ATTENDANCE PORTAL

WHAT OUR PROJECT DOES..

> Our team has provided an attendance management system that fulfills the purpose of recording, monitoring and updating the attendance of students.

> We have made our website with the objective of assisting faculties to upload and record attendance of their students, while allowing students to track the same.

> Our web application also provides a feature of letting parents/guardians register themselves for knowing the attendance of their children .

> Furthermore, our app provides a forum-based chat system that allows student-faculty and parent-faculty interaction in case of discrepancies.

> A student is also provided with archival record of his/her attendance upon graduation.

TECHNOLOGIES USED

- HTML5
- CSS3
- Bootstrap
- JavaScript
- ReactJS
- NodeJS
- MySQL
- Google Cloud(Hosting)

FRONT END OF THE WEBSITE

○ We have used HTML5 to create the structure on the client-end of the website

○ CSS was used in styling and controlling the aesthetic aspects of the website

○ We used the Bootstrap grid-column feature for creating layouts. We also many Bootstrap elements such as navigation bar, carousel, modal, download buttons, login forms, etc.

○ We also used an open source Bootstrap implementation of a comment section as the basic structure in creating the comment threads forum with each assignment for classroom discussion

○ All HTML components are used inside ReactJS to render the designs

○ React-Redux is used for state management of all the HTML components

THE BACKEND OF THE WEBSITE

○ We have primarily used the NodeJS – Express framework to facilitate the server-side operations of our website

○ We have used routing methods of the Express app object that correspond to HTTPS methods, like using POST requests to handle insertion operations into the database, and GET requests to handle selection operations from the database

○ As we are using NodeJS, we have used JavaScript throughout to control the behavior of the website and to handle all user requests

○ We have used Sequelize ORM(Object Relational Mapping) functions to execute the queries that would be submitted to the database manager, wherein we have inherently used MySQL concepts

○ We have also encrypted all passwords we store and generate JSON web tokens for login authentication, accounting for the safety of data stored

ENCRYPTED PASSWORD

ENTITY-RELATIONSHIP DIAGRAM
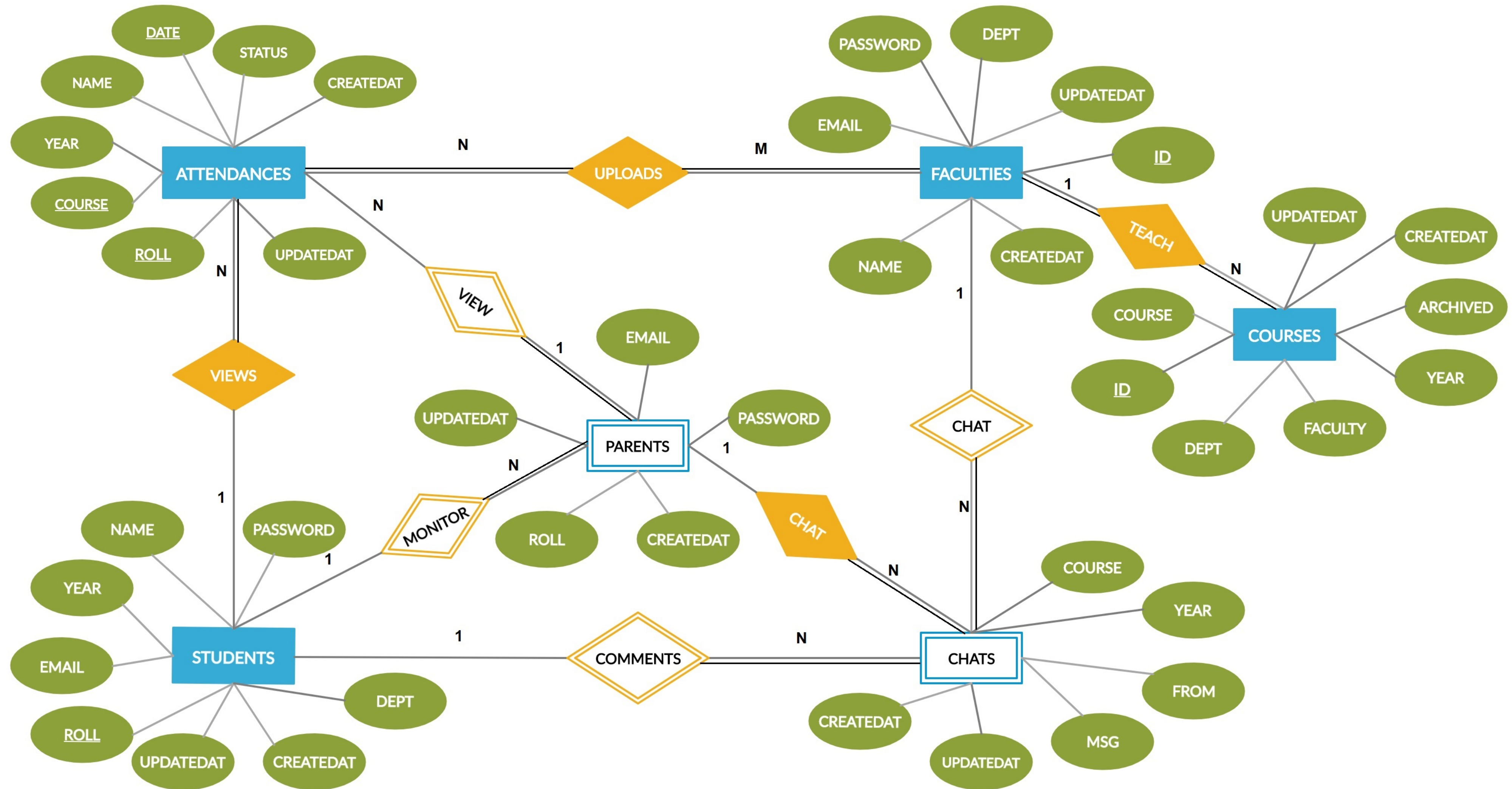
ENTITY DESCRIPTION

- Our database consists of six entities.

- There are students in the institute, each belonging to a certain department and a certain batch(year) and each student has a unique roll number and email-id.

- There are faculties in the institute, each teaching one or multiple courses, belonging to a certain department, and each has a unique faculty id.

- Parent(s)(acting as a weak entity) of each student can also enroll themselves to our application, wherein each user can view the details of one student only(based on roll number).

- Faculties are supposed to upload the attendance of students for the course they teach.

- Attendance details such as roll number, course, batch(year),date and status(P/A), are stored in the attendance entity

- Every course is described by a unique course id.

- Every student/parent can interact with any faculty in case of discrepancies, and the data is stored in chats(acting as a weak entity).

- Every student can view his/her attendance details accordingly.

- Attendance status of each student can be monitored by their parent(s).

- The application also provides archival data for students when graduating.

CARDINALITY-PARTICIPATION

Students-Attendances :

Students : N:O (A student can have multiple attendance records)

Attendances : 1:1 (Every attendance recorded belongs to some student)

Faculties-Attendances:

Faculties : N:1 (A faculty can upload attendance of multiple students)

Attendances : N:1

Parents-Attendances(Identifying relationship):

Parents : N:1 (A parent can view multiple attendance record of the corresponding student)

Attendances : 1:O (Some students need not have their parent(s) registered)

CARDINALITY-PARTICIPATION

Faculties-Courses:

Faculties : N:1

Courses : 1:1

Parents-Students(Identifying relationship):

Parents : 1:1

Student : N:O

Students-Comments(Identifying relationship):

Students : N:O

Comments : 1:1

CARDINALITY-PARTICIPATION

Faculties-Comments(Identifying relationship):

Faculties : N:O

Comments : 1:1

Parents-Comments:

Parents : N:O

Comments : 1 : 1

SNAPSHOTS!!

A quick dive into what our project looks like..

THE LANDING PAGE

Where we show what our project does, what features it has, who our team is made off, and how you can join the list of our happy customers :)

IIITDM
KANCHEEPURAM

HOME　　FEATURES　　CONTACT

WELCOME TO IIITDM'S
WEB-BASED ATTENDANCE MANAGEMENT SYSTEM

கல்விப்பயிற்சி

शैक्षिक

ACADEMICS

GET STARTED

Attendance Management | Dashboard | Dashboard | Parent L&G | IIITDM AMS

localhost:3000/#features

IIITDM   HOME   FEATURES   CONTACT

FEATURES

REAL-TIME MONITORING

Provides convenient and real-time monitoring of the student's attendance

ATTENDANCE ARCHIVE

Provides a record archival policy. The attendance records will be archived after the student has graduated.

PARENTAL VIEW

The student's attendance status can be monitored by their respective parents.

Sreedhar Arumugam

Pratyush VM

Viknesh Rajaramon

localhost:3000/#features

IIITDM

HOME   **FEATURES**   **CONTACT**

Sreedhar Arumugam

Pratyush VM

Viknesh Rajaramon

Balajee D

Bavesh Balaji

B Vignesh

IIITDM

HOME   FEATURES   CONTACT

Balajee D

Bavesh Balaji

B Vignesh

IIITDM
KANCHEEPURAM

Contact info

Vandalur-Kelambakkam Road, Chennai: 600127.

+91-44-2747 6300 | +91-44-2747 6301.

office@iiitdm.ac.in

THE CHOICE OF THE STAKEHOLDER..

Dynamic page to let you choose your user category

Student
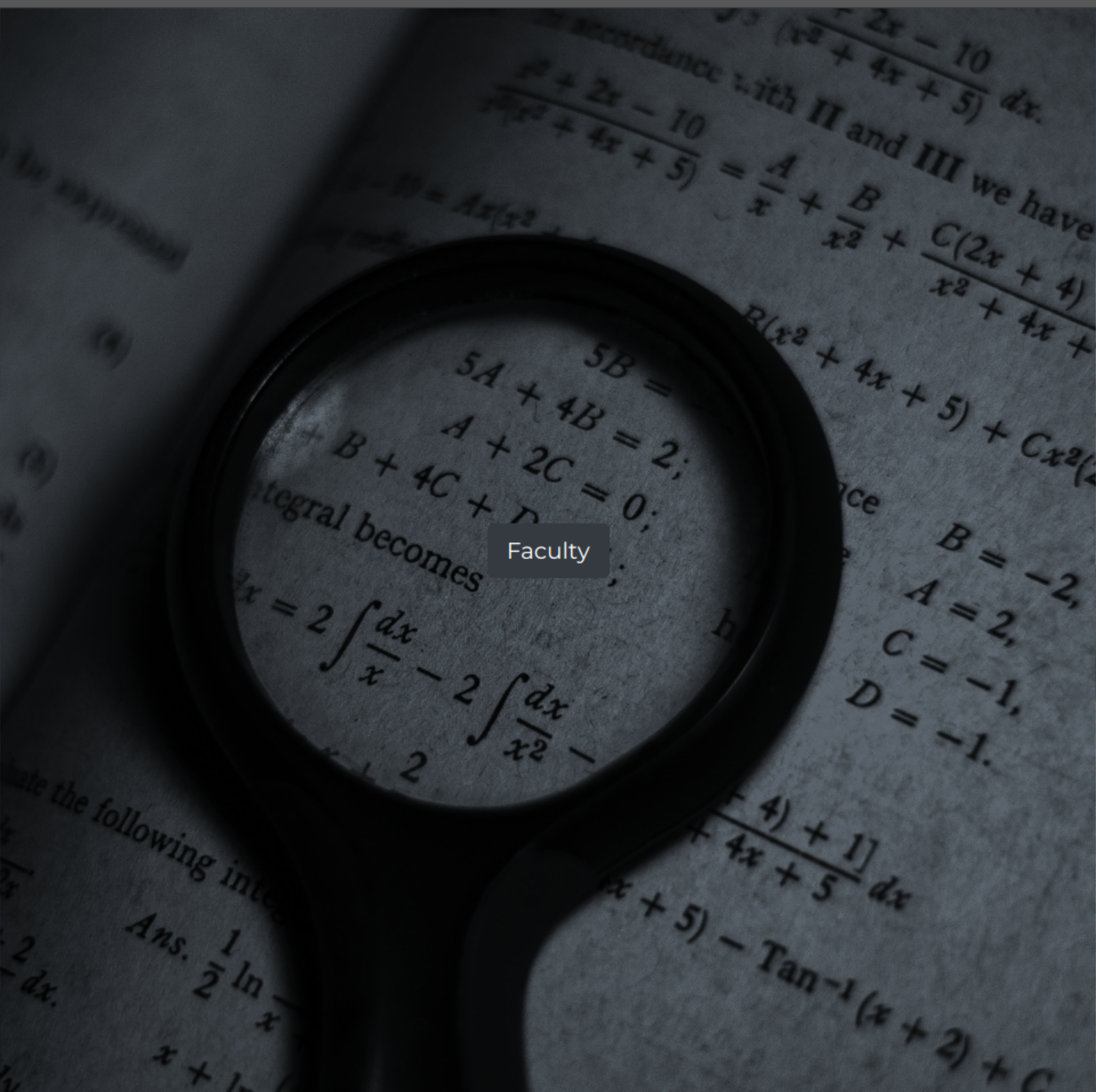
Faculty

Parent

LOGIN AND REGISTRATION PAGES

Sliding login and registration pages(in accordance to the user category)

localhost:3000/student/login

Student Login

Sign in

Email

Password

Forgot your password?

SIGN IN

Don't have an account?

Go ahead and create an account for yourself!!

SIGN UP

Faculty Login

Sign in

Email

Password

Forgot your password?

SIGN IN

Don't have an account?

Go ahead and create an account for yourself!!

SIGN UP

Attendance Management   ×   Dashboard   ×   Dashboard   ×   Parent L&G   ×   IIITDM AMS   ×   +

localhost:3000/faculty/login

Faculty Login

Already have an account!

Please login to access your profile

SIGN IN

Create Account

Name

Email

Password

Department

SIGN UP

localhost:3000/parent/login

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   Other bookmarks

Parent Login

Already have an account!

Please login to access your profile

SIGN IN

Create Account

Name

Email

Password

Roll no of ward

Year of joining

SIGN UP

FACULTY AS A STAKEHOLDER

To illustrate how a faculty can use our application..

CREATING A NEW COURSE..

Jagadeesh Kakarla

CSE department faculty

Welcome, Jagadeesh Kakarla!

Dashboard

Interaction

Create Course

Logout

Database Systems

Theory Of Computation

Course Name

Computer Networks

Batch Year

2018

Submit

Welcome,
Jagadeesh
Kakarla!

Dashboard

Interaction

Create Course

Logout

Attendance DashBoard

Course Name

Computer Networks

Batch Year

2018

Submit

Chatrooms:

Welcome, Jagadeesh Kakarla!

Dashboard

Interaction

Create Course

Logout

Database Systems	Theory Of Computation	Computer Networks

VIEWING AND UPDATING ATTENDANCE FOR COURSES..

With dashboard and percentage model for better user experience!!

Attendance Management ×

localhost:3000/faculty/attendance/Database%20Systems/COE18B051/2018

IIITDM
KANCHEEPURAM

Attendance DashBoard

Database Systems

**Welcome,
Jagadeesh
Kakarla!**

Dashboard

Interaction

Create Course

Archived courses

Logout

Average Attendance Record

84%

Eligibility (cut-off 75%):

Eligible

S.No	Roll	Name	Date	Status	Edit	
1	COE18B051	Sreedhar Arumugam	2020-06-23	Present	Choose ▾	SUBMIT
2	COE18B051	Sreedhar Arumugam	2020-06-26	Present	Choose ▾	SUBMIT
3	COE18B051	Sreedhar Arumugam	2020-06-23	Absent	Choose ▾	SUBMIT
4	COE18B051	Sreedhar Arumugam	2020-06-28	Present		

localhost:3000/faculty/courses/Database%20Systems

IIITDM
KANCHEEPURAM

Attendance DashBoard

Database Systems

Choose date:

| 30/06/2020 | × ▲▼ ▼ |

S.No	Roll	Name	Date	Status	Submit
1	COE18B051	Sreedhar Arumugam	2020-06-30	Choose ▾	MARK
2	COE18B042	Pratyush	2020-06-30	Choose ▾	MARK
3	COE18B013	Balajee	2020-06-30	Choose ▾	MARK
4	COE18B060	Viknesh	2020-06-30	Choose ▾	MARK
5	CED18I007	B Vignesh	2020-06-30	Choose ▾	MARK
6	COE18B007	Bavesh	2020-06-30	Choose ▾	MARK

Welcome, Jagadeesh Kakarla!

Dashboard

Interaction

Create Course

Archived courses

Logout

CHATROOMS(COURSE SPECIFIC)..

For answering to respected queries

Attendance Management ×   +

localhost:3000/faculty/chat

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   »   Other bookmarks

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KANCHEEPURAM   Attendance DashBoard

Chatrooms:

Database Systems	Theory Of Computation	Computer Networks	C Programming	Internet Of Things
Batch: CSE2018	**Batch: CSE2018**	**Batch: CSE2018**	**Batch: CSE2019**	**Batch: CSE2016**
ARCHIVE	ARCHIVE	ARCHIVE	ARCHIVE	UNARCHIVE

Welcome, Jagadeesh Kakarla!

Dashboard

Interaction

Create Course

Archived courses

Logout

Attendance Management   Attendance Management

localhost:3000/faculty/chat/Database%20Systems/2018

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   Other bookmarks

Welcome, Jagadeesh Kakarla!

Dashboard

Interaction

Create Course

Archived courses

Logout

COMMENT

Jagadeesh Kakarla 21/06/2020

Hello

Sreedhar Arumugam 21/06/2020

Hello, this is from the student side.

Sreedhar Parent 21/06/2020

This is from the parent side

B Vignesh 21/06/2020

test

Pratyush 21/06/2020

testing

STUDENT AS A STAKEHOLDER

A small visualisation of how students can know their attendance at anytime!!

COURSE BY COURSE ATTENDANCE EVALUATION

Along with average attendance ,attended classes count and eligibility shown to the user

Attendance Management   ×   Attendance Management   ×   WhatsApp   ×   +

← → C   ⓘ localhost:3000/student/courses

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   »   Other bookmarks

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KANCHEEPURAM   Attendance DashBoard

Sreedhar Arumugam
CSE2018

COE18B051

Welcome,
Sreedhar
Arumugam!

Dashboard

Interaction

Logout

Ongoing courses:

| Database Systems | Theory Of Computation | Computer Networks | Data Structures | Computer Organization |

Average Attendance Record

Number of classes attended till date : 9

75%

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localhost:3000/student/courses/Database%20Systems

Database Systems- Jagadeesh Kakarla

Average Attendance Record

84%

Eligibility (cut-off 75%):
Eligible

Welcome,
Sreedhar
Arumugam!

Dashboard

Interaction

Logout

S.No	Student Roll	Student Name	Date	Status
1	COE18B051	Sreedhar Arumugam	2020-06-23	Present
2	COE18B051	Sreedhar Arumugam	2020-06-26	Present
3	COE18B051	Sreedhar Arumugam	2020-06-23	Absent
4	COE18B051	Sreedhar Arumugam	2020-06-28	Present
5	COE18B051	Sreedhar Arumugam	2020-07-05	Present
6	COE18B051	Sreedhar Arumugam	2020-06-30	Present

Computer Organization - Hari Narayanan
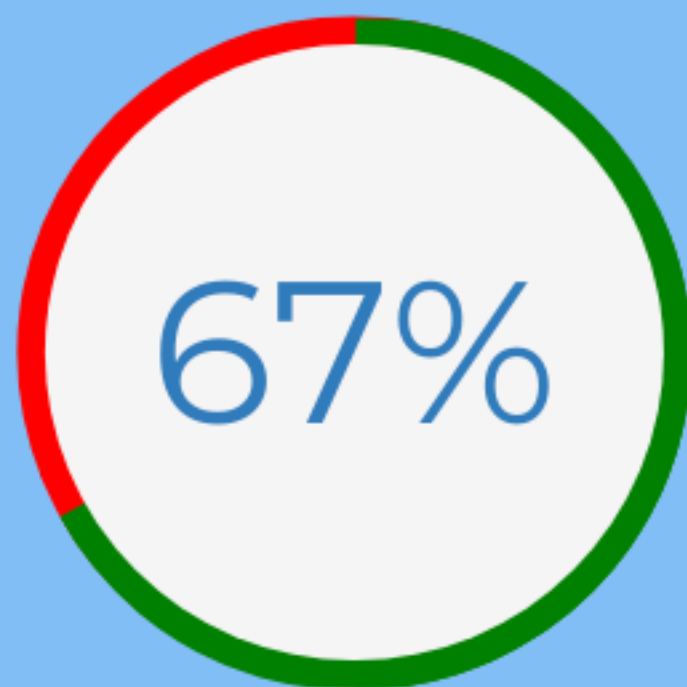# No records created for Computer Organization yet.

**Welcome,
Sreedhar
Arumugam!**

Dashboard

Interaction

Logout

Theory Of Computation

Average Attendance Record

67%

Eligibility (cut-off 75%)
Not Eligible

Welcome,
Sreedhar
Arumugam!

Dashboard

Interaction

Logout

S.No	Student Roll	Student Name	Date	Status
1	COE18B051	Sreedhar Arumugam	2020-06-19	Present
2	COE18B051	Sreedhar Arumugam	2020-06-22	Present
3	COE18B051	Sreedhar Arumugam	2020-06-28	Absent
4	COE18B051	Sreedhar Arumugam	2020-06-22	Present
5	COE18B051	Sreedhar Arumugam	2020-06-29	Present
6	COE18B051	Sreedhar Arumugam	2020-07-17	Absent

CHATROOMS(COURSE SPECIFIC)..

For students to clear their issues and discrepancies

Attendance Management | react img choose alt if ori | javascript - react.js Replac | How to handle loading of

localhost:3000/student/chat/Database%20Systems/2018

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   Other bookmarks

COMMENT

Welcome, Pratyush!

Dashboard

Interaction

Logout

Jagadeesh Kakarla 21/06/2020

Hello

Sreedhar Arumugam 21/06/2020

Hello, this is from the student side.

Sreedhar Parent 21/06/2020

This is from the parent side

B Vignesh 21/06/2020

test

Pratyush 21/06/2020

testing

PARENT AS A STAKEHOLDER

What a parent's portal looks like..

(with chatrooms and course specific attendance pages)

Attendance Management   Dashboard   Dashboard   Parent L&G   IIITDM AMS

localhost:3000/parent/courses

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   Other bookmarks

IIITDM
KANCHEEPURAM

Attendance DashBoard

Sreedhar Parent

COE18B051

Database Systems

Theory Of Computation

Computer Networks

Welcome,
Sreedhar
Parent!

Dashboard

Interaction

Logout

Average Attendance Record
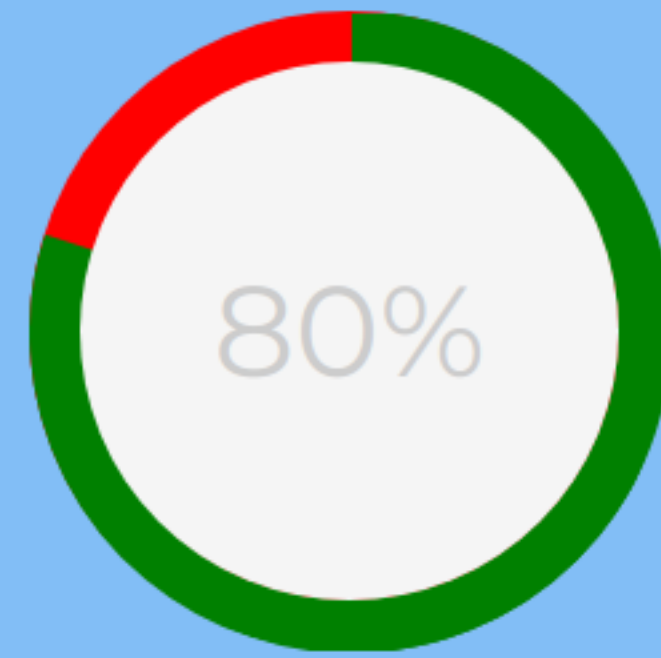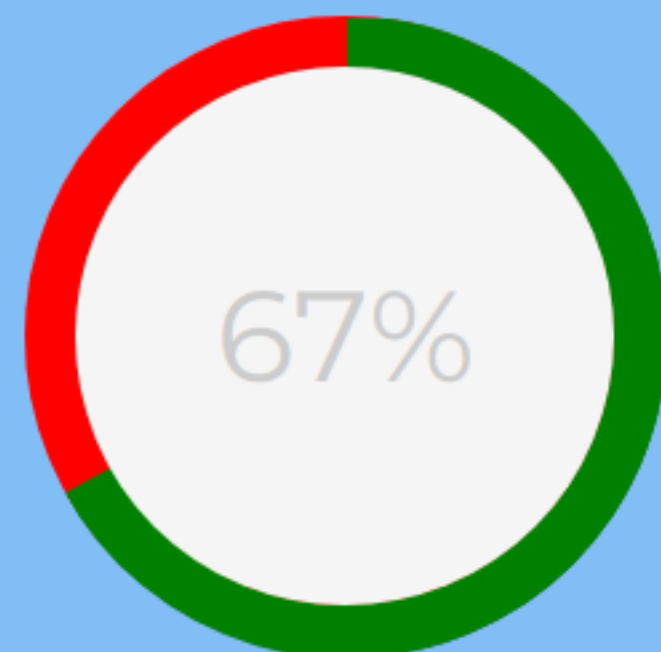
Number of classes attended till date : 8

73%

localhost:3000/parent/courses/Database%20Systems

Database Systems

Average Attendance Record

80%

Eligibility (cut-off 75%):
Eligible

Welcome,
Sreedhar
Parent!

Dashboard

Interaction

Logout

S.No	Student Roll	Student Name	Date	Status
1	COE18B051	Sreedhar Arumugam	2020-06-23	Present
2	COE18B051	Sreedhar Arumugam	2020-06-26	Present
3	COE18B051	Sreedhar Arumugam	2020-06-23	Absent
4	COE18B051	Sreedhar Arumugam	2020-06-28	Present
5	COE18B051	Sreedhar Arumugam	2020-07-05	Present

Theory Of Computation

Average Attendance Record

67%

Eligibility (cut-off 75%)

Not Eligible

Welcome, Sreedhar Parent!

Dashboard

Interaction

Logout

S.No	Student Roll	Student Name	Date	Status
1	COE18B051	Sreedhar Arumugam	2020-06-19	Present
2	COE18B051	Sreedhar Arumugam	2020-06-22	Present
3	COE18B051	Sreedhar Arumugam	2020-06-28	Absent
4	COE18B051	Sreedhar Arumugam	2020-06-22	Present
5	COE18B051	Sreedhar Arumugam	2020-06-29	Present
6	COE18B051	Sreedhar Arumugam	2020-07-17	Absent

localhost:3000/student/chat/Database%20Systems/2018

IIITDM KANCHEEPURAM

Attendance DashBoard
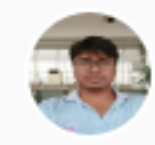
Welcome,
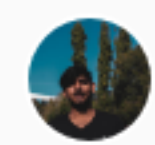Sreedhar
Parent!

Dashboard

Interaction

Logout

Add a public comment

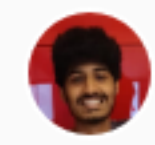COMMENT

Jagadeesh Kakarla 21/06/2020

Hello

Sreedhar Arumugam 21/06/2020

Hello, this is from the student side.

Sreedhar Parent 21/06/2020
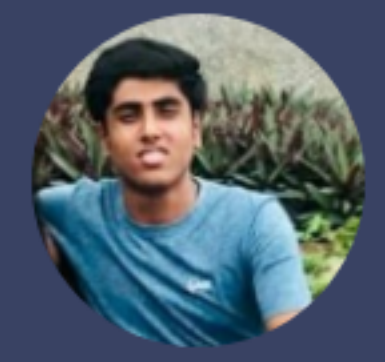
This is from the parent side

B Vignesh 21/06/2020

test

REAL-TIME UPDATION OF ATTENDANCE

Snapshots on how the data gets updated on student's end, if modified by a faculty

Attendance Management ✕ | G react img choose alt if ori ✕ | javascript - react.js Replac ✕ | i How to handle loading of ✕ | +

← → ⟳ ⓘ localhost:3000/student/courses

▦ Apps Learn Python -... HTG 37 Important... HackerRank GeeksforGeek... Programming... k Kaggle: Your... Tech With Tim... 1,000+ Softwa... Full Stack Rea... GitHub Main Page - Co... » ▪ Other bookmarks

IIITDM KANCHEEPURAM   Attendance DashBoard

Bavesh   COE18B007
CSE2018

Welcome,
Bavesh!

| Database Systems | Theory Of Computation | Computer Networks |

Dashboard

Interaction

Average Attendance Record

Number of classes attended till date : 1
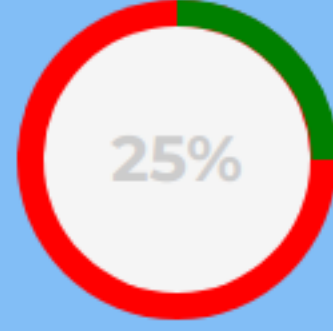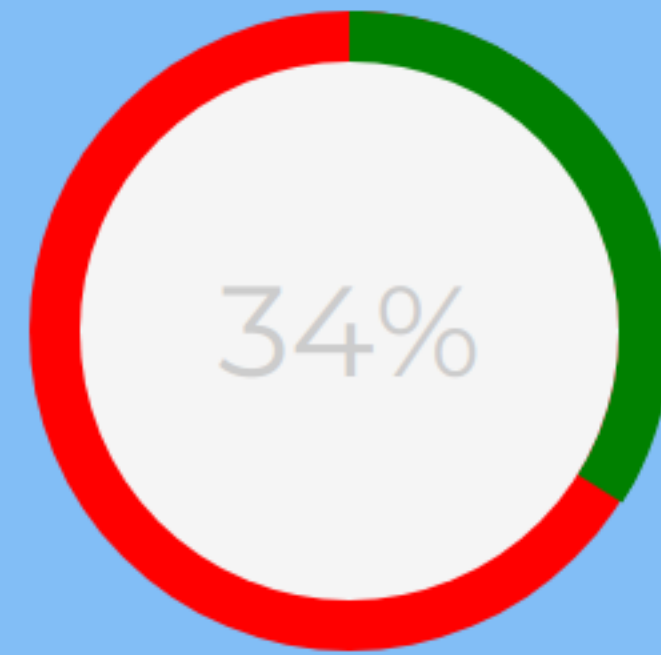
Logout

25%

Attendance Management × | react img choose alt if ori × | javascript - react.js Replac × | How to handle loading of × | +

localhost:3000/student/courses/Database%20Systems

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   Other bookmarks

Database Systems

Average Attendance Record

34%

Eligibility (cut-off 75%)

Not Eligible

Welcome,
Bavesh!

Dashboard

Interaction

Logout

S.No	Student Roll	Student Name	Date	Status
1	COE18B007	Bavesh	2020-06-01	Absent
2	COE18B007	Bavesh	2020-06-02	Absent
3	COE18B007	Bavesh	2020-06-03	Present

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KANCHEEPURAM

Attendance DashBoard

Database Systems

Average Attendance Record

34%

Eligibility (cut-off 75%)
Not Eligible

**Welcome,
Jagadeesh
Kakarla!**

Dashboard

Interaction

Create Course

Logout

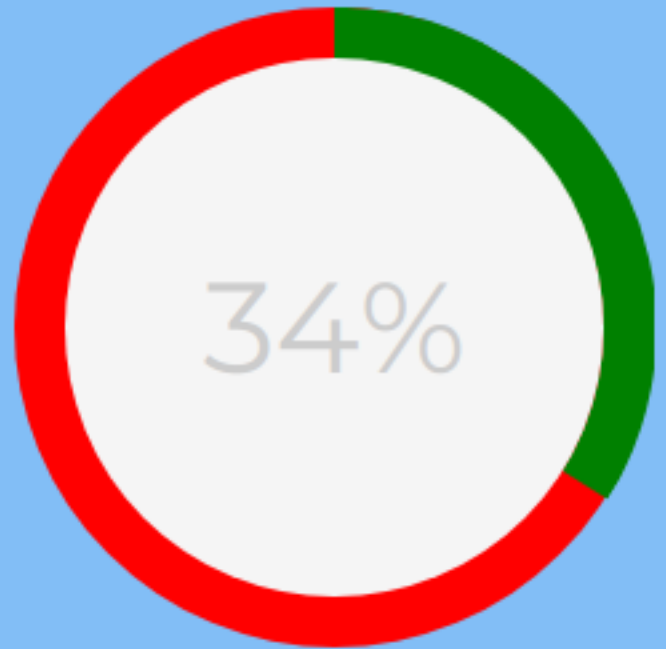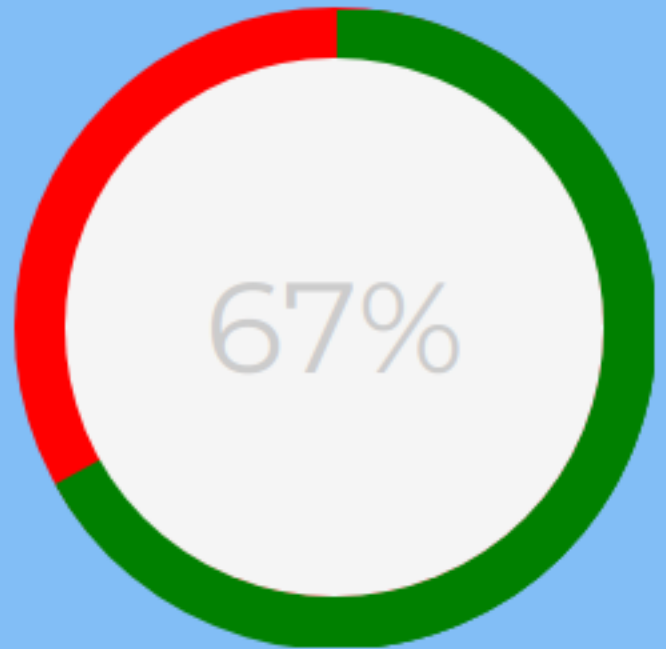| S.No	Roll	Name	Date	Status	Edit	
1	COE18B007	Bavesh	2020-06-01	Absent	Choose ▾	SUBMIT
2	COE18B007	Bavesh	2020-06-02	Absent	Choose ▾	SUBMIT
					Choose	
					Present	
					Absent	
3	COE18B007	Bavesh	2020-06-03	Present		SUBMIT

IIITDM
KANCHEEPURAM

Attendance DashBoard

Database Systems

Welcome,
Jagadeesh
Kakarla!

Dashboard

Interaction

Create Course

Logout

Average Attendance Record

67%

Eligibility (cut-off 75%)
Not Eligible

S.No	Roll	Name	Date	Status	Edit	
1	COE18B007	Bavesh	2020-06-01	Absent	Choose ▾	SUBMIT
2	COE18B007	Bavesh	2020-06-02	Present	Choose ▾	SUBMIT
3	COE18B007	Bavesh	2020-06-03	Present	Choose ▾	SUBMIT
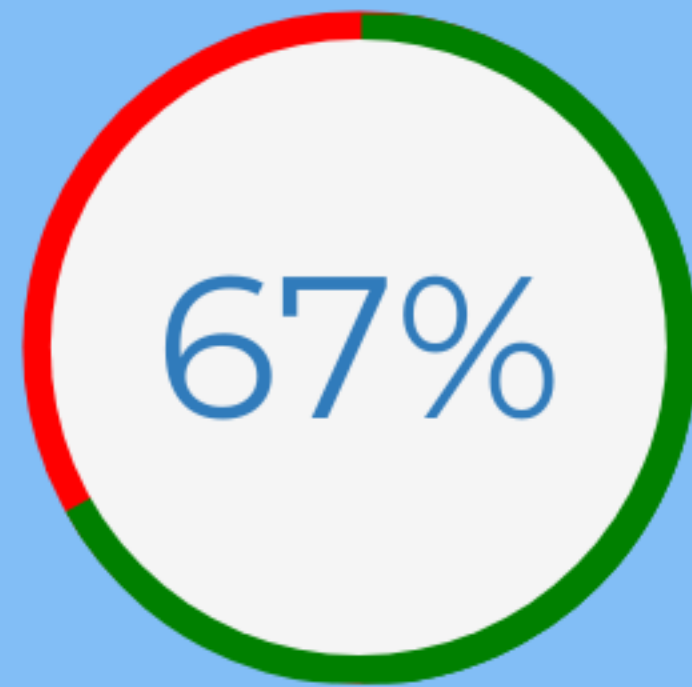
Attendance Management   react img choose alt if ori   javascript - react.js Replace   How to handle loading of

localhost:3000/student/courses/Database%20Systems

Apps   Learn Python -...   37 Important...   HackerRank   GeeksforGeek...   Programming...   Kaggle: Your...   Tech With Tim...   1,000+ Softwa...   Full Stack Rea...   GitHub   Main Page - Co...   Other bookmarks

Database Systems

Average Attendance Record

67%

Eligibility (cut-off 75%)
Not Eligible

Welcome,
Bavesh!

Dashboard

Interaction

Logout

S.No	Student Roll	Student Name	Date	Status
1	COE18B007	Bavesh	2020-06-01	Absent
2	COE18B007	Bavesh	2020-06-02	Present
3	COE18B007	Bavesh	2020-06-03	Present

ARCHIVE FEATURES

Course specific archives give by faculties

localhost:3000/faculty/courses

IIITDM
KANCHEEPURAM

Attendance DashBoard

Jagadeesh Kakarla

CSE department faculty

Welcome,
Jagadeesh
Kakarla!

Dashboard

Interaction

Create Course

Archived courses

Logout

Ongoing courses:

Database Systems

Batch: CSE2018

ARCHIVE

Theory Of Computation

Batch: CSE2018

ARCHIVE

Computer Networks

Batch: CSE2018

ARCHIVE

C Programming

Batch: CSE2019

ARCHIVE

Internet Of Things

Batch: CSE2016

ARCHIVE

Attendance Management ×   +

localhost:3000/faculty/archives

IIITDM
KANCHEEPURAM   Attendance DashBoard

Jagadeesh Kakarla

CSE department faculty

Archived courses:

Internet Of Things
Batch: CSE2016

UNARCHIVE

**Welcome,
Jagadeesh
Kakarla!**

Dashboard

Interaction

Create Course

Archived courses

Logout

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Activities   Google Chrome   Mon 9:16 AM

Attendance Management   ×   +

localhost:3000/faculty/courses

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IIITDM
KANCHEEPURAM

Attendance DashBoard

Jagadeesh Kakarla

CSE department faculty

Welcome,
Jagadeesh
Kakarla!

Dashboard

Interaction

Create Course

Archived courses

Logout

Ongoing courses:

Database Systems
Batch: CSE2018

ARCHIVE

Theory Of Computation
Batch: CSE2018

ARCHIVE

Computer Networks
Batch: CSE2018

ARCHIVE

C Programming
Batch: CSE2019

ARCHIVE

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The Ultimate Attendance Management Tool

TEAM CONTRIBUTION

BAVESH(COE18B007)-ER Analysis, Course specific comment forums for all portals, Presentation.

D.BALAJEE(COE18B013)-ER Analysis,ER Diagram simulation,Responsive Landing Page, Presentation.

B.VIGNESH(CED18I007)-ER Analysis,Choosing page,Sliding login and registration forms, Presentation.

R.VIKNESH(COE18B060)-ER Analysis,Faculty viewing portal, with course specific portals and front end data ordering,Presentation.

PRATYUSH.V.M(COE18B042)-Student viewing page,Pie chart simulation with data, Dashboard implementation, Presentation.

SREEDHAR(COE18B051)-Backend implementation, Real time view of data updation at front end,Archival record maintenance,Presentation.

THANK YOU!!