1. **Introduction**

Nowadays, Management of data in an automated way occupies a privilege place in the world of computing. Web development is the work involved in developing a [Web site](https://en.wikipedia.org/wiki/Web_site) or web application for the [Internet](https://en.wikipedia.org/wiki/Internet) ([World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web)) or an [intranet](https://en.wikipedia.org/wiki/Intranet) (a private network).

With the internet, people can manage and share data by using web technologies who refers to the means by which computers communicate with each other using markup languages and multimedia packages. It gives us a way to interact with hosted information, like websites or web application. Web technology involves the use of hypertext markup language (HTML) and cascading style sheets (CSS).

The general distinction between a [dynamic web page](https://en.wikipedia.org/wiki/Dynamic_web_page) of any kind and a "web app" is unclear. Web sites most likely to be referred to as "web applications" are those, which have similar functionality to a desktop software application, or to a [mobile app](https://en.wikipedia.org/wiki/Mobile_app). [HTML5](https://en.wikipedia.org/wiki/HTML5) introduced explicit language support for making applications that are loaded as web pages. (Wikipedia)

Several companies use this technology (web technologies) in order to improve their productivities and try to solve some problems that can constitute an obstacle to progress.

This project will respond to a set of needs observed in Drc secondary schools including pupils management (registration, creation of timetables); management of teachers (management of teachers and their information); management of sections and classes (creation of section and their classes, etc.); management of parents (creation of parents documents); management of communication between parents and school office (sending SMS); etc.

Regard on user requirements, our project will respond to most important one how is the communication between school board and pupil’s parents in order to allow parents tracking the evolution of his/her child or children.

Computerization of school management is more important because it help the company (school) to keep data in self and well structured manner for accessing, modifying, retrieving data later on.

* 1. **Problem statement**

A problem statement is a concise description of an issue to be addressed or a condition to be improved upon. It identifies the gap between the current problem state and desired goal state of a process or product. Focusing on the facts, the problem statement should be designed to address the five Ws. The first condition of solving a problem is understanding the problem, which can be done by way of a problem statement. Problem statements are widely used by most businesses and organizations to execute process [improvement](https://en.wikipedia.org/wiki/Improvement) projects. A simple and well-defined problem statement will be used by the project team to understand the problem and work toward developing a solution. (Wikipedia)

The technics of managing data by using manual system are outmoded nowadays because with this system (manual system) so many problems are observed when data are managing.

Designing and implementation of this application will respond to some problems observed in schools such as:

* Manage manually informations, sometimes many errors are made when some document are elaborate.
* Loosing time when you try to access some informations
* Data are not secured, for example if there is a fire accident some information can be lost
* Possibility of error in filling of different documents or registers
* Possibility of errors in calculation of statistics
* Problem of storing archives document
* Problem of accessing some informations in archives document
* Problems of school fees payment
* Communication between school board and pupil’s parents
* Etc.
  1. **Hypothesis**

A hypothesis is a supposition or proposed explanation made on basis of limited evidence as a starting point for further investigation; it is an educated prediction that can be tested.

This web application will be developed to perform different task in school management and provide a good design and amazing user interface. It will contain also different functions performing some work such as pupils management (registration, modifying, deleting, registration of school fees payment, creation of timetables, etc.); management of teachers (teachers registration, modifying, deleting, teachers timetables); management of accounts (creation of teacher and parent account, modifying and deleting accounts); management of sections and classes (creation of section and their classes, etc.); management of parents (creation of parents documents); management of communication between parents and school office (sending SMS); etc.

* 1. **Objectives of the work**
     1. **General objectives**

The General objectives of this work is to design and implement a web application who provide some functionalities to manage secondary schools.

* + 1. **Specific objectives**

The specific objectives of this work consist of:

* Providing a web application to facilitate communication between parent and school office because until now most of secondary schools use communication books to communicate with pupil’s parents.
* Providing also a work space of managing schools in order to facilitate educative system of the country.
* It is necessary to provide a work space in an automated system to because with paper based system there are so many big problems such as loosing paper contain a very important information. As a computerized system, this web application will provide a very important functionality of keeping data in a secured manner.
  1. **Scope of the work**
     1. **Scope in time**

This case has been taken in some school in Bukavu town from 2013 to 2021, problem of loosing information and the problem of communication between parent’s pupils and school office are observed.

* + 1. **Scope in space**

Case study at Avenir Institute in Bukavu town, South Kivu province, DRC.

* + 1. **Scope in domain**

The school management web application can be used in educative system especially in secondary schools management.