

Purpose

Currently there are a lot of new schools coming up in many cities and towns in India. A lot of schools have setup their IT infrastructure, but this is limited to bigger schools or school chains. Many small schools even in big cities rely on manual processes. With the penetration of smart phones and tablets, there is an opportunity to start digitalizing these schools. The main objective of my project 'Digital School', is to provide a software support solution for schools, to make use of the digital devices like tablets, cell phones, computers to provide students and their parents, an easier access to the day to day activities of the school. The objective of this research is to host a 'Software as a Service' application on Microsoft Azure cloud and deploy it on the Internet. Digitizing schools refers to reducing a lot of manual effort which is required in performing small activities by teachers, students, as well as parents. The motivation behind constructing such a system is to automate certain processes of the school, thus reducing manual intervention. Also, the system will work on a cloud based platform, thus the user will not have to worry about any updates, security concerns and system memory. The research includes the following modules: Career path recommendation, online buying and selling of used textbooks, School bus management system, Online tests, Online viewing of homework and notices, online payment of fees, online feedback from parents.

The purpose of this project is to reduce the time involved in the processes of schools like payment of fees, submission of leave notes, notices to be displayed, homework assignments given to students, feedback from parents about the school, etc. This system introduces the feature of buying used text books or renting textbooks from other students who do not need it now. The career recommendation module of the system recommends a career path for a particular student, depending on his or her marks and interest, and also provides some advanced study materials and resources on the field of his or her interest. There will be a section which will provide online tests for various subjects. Moreover, this system will dynamically allocate students to appropriate buses, to maximize the efficiency and saving time and fuel. Thus, this will become an all in one system for school management and will successfully complete the task of minimizing human efforts involved in tedious tasks by the smart software which will incur cost savings than the traditional methods. This project will be a part of the Smart City Initiative.

The goal is also to create a SaaS Application for multiple schools (cloud tenants) who can use this software at the same time. Thus, this will bring uniformity if all the schools in the city or state use the same system in the process learning which will further lead to equal opportunities of enhancement and development of skills among students. I plan to develop a system which will provide easy access to the ongoing school activities and provide certain features which would make the lives of students, teachers and parents much easier. This system will provide 'more with less' as only a working internet connection will be required to use this application, and rest all the requirements will be handled by Azure cloud. We will make use of various Azure cloud services for authentication, scheduling, SQL, storage, etc. Thus, we aim to develop a robust multi-tenant, cloud-based system for schools to serve as a web portal for their daily activities.