

**ASSIGNMENT - 07**

**Shri G.S. Institute of Technology and Science  
Dept of Information Technology**

Report Submission

On

**SCHOOL MANAGEMENT SYSTEM PROJECT**

**Submitted by-**

AKSHAT JAIN 0801IT191004

AMAN KRISHNA DWIWEDI 0801IT191005

**Submitted to-**

Dr. LALIT PUROHIT

Mr. UPENDRA SINGH

## **CERTIFICATE**

Certified that this is a bona fide record of the project work titled  
School Management

Done By  
Akshat Jain

Aman Krishna Dwiwedi  
of VI semester B. Tech in the year 2022 in  
partial fulfilment of the requirements for the award of Degree of  
Bachelor of Technology

**Mr.Upendra Singh**  
Project Guide

**Objective –**

A web application to digitally manage school record where administrator can store complete information about Teachers, Students, Staff. The project is totally built at administrative end and thus, only the administrator is guaranteed the access.

The purpose of the project is to build an application program to reduce the manual work for managing information of Teachers, Students, Staff. It tracks all the details about the Teachers, Students, Staff.

The application contains -

1. Admin Login
2. Student Information
3. Employee Information
4. Teachers Information

**Modules of the Project –****1. Admin Login –**

Admin can login the application using the credentials.

**2. Add Student –**

Admin can add new student in the database by inserting student details like name, mobile number, gender, class, etc.

**3. Add Teachers –**

Admin can add new teacher in the database by inserting teacher details like name, mobile number, gender, etc.

**4. Add Staff –**

Admin can add new staff in the database by inserting staff details like name, mobile number, gender, position, etc.

**7. Edit, Delete and List of student, teacher, staff –**

Admin gets the list of all the student, teacher, staff and can edit the details of any student, teacher, staff or can delete any student, teacher, staff details.

## SOFTWARE TOOLS USED-

The whole Project is divided in two parts the front end and the back end.

**Frontend:** The front end is designed using of html , CSS, JSP.

- **HTML:** HTML or Hyper Text Markup Language is the main markup language for creating web pages and other information that can be displayed in a web browser. HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>), within the web page content. HTML tags most commonly come in pairs like <h1> and </h1> , although some tags represent empty elements and so are unpaired, , for example <img>. The first tag in a pair is the start tag, and the second tag is the end tag (they are also called opening tags and closing tags). In between these tags web designers can add text, further tags, comments and other types of text-based content. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page. HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behaviour of HTML web pages.

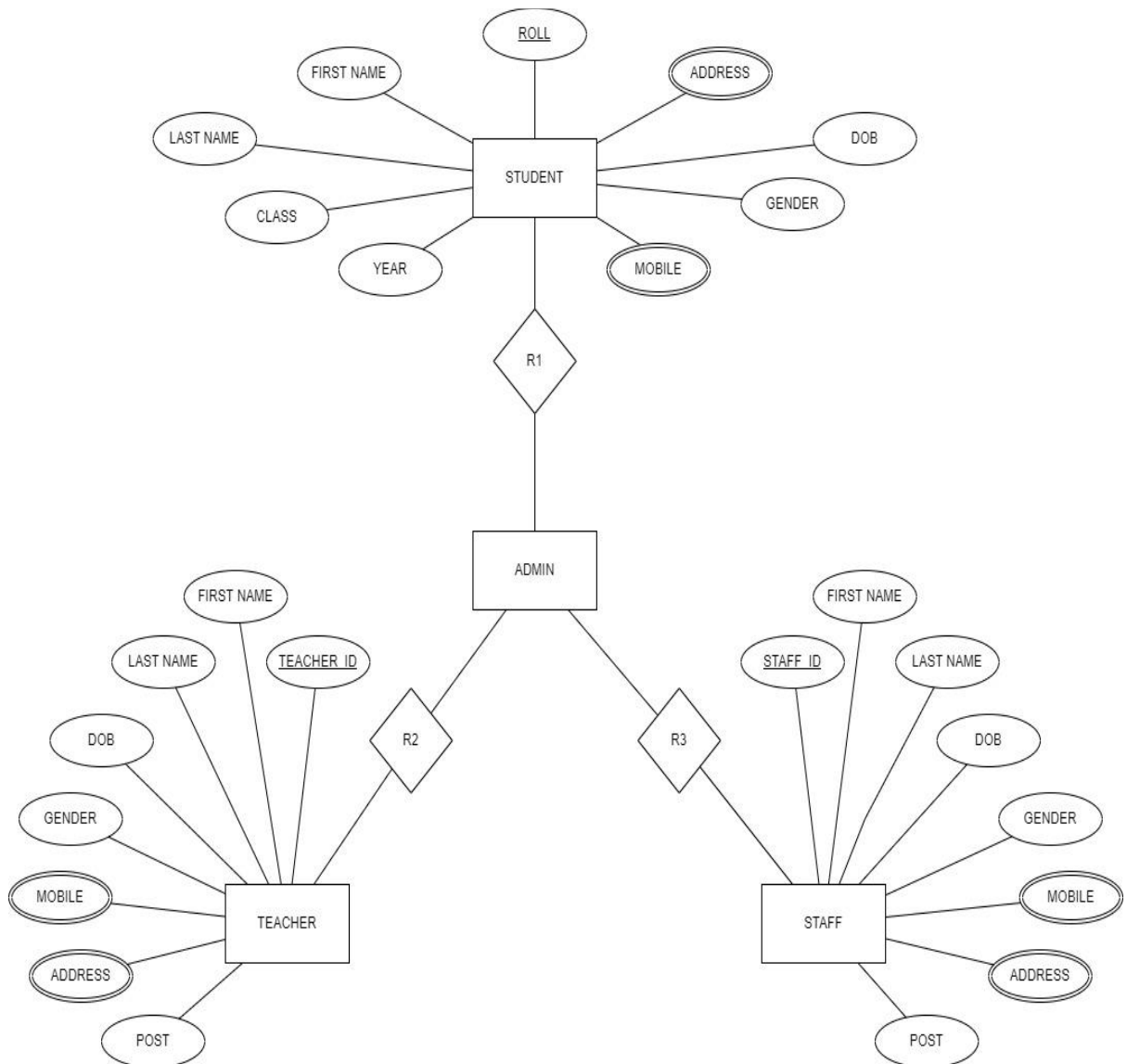
- **CSS:** Cascading Style Sheets(CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and interfaces written in HTML , the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is a cornerstone specification of the web and almost all web pages use CSS style sheets to describe their presentation.CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for table less web design).CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. 10 It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed. While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified. However if the author or the reader did not link the document to a specific style sheet the default style of the browser will be applied.CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities or

weights are calculated and assigned to rules, so that the results are predictable.

***Backend:***

- **Servlet:** Servlet is a technology which is used to create a web application. It is an API that provides many interfaces and classes including documentation. It is an interface that must be implemented for creating any Servlet. It is a class that extends the capabilities of the servers and responds to the incoming requests. It can respond to any requests. It is a web component that is deployed on the server to create a dynamic web page.

- **MYSQL:** MYSQL, the most popular Open Source SQL database management system, is developed, distributed, and supported by Oracle Corporation. A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MYSQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

**E-R Diagram –**



**Tables Used-****Student :-**

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Roll	int(10)			No	None			Change  Drop  More
<input type="checkbox"/>	2 First_name	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	3 Last_name	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	4 Class	int(20)			No	None			Change  Drop  More
<input type="checkbox"/>	5 Year	int(10)			No	None			Change  Drop  More
<input type="checkbox"/>	6 Birth_date	date			No	None			Change  Drop  More
<input type="checkbox"/>	7 Mobile_no	bigint(15)			No	None			Change  Drop  More
<input type="checkbox"/>	8 Sex	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	9 permanent	varchar(50)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	10 Present	varchar(50)	latin1_swedish_ci		No	None			Change  Drop  More

**Teacher :-**

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Teachers_id	int(10)			No	None			Change  Drop  More
<input type="checkbox"/>	2 First_name	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	3 Last_name	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	4 Position	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	5 Birth_day	date			No	None			Change  Drop  More
<input type="checkbox"/>	6 Mobile_no	bigint(20)			No	None			Change  Drop  More
<input type="checkbox"/>	7 Sex	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	8 Permanent	varchar(50)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	9 Present	varchar(50)	latin1_swedish_ci		No	None			Change  Drop  More

**Staff :-**

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Employee_id	int(6)			No	None			Change  Drop  More
<input type="checkbox"/>	2 First_name	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	3 Last_name	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	4 Position	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	5 Birth_day	date			No	None			Change  Drop  More
<input type="checkbox"/>	6 Mobile_no	bigint(20)			No	None			Change  Drop  More
<input type="checkbox"/>	7 Sex	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	8 Permanent	varchar(50)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	9 Present	varchar(50)	latin1_swedish_ci		No	None			Change  Drop  More

**Admin :-**

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Username	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More
<input type="checkbox"/>	2 Password	varchar(20)	latin1_swedish_ci		No	None			Change  Drop  More

**MVC Architecture-****Model –**

## 1. STUDENT

This table has entities – Roll(Primary key), fname, lname, mobilenumber(multi-valued), address(multi-valued), class, DOB, Gender.

## 2. TEACHER

This table has entities – id(primary key), fname, lname, mobilenumber(multi-valued), address(multi-valued), gender, DOB, post.

## 3. STAFF

This table has entities – id(primary key), fname, lname, mobilenumber(multi-valued), address(multi-valued), gender, DOB, post.

**Views –**

1. Login\_frame.java – UI for admin login

2. All\_Students\_Data\_Details.java– UI to view students data.

3. All\_Teachers\_Data\_Details.java– UI to view teachers data.

4. All\_Employees\_Data\_Details.java– UI to view staff's data.

5. Students\_Information\_System.java- UI for students data insertion.

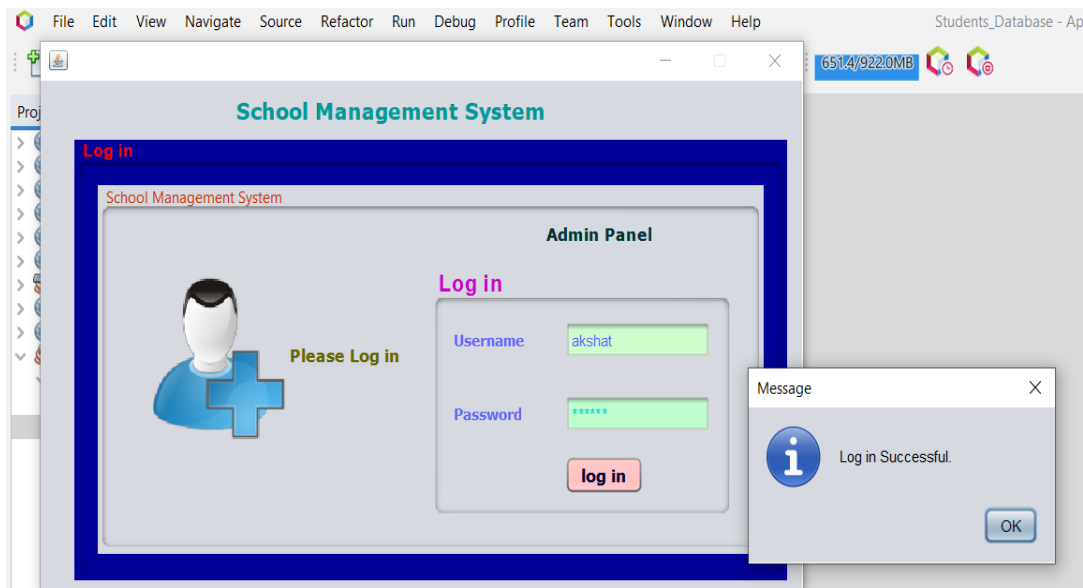
6. Teachers\_Information\_System.java- UI for teachers data insertion.

7. Employees\_Information\_System.java- UI for staff's data insertion.

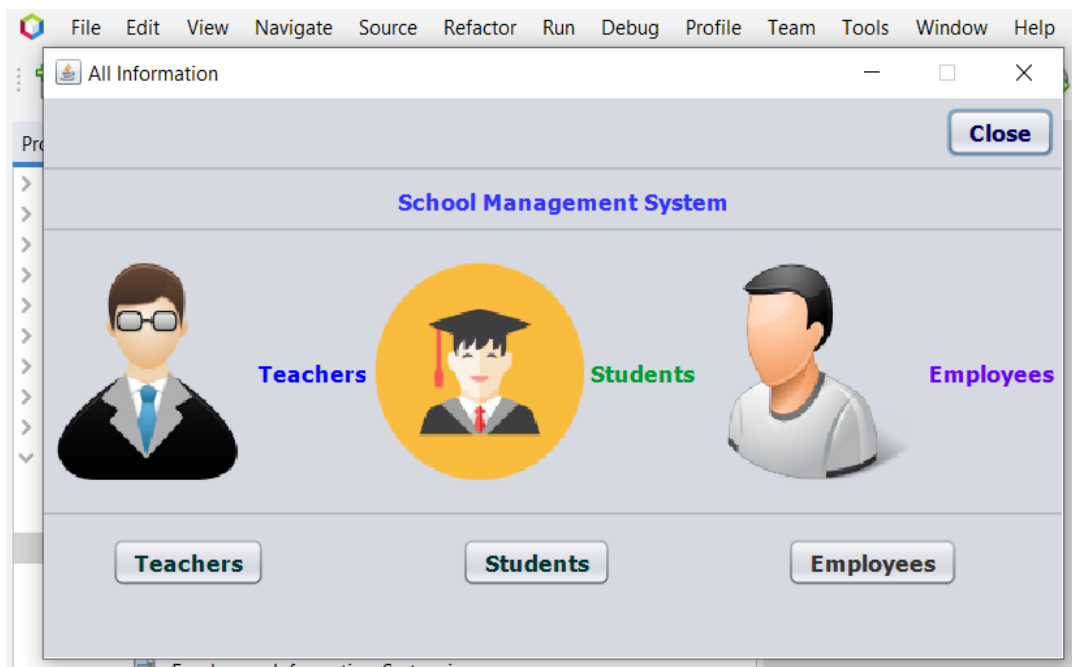
8. Students\_And\_Teachers\_Management.java – UI for home page of web app.

## System Implementation of Project

### Admin login :-



### Home page :-



Students page for insertion, updation, deletion, viewing :-

**School Management System**  
**Student's Information System**

Search here

**Class Roll Number:**  Five Digits Only

**First Name:**

**Last Name:**

**Class:**  EX: 6,7,8,9,10

**Year:**  EX: yyyy-mm-dd

**Birth Day:**  EX: yyyy-mm-dd

**Mobile No:**  Max: 30 Digits

**Sex:**  Max: 30 Digits

**Permanent Address:**  Max: 30 Digits

**Present Address:**  Max: 30 Digits

Note : \*All field Must be fill up step by step

Buttons: Home, Close, Save Data, Update, Clear, Delete, View Data, Exit

Save dialog: Are you Sure to Save? Yes No

**School Management System**  
**All Students Database**

Roll	First_name	Last_name	Class	Year	Birth_date	Mobile_no	Sex	permanent	Present
33333	Aman	Verma	12	2018	2000-05-25	8435968695	M	Indore	Indore
22222	Aman	Dwiwedi	11	2017	2000-11-15	9893216485	M	Jabalpur	Indore
11111	Akshat	Jain	12	2018	2000-10-27	9406619568	M	Bagh	Indore

Buttons: Home, Close

When we delete any entry :-

The image shows two parts of the application. On the left is the 'Student's Information System' form, which has fields for Class Roll Number, First Name, Last Name, Class, Year, Birth Day, Mobile No, Sex, Permanent Address, and Present Address. A 'Delete' button is visible next to the Mobile No field. On the right is a screenshot of a web browser showing a database table named 'student\_info'. A 'Delete' dialog box is overlaid on the table, asking 'Are you Sure to Delete?' with 'Yes' and 'No' buttons. The table contains the following data:

Roll	First_name	Last_name	Class	Year	Birth_date	Mobile_no	Sex	permanent	Present
333	Aman	Verma	12	2018	2000-05-25	8435968695	M	Indore	Indore
222	Aman	Dwivedi	11	2017	2000-11-15	9893216485	M	Jabalpur	Indore
111	Akshat	Jain	12	2018	2000-10-27	9406619568	M	Bagh	Indore

The image shows a screenshot of the 'All Students Database' table in the School Management System. The table has the following columns and data:

Roll	First_name	Last_name	Class	Year	Birth_date	Mobile_no	Sex	permanent	Present
22222	Aman	Dwiwedi	11	2017	2000-11-15	9893216485	M	Jabalpur	Indore
11111	Akshat	Jain	12	2018	2000-10-27	9406619568	M	Bagh	Indore

Teachers page for insertion, updation, deletion, viewing :-

**School Management System**  
Teacher's Information System

Search here

Teachers ID:  Four Digits Only

First Name:

Last Name:

Position:

Birth Day:  Ex: yyyy-mm-dd

Mobile No:

Sex:  Ex: male,female

Permanent Address:  Max: 30 Digits

Present Address:  Max: 30 Digits

Note : \*All field Must be fill up step by step

Staff's page for insertion, updation, deletion, viewing :-

**School Management System**  
Employee's Information System

Search here

Employee's ID:  Four Digits Only

First Name:

Last Name:

Position:

Birth Day:  Ex: yyyy-mm-dd

Mobile No:

Sex:  Ex: male,female

Permanent Address:  Max: 30 Digits

Present Address:  Max: 30 Digits

Note : \*All field Must be fill up step by step

## Snapshots of Database :-

localhost/phpmyadmin/index.php?route=/sql&server=1&db=student\_database&table=student\_info&pos=0

Server: 127.0.0.1 » Database: student\_database » Table: student\_info

Showing rows 0 - 1 (2 total, Query took 0.0021 seconds)

```
SELECT * FROM `student_info`
```

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	Roll	First_name	Last_name	Class	Year	Birth_date	Mobile_no	Sex	permanent	Present	
<input type="checkbox"/>	Edit	22222	Aman	Dwiwedi	11	2017	2000-11-15	9893216485	M	Jabalpur	Indore
<input type="checkbox"/>	Edit	11111	Akshat	Jain	12	2018	2000-10-27	9589819568	M	Bagh	Indore

localhost/phpmyadmin/index.php?route=/sql&server=1&db=student\_database&table=employee\_info&pos=0

Server: 127.0.0.1 » Database: student\_database » Table: employee\_info

Showing rows 0 - 2 (3 total, Query took 0.0017 seconds)

```
SELECT * FROM `employee_info`
```

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	Employee_id	First_name	Last_name	Position	Birth_day	Mobile_no	Sex	Permanent	Present	
<input type="checkbox"/>	Edit	1003	Dinesh	Pandey	Security Guard	1980-06-30	8526394175	M	Indore	Indore
<input type="checkbox"/>	Edit	1002	Mahesh	Patil	Peon	1985-05-05	7269536958	M	Indore	Indore
<input type="checkbox"/>	Edit	1001	Suresh	Patel	Sweeper	1970-12-22	9425415254	M	Indore	Indore

localhost/phpmyadmin/index.php?route=/sql&server=1&db=student\_database&table=teacher\_info&pos=0

Server: 127.0.0.1 » Database: student\_database » Table: teacher\_info

Showing rows 0 - 2 (3 total, Query took 0.0011 seconds)

```
SELECT * FROM `teacher_info`
```

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	Teachers_id	First_name	Last_name	Position	Birth_day	Mobile_no	Sex	Permanent	Present	
<input type="checkbox"/>	Edit	2201	Lalit	Purohit	Senior Professor	1980-03-26	9425936251	M	Indore	Indore
<input type="checkbox"/>	Edit	2202	Upendra	Singh	Professor	1990-12-12	8435918294	M	Indore	Indore
<input type="checkbox"/>	Edit	2203	Mukesh	Sakle	Professor	1987-08-31	6262489657	M	Indore	Indore

**CONCLUSION -**

School Management is a system which maintains the information about the students, teachers, staffs. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of a complex network becomes much simple.

The project solves the real life problem of maintaining huge records and simplifies the process. It can be deployed and would be of great use to schools.