

System Requirement Document



December 17, 2019

wadella group of companies

Table of Contents

[1. INTRODUCTION 2](#_Toc27510758)

[2. SYSTEM STUDY 3](#_Toc27510759)

[ **The verbal check** 3](#_Toc27510760)

[ **Class attendance sheet** 3](#_Toc27510761)

[ **Attendance activities for students** 4](#_Toc27510762)

[3. SYSTEM ANALYSIS 6](#_Toc27510764)

[4. SYSTEM REQUIREMENT 9](#_Toc27510765)

# 1. INTRODUCTION

Attendance plays an important part in education – students who attend classes regularly have a higher chance of succeeding in school and becoming a valued member of the school community.

Attendance tracking data for students lets you analyze your school’s attendance statistics, compare the results with other schools, and find suitable ways to increase student presence at your school in the future.

This process plays an important part in increasing the student attendance rate of your school – it gives students a sense of responsibility that encourages them to attend classes and reduces absences.

1.1 Advantages of the Student Check in App

* Reliability
* Efficiency
* Dependability

# 2. SYSTEM STUDY

**2.1 Existing System**

### **The verbal check**

This is the old-school approach to checking attendance in the classroom.

The teacher calls the student’s name, and puts a checkmark (✓) or plus (+) if the student verbally confirms presence, and a cross mark (x) or minus (-) if no one replies, implying the student’s absence.

After a certain time period, usually at the end of the school term, the signs are counted and the teacher gives a remark or a grade signifying the student’s attendance record.

The problem with this method is that it’s time-consuming, it’s easier to miscount and make errors, and it takes time away from the beginning or end of class.

### **Class attendance sheet**

This is an extended variation of the verbal check approach.

The teacher hands out an attendance sheet and the present students sign their names.

Some teachers then write this data down in a notebook, but more of them document this data in an excel sheet.

The teacher usually keeps a parallel journal with the students’ names where he/she puts checkmarks/pluses or cross marks/minuses after each class, indicating the students’ presence/absence.

Again, the signs are counted after a time period, and the teacher gives a remark or a grade signifying the student’s attendance record.

This method is less time consuming than the verbal check method, considering that the class attendance sheet usually circulates around the class as the teacher delivers the lecture.

But this attendance tracking method also offers more chances for student deceit – considering that the teacher isn’t always paying attention to the attendance sheet, students can sign in their absent colleagues as well if they want to.

### **Attendance activities for students**

This method is less an attendance tracking method than it is a way to *increase* student attendance. So, in order to minimize unjustified absences, you can:

* create a welcoming environment for students, one that helps engage students, teachers, and students’ families by establishing a pleasant school environment
* use attendance tracking data collected through one of the previously listed methods to analyze the types of classes that have the highest percentage of absences, and address the issues you identify
* hold a special class dedicated to the importance and benefits of regular attendance, with a special emphasis on better school performance

This side method is usually used in conjunction with other listed attendance tracking methods for students.

**2.3 Proposed Solution on System**

### To get rid of all the disadvantages of the conventional methods, a proposed solution to the existing system is the introduction of an Attendance app for students

This method involves a student attendance tracking software which aims to help you automate the attendance checking process.

The prevailing advantage of this method is that it gives insights to students about their absences and total time spent in classes, but also to parents interested to know how often their children actually attend classes.

**2.4 Merits of Proposed System**

Attendance tracking is vital in several settings, including the office, school, various events, and seminars, but also instances where you perform field work, or work from home.

You can analyze attendance tracking reports and records, in order to single out unjustified absences, but also consider ways to increase attendance in the future.

As with most tasks today, in order to track and check employee and student attendance, as well as track attendance at events, it’s best to turn to software. An attendance tracker will help you easily track presence, as well as sort, group, organize, and analyze this data.

# 3. SYSTEM ANALYSIS

As the goal of the application is to provide ease of use and to provide an interactive interface, extensive research has been done to gain an insight into the needs and behaviors of various users. The working application is made convenient and easy to use.

**3.1 PURPOSE**

The web application seeks to enhance access to care and improves the continuity and efficiency of services. The web application seeks to give a refined way by which the students register with the administrator to keep their details in the database. The web app also keeps track of students in the most efficient way possible. The web app allows administrators to add more administrators, edit and delete administrators. Through the web application, a drawback like long queues will be prevented since the only thing needed for registration is a smart phone or a computer and a working internet.

**3.2 SCOPE**

The application has a very wide scope in that the application is not limited to a particular area or town or suburb or region or country. As the school’s population expands, more students can be added to the system without facing any challenges. This is very economical.

**3.3 FEASIBILITY STUDY**

The primary objective of the feasibility study is to determine whether or not the proposed system is feasible. The feasibility is determined in term of four aspects. These are stated in the subsequent paragraphs.

* Technical Feasibility: Here, one has to test whether the system can be developed using existing technology or not. It is crystal clear that the necessary software and hardware are available for development and implementation of proposed system.
* Behavioral Feasibility: The proposed system is able to provide a user-friendly interface for all kinds of people using the app.
* Economic Feasibility: The proposed system is economically feasible in that it should not be too expensive such that only a selected group of people can be able to access the application.
* Legal Feasibility: Legal Feasibility determines whether the proposed system conflicts with legal requirements. The applications are not illegal and as such they do not conflict with legal requirements.

**3.4 OVERVIEW of PROPOSED SYSTEM**

**MAIN OBJECTIVE**

The main objective of the proposed system is providing both the students and the administrators a means of interacting directly with each other without any interruptions or hindrances. Since the proposed system will use internet to connect the two parties, a problem like bad reception is curbed. The proposed system allows the administrators to track and log in students into the system and they are given an estimated time of arrival of these students that check in. The proposed system also promotes effective supervision as the administrators are able to access all information about the students and other administrators.

**The software provides the following facilities to the Administrator:**

* Higher levelled administrators will be able to add other administrators
* Administrators will be able to view students’ account
* Administrators can either activate or deactivate students’ account from dashboard
* Administrators can view students’ records
* Administrators can either activate or deactivate students’ records
* Administrators can view all administrator records
* Administrators can edit students’ details
* Administrators can edit administrator’s details

**The software provides the following facilities to students:**

* Students can register with administrator
* Students can only check in

# 4. SYSTEM REQUIREMENT

User Class and Characteristics

There are two (2) kinds of users for the proposed system.

* Administrators: Administrators are responsible for carrying out the administration of a business or organization. Administrators can see the records of students and view details of other administrators.
* Students: Students check in and are given feedback on the time they checked in.

Functional Requirements

Student

**REGISTRATION**

One can get access to the check in service through the check in app. Before you can use the app, you would have to register with the check in service through the administrator. That is, the administrator registers the student based on some information given by the student. The student registers with the service with the following information;

* First name
* middle number(optional)
* last number
* student id number
* course
* section

Administrator

The administrator accesses the service through the web app. The administrator logs in with his or her credentials. He or she can then add new administrators by registering them some important credentials.

Administrators’ accounts will be fused into the database with administrators’ accounts having different access levels. Higher levelled administrators can add other administrators. In the database, higher levelled administrators will already have their details consisting of their:

* First name
* Middle name(optional)
* Last name
* Username
* Password

**Registration**

**ADDING LOWER LEVELLED ADMINISTRATORS**

Lower levelled administrators will have to be added to the database system by higher levelled administrators. As such an option for addition of new administrator will be provided to only higher levelled administrators. Here, details like:

* First name
* Middle name(optional)
* Last name
* Username
* Password

will be needed for the addition process.

**NB: All Administrators have access privileges**

**STUDENT ACCOUNT VIEWED FROM ADMINISTRATOR DASHBOARD**

Student accounts can be viewed from the admin’s dashboard. Details of account that can be viewed consists of:

* Student ID
* Student name
* Date
* Time

**All Administrators are given the privilege of either activating or deactivating a student’s account from the dashboard.**

Non- Functional Requirements

Apart from the functional part of the software, there are non-functional parts that do not exactly perform a particular action but are crucial nevertheless. These consists of attributes such as security, performance, usability etc.

Usability: All students are able to check in and see the date and time they checked in easily without having prior knowledge.

Reliability: The application software is reliable in that the software will not crush every now and then making it impossible to use the app. There is no specified time frame at which the applications can be used. The application is available 24/7. Also, the database is continuously updated and as such accurate information is always provided.

Performance: On a scale of one to ten, the performance of the web application can be rated as an 8.5. This is very pleasing since there is a guarantee that there won’t be frequent failure of the application especially when it is being accessed by a number of people.

Legal: The applications are legal since no laws are broken in the creation and development of the proposed system.

Maintainability: The applications give room for maintenance after the development of the applications. Updates can be done to the applications as and when needed.

Security: The system must automatically log out users after a period of inactivity. The system’s data will only be accessible by authorized administrators. Sensitive data will be encrypted before being sent over insecure connections.

Portability: The application will be using HTML and scripting languages so the application is portable on the end – user’s face as any system using any web browser should be able to access all features of the web application.

**External Interface Requirements**

User Interface: Each part of the user interface intends to be as user friendly as possible. The fonts and buttons used are intended to be very fast and easy to load web pages. The pages will be sizeable such that they won’t take a long time before they are loaded. The user interface for the software will be compatible with any browser such as Mozilla Firefox, Google Chrome etc. which the user can use to access the system.

Hardware Interface: Hardware requirements include:

1. Processor: Pentium 1 or above

2. RAM: 128MB or above

3. HDD: 20GB or above

Software Interface: These software requirements include:

1. Operating System: Linux, Windows etc.

2. Development Tool: CSS, Php, HTML etc.

3. Database: MySQL