin will manage exams schedule and date sheet.

**Module- 4: Time Table Management** Scheduling of class time, exams date sheet and schedule generation, students will be managed in this module. Teacher will be able to maintain the attendance records of students. **Admin** will be able to maintain attendance record of teachers and parents will be able to see the attendance of their children.

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**Question 1: (40 marks )(1 mark for 1 class design and 1 class identification)**

Identify and design all classes in above project Modules.

**Question 2: (Marks: 30)**

Write prototype functions of all classes using above project requirements.

**Question 3: (Marks: 30)**

Identify attribute which can be constant or pointer.

Please include this declaration of originality of your work in your assignment with your signature:

**DECLARATION:**

I am aware of and understand the University's policy on plagiarism and I certify that this assignment is my own work, except where indicated by referencing, and that I have followed the good academic practices noted above

Signed.....