

A
PROJECT REPORT
ON

VIDEO STREAMING WEB APPLICATION

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Subject: SEPP

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1.Introduction:

Video streaming web application which streams video to user's device through our platform. This application is more of educational video streaming platform as we decided to use the website to be an instructor who creates the videos and learner who watches the video of the instructor to gain knowledge out of it. An instructor creates the video of particular expertise on the subject and uploads it to our websites through their respective accounts and if the learner finds the video to be informative then he/she may rate the video which will help the instructor to know content quality and even help other learners whether they should watch or not.

2. Tools Used:

- Django
- Python
- Database
- Bootstrap
- Html
- AJAX

3. Software Requirement Specifications:

3.1 Product Scope:

This product is for users who want to learn new skills and for users who want to teach their skills through their videos.

3.2 System Functional Requirements:

3.2.1 Instructor account

- Create a Instructor account
Description: Users who want to be instructor
Input: Name , Email Id, Username , Password , expertise , occupation, birth of date , profile picture.
Output: account created. Redirect to login page.
- Show analytics
Description: instructors who want to see views, rate, comment, questions on their content / videos specifically . Shows followers and following.
Input : click analytics button.
Output : redirect to user's analytics page
- Upload Video

Description : To upload video of their content.

Input: click on Upload button.

Output: opens select the video window from machine and then information form regarding the video.

- Remove Video

Description : To remove the video from the account.

Input: select the video to be removed . click on remove from menu

Output: Removes the video.

- Message to followers

Description : shows the message from the instructor account in feed to its all followers.

Input : click on message button

Output : Text space opens with the send button.

- Search the video/ instructor

Description : search the video / instructor regarding the users problem.

Input: Search the video / instructor over the search bar.

Output : shows the options for the video and selects the video to play.

- Play the video

Description : Play the video.

Input : Click on the video.

Output : redirects to the video page and plays the video.

- follow the instructor
Description : instructor can follow other instructors.
Input : click on Follow button on video page.
Output : followed the instructor

3.2.2 Learner account

- Create the learners account
Description: Users who want to be learner
Input: Name , Email Id, Username , Password ,
occupation, birth of date , profile picture.
Output: account created. Redirect to login page.
- Search the video / instructor
Description : search the video / instructor regarding
the users problem.
Input: Search the video / instructor over the search
bar.
Output : shows the options for the video and selects
the video to play.
- Play the video
Description : Play the video.
Input : Click on the video.
Output : redirects to the video page and plays
the video.
- Follow the instructor
Description : learner can follow the instructor.
Input : click on Follow button on video page.
Output : followed the instructor
- Rate the video

Description : the learner can rate video content.

Input : click rate out of 5 stars.

Output : rates the video

- Ask a question tab

Description : learner can ask a question to the instructor.

Input : Enter the text in question tab.

Output : pasted the question on the video wall.

- Comments

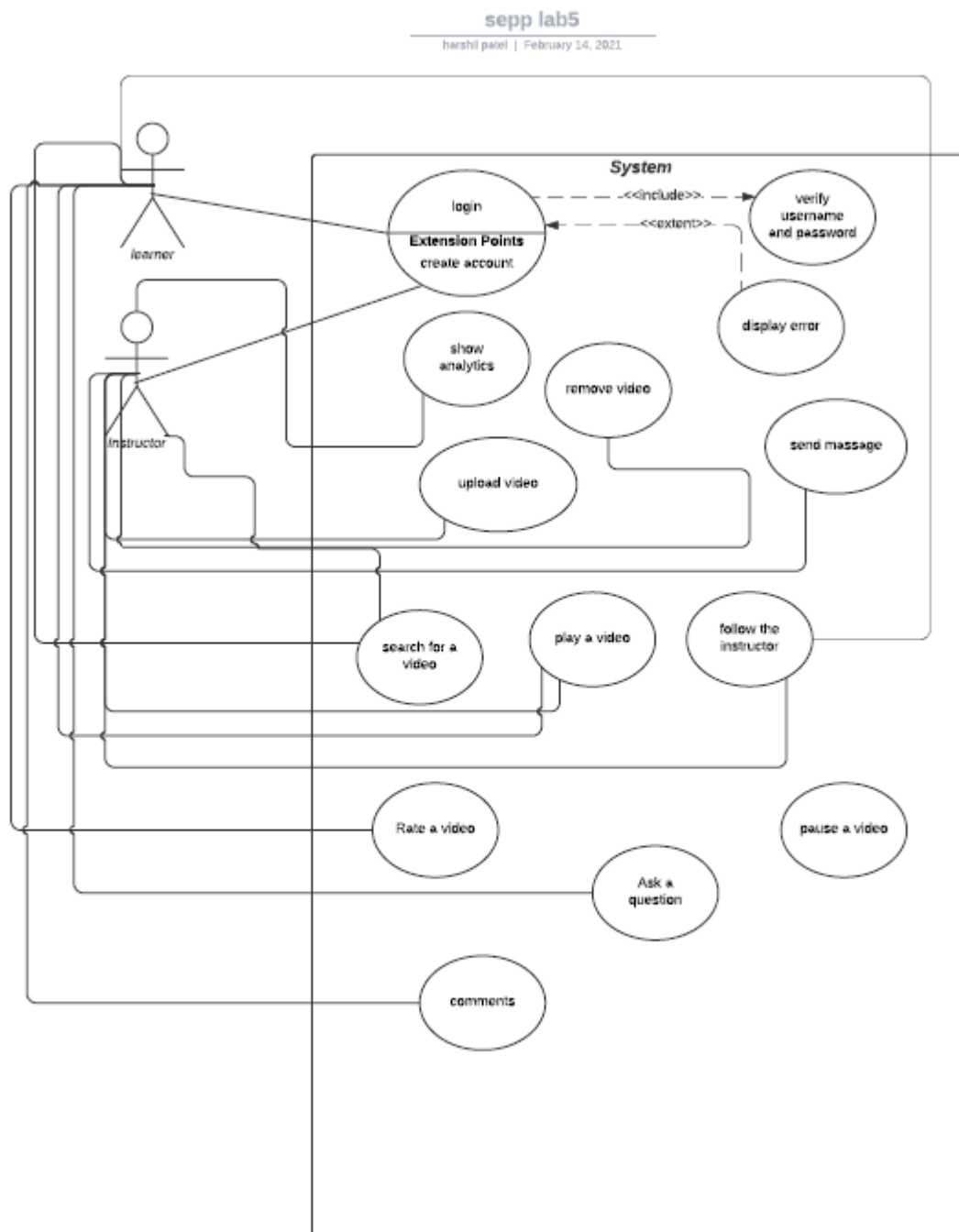
Description : comments on the video.

Input : Enter the text in the comments tab.

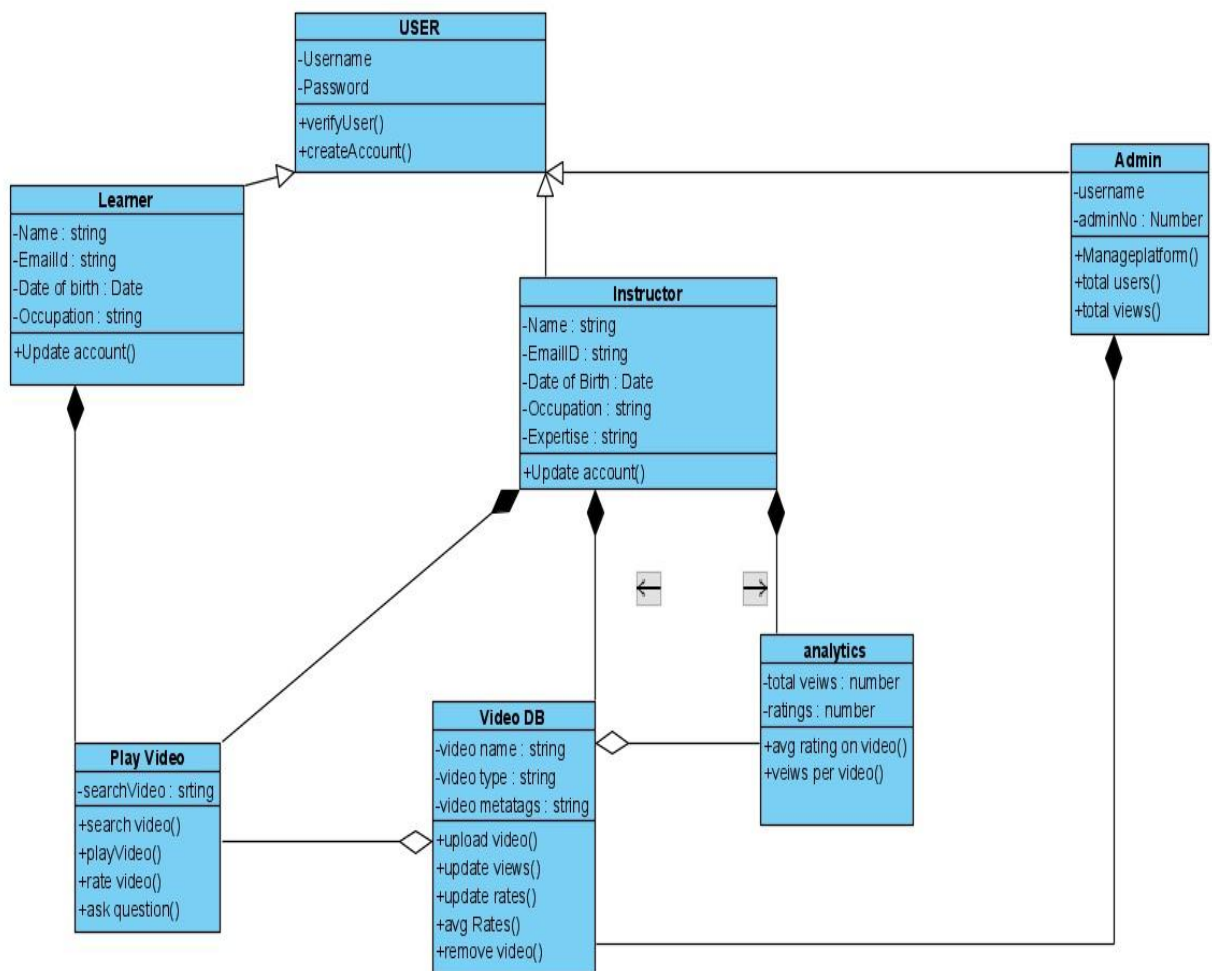
Output: pasted the comments on the video wall.

4. DESIGN DOCUMENTS:

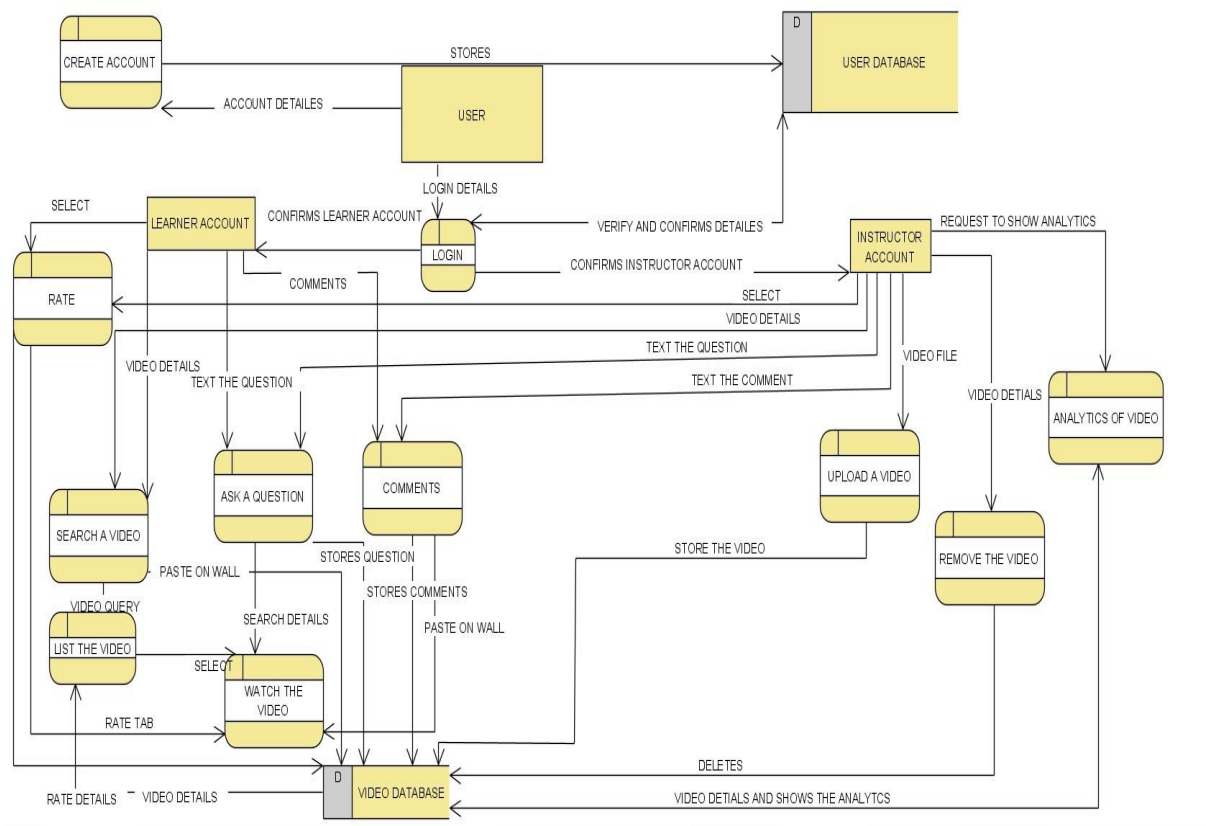
4.1 USE CASE DIAGRAM



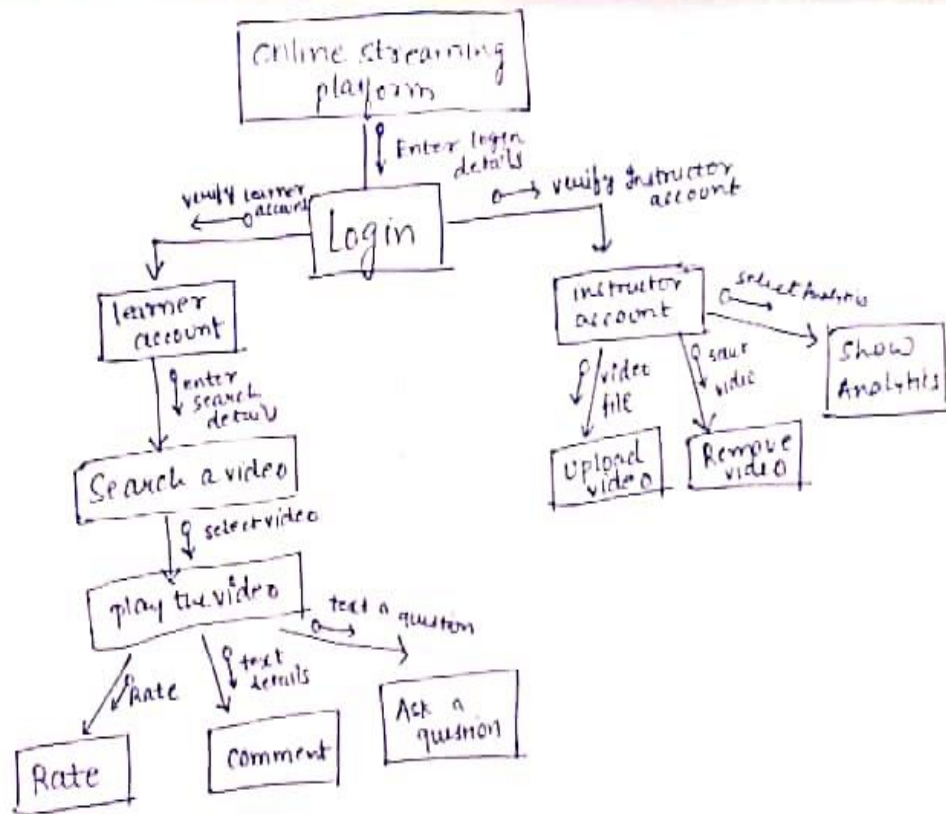
4.2 CLASS DIAGRAM



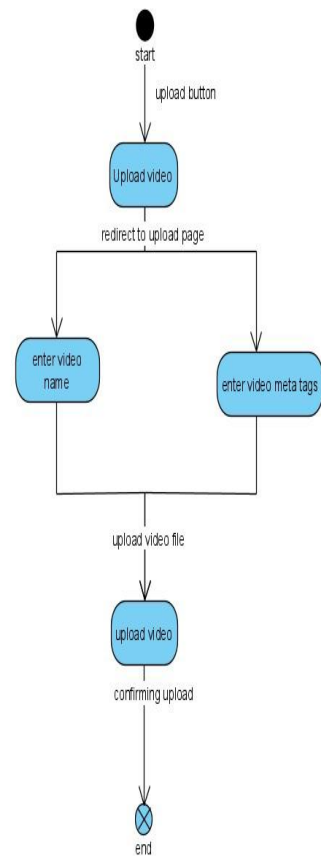
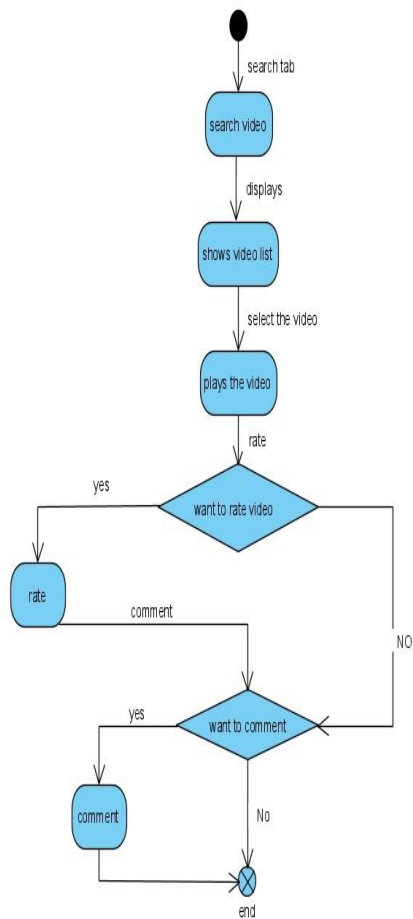
4.3 DATA FLOW DIAGRAM



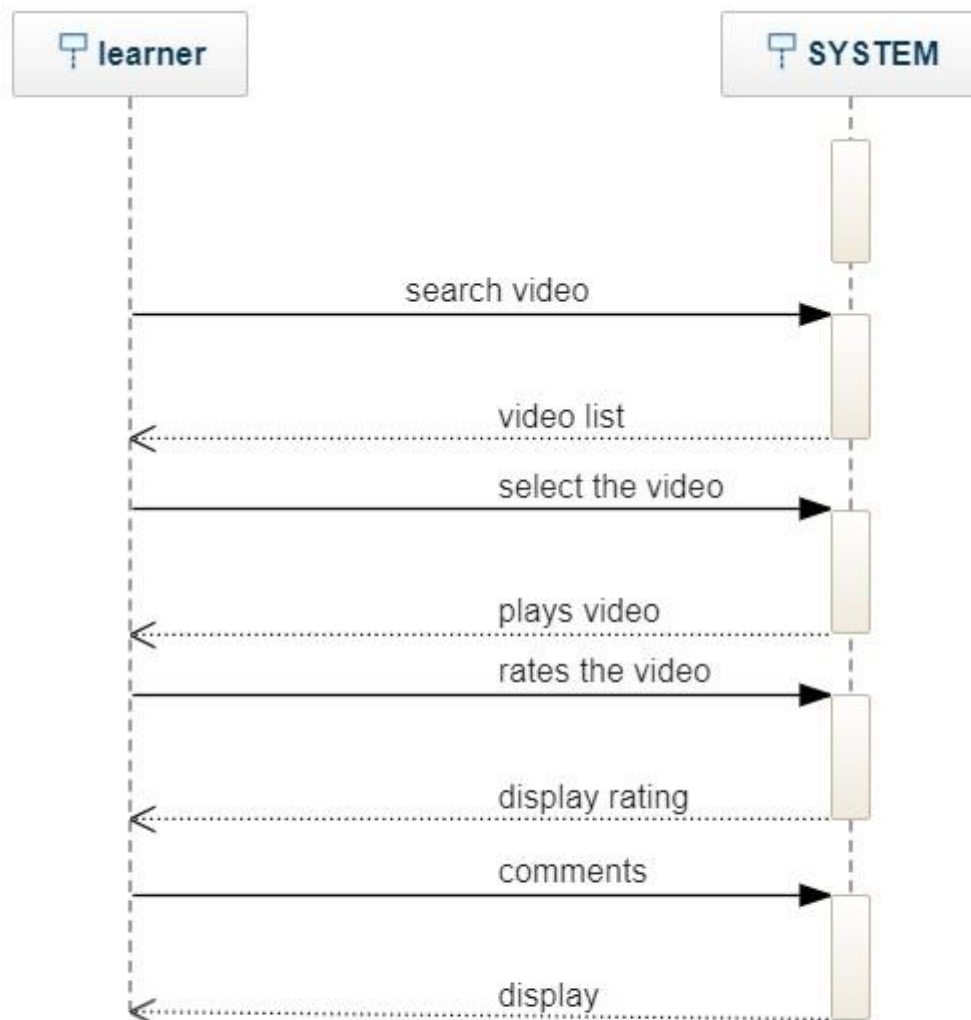
4.4 STRUCTURE CHART

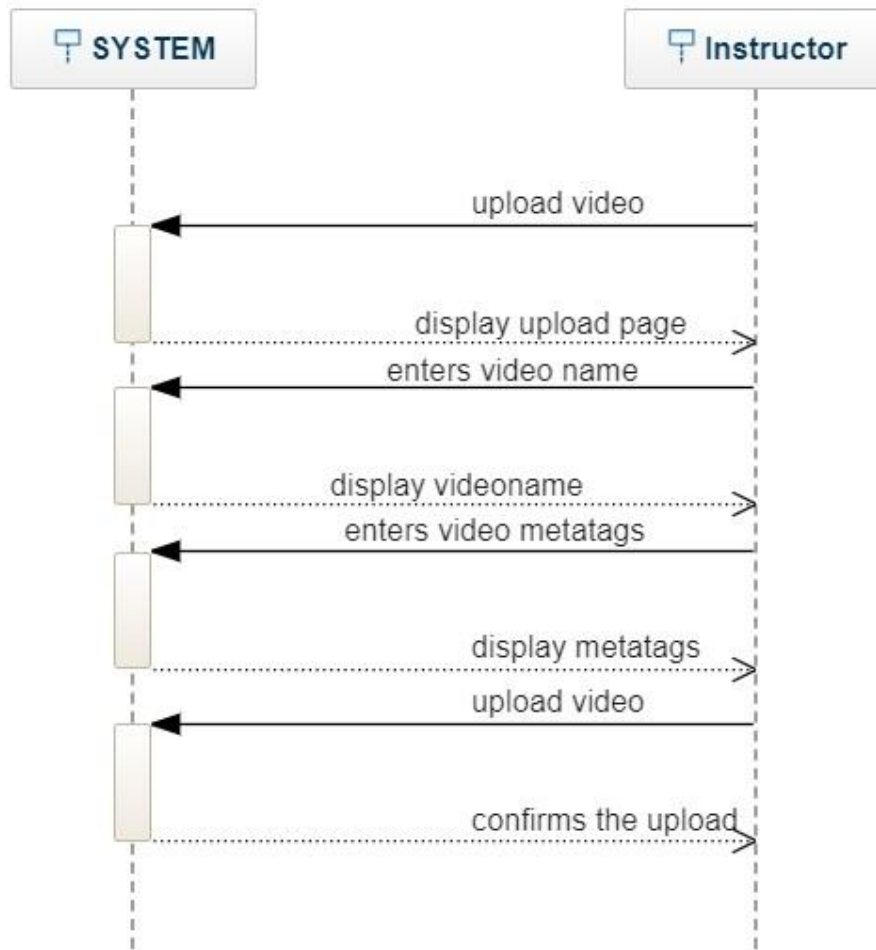


4.5 ACTIVITY DIAGRAM



4.5 SEQUENCE DIAGRAM





5. Implements Details

5.1 Modules

- Login

```
<div class="modal fade" id="loginModal" tabindex="-1" aria-labelledby="exampleModalLabel" aria-hidden="true">
  <div class="modal-dialog">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="exampleModalLabel">Login</h5>
        <button type="button" class="btn-close" data-bs-dismiss="modal" aria-label="Close"></button>
      </div>
      <div class="modal-body">
        <form action="{% url 'login' %}" method="post">
          {% csrf_token %}
          <div class="mb-3">
            <label for="exampleInputEmail1" class="form-label">User Name</label>
            <input type="text" class="form-control" name="uname" id="exampleInputEmail1" aria-describedby="emailHel
          </div>
          <div class="mb-3">
            <label for="exampleInputPassword1" class="form-label">Password</label>
            <input type="password" class="form-control" name="pwd" id="exampleInputPassword1">
          </div>
          <div class="modal-footer">
            <button type="button" class="btn btn-secondary" data-bs-dismiss="modal">Close</button>
            <button type="submit" class="btn btn-primary">Login</button>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>
```

- Signup

```
<div class="modal fade" id="signupModal" tabindex="-1" aria-labelledby="exampleModallabel" aria-hidden="true">
  <div class="modal-dialog">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="exampleModallabel">Sign Up</h5>
        <button type="button" class="btn-close" data-bs-dismiss="modal" aria-label="Close"></button>
      </div>
      <div class="modal-body">
        <form action="{% url 'signup' %}" method="post">
          {% csrf_token %}
          <div class="mb-3">
            <label for="fname" class="form-label">First Name</label>
            <input type="text" class="form-control" id="fname" name="fname">
          </div>
          <div class="mb-3">
            <label for="lname" class="form-label">Last Name</label>
            <input type="text" class="form-control" id="lname" name="lname">
          </div>
          <div class="mb-3">
            <label for="exampleInputEmail1" class="form-label">Email address</label>
            <input type="email" class="form-control" id="exampleInputEmail1" name="mail" aria-describedby="emailHelp">
          </div>
          <div class="mb-3">
            <label for="exampleInputPassword1" class="form-label">Password</label>
            <input type="password" class="form-control" name="pwd" id="exampleInputPassword1">
          </div>
          <div class="modal-footer">
            <button type="button" class="btn btn-secondary" data-bs-dismiss="modal">Close</button>
            <button type="submit" class="btn btn-primary">Sign Up</button>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>
```


- **Upload video**

```
<div class="container border py-4 my-4 w-75">
  <form action="{% url 'upload' %}" method="post" enctype="multipart/form-data">
    {% csrf_token %}
    <div class="mb-3">
      <label for="title" class="form-label">Title</label>
      <input type="text" name="title" class="form-control" id="title" required>
    </div>

    <div class="mb-3">
      <label for="desc" class="form-label">Description</label>
      <textarea class="form-control" name="desc" id="desc" style="height: 200px;" required></textarea>
    </div>

    <div class="mb-3">
      <label for="filename" class="form-label">Select Video File</label>
      <input type="file" name="fileName" class="form-control" id="filename" accept="video/*" required>
    </div>

    <div class="mb-3">
      <label for="thumb" class="form-label">Select Thumbnail</label>
      <input type="file" name="thumbnail_img" class="form-control" id="thumb" accept="image/*" required>
    </div>

    <div class="mb-3">
      <label for="title" class="form-label">Select Category</label>
      <select class="form-control" name="category">
        <option>Science & Technology</option>
        <option>Education</option>
      </select>
    </div>

    <button type="submit" class="btn btn-primary">Upload</button>
  </form>
</div>
```

- **Play video**

[illegible]

• Search instructor

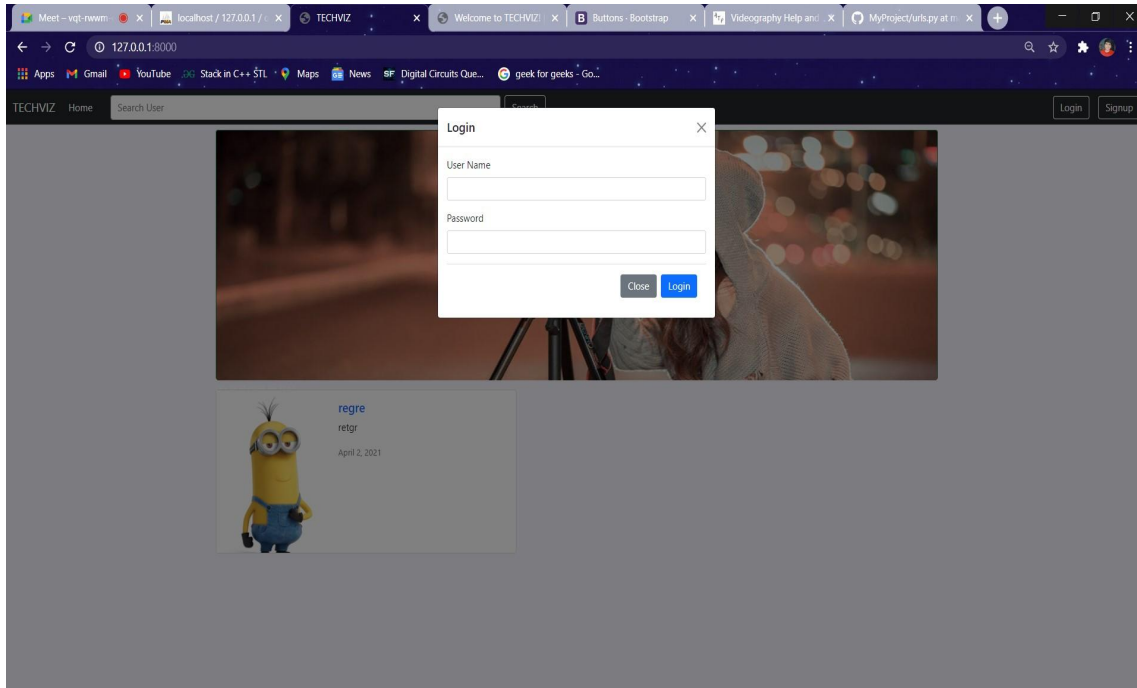
```
<div class="container my-4">
  <h3>Search Results: </h3>
  {% if user_obj %}
  <div class="row">
    {% for user in user_obj %}
    <div class="col-4">
      <div class="card my-3" style="width: 18rem;">
        
        <div class="card-body">
          <h5 class="card-title">{{user.username}}</h5>
          <p class="card-text">{{user.userdata.about|truncatewords:6}}</p>
          <a href="{% url 'profile' user.username %}" class="btn btn-primary">View Profile</a>
        </div>
      </div>
    </div>
    {% endfor %}
  </div>
  {% else %}
  <div class="container">
    <h5>No Results Found.</h5>
  </div>
  {% endif %}
</div>
```

• Comments

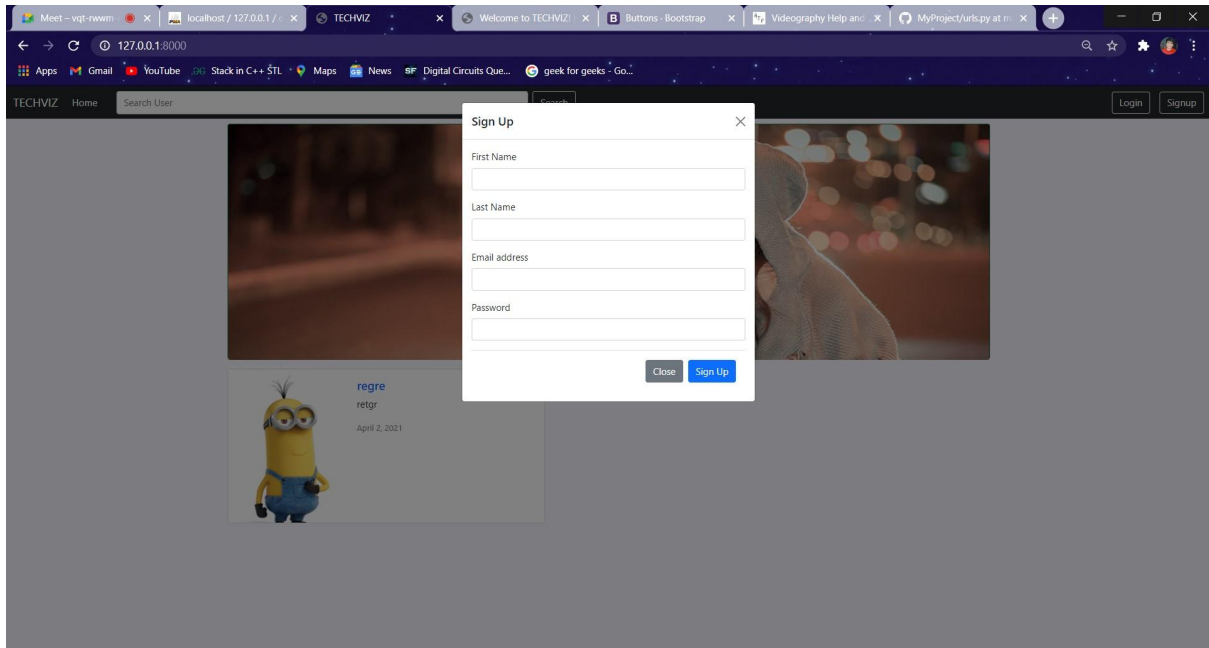
```
<div class="accordion accordion-flush" id="accordionFlushExample">
  <div class="accordion-item">
    <h2 class="accordion-header" id="Flush-headingTwo">
      <button class="accordion-button collapsed" type="button" data-bs-toggle="collapse" data-bs-target="#flush-collapseTwo" aria-expanded="false" aria-controls="flush-collapseTwo">
        <b>COMMENTS (<span id="count_comment">{{comments.count}}</span>)</b>
      </button>
    </h2>
    <div id="flush-collapseTwo" class="accordion-collapse collapse" aria-labelledby="Flush-headingTwo" data-bs-parent="#accordionFlushExample">
      <div class="container my-2">
        <ul class="list-group" id="menu">
          {% for comment in comments %}
          <b>{{comment}}</b>
          <li class="list-group-item">{{comment.comment}}</li>
          {% endfor %}
        </ul>
      </div>
      <div class="accordion-body">
        <form id="my_form">
          <textarea class="form-control" name="comment" id="comment" placeholder="Write your comment..."></textarea>
          <input class="btn btn-outline-success my-3" id="send_btn" type="submit" value="Comment">
        </form>
      </div>
    </div>
  </div>
</div>
</div>
</div>
```

5.2 SCREENSHOT

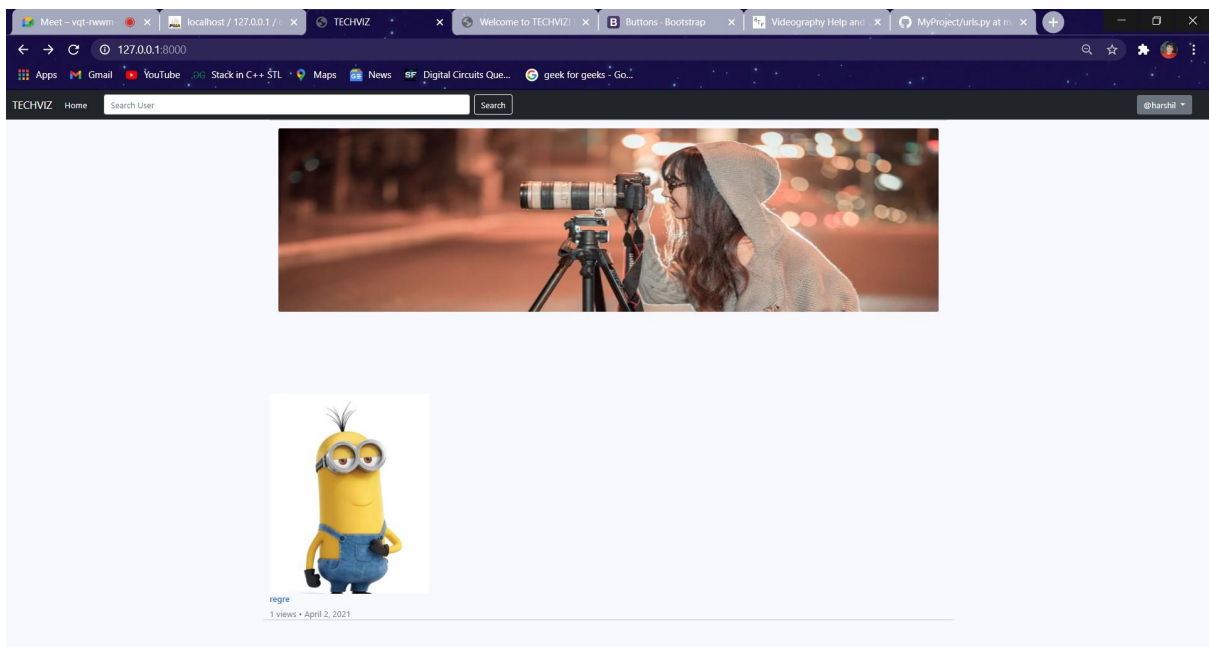
- login



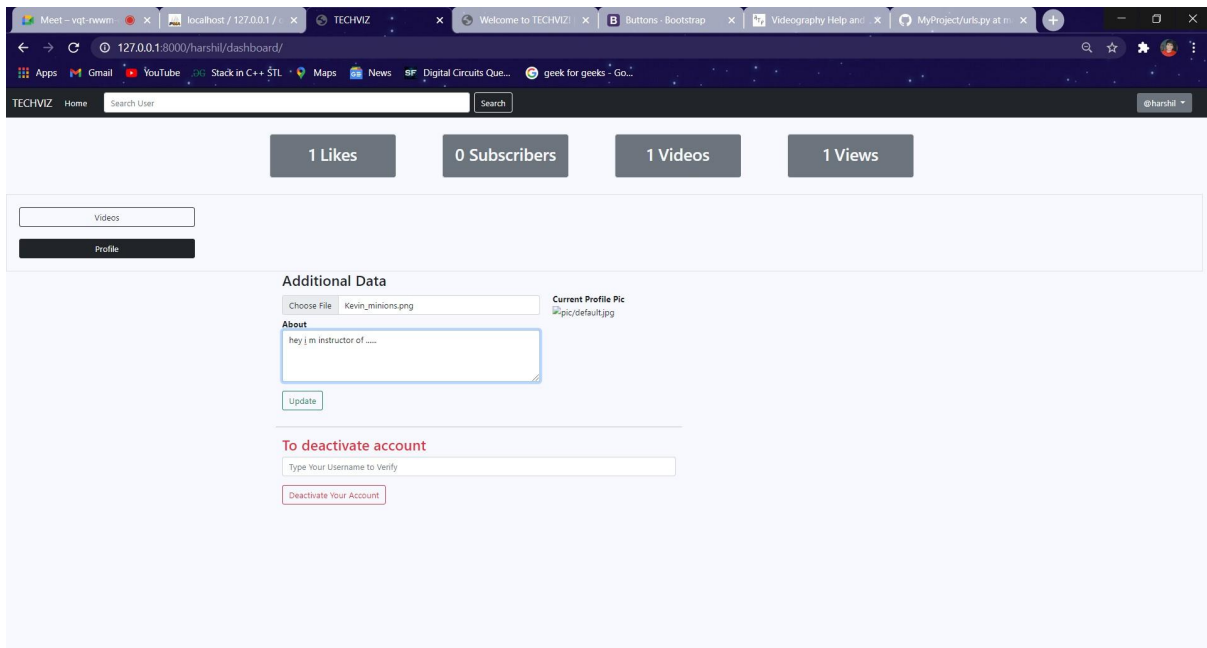
- Signup



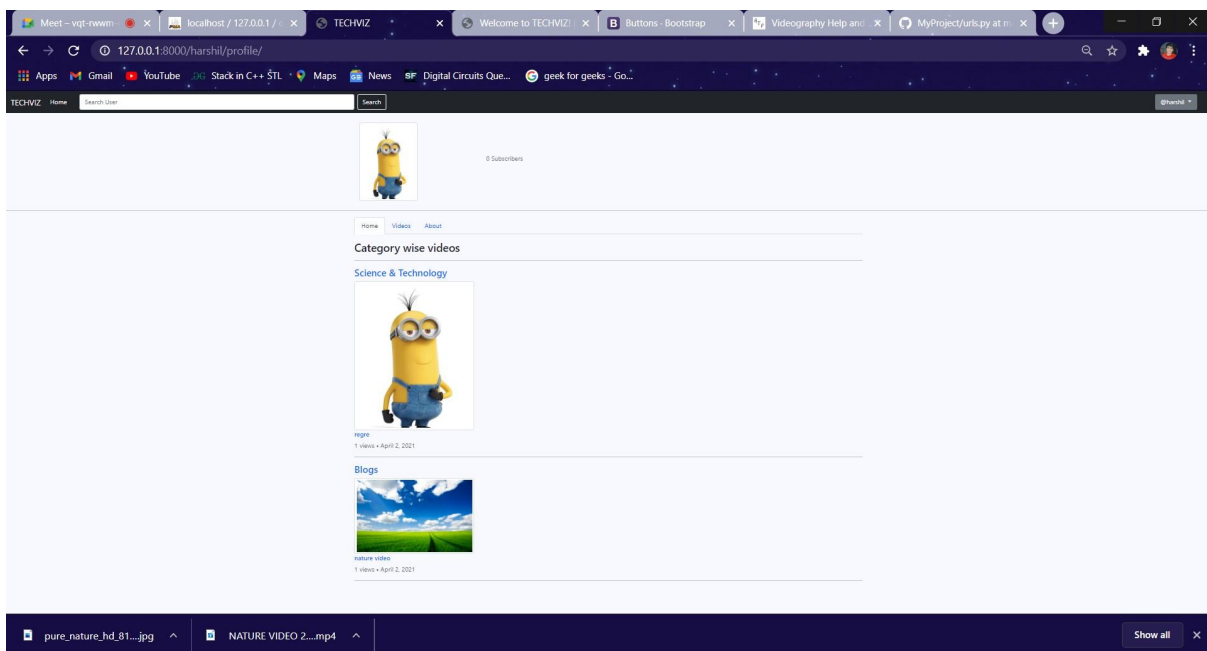
- Home page



• Profile page



• Channel



• Uploading video

TECHVIZ Home Search User Search @harshil

Title
nature video

Description
nature is living

Select Video File
Choose File NATURE VIDEO 205SEC_CLIP_480p.mp4

Select Thumbnail
Choose File pure_nature_hd_8120.jpg

Select Category
Blogs

Upload

pure_nature_hd_81...jpg NATURE VIDEO 2...mp4 meet.google.com is sharing your screen. Stop sharing Hide Show all

• Uploaded video

TECHVIZ Home Search User Search @harshil

Video has been uploaded.

Title

Description

Select Video File
Choose File No file chosen

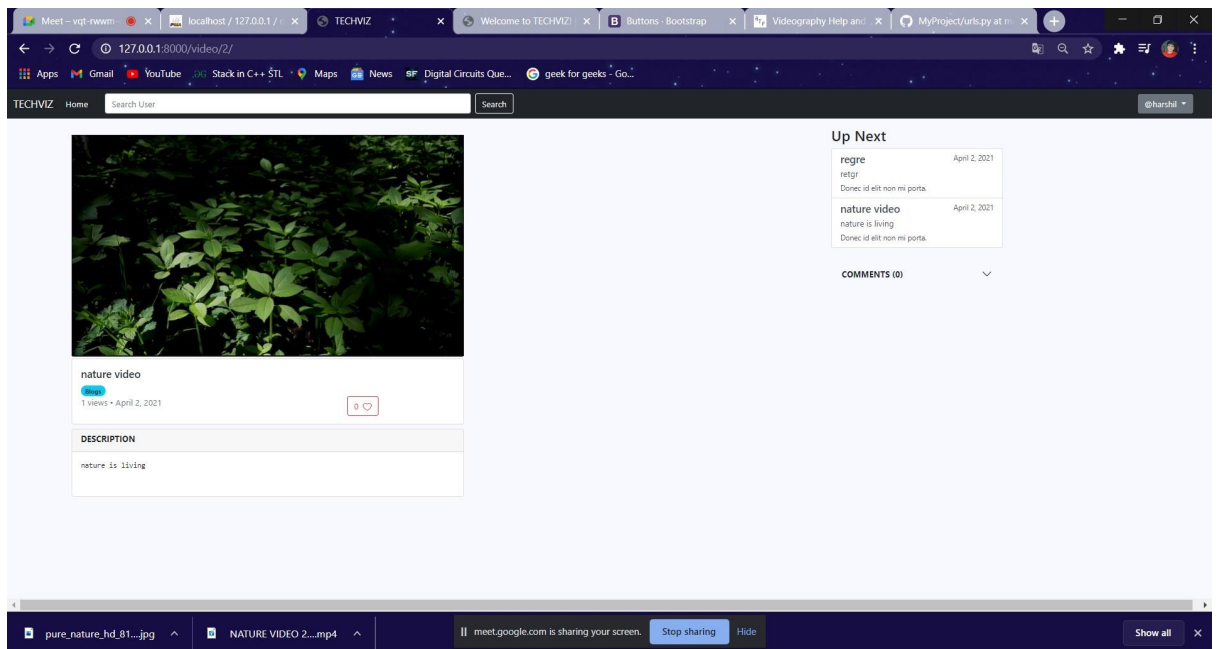
Select Thumbnail
Choose File No file chosen

Select Category
Science & Technology

Upload

pure_nature_hd_81...jpg NATURE VIDEO 2...mp4 meet.google.com is sharing your screen. Stop sharing Hide Show all

- **Streaming a video**



7. Conclusion

We are able to complete the functionalities like signup, login , play the video , search the video , rate the video.

8. Future Enhancement and limitation

The limitation of our project is as follows:-

1. Cannot edit the details of users.
2. Cannot search video with name of instructor.
3. Cannot Re-rate the same video.

Future enhancement can be :-

1. Can view other user's profile
2. Comment on video

9. Reference :

- Stackoverflow
- Github
- W3school
- Django documentation
- Youtube