

# **Project Proposal**

“Tech-Science Blog”

## **Group Members**

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## **Project Supervisor:**

Prof. Dr. Andreas Fischer

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## **Objective:**

The aim of this project is to create a Blog Application and get hands on practice on Django with Python and familiar with the environment of Django Framework.

## **Overview:**

A blog (shortening of “weblog”) is an online journal or informational website displaying information in the reverse chronological order, with latest posts appearing first. It is a platform where a writer or even a group of writers share their views on an individual subject. Blogs need frequent updates. Good examples include a food blog sharing meal recipes or a company writing about their industry news.[1]

Our Blog will consists of an Admin, Author ,registered user and anonymous users. Admin will administer the website and have power to add or delete articles and comments, accept the requests for registration and comments made by anonymous users. Author can upload his articles and can edit as well also has power to delete comments on his articles. Registered user can see all the articles and comments on that as well.

## **Design of Project :**

By using different software modules, will create blog web. Steps which will be adopted as follows:

- Web layouts will designed in HTML & CSS
- Python will be used as backend programming language
- Django will be used as Framework and database

HTML is the language for describing the structure of Web pages. HTML gives authors the means to:

Publish online documents with headings, text, tables, lists, photos, etc.

Retrieve online information via hypertext links, at the click of a button.

Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc.

Include spreadsheet, video clips, sound clips, and other applications directly in their documents.

With HTML, authors describe the structure of pages using markup. The elements of the language label pieces of content such as “paragraph,” “list,” “table,” and so on.

CSS is the language for describing the presentation of Web pages, including colors, layout, and fonts. It allows one to adapt the presentation to different types of devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based markup language. The separation of HTML from CSS makes it easier to maintain sites, share style sheets across pages, and tailor pages to different environments. This is referred to as the separation of structure (or: content) from presentation.

[2]

Python offers many choices for web development:

- Frameworks such as Django and Pyramid.
- Micro-frameworks such as Flask and Bottle.
- Advanced content management systems such as Plone and django CMS.

Python's standard library supports many Internet protocols:

- HTML and XML
- JSON
- Email processing.
- Support for FTP, IMAP, and other Internet protocols.
- Easy-to-use socket interface. [3]

Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source. [4]

## **Hierarchy of Project:**

This application allows Anonymous user to become Regular user via filling login registration form, once a user is registered by signing up, he can use that information (Username and password) to sign in and has access to the comment section and can become Author but Admin have the ability for this. Although this new registered user doesn't have the power to add or delete users blog or their comments. The admin has the rights to add or delete any blog or comment. There are Authors which obviously are registered and can publish articles on the blog, while there can be many registered users. First admin has to login as Admin with username and password. No one can access admin without it. Admin has access to control the data in database. However, Admin can assign or change roles of user or author. An unknown person gets promote to a registered user by registration and later on can login just like Admin and Author. All the above information can be seen and appropriate changes can be made by only admin not by the user. The Author too has many things in his jurisdiction like to add , change or delete any blog but obviously his limits are not beyond that of an admin.

## **Features Requirements:**

- The blog consists of several web pages, one of which is the main page. All other pages are easily reachable via hyperlinks from the main page.
- The blog system distinguishes between four types of users: administrators, authors, registered users, and anonymous users.
- An anonymous user can become a registered user, an administrator, or an author by logging on to the web site.
- A new user can request an account on the web site by filling in a special web form.
- Only administrators can accept requests for an account.
- Only administrators can change the roles of a user.
- Only administrators or authors can write new articles.
- Authors can modify or delete their own articles at a later point in time.
- Only administrators can modify or delete other users articles.
- All users can comment an article. Comments by anonymous users, however, have to be accepted by an author or an administrator before they are publicly visible.

- An article is displayed on a separate web page. It consists at least of a title, an author, a publication date, and a body text. All these fields are mandatory.
- An author may choose to add a picture to the article. The picture is then shown at prominent position in the article page.
- If the article contains a picture, this picture is included in the teaser.
- An author may choose to add an arbitrary number of keywords (“tags”) to the article.
- The main page contains a list of article teasers. Each teaser contains the headline, publication date, author, and the first sentence of the body of its corresponding article. Teasers are sorted by date, with the latest article on top.
- The main page displays a list of all tags used for articles. Visitors can click on any tag to display a list of article teasers containing the articles associated with that tag.

## **Project Responsibilities**

### **1. Muhammad Danyal**

**Matriculation No: 00772823**

- Login & Signup Authentication
- Admin Authorities

### **2. Muhammad Ali**

**Matriculation No: 00732065**

- Author Authorities
- Commenting Option

### **3. Mansoor Saleem**

**Matriculation No: 0775732**

- Article Teasers
- Tag and Keywords
- Testing(Security and Performance)

### **4. Saif Ali**

**Matriculation No: 0096587**

- Web Pages Design
- Database Design

## Reference:

- [1] <https://firstsiteguide.com/what-is-blog/>
- [2] <https://www.w3.org/standards/webdesign/htmlcss>
- [3] <https://www.quora.com/Is-Python-used-for-web-development>
- [4] <https://www.djangoproject.com/>