



# Presentation Evaluation Tool

Objective: To reduce professor's time consumption for his presentation evaluation works

Team Kevtastic Krakens

**Vivek Vellaiyappan Surulimuthu**  
**Computer Science Engineer**

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# Outline

1. The Problem to solve
2. Planning & Requirement Analysis
3. Design
4. Development
5. Demo
6. Questions

# 1. The Problem

## Usage of Paper for Presentation Evaluation

Presentation Evaluation Form

CS Project CMPT 475 | CMPT 476  
ITS Project CMPT 477 | CMPT 478

Fall 2017

Table 1: Evaluation Criteria for Presentation

	1	3	5	7
<b>Personal Appearance</b>	Personal appearance is inappropriate for the occasion and audience.	Personal appearance is somewhat inappropriate for the occasion and audience.	For the most part personal appearance is appropriate for the occasion and the audience.	Personal appearance is completely appropriate for the occasion and the audience.
<b>Eye Contact</b>	Student reads all of report with no eye contact.	Student occasionally uses eye contact, but still reads most of report.	Student maintains eye contact sometimes but returns frequently to notes.	Student maintains eye contact with audience, seldom returning to notes.
<b>Elocution</b>	Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in the back to hear.	Student's voice is low. Student incorrectly pronounces terms. Audience has difficulty hearing presentation.	Student's voice is clear. Student pronounces most words correctly. Most audience members can hear presentation.	Student uses a clear voice and correctly pronounces terms; all audience members can hear presentation.
<b>Organization</b>	Audience cannot understand presentation due to a poor sequence of information.	Audience has difficulty following presentation because jumps around.	Presents information in logical sequence which audience can follow.	Presents information in logical <i>interesting</i> sequence which audience can follow.
<b>Mechanics/Slides</b>	Presentation has four or more spelling or grammatical errors.	Has three misspellings and/or grammatical errors.	Has no more than two misspellings and/or grammatical errors.	Has no misspellings or grammatical errors.
<b>Content</b>	Student provides poor explanation of the topic; provides poor technical explanations; relies on video.	Student provides inadequate explanation of the topic; audience does not gain adequate knowledge of the topic.	Student provides adequate overview/explanation of the topic.	Student provides outstanding and <i>accurate</i> overview/explanation of the topic.
<b>Subject Knowledge</b>	Student does not have grasp of the subject.	Student is uncomfortable with the subject.	Student is at ease with the subject.	Student demonstrates full knowledge of the subject and answers questions comfortably.



# — Problem

## Usage of Paper for Presentation Skills evaluation

### Time

- Reducing the efforts of professors time
- Print out
- Distribution of evaluation papers to students

### Resource

- Paper
- Printer (electricity, printing ink)
- Money (to buy paper, printer, writing pen/pencil)

### Data remains data

- Presenter unable to keep track of received data
- Unable to compare all students' marks in real time efficiently.
- Peer-to-peer review is hard (if applicable)
- Data analysis over different students' presentation skills

### Labor

- Manually input the presenter's final evaluated scores into iLearn
- Have to collect the returned papers and calculate the marks

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# Solution Proposal



# Solution description

Using a Secure Progressive Web Application to record and keep track of the evaluation points over the presenters' presentation.

# Why it's better than existing Paper Usage



## Security

- All data are securely stored using AES algorithm and SHA. Professor's password will be used as key to unlock the encrypted data

## Time

- All the evaluators can fill out the evaluation online in real time at ease

## Resource

- Avoiding the use of paper and thus saving natural resources, printer and thus saving money being spent

## Data remains data

- Professor can now have a better insights of the presenters' marks
- Presenters' can review their marks and comments anytime in future at ease
- Data analysis over presenter's attributes can be done.

## Labor

- All the evaluated data is recorded in real time and thus removing professor's painful manual entry

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## 2. Planning & Requirement Analysis



# What's the Planning and Requirement



## **Objective:**

- To reduce the efforts taken by the professors for presenters' presentation evaluation
- To get better data insights over the received marks of the presenter
- To keep track or review the received marks by Presenter

## **Requirements / Specs sheet:**

- A way to avoid aforementioned problems in real time at ease - This can be done in Web or Mobile app using the 'Presentation Evaluation Tool' project concept.
- End User: Professor, Presenter and Rosters
- Have to choose either web or mobile or both platform
- Security features implementation
- Language Selection
- Frontend Backend Libraries Hosting website

# Software Requirements



## Project Tech Stack Information

**Platform:** Web Application

**Language Specification:**

- Frontend languages
- Django-2.0.4
- Python-3.6.5
- Sqlite3

**Security Implementation**

- SHA2
- AES
- Pyaes-1.6.1 - python library

**IDE**

- Pycharm

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## 3. Design

# Design - Frontend



## shortNotes

- Usual front end languages usage.
- Django's MVC programming

# Design - Backend - DB designing



## shortNotes

- **My Aim:** to reduce database data redundancy and to have a consistent data integrity
- Used Bridge or Junction Methodology and Normalization concepts to achieve my aim

# Design - Backend - Data Storage in DB



## Password data storage:

- SHA-256 hashing algorithm is used to match the passwords of the user. Please refer the implementation in the image below.
- This hashed value “password\_stored\_in\_db” will be stored in DB

```
>>> import hashlib
>>> student_username = "vivek@marist.edu"
>>> student_password = "mypassword"
>>> password_stored_in_db = hashlib.sha256(student_password.encode('UTF-8')).hexdigest()
>>> print(password_stored_in_db)
89e01536ac207279409d4de1e5253e01f4a1769e696db0d6062ca9b8f56767c8
>>>
```

# Design - Backend - Data Storage in DB

## Evaluated data storage:

- AES algorithm is used to encrypt the inputted evaluation data (this is considered to be plaintext\_data) where Professor's password will be used as key to encrypt and store this encrypted data in the DB. (Kindly refer the img)
- Decryption done and showed accordingly using professor's password as key.

```
>>> import pyaes
>>> key = "kkkkkkkkkkkkkkkk".encode('UTF-8')
>>> len(key)
16
>>> aesencryption_object = pyaes.AESModeOfOperationCTR(key)
>>> plaintext_data = "This is the plain text data to be encrypted"
>>> ciphertext_to_be_stored_in_db = aesencryption_object.encrypt(plaintext_data)
>>> print("aesencryption_object: " + str(aesencryption_object) + " | plaintext_data: ", plaintext_data, " | ciphertext_to_be_stored_in_db: ", ciphertext_to_be_stored_in_db)
aesencryption_object: <pyaes.aes.AESModeOfOperationCTR object at 0x0646C1F0> | plaintext_data: This is the plain text data to be encrypted | ciphertext_to_be_stored_in_db: b'd\xaf\x14p\xcb0\x8e\xb5\xca\xcd\x00\xe4\x946\xbd\xba\xac\x1fj\xfe}A\xe2\xfc\x94\r\x9e\x8a\xb5U\x0c\x13h\xcl\xcl\x98i\x88\x15I0\x9c\x8b'
>>>
>>>
>>> aesdecryption_object = pyaes.AESModeOfOperationCTR(key)
>>> decrypted_data_from_ciphertext_in_db = aesdecryption_object.decrypt(ciphertext_to_be_stored_in_db)
>>> print(decrypted_data_from_ciphertext_in_db.decode())
This is the plain text data to be encrypted
>>>
>>> print(aesdecryption_object)
<pyaes.aes.AESModeOfOperationCTR object at 0x0647DFD0>
>>>
```



# Wireframes



# Wireframes - specSheet Content

## Presentation Evaluation Form

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Wireframes  
Frontend UI

register student action

Presentation Evaluation Tool.

1 Professor login

Presenter login

Professor's home page

2 Register Student

Review evaluation info

Presenter's Evaluation Information

3 course Name

s.no	student name	total marks	eye contact	elocution
1	Surname, first name	24	2	4
2	river	10	5	5

Back

Presenter login page

mail Id

validate

evaluation Review

Presenter Home Page

course name

s.no	total score	eye contact	elocution
1	24	4	3
2	10	5	5

Admin

- Id
- username
- password

course

- Id
- name

professor

- Id
- mailId
- password
- courseId
- firstName
- middleName
- lastName
- officeAddress
- collegeName

professorVerify

- Id
- accesscode
- professorMailId

Student

- Id
- mailId
- password
- firstName
- middleName
- lastName
- courseId
- collegeName

studentVerify

- Id
- studentMailId

Presenter

- Id
- evaluationType
- comments
- score
- reviewed

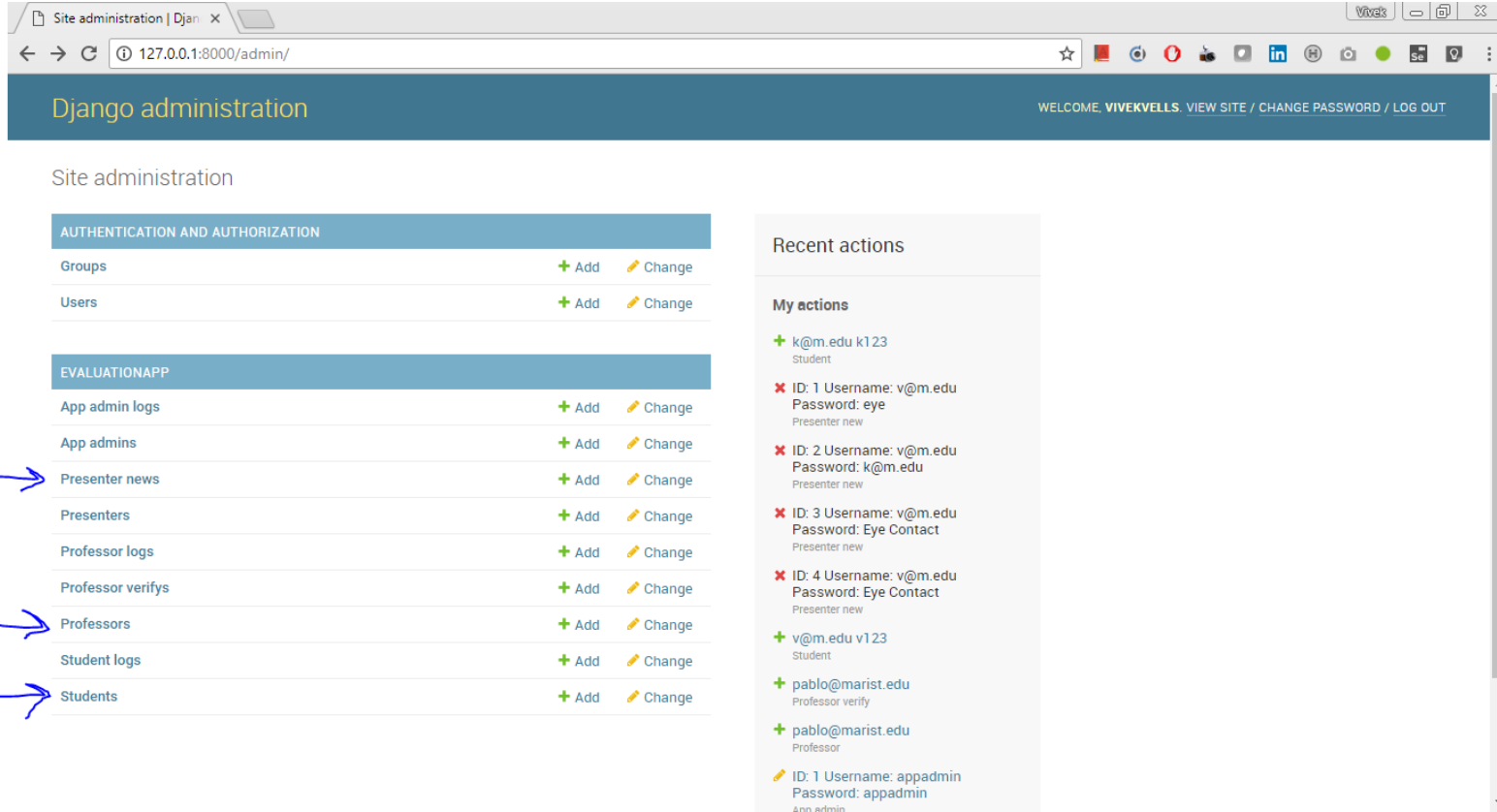
Presenter Verify

- Id
- studentId
- reviewedStudentId

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## 4. Development

# Backend - Django Models



The screenshot shows the Django administration interface in a web browser. The browser's address bar displays the URL `127.0.0.1:8000/admin/`. The page header includes the text "Django administration" and a welcome message for "VIVEKVALLS" with links to "VIEW SITE", "CHANGE PASSWORD", and "LOG OUT".

The main content area is titled "Site administration" and is divided into two sections:

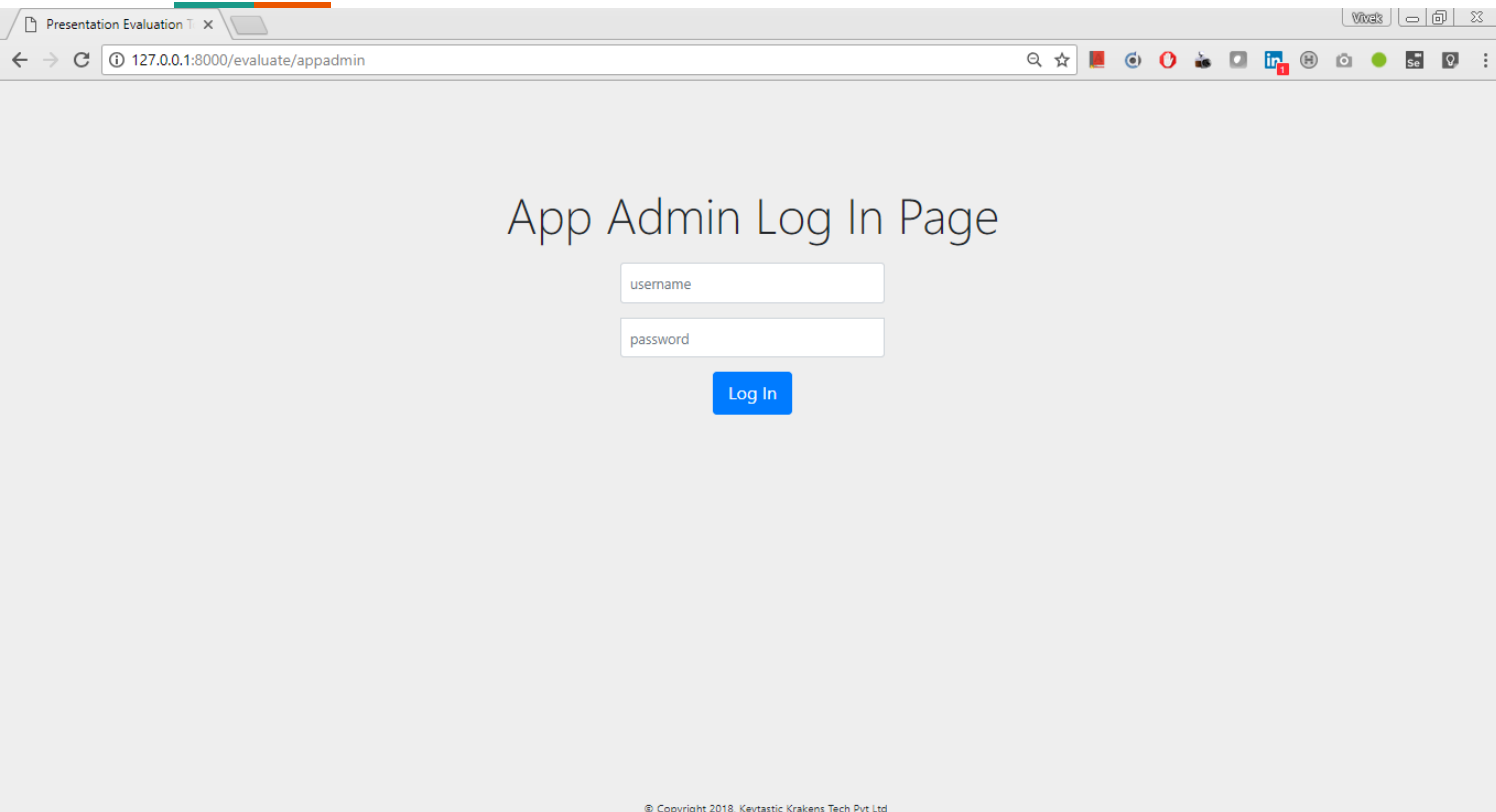
- AUTHENTICATION AND AUTHORIZATION**: This section contains a table with two rows: "Groups" and "Users". Each row has a green plus icon for "Add" and a yellow pencil icon for "Change".
- EVALUATIONAPP**: This section contains a table with seven rows: "App admin logs", "App admins", "Presenter news", "Presenters", "Professor logs", "Professor verifys", and "Students". Each row has a green plus icon for "Add" and a yellow pencil icon for "Change".

Three blue arrows point to the "Presenter news", "Professors", and "Students" rows in the "EVALUATIONAPP" table.

On the right side, there is a sidebar titled "Recent actions" which contains a section "My actions". This section lists several actions, each with a green plus icon for successful actions and a red X icon for failed actions. The actions are:

- + k@m.edu k123 Student
- ✗ ID: 1 Username: v@m.edu Password: eye Presenter new
- ✗ ID: 2 Username: v@m.edu Password: k@m.edu Presenter new
- ✗ ID: 3 Username: v@m.edu Password: Eye Contact Presenter new
- ✗ ID: 4 Username: v@m.edu Password: Eye Contact Presenter new
- + v@m.edu v123 Student
- + pablo@marist.edu Professor verify
- + pablo@marist.edu Professor
- + ID: 1 Username: appadmin Password: appadmin app admin

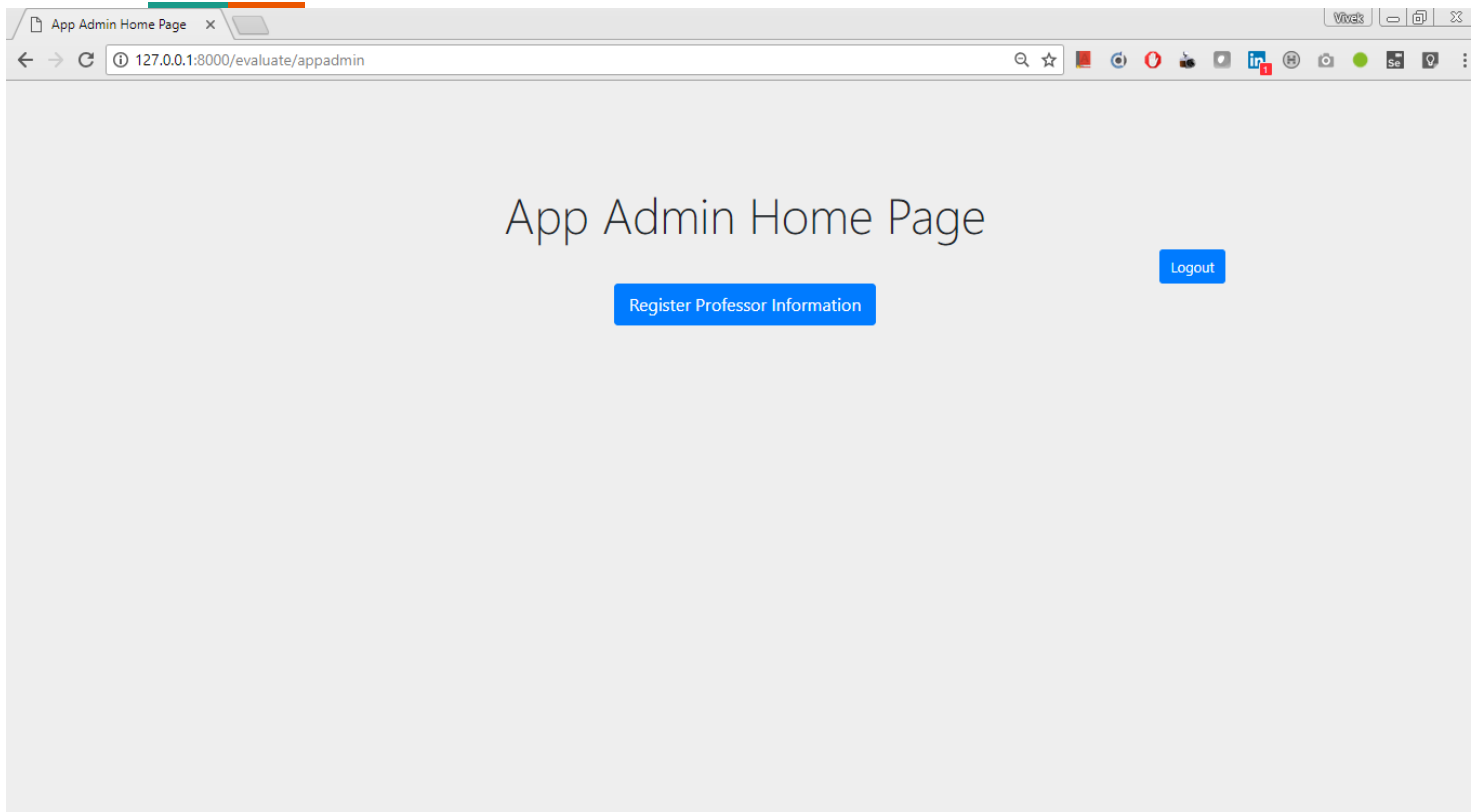
# Website UI - App Admin



## App Admin

- To register and maintain the professor's login information

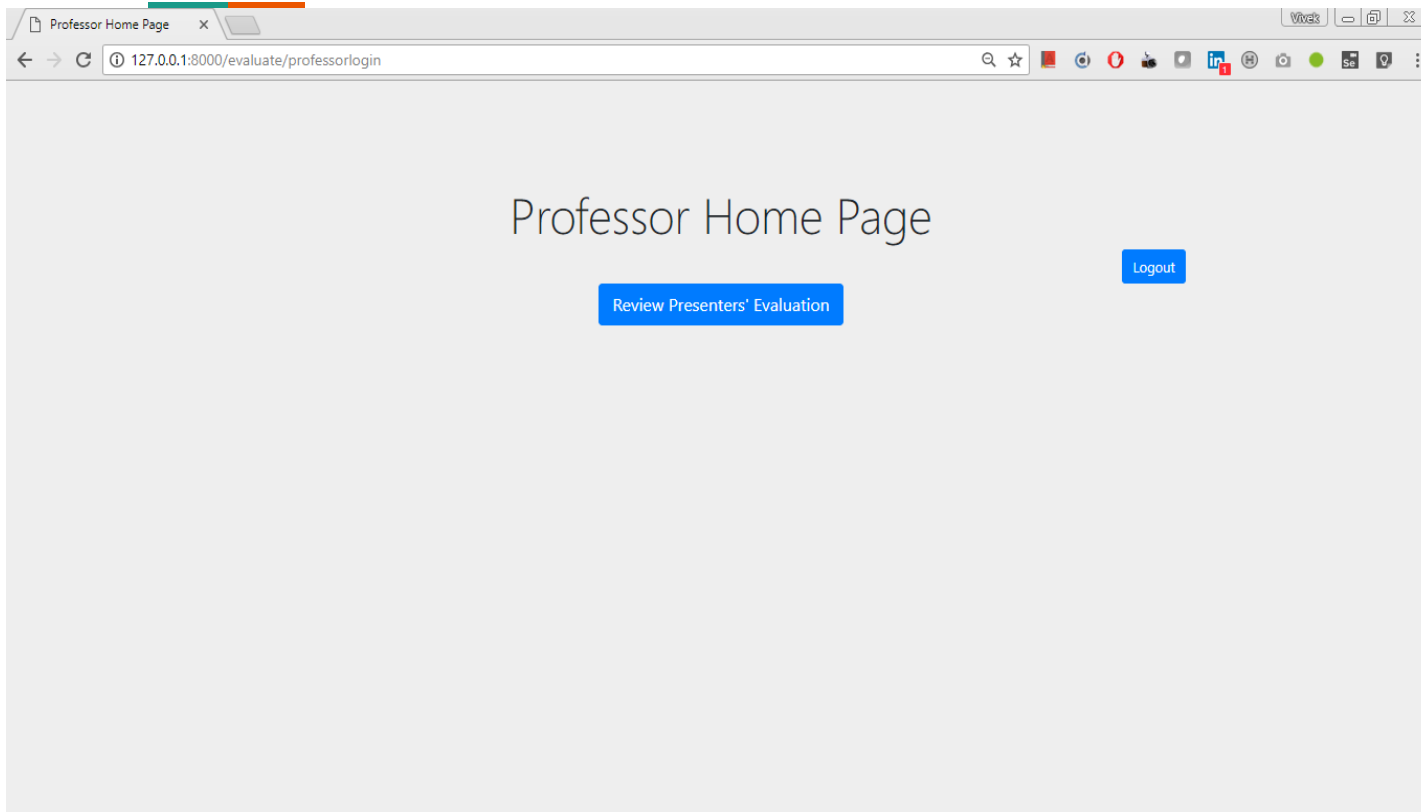
# Website UI - App Admin



## App Admin

- To register and maintain the professor's login information

# Website UI - Professor Home Page



## Professor Page

- To review presenter's evaluation remarks
- To keep track of the presenter's score

# Website UI - Student Login Page

Student Login Page

127.0.0.1:8000/evaluate/studentlogin

## Student Log In Page

username

password

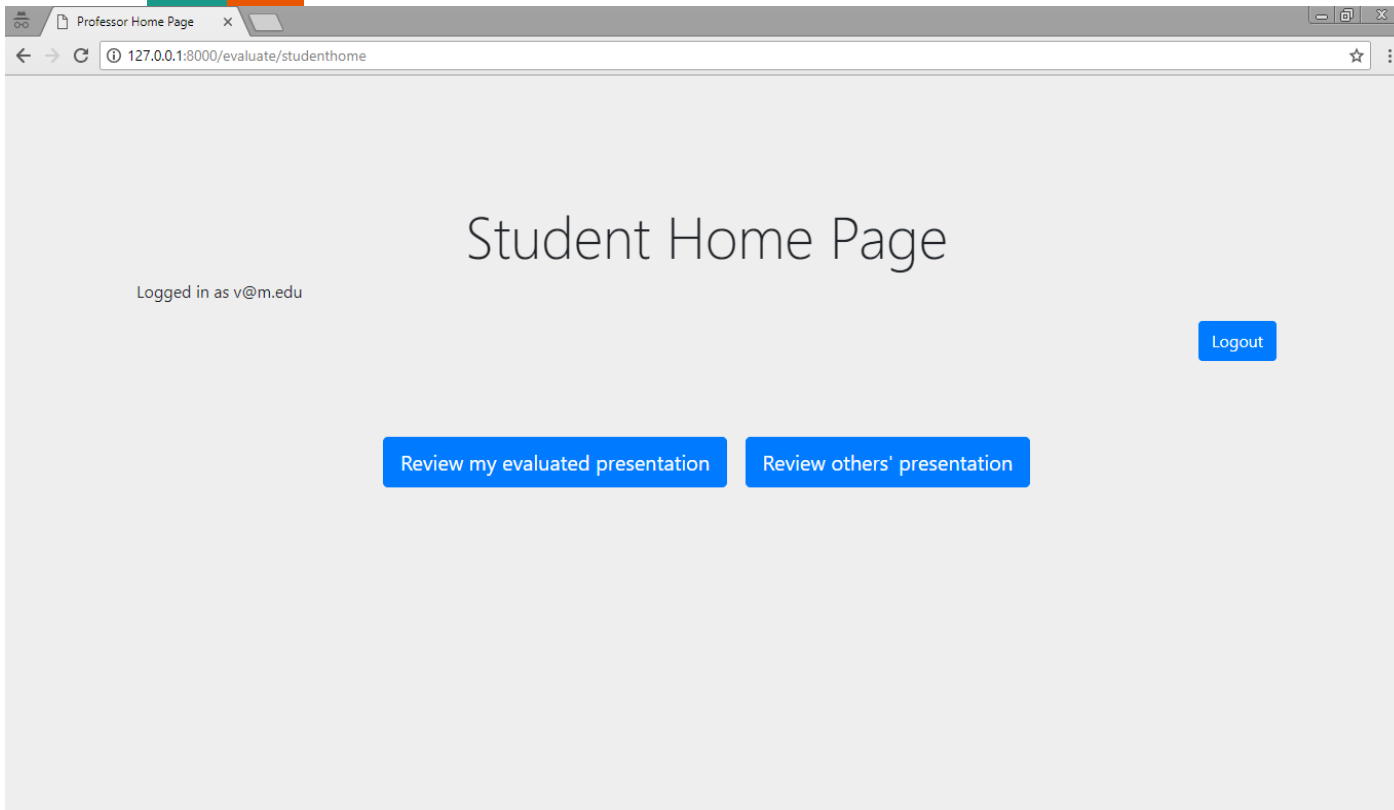
Log In

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## Student Page

- To login using student's credentials
- To evaluate other's presentation skills or to review the received evaluation remarks from his/her peers/professor

# Website UI - Student Home Page



## Student Page

- To evaluate other's presentation skills or to review the received evaluation remarks from his/her peers/professor
- **'Review my evaluated presentation'** - to review received evaluation score/remarks
- **'Review other's presentation'** - to review other's presentation.



# Website UI - Student Evaluating Peer Page

Review Evaluation Home Page

Logged in as v@m.edu

Logout

Presenter Mail ID

Evaluation Type

Comments

Score

Submit My Evaluation Back

## Student Review Evaluation Over Peer Page

- After login, Student can review other's using this page.
- Student can comment on evaluation type, score or comments
- **v@m.edu evaluating k@m.edu**

# Website UI - Student Reviewing Received Evaluation from Others

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/evaluate/reviewmypresentation'. The page title is 'Review Evaluation Home Page' and the subtitle is 'Security Algorithms and Protocols Presentation Evaluation'. The user is logged in as 'v@m.edu' and there is a 'Logout' button. The main content area is titled 'Reviewing your presentation results' and contains a table with two rows of received reviews. Below this, there is a section titled 'Your Review Over Others' Presentation' with a table showing reviews given by the user. At the bottom, there is a 'Back' button.

Review Evaluation Home Page

Security Algorithms and Protocols Presentation Evaluation

Logged in as v@m.edu

Logout

Reviewing your presentation results

Received Review From	Evaluation Type	Comments	Score	Date Received
Anonymous	Eye Contact	Hey dude. Nice, Presentation.	10	May 4, 2018, 6:36 p.m.
Anonymous	Elocution	good	5	May 4, 2018, 6:36 p.m.

Your Review Over Others' Presentation

Reviewed For	Evaluation Type	Comments	Score	Date Received
k@m.edu	Eye Contact	Very good. k@m.edu reviewed by v@m.edu	3	May 4, 2018, 6:20 p.m.
z@m.edu	Elocution	I am reviewing his presentation	7	May 4, 2018, 7:04 p.m.
z@m.edu	Content	Very good. Keep it up!	5	May 6, 2018, 11:05 p.m.
k@m.edu	Slides	Good slides. easy to understand	10	May 6, 2018, 11:07 p.m.

Back

## Student Review Evaluation Received from Others

- After login, Student can review other's using this page.
- Student can review what evaluation he/she received for his/her presentation or look at their review given for others
- v@m.edu evaluated k@m.edu

# Website UI - Student Reviewing Received Evaluation from Others

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/evaluate/reviewmypresentation'. The page title is 'Review Evaluation Home Page' and the subtitle is 'Security Algorithms and Protocols Presentation Evaluation'. The user is logged in as 'k@m.edu'. There is a 'Logout' button in the top right corner.

The main content area is titled 'Reviewing your presentation results' and contains a table with the following data:

Received Review From	Evaluation Type	Comments	Score	Date Received
Anonymous	Eye Contact	Very good. k@m.edu reviewed by v@m.edu	3	May 4, 2018, 6:20 p.m.
Anonymous	Elocution	I am reviewing his presentation	7	May 4, 2018, 7:04 p.m.
Anonymous	Content	Very good. Keep it up!	5	May 6, 2018, 11:05 p.m.
<a href="#">Anonymous</a>	<a href="#">Slides</a>	<a href="#">Good slides. easy to understand</a>	<a href="#">10</a>	<a href="#">May 6, 2018, 11:07 p.m.</a>

Below this table is a section titled 'Your Review Over Others' Presentation' containing another table:

Reviewed For	Evaluation Type	Comments	Score	Date Received
v@m.edu	Eye Contact	Hey dude. Nice, Presentation.	10	May 4, 2018, 6:36 p.m.
v@m.edu	Elocution	good	5	May 4, 2018, 6:36 p.m.

At the bottom of the page, there is a 'Back' button.

## Student Review Evaluation Received from Others

- After login, Student can review other's using this page.
- Student can review what evaluation he/she received for his/her presentation or look at their review given for others
- [k@m.edu](#) reviewing his evaluation home page

# Demo - Video



## Video URL:

<https://drive.google.com/open?id=13AzwiyyqGelA-GXrr3fCDm-0DwkWvvtY>

## Image Previews URL:

<https://drive.google.com/open?id=11uEecM3k8EWnjtapwVCPNnVVjW5UXwac>

Followings are done in this demo video:

- 2 students taken from “students” table
  - [v@m.edu](mailto:v@m.edu)
  - [k@m.edu](mailto:k@m.edu)
- Logged in as [v@m.edu](mailto:v@m.edu) and gave presentation evaluation for [k@m.edu](mailto:k@m.edu)
- Checked the review evaluation page of [v@m.edu](mailto:v@m.edu) to check the review gave from [k@m.edu](mailto:k@m.edu)
- Logged out
- Logged in as [k@m.edu](mailto:k@m.edu) and reviewed the received evaluation from [v@m.edu](mailto:v@m.edu)



# References - will be updated

- [https://en.wikipedia.org/wiki/Advanced\\_Encryption\\_Standard](https://en.wikipedia.org/wiki/Advanced_Encryption_Standard)
- <https://en.wikipedia.org/wiki/SHA-2>
- <https://pypi.org/project/pyaes/>

# Questions?

- You can reach me at [techengineervivek@gmail.com](mailto:techengineervivek@gmail.com) or [vivekvellaiyappans@gmail.com](mailto:vivekvellaiyappans@gmail.com)
- Github repo: <https://github.com/vivekVells/Presentation-Evaluation-Tool>

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**Thank You!**  
**Have a good one!**

