CS682- Software Engineering project report

Social Media

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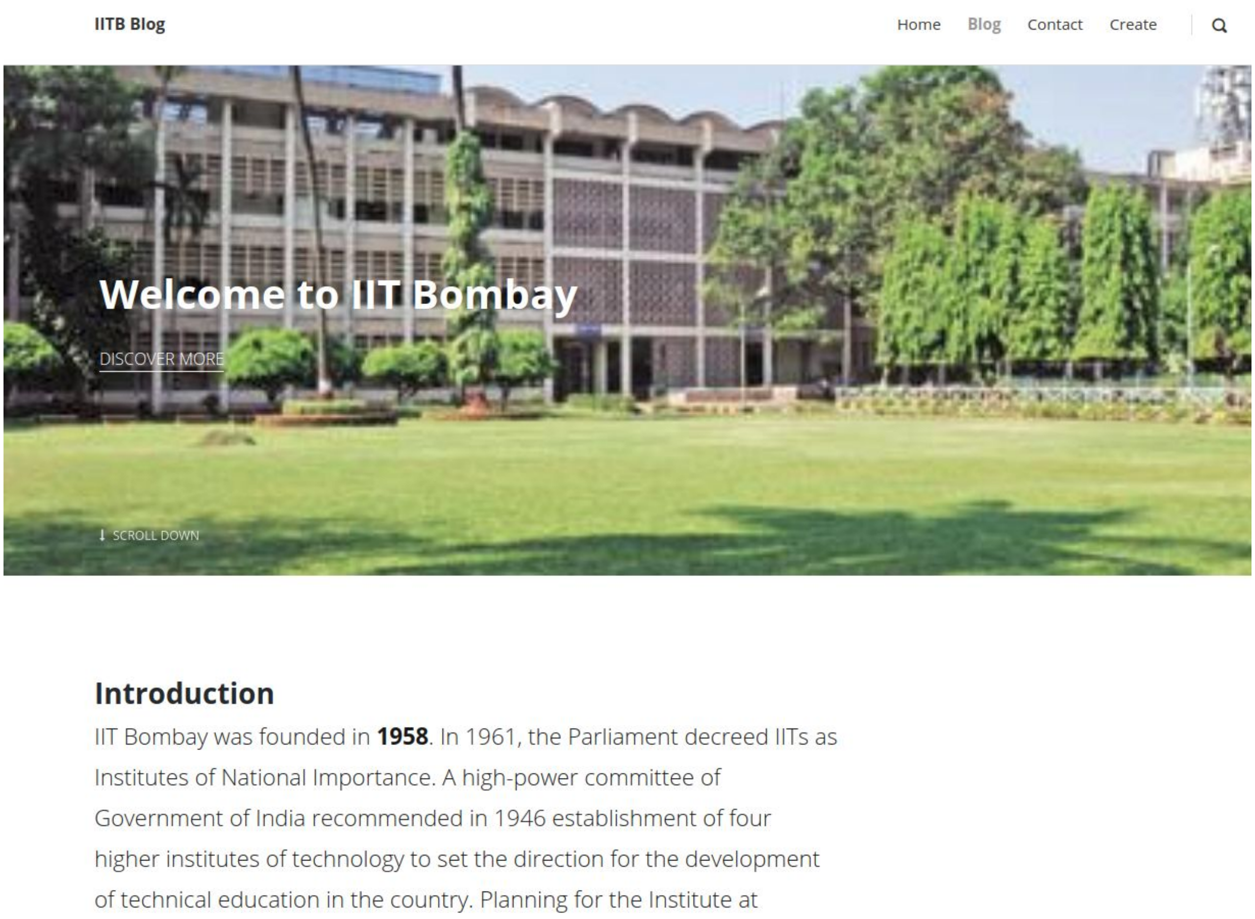


Introduction

IIT Bombay was founded in **1958**. In 1961, the Parliament decreed IITs as Institutes of National Importance. A high-power committee of Government of India recommended in 1946 establishment of four higher institutes of technology to set the direction for the development of technical education in the country. Planning for the Institute at

Introduction

For any big institute like IIT bombay, need to have a social media platform where anyone can share their experience in well documented form and also can perform a survey among the students. So we social media team have designed and developed a blog and polling system. For this we have used Django framework as a development tool. The language used is Python. Bootstrap is used for front end web development.

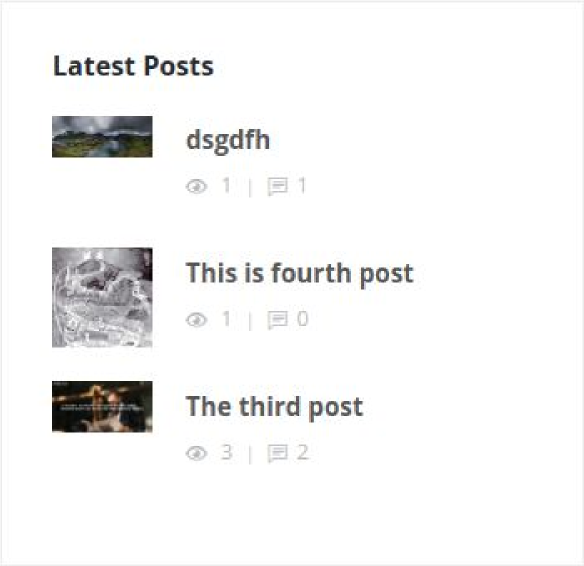
Contents:

1. Blog functionality and features

Our blog has many features like -

- **Create blog post :** Only logged in user gets to see this option. Hers we have used a rich editbox TinyMCE4-lite django module for content writing which supports all the option like different languages, font size and other options. Blog creation has following fields :
  - Title of a post
  - Short descriptions
  - Body content
  - Category tags
  - Featured option
  - Thumbnails
  - Previous and next post thread link
- **Search option :** Our blog portal has a search option which supports any keyword search related to a post. It lists down all the post available with a particular keyword as a result with the post link.

- **Latest Post :** Latest post shows recent 3 blog post in reverse chronological order. On clicking on the link, it displays the complete blog post with all comments.



Latest Posts

dsgdfh

👁 1 | 🗨 1

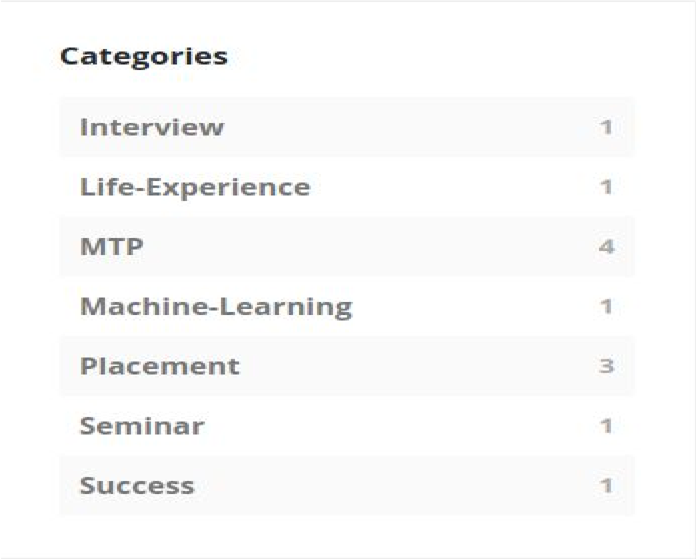
This is fourth post

👁 1 | 🗨 0

The third post

👁 3 | 🗨 2

- **Category Tags :** This component shows the category tag list with their counts associated with all the posts. A post can have multiple category tags which can be selected while created a post. Later we can search all post of a particular tag.

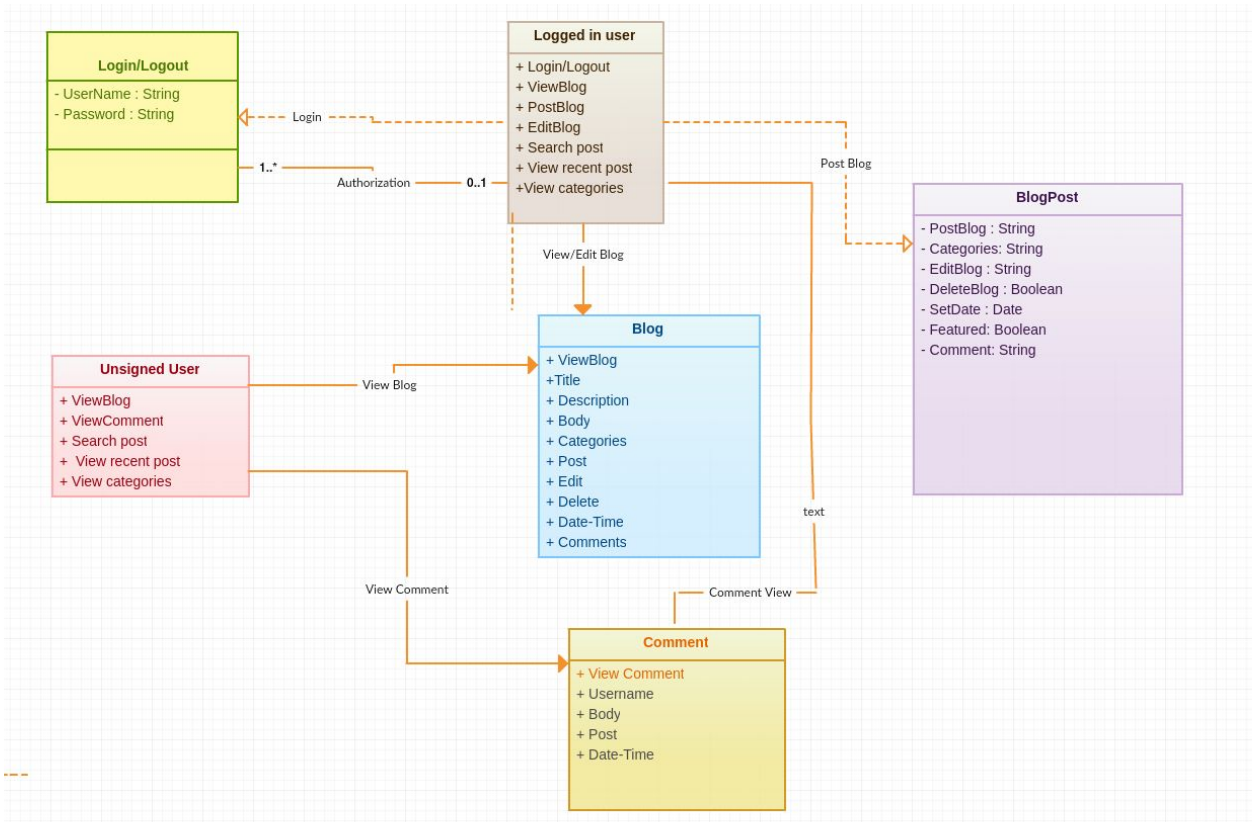


Categories

Interview	1
Life-Experience	1
MTP	4
Machine-Learning	1
Placement	3
Seminar	1
Success	1

- **Delete/Update :** A post can be edited and deleted. So every post has a edit and delete option. On delete operation, all the comments associated with the post gets also deleted from the database table.

2. UML diagram:



Above UML(unified modeling diagram) show the objects and information structure of our blog. UML diagram also shows the communication of blog components with the users. The Blog contains users, where user can be an authenticated user or a guest user. Only authenticated users can create a post and write a comment to any post. A guest user can only view the post and comments and can not write a post or edit/delete.

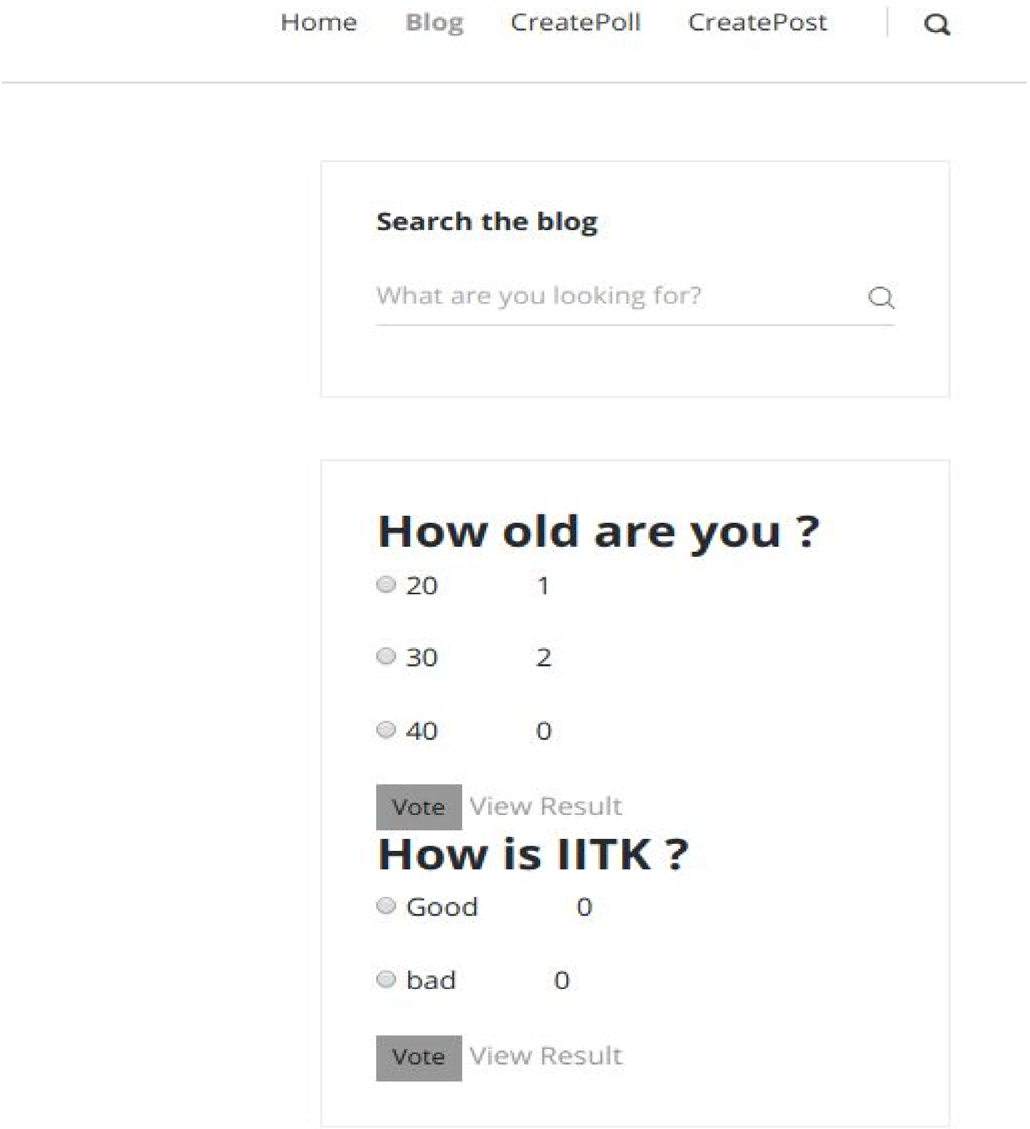
3. **Database Models:** Our blog has the following database models :

   a. **Post:** Post model describes the structure of our post which contains following fields -
   Title of blog which accepts characters of size 200, overview(short description of a post) , timestamp (date and time of the post created), contents(main body content of a post), thumbnail image, categories, author, featured(if it is enabled then we can show the featured post on our home page), previous post and next post.

   b. **Comments:** Comment is just like a post model where an authenticated user can write a comment to a post. Comment model contains the following fields:
   User which is related to the author model through foreign key, timestamp of comment, content.

   c. **Category:** Every post can have one or more category tag. So it contains a category field.

4. **Polling:** We have developed a polling app platform which is integrated with the blog app. We have developed two types of polling activity- 1. Single option selection and 2. Priority selection.



How old are you ?

○ 20 1

○ 30 2

○ 40 0

How is IITK ?

○ Good 0

○ bad 0

Polling app has following features:

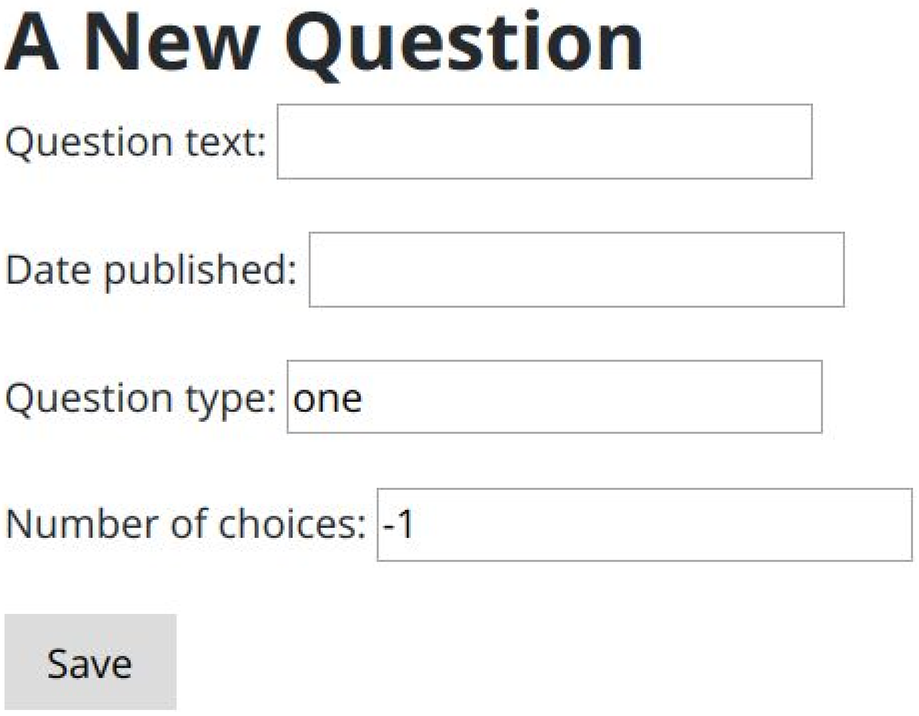
1. Create a question

2. Select type of polling (simple voting with single choice selection and other

is priority voting where a user has to vote on each choice and provide the priority to each options)

3. Date published

4. Number of choices(Here number of options can be any number)



A New Question

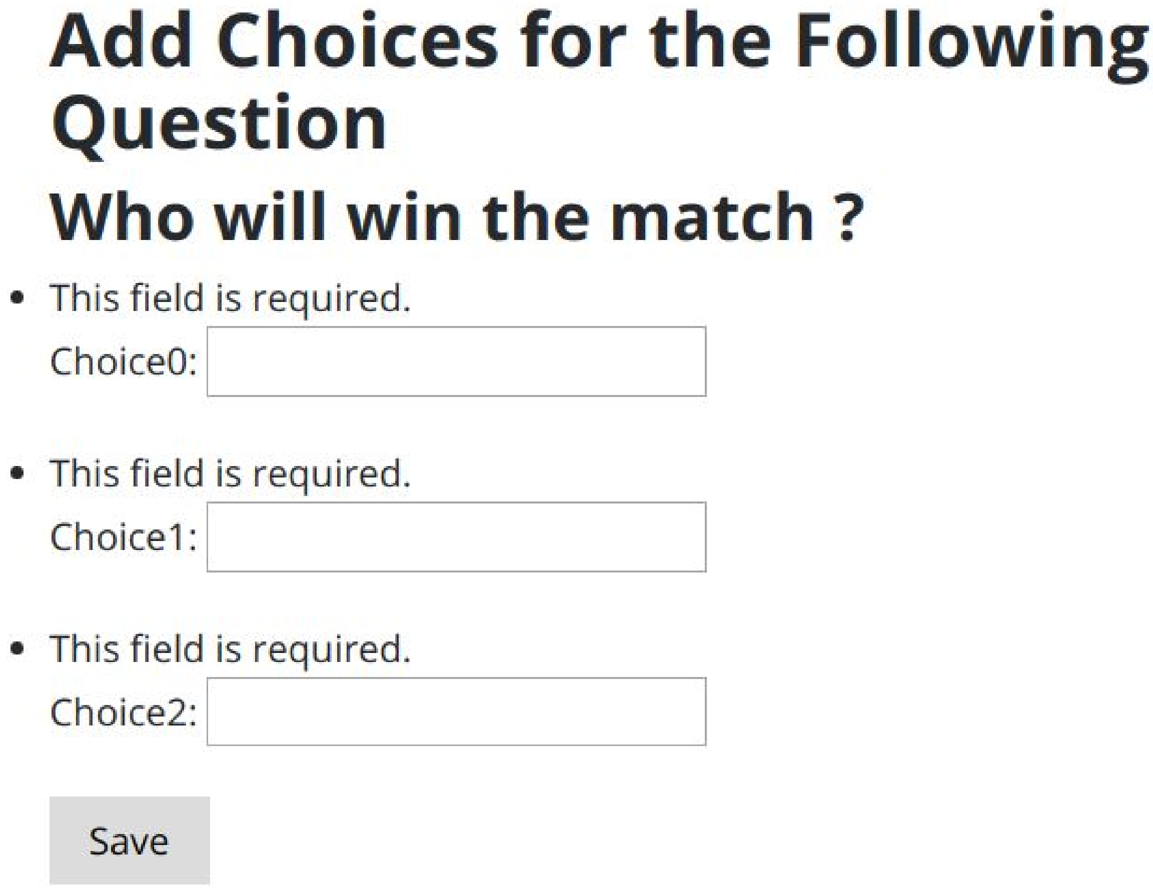
Question text:

Date published:

Question type: one

Number of choices: -1

After saving the questions, it takes us to create choice pages. Here the creating of options for a question is related to the question table with a foreign key.



Add Choices for the Following Question

Who will win the match ?

- This field is required.

Choice0:

- This field is required.

Choice1:

- This field is required.

Choice2:

After creating a poll, the latest poll appears on the main blog page. Now a user can cast his/her vote. After voting, the result shows just beside the choices. Currently, we have two options to show: the absolute number of voted and percent of the vote.

While creating the forms UI, we are not writing any html codes. Rather we have used Django's modelForm utility. This can create form directly from the required models.

ModelForm directly does not display reverse foreign attribute. There we have divided the form filling task into multiple phases. First, the user will fill the Question related main information. Then the user will fill the choices related information. This is because we have separate tables for Question as well as Choices.

If more types of votes need to add in the poll app, then we need to make changes int the following files.

polls/views.py and polls/urls.py