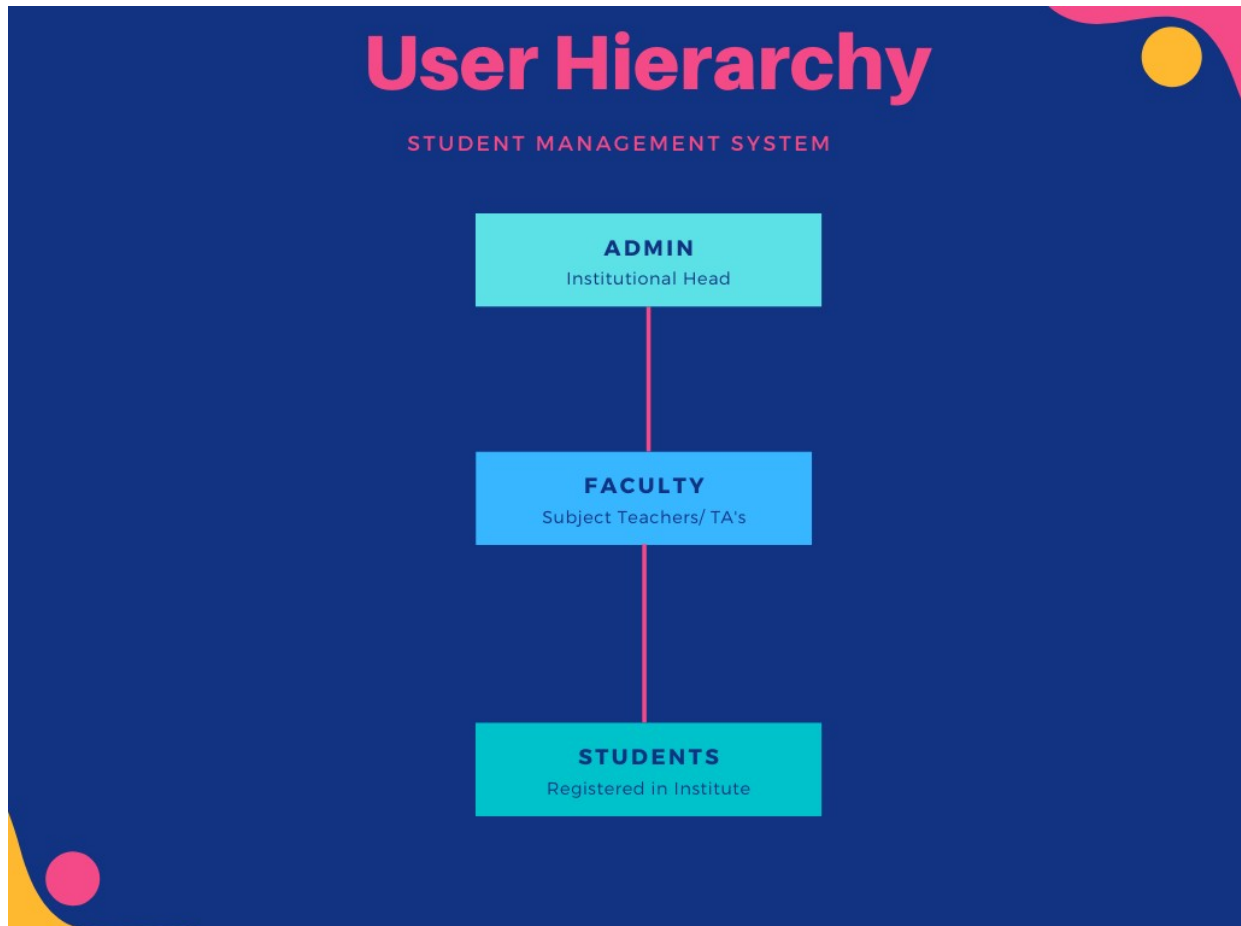


Student Management System Using *Django* – Brief

Description:

Web application developed using Django as back-end programming language with MySQL database and bootstrap css as front-end.

This web application can be used to manage basic operations dealt commonly in any educational institution. This web-app deals with users with 3 level of permission hierarchies, visualized as follows:



“ADMIN” types users having maximum privilege, and “STUDENTS” having the minimum privilege. All the features in this project has been discussed later in this document.

The planning and design project is a joint effort of our team members.

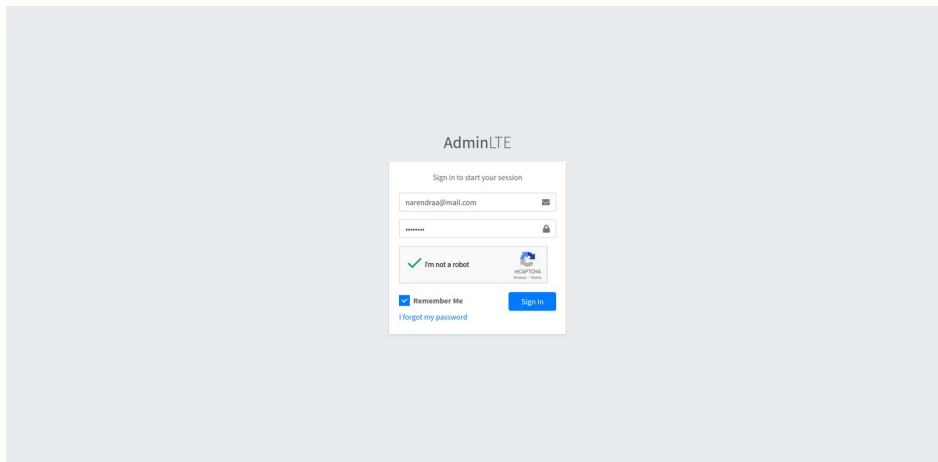
References:

- <https://adminlte.io/>
- <https://www.zeolearn.com/magazine/first-steps-to-create-the-website-with-django>
- <https://www.tutorialspoint.com/how-to-build-your-own-website-using-django-in-python>
- https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/Home_page
- https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/skeleton_website
- <https://hostadvice.com/how-to/how-to-create-a-simple-web-app-with-django-2/>
- <https://github.com/vijaythapa333/django-student-management-system>

Student Management System Using *Django*

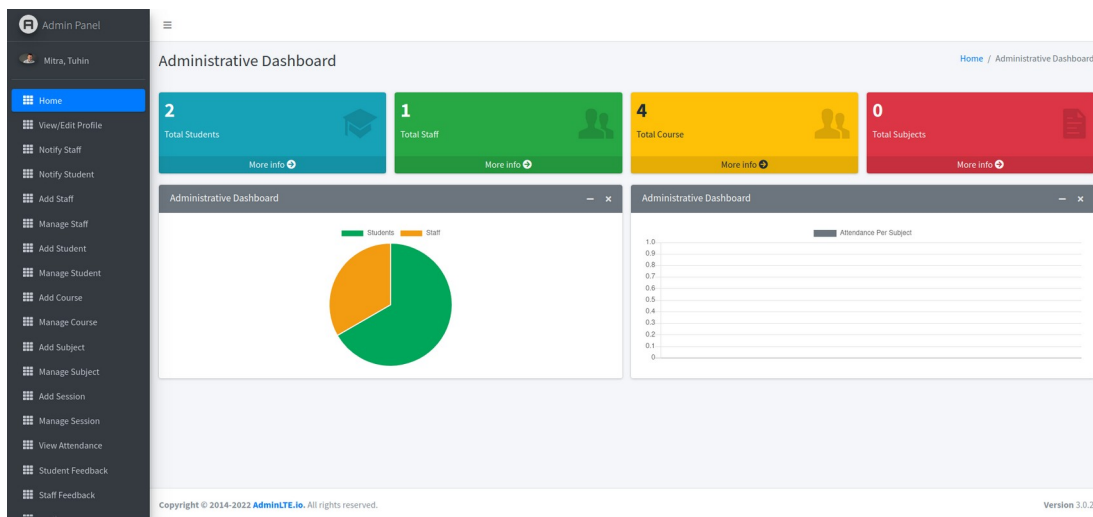
Login Page:

First page after user visits the website,(home page)



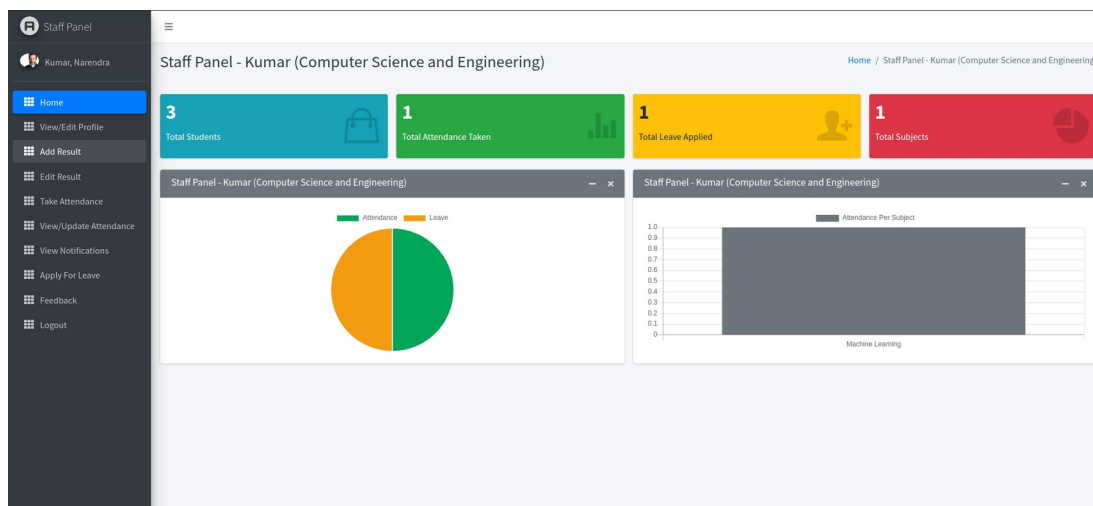
Admin Panel:

Only visible to users with admin privilege...



Staff Home Page:

Page after login visible to staffs only (added by admin)



Add/Manage Subjects Page:

Admin can add/manage subject related informations from these pages

Admin Panel

Home / Add Subject

Add Subject

Name: Machine Learning

Staff: Kumar, Navin

Course: Computer Science and Engineering

Add Subject

Admin Panel

Home / Manage Subjects

Manage Subjects

SN	Subject Name	Staff Name	Course Name	Edit
1	Machine Learning	Kumar, Navin	Computer Science and Engineering	Edit Delete

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Add/Manage Courses Page:

Admin can add/remove/update course informations from these pages

Admin Panel

Home / Add Course

Add Course

Name: Electronics and Communication Engineering

Add Course

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Admin Panel

Home / Manage Courses

Manage Courses

SN	Course Name	Edit
1	Computer Science and Engineering	Edit Delete
2	Electrical Engineering	Edit Delete
3	Civil Engineering	Edit Delete
4	Electronics and Communication Engineering	Edit Delete

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Add/Manage Student Page:

Admin can add/remove/update student profile from following two pages provided student details

Admin Panel

Home / Add Student

Add Student

First Name: John

Last Name: Doe

Email: john.doe@gmail.com

Gender: Male

Password: 12345678

Profile Pic:

Address: 12345 Main Street, New York, NY 10001

Course: Computer Science and Engineering

Add Student

Admin Panel

Home / Manage Students

Manage Students

SN	Staff Name	Email	Gender	Course	Avatar	Edit
1	John, Doe	john.doe@gmail.com	M	Computer Science and Engineering		Edit Delete
2	John, Doe	john.doe@gmail.com	M	Computer Science and Engineering		Edit Delete
3	John, Doe	john.doe@gmail.com	M	Computer Science and Engineering		Edit Delete
4	John, Doe	john.doe@gmail.com	M	Computer Science and Engineering		Edit Delete

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View Student/Staff Feedback:

Admin can view student's or staff's feedback (if any) from the following pages

Admin Panel

Home / Student Feedback Messages

Student Feedback Messages

SN	Student	Session	Message	Sent On	Reply On
1	John, Doe	12345	The internet connection at home is down since yesterday evening, it is fixed as soon as possible, I'll be very happy	Jan 10, 2022, 1:30 PM	Jan 10, 2022, 1:30 PM

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Admin Panel

Home / Staff Feedback Messages

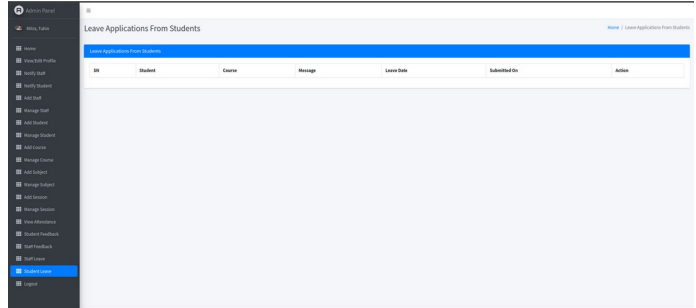
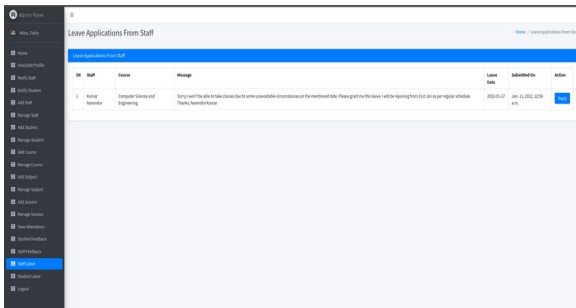
Staff Feedback Messages

SN	Staff	Session	Message	Sent On	Reply On
1	John, Doe	12345	The internet connection at home is down since yesterday evening, it is fixed as soon as possible, I'll be very happy	Jan 10, 2022, 1:30 PM	Jan 10, 2022, 1:30 PM

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Staff/Student Leave:

Staff/Student can apply for leave from their corresponding /apply/leave pages (this request will be visible as pending until admin approves it)



Add Result:

User with “staff” privilege can create and publish result given subject, session, obtained score, total score and for a particular student name

Staff Panel

Kumar, Narendra

Home

View/Edit Profile

Add Result

Edit Result

Take Attendance

View/Update Attendance

View Notifications

Apply For Leave

Feedback

Logout

Result Upload

Home / Result Upload

Result Upload

Subject

Machine Learning

Session Year

From 2018-08-16 to 2022-07-16

Fetch Students

Student List

Mitra Tuhin

Test Score

30

Exam Score

30

Save Result

Taking Attendance :

Staff assigned to particular subject can take the attendance for that subject given the session and students who are present.

Staff Panel

Kumar, Narendra

Home

View/Edit Profile

Add Result

Edit Result

Take Attendance

View/Update Attendance

View Notifications

Apply For Leave

Feedback

Logout

Take Attendance

Home / Take Attendance

Take Attendance

Subject

Machine Learning

Session Year

From 2018-08-16 to 2022-07-16

Fetch Students

Attendance Date

11/01/2022

☒ Mitra Tuhin

☒ Ghosh Arnab

☒ Mitra Tuhin

Save Attendance

Student Management System Features List

Admin Features/Permissions

- | | | |
|---------------------------------|----------------------------|--|
| 1. Access Staff/Student Details | 7. Remove Students account | 13. Assign staff with subject |
| 2. Add Faculty account | 8. Create Session | 14. Remove subjects for sessions |
| 3. Edit Faculty profile details | 9. Edit Session details | 15. Create course |
| 4. Remove Faculty account | 10. Remove Sessions | 16. Edit course details |
| 5. Add Students account | 11. Add session subject | 17. Remove Courses |
| 6. Edit Student profile details | 12. Edit subject details | 18. Send notifications to Staff and Students |

Staff Features/Permissions

- | | | | |
|-------------------------------|---------------------------|-----------------|-----------------|
| 1. Access profile information | 3. Apply for leave | 6. Add Result | 9. Login/Logout |
| 2. Edit profile | 4. Take attendance | 7. Edit Result | |
| | 5. View/Update attendance | 8. Add Feedback | |

Student Features/Permissions

- | | | | |
|-------------------------------|----------------------------------|---------------------------------------|-----------------------|
| 1. Access Profile information | 3. View attendance % | 5. Provide feedback and see responses | 7. View notifications |
| 2. Edit Profile information | 4. View total number of subjects | 6. Apply for leave | |

Additional Features

- | | | |
|------------------------------------|---------------|--------------------------------|
| 1. Login verification with captcha | 2. Responsive | 3. Modern css and icon styling |
|------------------------------------|---------------|--------------------------------|

Student Management System – Project Background and Technical Details

Pre-requisites:

1. Python version ≥ 3.7
2. MySQL server installed and setup
3. Any modern OS compatible to run Python and MySQL (run and tested on Windows10 and Linux)

Setup and Execution:

1. Empty database created inside MySQL with the name **“django”**
2. MySQL admin username and password to access permissions to modify database **“django”**
3. Install all the required modules mentioned in requirements.txt,
 - ◆ `pip install -r requirements.txt`
4. Export environment variables to connect to existing MySQL server/django and run the application server:
 - ◆ To run the application execute the following commands in order:
`export DB_USER="tuhin"`
`export DB_PASS="Tuhin190221?"`
`export DB_HOST="127.0.0.1"`
`export DB_PORT="3306"`
 - ◆ `python manage.py runserver`
5. To create a admin user execute the following command from same terminal:
 - ◆ `python manage.py createsuperuser`
 - ◆ ...Enter email, username, password to create a new admin user.
 - ◆ Restart the application server using the command mentioned at (4)
6. Visit <http://127.0.0.1:8000> to login the application server.