



NITTE
EDUCATION TRUST

N.M.A.M. INSTITUTE OF TECHNOLOGY

(An Autonomous Institution affiliated to Visvesvaraya Technological University, Belagavi)

Nitte – 574 110, Karnataka, India

(ISO 9001:2015 Certified), Accredited with 'A' Grade by NAAC

: 08258 - 281039 - 281263, Fax: 08258 - 281265

Department of Computer Science and Engineering

B.E. CSE Program Accredited by NBA, New Delhi from 1-7-2018 to 30-6-2021

Report on Mini Project

“ATTENDANCE MANAGEMENT SYSTEM”

Course Code: 16CSE33

Course Name: Cloud Computing

Semester: 6

Section: D

Submitted To:

Mr. Pawan Hegde

Department of Computer Science and Engineering

NMAMIT, Nitte

Submitted By:

Shrikesh I
4nm17cs177

Thejas Manjar
4nm17cs202

Date of submission: 10 June 2020

Signature of Course Instructor



NMAM Institute of Technology

(An Autonomous Institute Affiliated to VTU, Belagavi)

(A unit of NITTE Education Trust)

NITTE – 574110, UDUPI DIST., KARNATAKA

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

“Attendance Management System” is a bonafide work carried out by Shrikesh I (4NM17CS177) and Thejas Manjar (4NM17CS202) in partial fulfilment of the requirements for the award of Bachelor of Engineering degree in computer science and engineering prescribed by the Vishvesvaraya Technological University, Belagavi during the year 2019 – 2020.

It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report.

The mini-project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the Bachelor of Engineering Degree.

Signature of Guide

Signature of HOD

ACKNOWLEDGEMENT

We believe that our project will be complete only after we thank the people who have contributed to make this project successful.

First and foremost, our sincere thanks to our beloved principal, **Dr. Niranjan N. Chiplunkar** for giving us an opportunity to carry out our project work at our college and providing us with all the needed facilities.

We sincerely thank **Dr. K.R. Udaya Kumar Reddy**, Head of Department of Computer Science and Engineering, NMAMIT, Nitte.

We express our deep sense of gratitude and indebtedness to our guide **Mr. Pawan Hegde**, Assistant Professor, Department of Computer Science and Engineering, for his inspiring guidance, constant encouragement, support and suggestions for improvement during the course of our project.

We also thank all those who have supported us throughout the entire duration of our project. Finally, we thank the staff members of the Department of Computer Science and Engineering and all our friends for their honest opinions and suggestions throughout the course of our project.

Shrikesh I (4NM17CS177)

Thejas Manjar (4NM17CS202)

ABSTRACT

To maintain the attendance records, several government organisations and educational institutions in many countries still depend on the paper-based attendance approach. This approach has presented several disadvantages such as time-consuming and wastage of environmental resources. There is a necessity to change these traditional methods of attendance recording with more efficient ones. Thus, many works have been done in this direction. Moreover, this study aims to analyse the most recent studies on automated attendance systems regarding the timeline. Our critical review has highlighted studies in the existing literature concerning technology, application domain, and main findings. Moreover, shed light on most numerous studies on any of three previous aspects.

TABLE OF CONTENTS

TITLE	PAGE NO.
1. Introduction	1
2. Problem statement	2
3. Description	3
4. Literature Survey	4
5. Solution approach	5
6. Implementation details	7
7. Results	8
8. Conclusion	14
9. References	15

1. INTRODUCTION

Attendance Management System is an innovative tool to maintain and manage the attendance of students/employees. These tools can be a software to monitor attendance details.

Prefixing the word “online” to this tool makes this tool very resourceful technique. This is because now this tool can be accessed from anywhere around the globe.

So an online Attendance management system is an innovative way to monitor and track the attendance of students/employee. Also this provides a transparency in the system so that each student can view their attendance from anywhere, anytime.

This website is developed using html, CSS and JavaScript for the front end and php for the back end and hosted on the cloud for customers to access it.

2. PROBLEM STATEMENT

Over the years the manual attendance management has been carried across most of educational institutions. To overcome the problems of manual attendance, We have developed “Cloud based Attendance Management System”. Attendance Management System is based on web server, which can be implemented on cloud. The system communicates with database residing on a remote server. It calculates automatically, the attendance percentage of students without any manual paper-based work. This would decrease the time and effort required to calculate the attendance of students/employees. The system facilitates the end users with interactive design and automated processing of attendance management.

2. DESCRIPTION

As soon as a teacher or a student joins the institution, he/she is requested to sign up to the online attendance management system using their email. After this, admin is required to review and approve their account activation. As their account gets approved, they can access to their account.

Users / Actors of System:

1. Teacher

- He/she is required to create account and then gets approved by the admin.
- Teacher can Choose/assigned Multiple lectures.
- Teacher can Manage Multiple lectures multiple students Attendance.
- View the list of students assigned to them.
- Mark attendance after each lecture
- View attendance of each student assigned to them.
- Generate/Download Report of attendance in PDF Format
- Check Average Attendance
- Update Profile
- Upload Profile Pic
- Update Password (encrypted format)

2. Student

- He/she needs to create an account.
- Students can register himself/herself for Multiple lectures.
- Students can Check Attendance for Multiple lectures.
- Can view their attendance from anywhere around the globe.
- Generate/Download Report of attendance in PDF Format
- Check Average Attendance
- Update Profile
- Upload Profile Pic
- Update Password (encrypted format)

4. LITERATURE SURVEY

- PVN & Gupta in the year 2013, Conducted a portable attendance system by using a GSM network with fingerprint technique to manage and recording attendance module for a student in class and sending a record to student parent's via GSM-based mobile network.
- Behara & Raghunadh in the year 2013, Proposed an automatic attendance monitoring and management system in the real-time environment to record time and attendance application using biometric face recognition based on attendance system.
- Yadav & Nainan in the year 2014, Conducted An automatic attendance management system presented for students and teachers as well using GSM for sending notifications to parents.
- Sunehra & Goud in the year 2016, Conducted a recording and consolidation system for student attendance based on Arduino and Raspberry Pi microcontroller boards with secure, affordable and user-friendly advantages.

5. SOLUTION APPROACH

5.1 System requirements and specifications

Functional Requirements

- User should be able to enter an URL.
- The website should provide the necessary details to both teacher and the student.
- The website should be lite and responsive.
- The website should work on both computers and smartphones.
- The website should not be ambiguous.

User Requirements

- Mobile phone or computer.
- Active internet connection.
- Web browser.

Software Requirements (any one)

- WAMP Server
- XAMPP Server
- LAMP Server

Hardware Requirement

- Computer running Windows, macOS or Linux.
- Intel I series or equivalent Ryzen processor.
- 4GB or more RAM.
- 100GB of free disk space

5.2 Technical Stack

Front end: HTML, CSS, JavaScript

1. HTML: HTML is used to create and save web document. E.g. Notepad/Notepad++
2. CSS : (Cascading Style Sheets) Create attractive Layout
3. JavaScript: it is a programming language, commonly use with web browsers.
4. Bootstrap : for responsive and mobile friendly design.
5. jQuery.
6. Ajax.

Back end: PHP, MySQL

1. PHP: Hypertext Pre-processor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML, XML, or other document types, as per client request. PHP is open source software.
2. MySQL: MySQL is a database, widely used for accessing querying, updating, and managing data in databases.

Platform

1. Google Cloud platform

6. IMPLEMENTATION DETAILS

Registration of students as well as teacher.

Teacher can Choose/assigned Multiple lectures.

Teacher can Manage Multiple lectures multiple students Attendance.

Mark attendance after each lecture.

He/she needs to create an account.

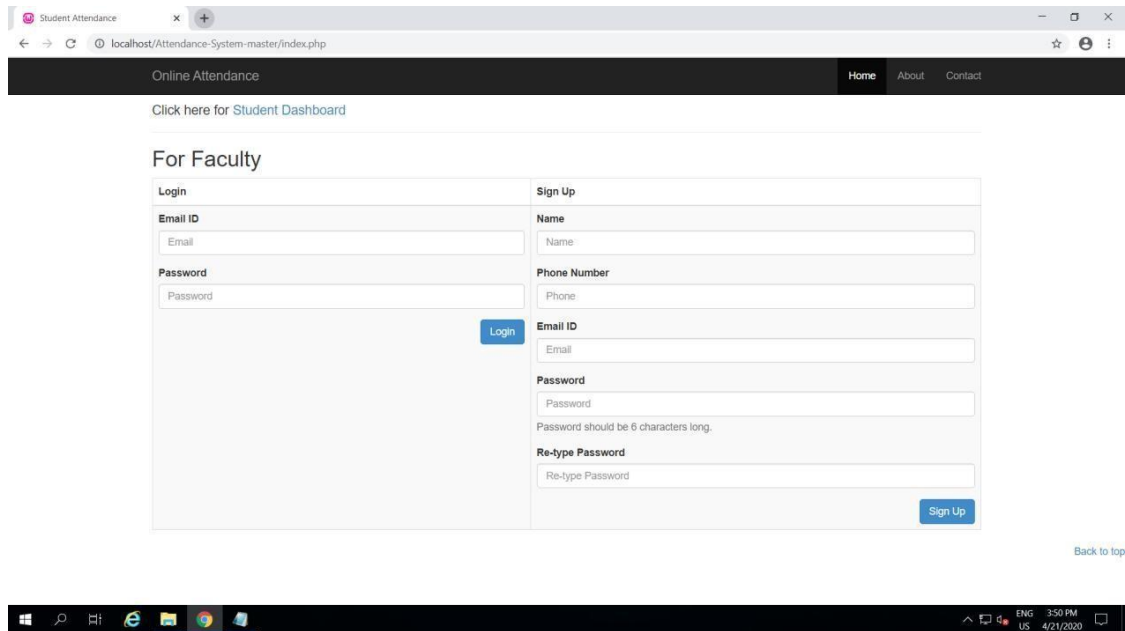
Students can register himself/herself for Multiple lectures.

Students can Check Attendance for Multiple lectures.

Can view their attendance from anywhere around the globe.

7. RESULTS

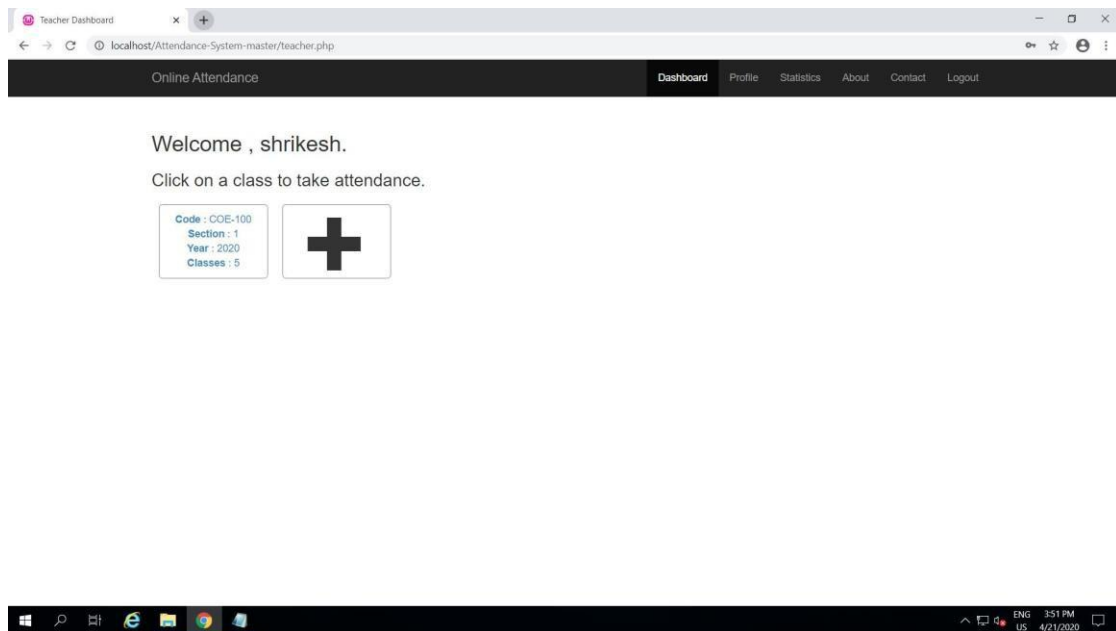
a) HOME PAGE



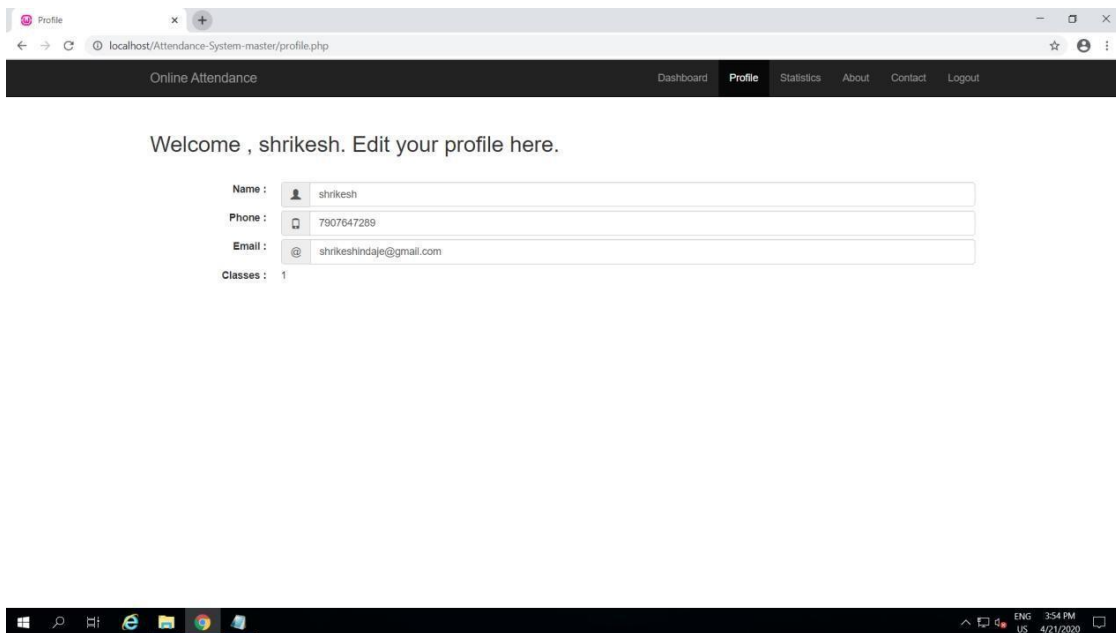
The screenshot displays the home page of the 'Student Attendance' system in a web browser. The browser's address bar shows the URL 'localhost/Attendance-System-master/index.php'. The page features a dark navigation bar with the title 'Online Attendance' and links for 'Home', 'About', and 'Contact'. Below the navigation bar, there is a link 'Click here for Student Dashboard'. The main content area is titled 'For Faculty' and contains two side-by-side forms. The left form is for 'Login' and includes fields for 'Email ID' (with a placeholder 'Email') and 'Password', followed by a blue 'Login' button. The right form is for 'Sign Up' and includes fields for 'Name' (with a placeholder 'Name'), 'Phone Number' (with a placeholder 'Phone'), 'Email ID' (with a placeholder 'Email'), 'Password' (with a placeholder 'Password' and a note 'Password should be 6 characters long.'), and 'Re-type Password' (with a placeholder 'Re-type Password'), followed by a blue 'Sign Up' button. A 'Back to top' link is located at the bottom right of the form area. The Windows taskbar is visible at the bottom of the screen, showing the system clock as 3:50 PM on 4/21/2020.

This is the homepage of the attendance management system where the teacher/student can login and also we can sing up in this page.

b) Teacher interface

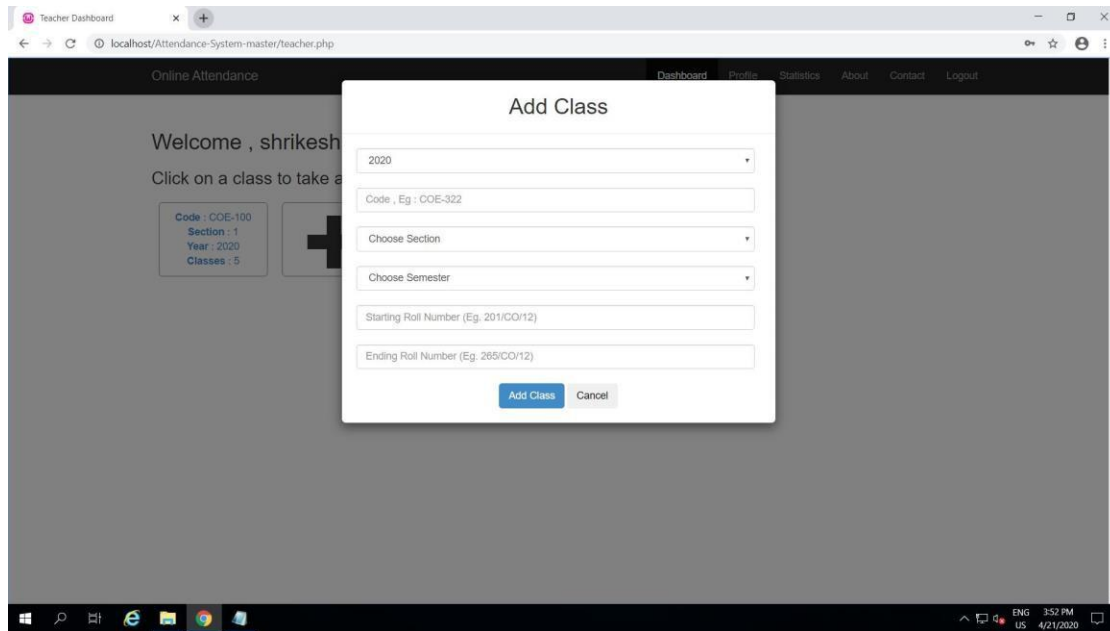


- Adding the information about the class which is to be taken.

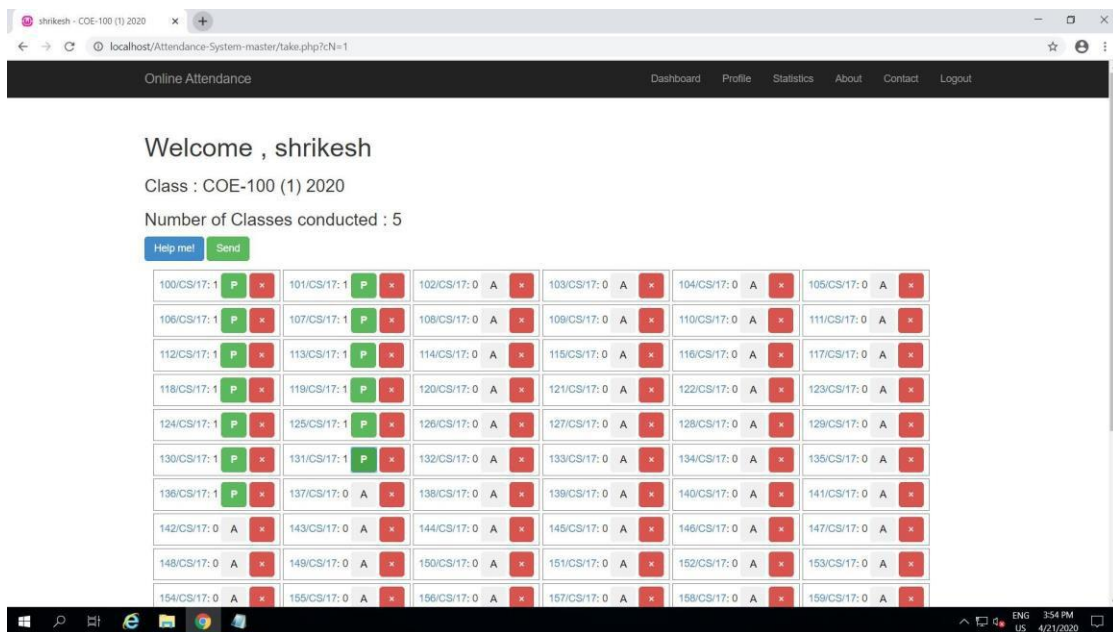


- Update profile page of the teacher.

Cloud Computing

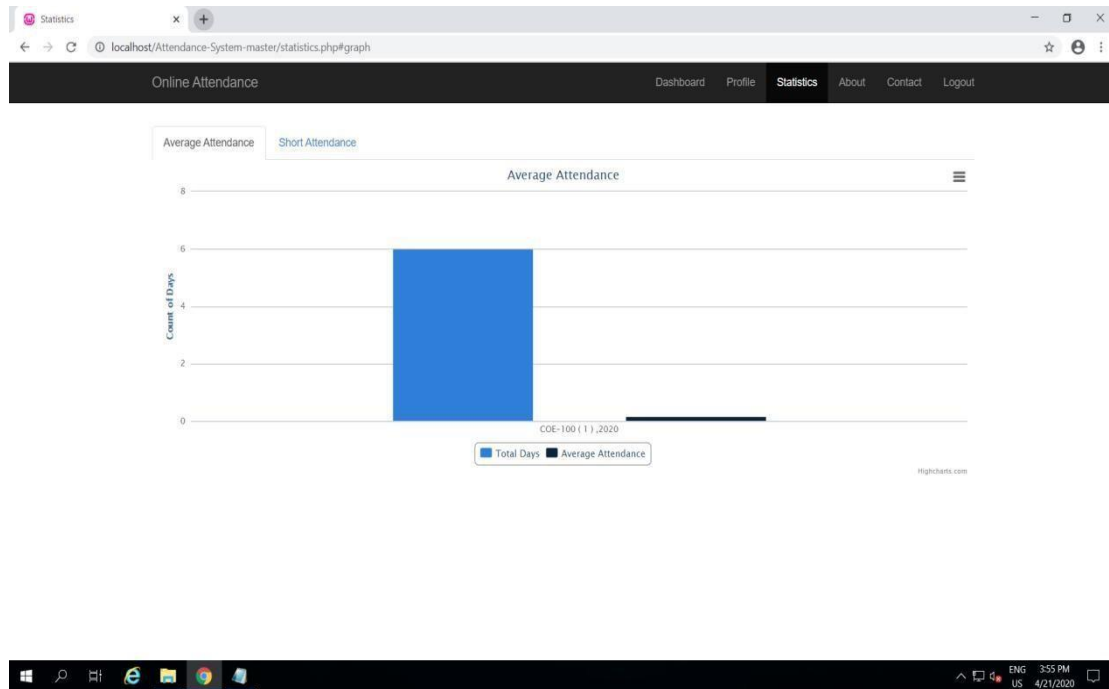


- Adding new classes if required.



- Marking attendance after each lecture.

Cloud Computing



- Analyzing the attendance of the students and number of classes taken.

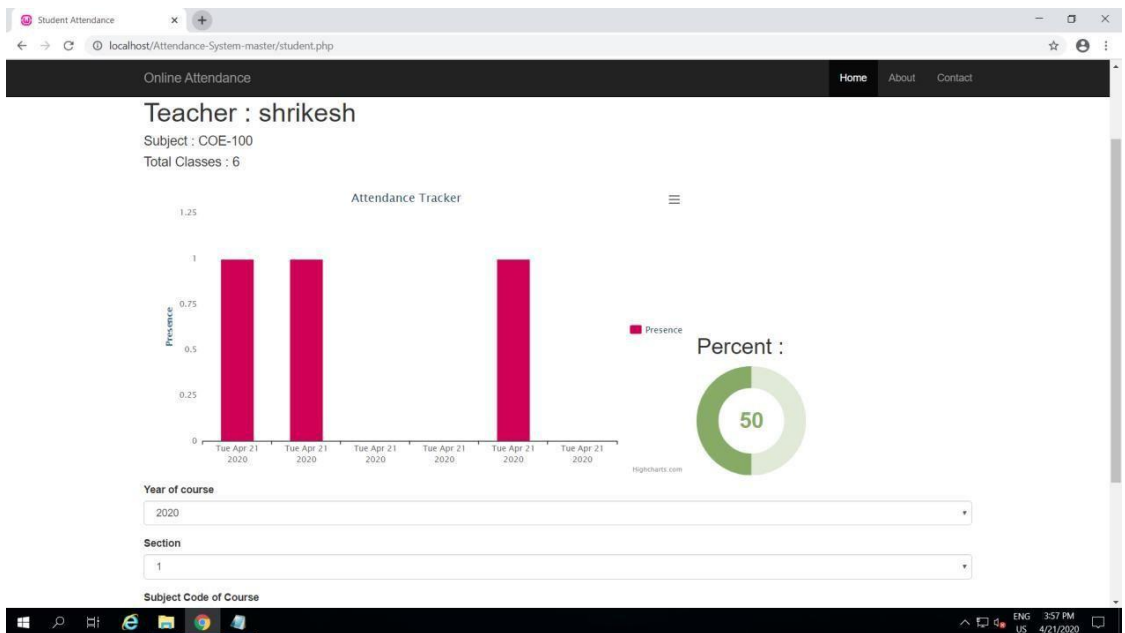
c) Student Interface:

The screenshot shows a web browser window with the URL `localhost/Attendance-System-master/student.php`. The page has a dark header with the text "Online Attendance" and navigation links "Home", "About", and "Contact". The main content area contains a form with the following fields:

- Year of course:** A dropdown menu with "2020" selected.
- Section:** A dropdown menu with "1" selected.
- Subject Code of Course:** A text input field containing "COE-100". Below it is a small text label: "DDD-NNN where D : Department , N : Number".
- Roll Number:** A text input field containing "177/CS/17". Below it is a small text label: "NNN/DD/YY where N : Number, D : Department , Y : Year".

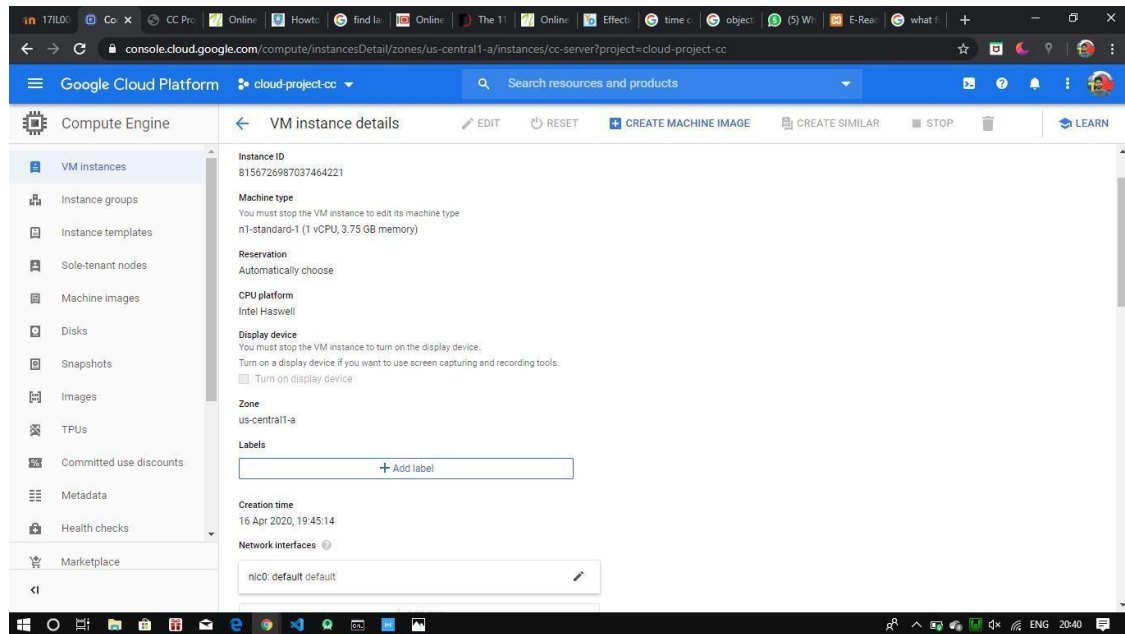
Below the form is a blue button labeled "Get Results". In the bottom right corner of the form area, there is a link "Back to top". The Windows taskbar is visible at the bottom of the browser window.

- Students checking for their attendance information.



- Each student can view their attendance in each subject separately.

Cloud Computing



- VM instance which is running the server.

8. CONCLUSION

Attendance management is significant to all organizations such as educational institutions. It can manage and control the success of any organization by keeping track of people within the organization such as students to maximize their performance. The proposed system offers the process of monitoring attend students, it aims to help the teacher in the classroom or laboratories to manage and record students' presence electronically and directly without the need to list on paper so it will save time and effort. The system can analyse the data and displays statistics about the period.

The developed system easy to use and friendly that has an attractive and simple GUI is design so that insertions, deletions, and changes of data can do easily without interacting with the tables. In order to increase use the application and make it easy to use and attractive, JavaScript, jQuery and AJAX have been used. MySQL use for the application Database which stores the data for long period.

The application's test case revealed that the system is working exciting and is ready to use to manage students attend for any department of the University, College or Institute.

9. REFERENCES

1. www.wikipedia.com
2. www.youtube.com
3. www.google.com
4. www.stackoverflow.com
5. <https://cloud.google.com/>