



PES UIVERSITY EC Campus
1 KM before Electronic City, Hosur Road,
Bangalore-100

A Project Report on

Performance Analysis System

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

For the Academic year 2020

by

Partheesh Ranjan Singh

Nishanth Shekhar Shastry

Koney Sai Keerthi

Rithvik Sada

ACKNOWLEDGEMENT

We are really grateful because we managed to complete our Web Frameworks Project within the given time by our lecturer **Prof. Dr. Mehala N.**

It was a great pleasure for us to undertake this project.
We feel highly being done the project entitled –
“Performance Analysis System”.

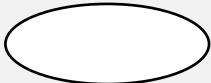
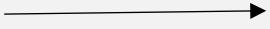
This project couldn't be completed without the efforts and cooperation of our group members, Partheesh, Nishanth, Keerthi and Rithvik.

We also thank our lecturer of Web Frameworks - UE18CS275, **Prof. Dr. Mehala N** for guidance and encouragement in finishing this project and also for teaching this course.

Last but not the least we would like to thank our family and friends for their constant source of inspiration.

List of Symbols & Abbreviations used

Symbols: -

SL.NO	Symbol	Description
1.		UseCase Symbol used in the use case diagrams (StarUML)
2.		Actor Symbol used in the use case diagrams (StarUML)
3.		Directed Association Symbol used in the use case diagrams(StarUML)

Abbreviations: -

SL.NO	Abbreviation	Full Form
1.	Web-app	Web application
2.	UI	User Interface
3.	HTML	Hyper Text Markup Language
4.	CSS	Cascading Style Sheets
5.	JS	JavaScript
6.	SQL	Structured Query Language
7.	UML	Unified Modelling Language

Abstract

Title of Dissertation: - Performance Analysis System

Subject: - Web Frameworks – UE18CS257

Group Members: - Partheesh Ranjan Singh, Nishanth Shekhar Shastry,
Koney Sai Keerthi and Rithvik Sada

This project is done with technologies like Django, React Js, Django Rest Framework for the development of the web application. For the above technologies fundamental technologies such as HTML, CSS, JS, SQL and sqlite3 is used to develop the single page web application.

The purpose of this project is to understand the development of single page web Application with Django (high level python web framework). Also React Js which is a JavaScript library for building user Interfaces mainly used for frontend development.

Main aim was to create a platform for Students to attempt Quizzes which are created by teacher/faculty. This will help the teacher/faculty to infer the performance of students in different topics. Using the Blog feature of the web application the students and teachers can post articles on various topics and subjects based on their interest.

The project began with a sheet of paper with different ideas which will make the white screen (*that is the empty screen when the web application is not yet developed*) into a fully-fledged web application with easy to understand UI for our users.

During the course of the project we understood the power of web frameworks and how well designed web applications can be built with a user-friendly environment. Towards the completion of the project we figured out the impact of using the above mentioned technologies on our ideas.

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1. Introduction

1.1 Purpose of this document:

The document provides the overview of the project “Check Perform” performance analysis system.

1.2 Scope of this document:

The purpose of the project is to ease the analysis of performances by the students and their teachers. The project allows students to take a quiz to check their understanding on each subject. The project uses the concepts of database and the backend support from Django.

The overall aim is to help the student community and professionals in academic field to have an awesome user experience.

1.3 Overview:

In today’s world, the way dynamics of education are changing, there is a need of a platform which makes the students analyze themselves at each step of their learning. The student community also needs to realize the importance of practical knowledge rather than theoretical, which can be achieved through quizzes on the particular subject. On the same time, teachers can see the performances of the students and recommend them measures to rectify their mistakes.

Apart from this, the application which is being built, users can post their blogs related to student life and their other inputs beneficial to students and teachers.

1.4 Business Context:

The performance analysis system strives to provide a platform for the different actors in the academic's ecosystem. It's basically two-fold as given below: -

- Students can improve their competencies by using this platform and also share their proficiencies(certificates), which will enable them to attract potential employers for their careers.
- For the instructors, this application provides a platform to reach out to their academia, analyze competencies that are trending, get feedback for their assessments thereby enabling them to improvise the same.

2. General Description:

2.1 Product Functions:

The user will be allowed to login with a username and password. A new user is also allowed to register also. The validation of user is done using the database in which the user data will be stored. The quizzes and blogs can be updated from the home page.

2.2 User Characteristics:

Basic knowledge of computers is enough to use the application. The interface is user friendly to guide the user.

2.3 User Problem Statement:

The users for this product could be an Instructor or a student. The student can login and take the quiz for a particular subject. The student user can also check their progress in several subjects with the help of graphs. An Instructor is allowed to login and check the performance of a student. A user who wants to post something can do it in the blogs part of the home page.

2.4 User Objectives:

The product helps the user to check the performance related to academics and analyze it in a proper manner.

2.5 General Constraints:

Access to the web is necessary. The website is not much helpful for professional who are working for a company. This can be extended for working professionals in the industry.

3. Functional Requirements:

SL.NO	REQUIREMENTS
1.	User should be able to login with valid credentials.
2.	Student user should be able to take up any quiz he/she wants to attempt irrespective of the topic chosen.
3.	Student user should be able to view his/her performance after attempting the quiz.
4.	Instructor user should be able to set a quiz according to his/her topic interest and should be able to view the performance of the students who attempted the quiz.
5.	Any user can view the trending topics being discussed in the open forum.
6.	Any user can post their experience in the field of teaching or as a student.
7.	The user can use any browser like Google Chrome, Mozilla Firefox, etc.
8.	Admin can access any account (Student, Instructor) and can add user and delete user if needed
9.	Login Failure page should pop up when login credentials are incorrect.

4. Interface Requirements and User Interfaces:

- i) Login/Register Page.
- ii) Main Page.
- iii) Quiz Page.
- iv) Blog Page.
- v) Student Restrictions.
- vi) Instructor Access.
- vii) Login Failure Page.
- viii) Performance Analysis Page.
- ix) Most visited/viewed blogs/posts.

5. Performance Requirements:

- i) Proper design of database: If the database is not designed properly, there will be redundancy of data and more storage space will be wasted.
- ii) Device Compatibility: The system has to be device compatible, i.e. it can be used with same speed and functionalities on a mobile, tablet or a PC when opened on a browser.

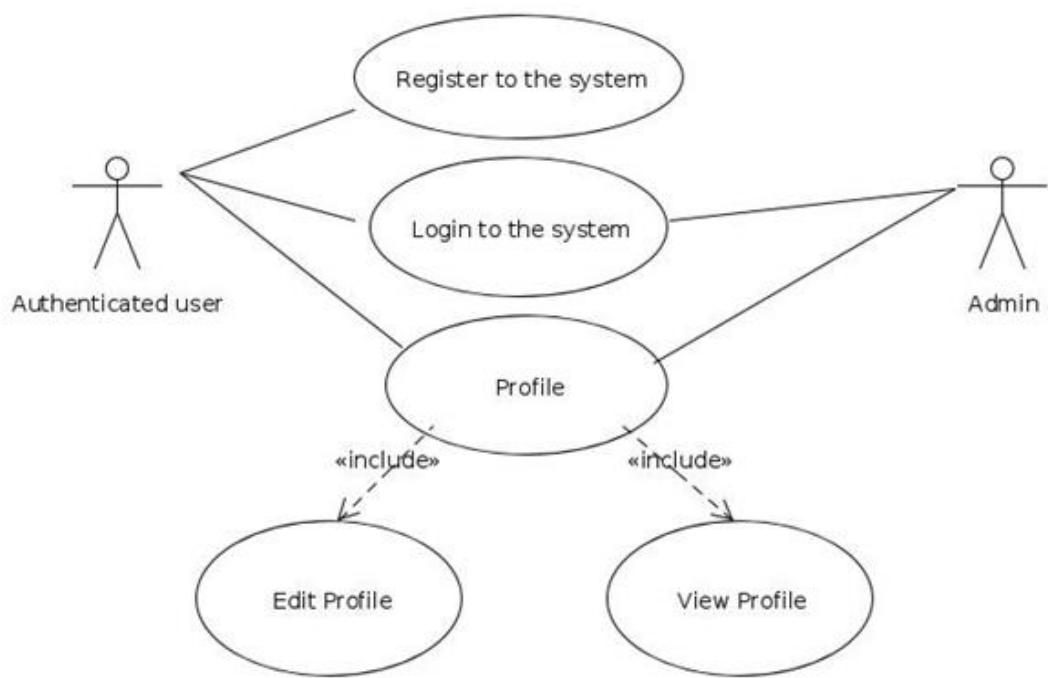
6. Other non-functional attributes:

- i) Security: The system has to be secure enough as data is transmitted to the server without any changes to the information.
- ii) Reliability: As the system provides a tool for discussion and query redressal, it must be made reliable to operate and handle data.
- iii) Response delays: The system must be interactive and there should be fewer delays. In case of window openings and saving queries, there might be a delay of less than 2 seconds. The other delays related information can be updated throughout the development cycle.

7. Operational Scenarios:

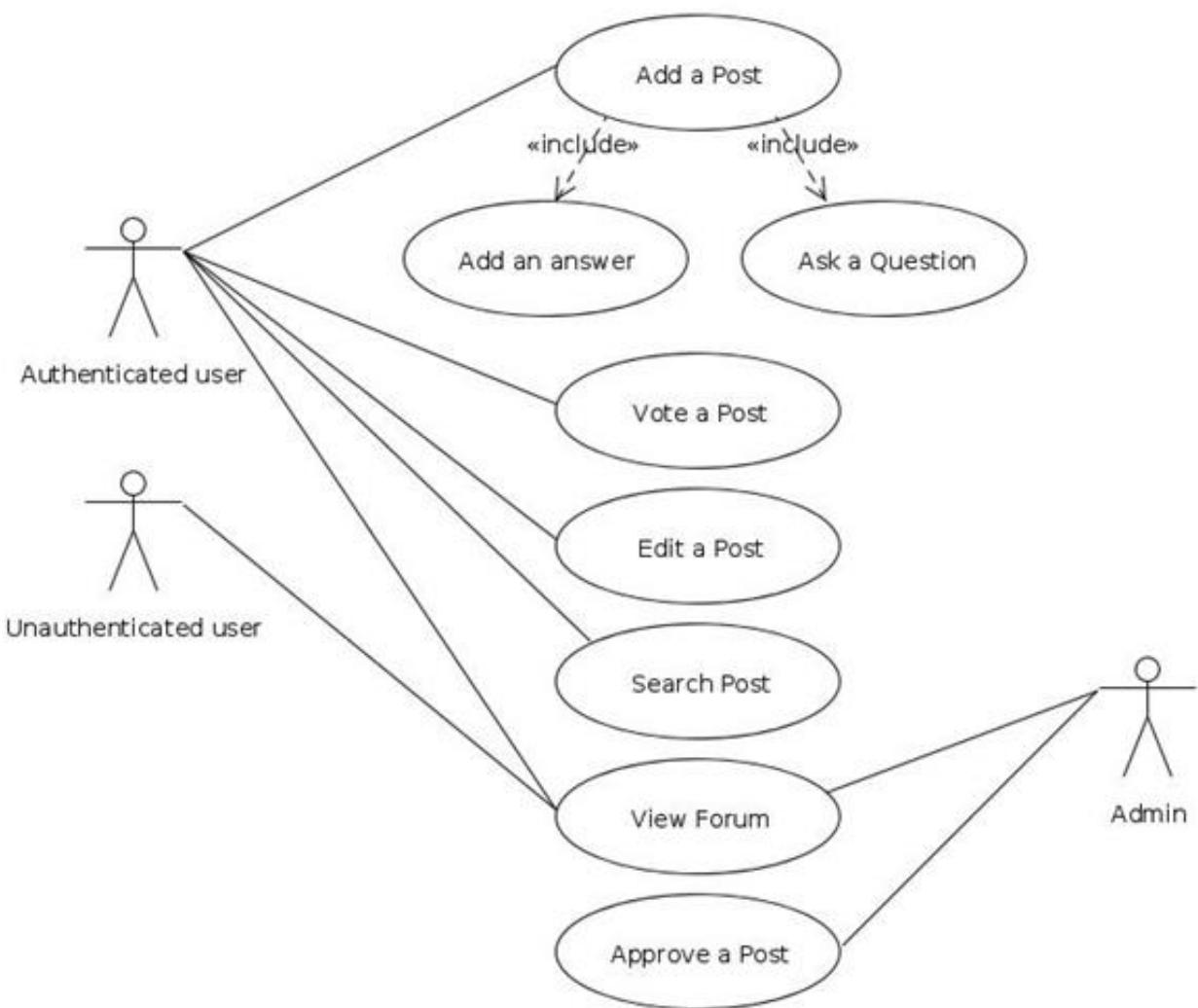
Login and Registration System case (This shows Operational case for the Admin and an Authenticated user while operating the login page)

(The use case diagram is done by using StarUML)



Discussion case (This shows the Operational case for an Authenticated user, Unauthenticated user and the Admin while operating the Application)

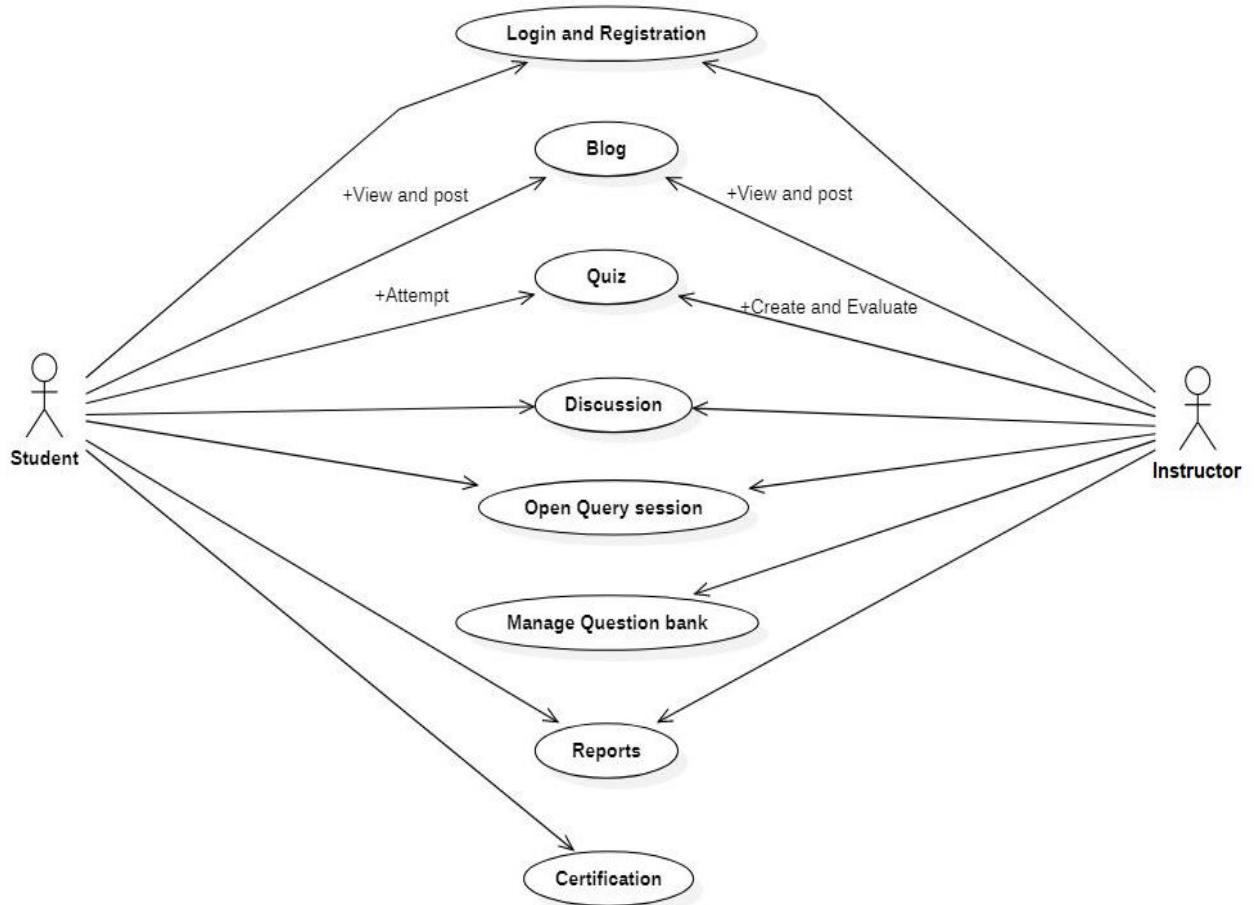
(The use case diagram is done by using StarUML)



8. Preliminary Use Case Models and Sequence Diagrams:

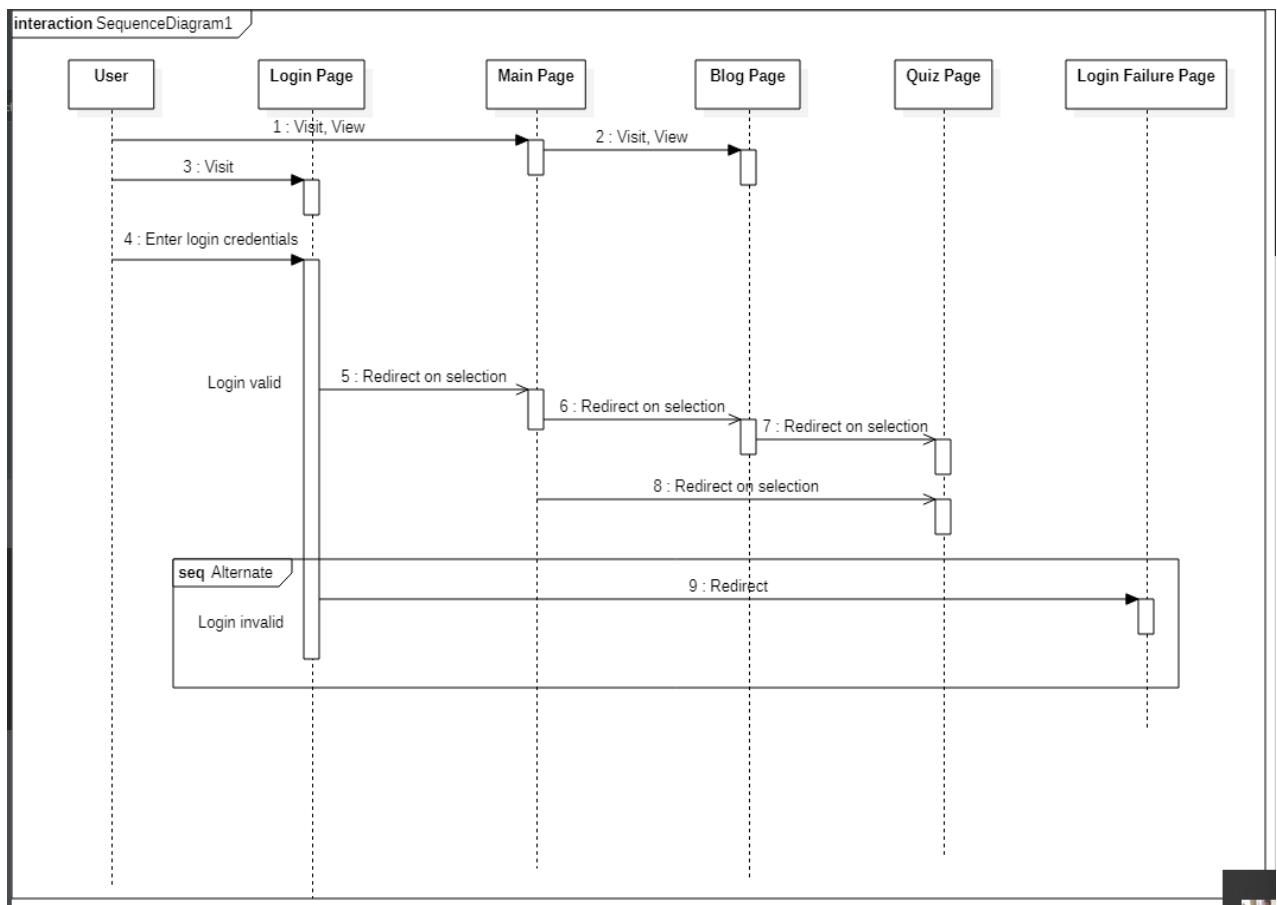
8.1 Use Case Model:

(The use case diagram is done by using StarUML)



8.2 Sequence Diagrams:

(The Sequence diagram is done by using StarUML)



9. Updated Schedule:

To use time in an efficient way we divided our main project into two sub-projects, one being Blog Project and the other being Quiz Project.

PHASE 1: -

We accomplished fast progress in 3 weeks' time as follows,

Week1: - Initial coding for Blog Project and Quiz Project.

Week2: - Partial working of Blog Project and Quiz Project.

Week3: - Both Blog Project and Quiz Project completed.

PHASE 2: -

We have taken 4 weeks' time to complete the React Js and Django integration for the Phase 2 submission.

Week1: - Login and Registration. (Authentication)

Week2: - Multiple Login and Registration, and Home page.

Week3: - Quiz Page and Database connection for Questions.

Week4: - Evaluation and Result visualization.

10. Source Code:

Phase1 –  
Blog-app.zip Quiz_app.zip

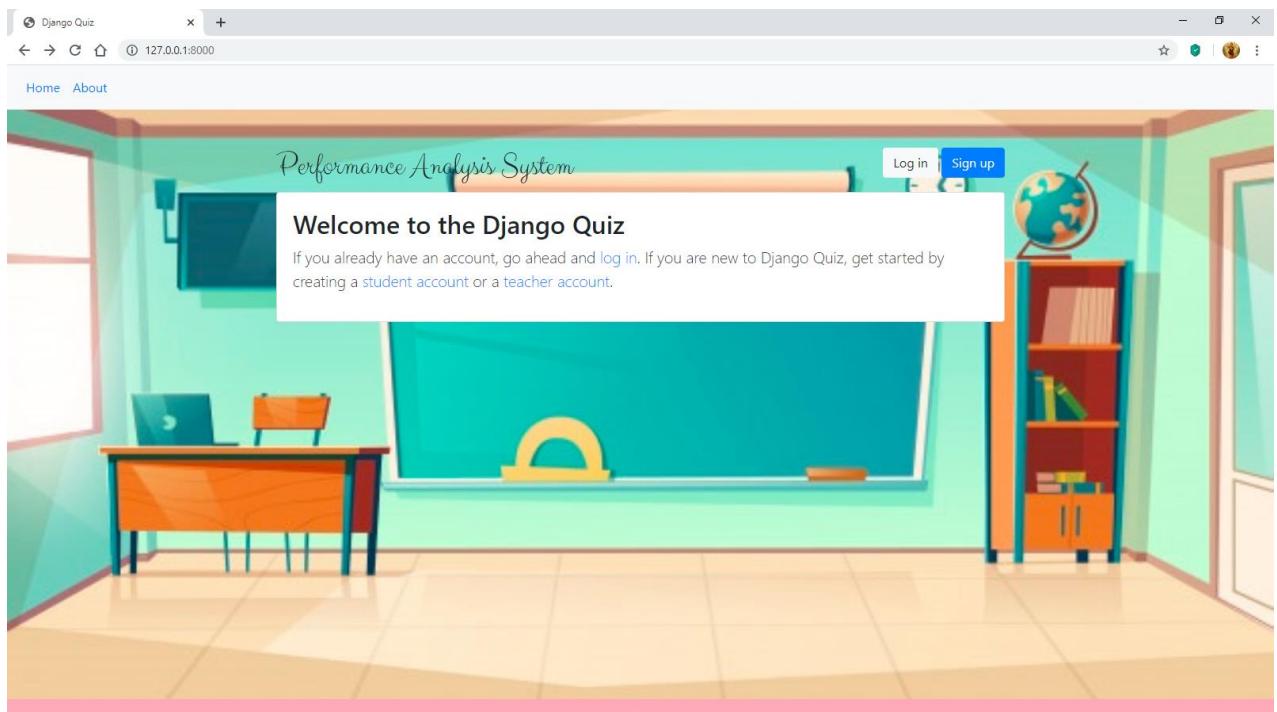
Phase2 – 
quiz-react.zip

11. Screen Shots:

I Phase 1: (Django)

i) Quiz-app:

Home Page: -

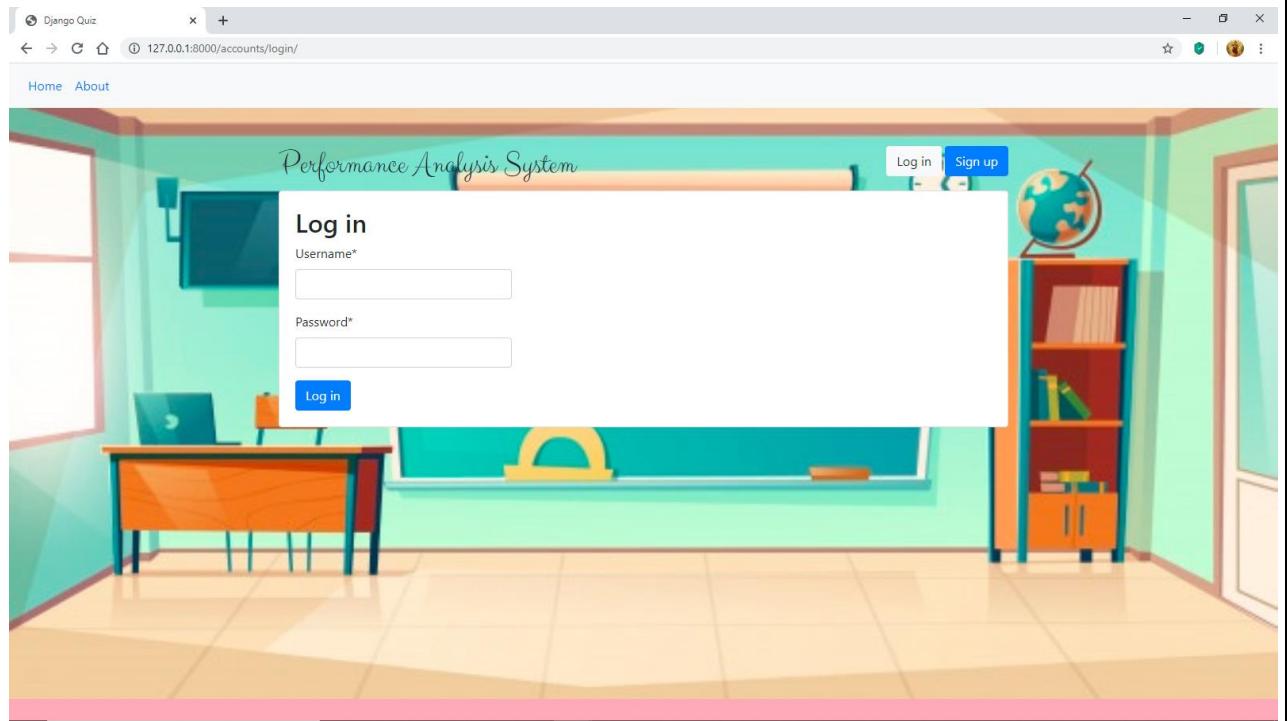


About Page: -

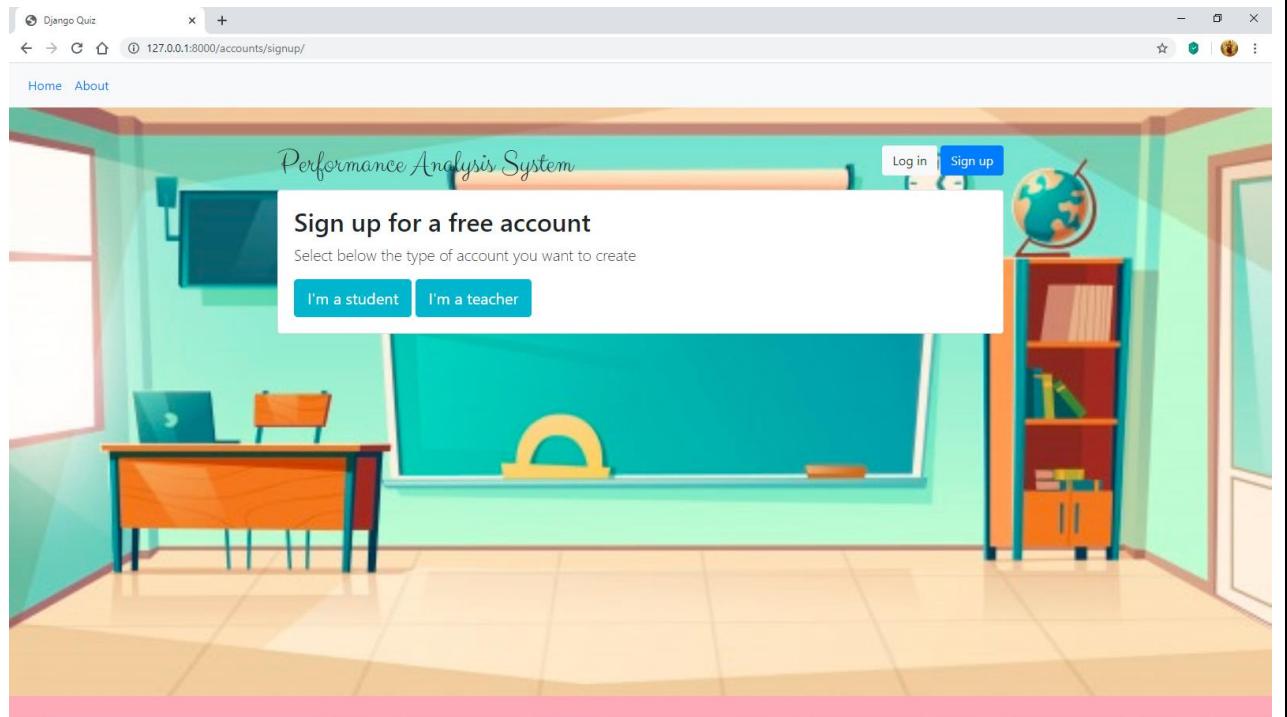
A screenshot of a web browser showing the 'About Us' page. The title bar says '127.0.0.1:8000/about/'. The URL bar shows '127.0.0.1:8000/about/'. The page has a pink header bar with 'About Us'. Below it, there's a section titled 'Our Team' with four cartoon character illustrations. Each character has a name and a brief description below it.

Character	Name	Description
	Nishanth Shastray	The nice one Head of Django Department & Mentor nssb107@gmail.com
	Partheesh Ranjan Singh	The Smart one An Innovator and Head of Logic Implementation partheeshranjan@gmail.com
	Ritvik Sada	Designer Worked on UI and in Team of Code building ritviksada00@gmail.com
	Koney Sai Keerthi	Designer & Head of Creative hub Worked on the UI & team of logic implementation koneysaikirthi@gmail.com

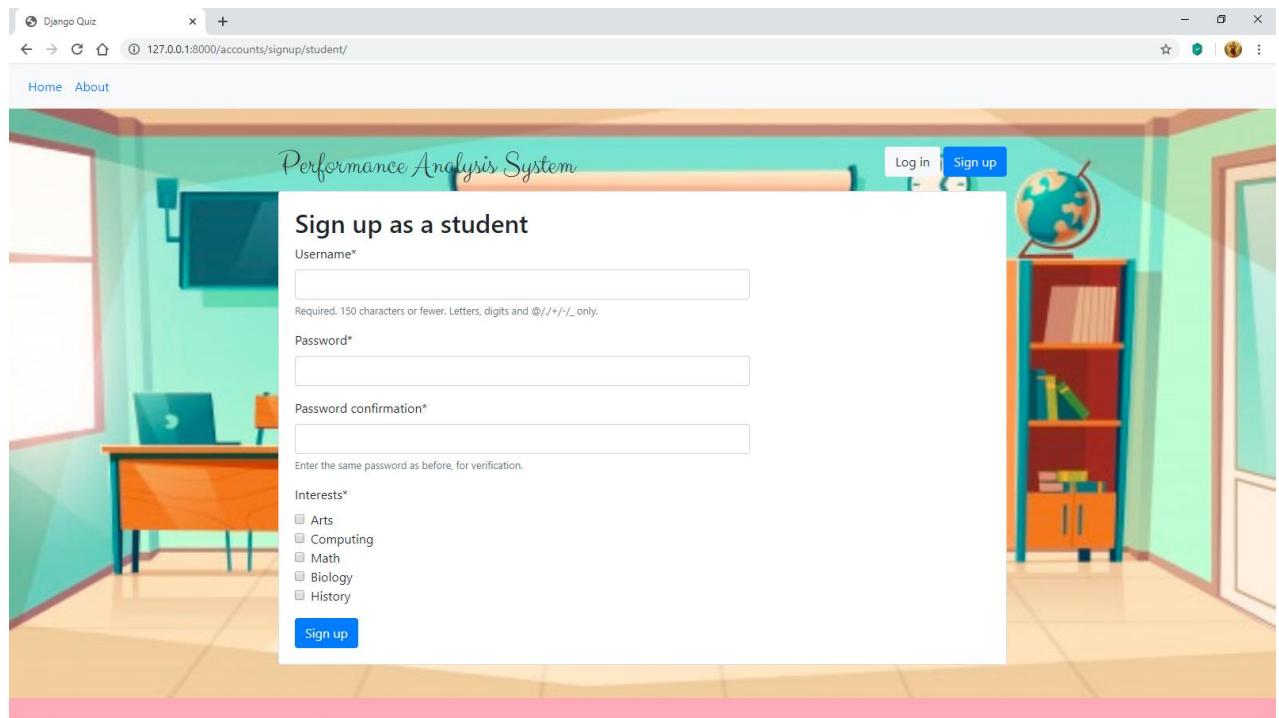
Login Page: -



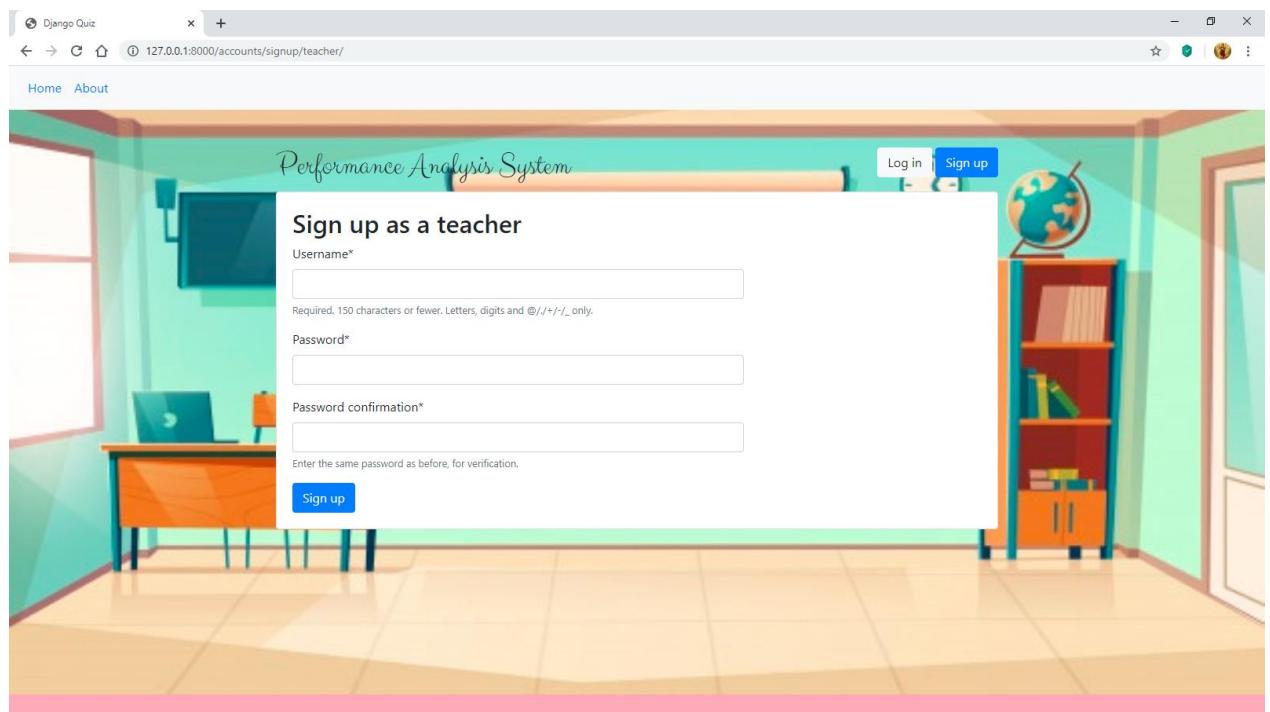
Registration Page: -



Student Registration Page: -



Faculty/Teacher Registration Page: -



Quizzes Page: - (For Student)

A screenshot of a web browser window titled "Django Quiz". The URL is "127.0.0.1:8000/students/". The page features a cartoon-style classroom background with desks, chairs, and bookshelves. At the top right, it says "Logged in as student log out." Below the title "Performance Analysis System" is a section titled "Quizzes". It shows a table of quizzes with the following data:

Quiz	Subject	Length	Action
computing	Computing	1 questions	Start quiz
yvn's quiz	Computing	1 questions	Start quiz
Maths	Math	1 questions	Start quiz
CBT-1	Biology	1 questions	Start quiz
History of India	History	1 questions	Start quiz

Quizzes Page: - (For Faculty/Teacher – When No question is created)

A screenshot of a web browser window titled "Django Quiz". The URL is "127.0.0.1:8000/teachers/". The page features a cartoon-style classroom background. At the top right, it says "Logged in as teacher1 log out.". Below the title "Performance Analysis System" is a section titled "My Quizzes". It shows a table with one row, indicating no quizzes have been created:

Quiz	Subject	Questions	Taken
		You haven't created any quiz yet.	

Quizzes Page: - (For Faculty/Teacher – While adding quiz)

The screenshot shows a web browser window titled "Django Quiz" with the URL "127.0.0.1:8000/teachers/quiz/add/". The page is titled "Performance Analysis System" and displays a "My Quizzes / Add a new quiz" header. The main content is a form titled "Add a new quiz" with fields for "Name*" and "Subject*". Below the form are two buttons: "Save" (green) and "Nevermind" (grey). The background features a cartoon-style classroom illustration with desks, a globe, and bookshelves.

Quizzes Page: - (For Faculty/Teacher – While creating questions)

The screenshot shows a web browser window titled "Django Quiz" with the URL "127.0.0.1:8000/teachers/quiz/6/question/6/". The page is titled "Performance Analysis System" and displays a "My Quizzes / Trigonometry / What is sin^2(x) + cos^2(x) ?" header. The main content is a form for creating a question with a text input field containing "What is sin^2(x) + cos^2(x) ?". Below it is a table titled "Answers" with columns "Answers", "Correct?", and "Delete?". The table contains several rows of answers: "sin(x)", "1", "cos(x)", and "None". The "1" row has a checked checkbox in the "Correct?" column. A note at the bottom states: "Your question may have at least 2 answers and maximum 10 answers. Select at least one correct answer." At the bottom are "Save changes" and "Nevermind" buttons, and a red "Delete" button on the right.

Quizzes Page: - (For Faculty/Teacher – List of questions for quiz)

The screenshot shows a web browser window titled "Django Quiz" displaying a list of quizzes. The URL is 127.0.0.1:8000/teachers/quiz/6/. The page has a header "Performance Analysis System" and a sub-header "My Quizzes / Trigonometry". It shows a quiz titled "Trigonometry" with fields for "Name*" (Trigonometry) and "Subject*" (Math). Buttons for "Save changes", "Nevermind", and "Delete" are present. A "View results" button is located in the top right. Below the form is a table with two rows:

Questions	Answers
What is $\sin^2(x) + \cos^2(x)$?	4
$\sin(x) = ?, \cos(x) = ?, \tan(x) = ?$. What are the answers ?	4

An "Add question" button is at the bottom left of the table area. The background features a cartoon-style classroom with desks, chairs, and a bookshelf.

Quizzes Page: - (For Student – While attempting the quiz)

The screenshot shows a web browser window titled "Django Quiz" displaying a quiz question. The URL is 127.0.0.1:8000/students/quiz/6/. The page has a header "Performance Analysis System" and a sub-header "My Quizzes / Trigonometry". It shows a question: "What is $\sin^2(x) + \cos^2(x)$?". Below the question is a "Answer*" field with four options: "1" (radio button selected), "None", "cos(x)", and "sin(x)". A "Next →" button is at the bottom. The background features a cartoon-style classroom with desks, chairs, and a bookshelf.

Quizzes Page: - (For Student – While viewing Results)

The screenshot shows a web browser window titled "Django Quiz" with the URL "127.0.0.1:8000/students/taken/". The page is titled "Performance Analysis System" and displays a list of quizzes taken by the user "student". The interface includes a sidebar with "Home" and "About" links, and a top navigation bar with "Logout". The main content area is titled "Quizzes" and shows a table of quiz results. The table has columns for "Quiz", "Subject", and "Score". The quizzes listed are: CBT-1 (Biology, 100.0), History of India (History, 100.0), History101 (History, 50.0), Maths (Math, 100.0), Trigonometry (Math, 50.0), computer101 (Computing, 100.0), computing (Computing, 100.0), and yvn's quiz (Computing, 0.0). The background features a cartoon-style classroom illustration.

Quiz	Subject	Score
CBT-1	Biology	100.0
History of India	History	100.0
History101	History	50.0
Maths	Math	100.0
Trigonometry	Math	50.0
computer101	Computing	100.0
computing	Computing	100.0
yvn's quiz	Computing	0.0

Quizzes Page: - (For Faculty/Teacher – List of Quizzes)

The screenshot shows a web browser window titled "Django Quiz" with the URL "127.0.0.1:8000/teachers/". The page is titled "Performance Analysis System" and displays a list of quizzes created by the user "teacher1". The interface includes a sidebar with "Home" and "About" links, and a top navigation bar with "Logout". The main content area is titled "My Quizzes" and shows a table of quizzes. The table has columns for "Quiz", "Subject", "Questions", and "Taken". The quizzes listed are: Trigonometry (Math, 2 questions, 2 taken, View results), computer101 (Computing, 2 questions, 2 taken, View results), and History101 (History, 2 questions, 2 taken, View results). The background features a cartoon-style classroom illustration.

Quiz	Subject	Questions	Taken	Action
Trigonometry	Math	2	2	View results
computer101	Computing	2	2	View results
History101	History	2	2	View results

Quizzes Page: - (For Students – After Completing a quiz)

The screenshot shows a web browser window titled "Django Quiz" with the URL "127.0.0.1:8000/students/". The page has a header with "Home" and "About" links, and a user status "Logged in as Dev. log out.". The main content area features a cartoon-style room background with a desk, laptop, and bookshelf. The title "Performance Analysis System" is at the top. A green banner says "Congratulations! You completed the quiz History101 with success! You scored 50.0 points." Below it, a section titled "Quizzes" lists three quizzes:

Quiz	Subject	Length	Action
Trigonometry	Math	2 questions	Start quiz
CBT-1	Biology	1 questions	Start quiz
History of India	History	1 questions	Start quiz

Quizzes Page: - (For Students – For updating the topic student is interested in)

The screenshot shows a web browser window titled "Django Quiz" with the URL "127.0.0.1:8000/students/interests/". The page has a header with "Home" and "About" links, and a user status "Logged in as Dev. log out.". The main content area features a cartoon-style room background with a desk, laptop, and bookshelf. The title "Performance Analysis System" is at the top. A section titled "Update your interests" contains a list of checkboxes for interests:

- Interests*
- Arts
- Computing
- Math
- Biology
- History

At the bottom are two buttons: "Save changes" and "Nevermind".

Quizzes Page: - (For Faculty/Teacher – While viewing the scores of students)

Django Quiz

127.0.0.1:8000/teachers/quiz/7/results/

Home About

Performance Analysis System

Logged in as teacher1, log out.

My Quizzes / computer101 / Results

computer101 Results

Taken Quizzes		
Student	Date	Score
Dev	3 minutes ago	100.0
student	11 minutes ago	100.0

Average Score: 100.0

Total respondents: 2

ii) Blog-app:

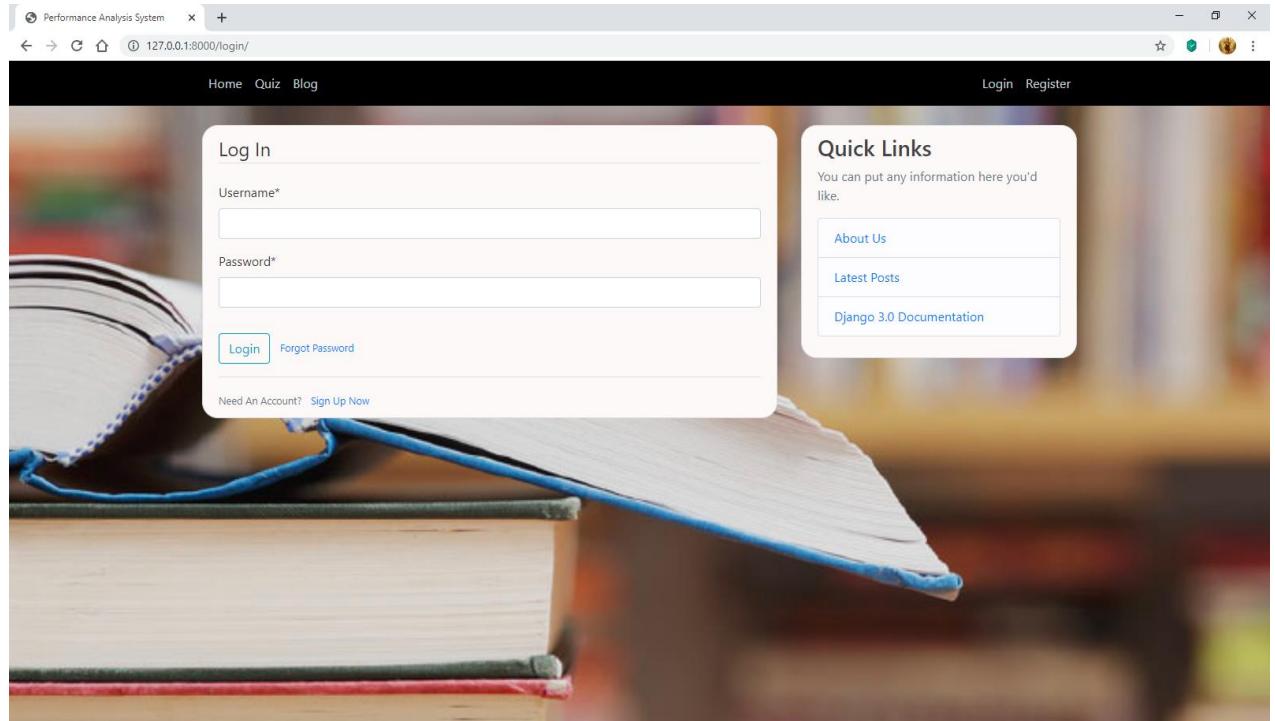
Home Page: -

The screenshot shows the home page of the 'Performance Analysis System'. The background features a close-up image of an open book. At the top, there is a navigation bar with links for 'Home', 'Quiz', and 'Blog'. On the right side of the header, there are 'Login' and 'Register' buttons. The main content area has a title 'Performance Analysis System' and a heading 'Welcome to Performance Analysis !!'. Below this, there are two sections: one encouraging users to stay updated with topics discussed among students and teachers, and another prompting them to attempt quizzes to strengthen their skills. A callout box at the bottom right provides information about learning Django 3.0 and includes a link to the 'Django 3.0 Documentation'. On the right side of the page, there is a 'Quick Links' sidebar with a placeholder message and three links: 'About Us', 'Latest Posts', and 'Django 3.0 Documentation'.

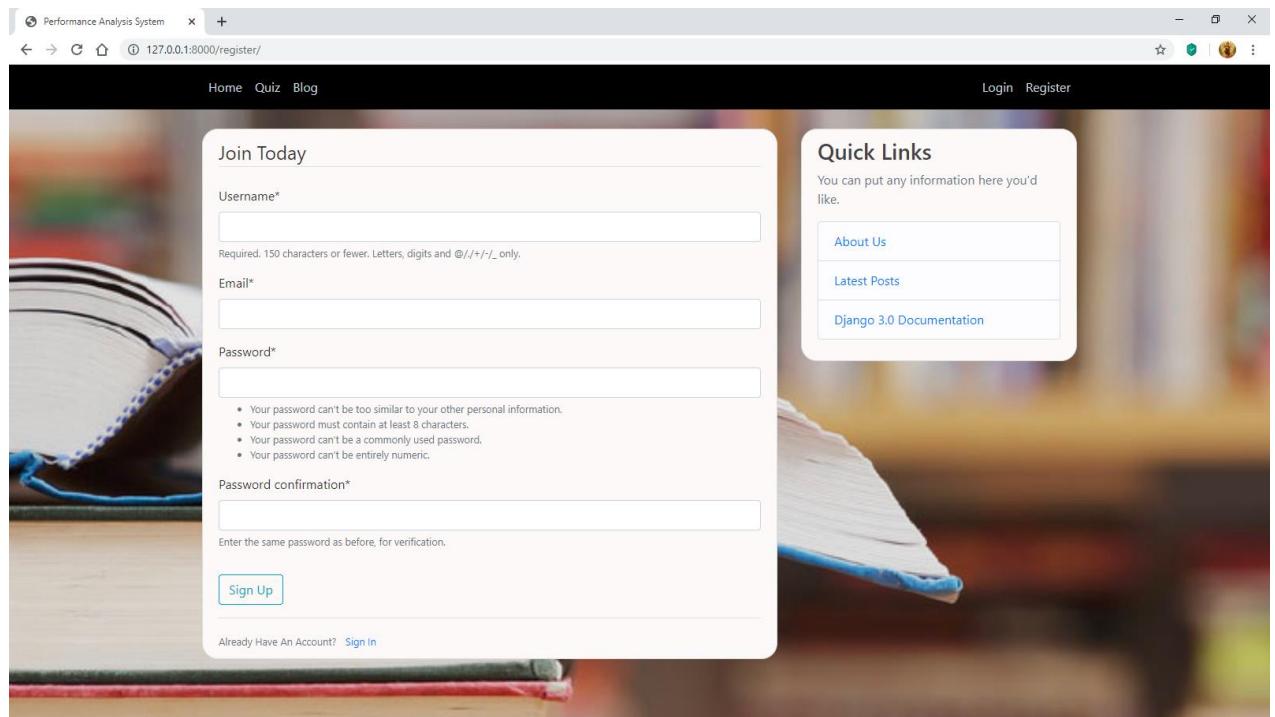
About Page: -

The screenshot shows the 'About Us' page of the 'Performance Analysis System'. The background image of an open book remains consistent. The page title is 'About Us'. It lists four team members in separate cards: Nishanth Shastry (The Nice one, Head of Django Department & Mentor, Contact: nssb107@gmail.com), Partheesh Ranjan Singh (The Smart one, An Innovator and Head of Logic Implementation, Contact: partheeshranjan@gmail.com), Ritvik Sada (Designer, Worked on UI and in Team of Code building, Contact: rithviksada00@gmail.com), and Koney Sai Keerthi (Designer & Head of Creative hub, Worked on the UI & team of logic implementation, Contact: koneysaikerthi@gmail.com). A 'Quick Links' sidebar on the right side contains links for 'About Us', 'Latest Posts', and 'Django 3.0 Documentation'.

Login Page: -



Registration Page: -



Blog Page: -

The screenshot shows a blog page with a header "Performance Analysis System" and a navigation bar with links "Home", "Quiz", "Blog", "Take Quiz", "New Post", and "Logout". The main content area features three blog posts:

- My Latest Updated Post** by AdminUSER on March 15, 2020. The post content is placeholder Latin text: "Erat expetenda definitionem id eos. Semper suscipit eum ut, eum ex nemore copiosae. Nam probatus pertinacia eu! No alii voluptua abhorrent nec, te pro impedit concludaturque, in sea malis torquatos disputationi! Nam te alii nobis ponderum, ei fugit accusamus pro." Below the text is another snippet: "Congue salutandi ex eam! Mei an prima consulatu, erat detracto eu quo? Vim ea esse utinam efficiantur, at noster dicunt."
- The Rise of Data Science** by TestUser on March 15, 2020. The post content is placeholder Latin text: "Per omittam placerat at. Elus aeque ei mei. Usu ex partiendo salutandi. Pro illud placerat molestiae ex, habeo vidisse voluptatum cu vel, efficiendi accommodare eum ea! Ne has case minimum facilis, pertinax efficiendi eu vel!" Below the text is another snippet: "Et movet semper assueverit his. Mei at liber vitae. Vix et periculis definiebas, vero falli."
- 5 Tips for Writing Catchy Headlines** by TestUser on March 15, 2020. The post content is placeholder Latin text: "Ea homero possit epicuri est, debitis docendi tacimates cu duo? Ad lorem cetero disputando pri, veniam eruditis tacimates per te."

A sidebar on the right is titled "Quick Links" and contains the following links:

- About Us
- Your Profile
- Latest Posts
- Django 3.0 Documentation

Blog Page with feature of “Pagination”: - (Notice the last part with numbers)

The screenshot shows a blog page with a header "Performance Analysis System" and a navigation bar with links "Home", "Quiz", "Blog", "Take Quiz", "New Post", and "Logout". The main content area features two blog posts:

- Music To Listen To While Coding** by AdminUSER on March 15, 2020. The post content is placeholder Latin text: "Feugait reprimique eu mel, te eum dico electram. Nam no nemore cotidieque. Vim cu suas atqui dicunt. Id labitur dissentient per, ignota maiorum pri no? Clita altera sanctus ex his!" Below the text is another snippet: "At alia electram reprehendunt eam, sea te volumus quaestio. Commodo voluptua senserit ius ne, eu enim disputationi eam? Id pri omnium blandit, nullam denique nec no? Sapientem vituperata sit et, nisl facilisis periculis in est. Elaboraret accommodare id vel? Cibo eripuit ut has, sed cu liber invidit."
- Just A Few More Healines Should Do It** by AdminUSER on March 15, 2020. The post content is placeholder Latin text: "Duo at tibique commune vulputate, ex facilis tacimates disputationi mei. Mel eu inani prompta labores! Audire omnesque offendit ex eos. An ferri accusata his, vel agam habeo maiestatis ex, eam mutat iisque concludaturque ut. Ut tamquam minimum partiendo vim. An nam vidit doming graecis?" Below the text is another snippet: "Singulis abhorrent his in, et altera audiam feugiat mei. Pri eius dolor persequeris id! Nam ea dolorem expetendis, idque everti suscipit qui te, noster repudiare dignissim per ex? No vim iriure tibique comprehensam, per utamur consequat."

A pagination footer at the bottom of the page shows the numbers 1, 2, 3, followed by "Next" and "Last".

Home Page after logging in: - (Notice the navigation bar changes)

The screenshot shows the home page of the 'Performance Analysis System'. The title 'Performance Analysis System' is at the top. Below it is a large image of an open book. A central box contains the text 'Welcome to Performance Analysis System !!' and 'Be updated with the latest topics discussed among students and teacher....'. Another box below it says 'Attempt Quizzes to strengthen your skills....' and 'Learn Django 3 with [Django 3.0 Documentation](#) and help us improve the web-app. Click [About Us](#) to test yourself'. At the top right, there are links for 'Take Quiz', 'New Post', and 'Logout'. On the right, a 'Quick Links' sidebar lists 'About Us', 'Your Profile', 'Latest Posts', and 'Django 3.0 Documentation'.

Blog Page after logging in: - (Notice the navigation bar changes)

The screenshot shows the blog page of the 'Performance Analysis System'. The title 'Blog' is at the top. Below it is a large image of an open book. Three blog posts are listed in cards: 1. 'My Latest Updated Post' by AdminUSER on March 15, 2020. It contains a short paragraph about the latest update. 2. 'The Rise of Data Science' by TestUser on March 15, 2020. It contains a short paragraph about the rise of data science. 3. '5 Tips for Writing Catchy Headlines' by TestUser on March 15, 2020. It contains a short paragraph about writing catchy headlines. At the top right, there are links for 'Take Quiz', 'New Post', and 'Logout'. On the right, a 'Quick Links' sidebar lists 'About Us', 'Your Profile', 'Latest Posts', and 'Django 3.0 Documentation'.

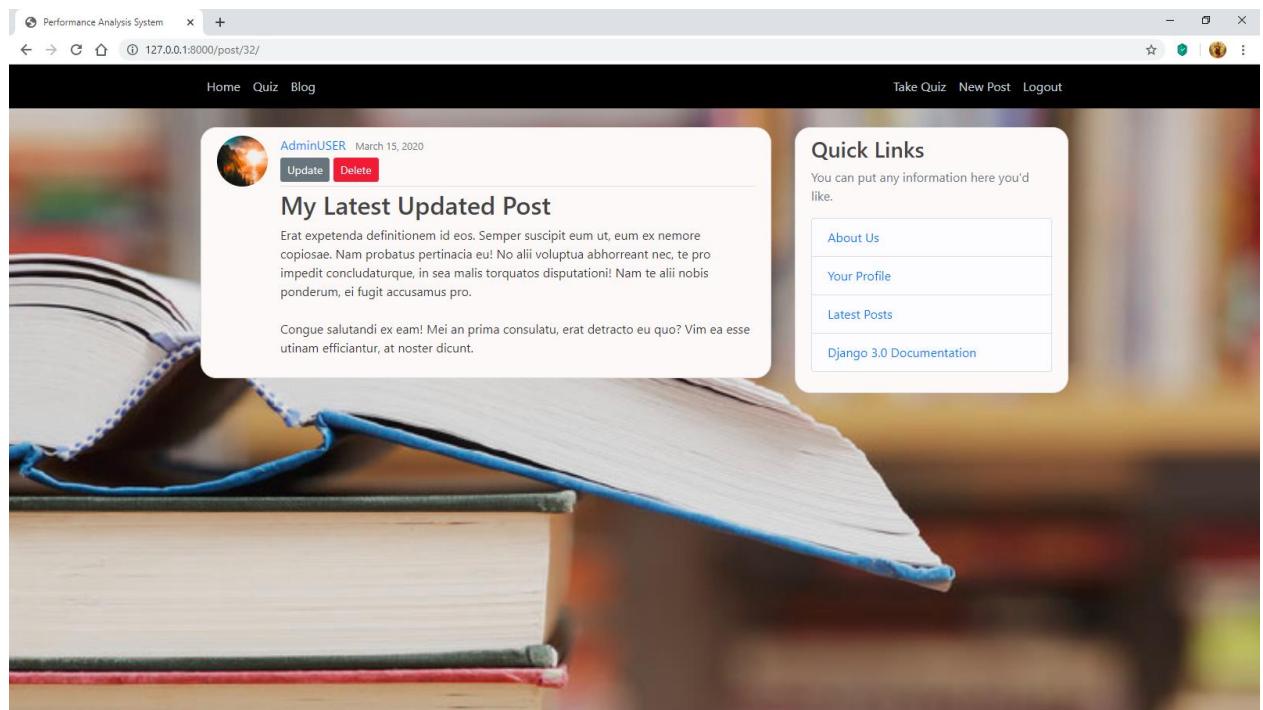
Posts by an Individual Author: - (A unique feature which shows all the posts of the same Author once the Author-Name is clicked)

The screenshot shows a web browser window titled "Performance Analysis System" with the URL "127.0.0.1:8000/user/AdminUSER/". The page displays a heading "Posts by AdminUSER (16)" over a background image of an open book. Below the heading are two post cards. The first post card is titled "My Latest Updated Post" and contains the text: "Erat expetenda definitionem id eos. Semper suscipit eum ut, eum ex nemore copiosae. Nam probatus pertinacia eu! No alii voluptua abhorreant nec, te pro impedit concludaturque, in sea malis torquatos disputationi! Nam te alii nobis ponderum, ei fugit accusamus pro." The second post card is titled "Music To Listen To While Coding" and contains the text: "Feugait reprimique eu mel, te eum dico electram. Nam no nemore cotidieque. Vim cu suas atqui dicunt. Id labitur dissentient per, ignota maiorum pri no? Clita altera sanctus ex his! At alia electram reprehendunt eam, sea te volumus quaestio. Commodo voluptua senserit ius ne, eu enim disputationi eam? Id pri omnium blandit, nullam denique nec no? Sapientem vituperata sit et, nisl facilisis periculis in est. Elaboraret accommodare id vel? Cibo eripuit ut has, sed cu liber invidunt. Ei pro vide quas dolorum, sea no fugit sanctus neglegentur. Sit feugait disputationi ne. Id diceret periculis nec, sint nonumes in sea, cum."

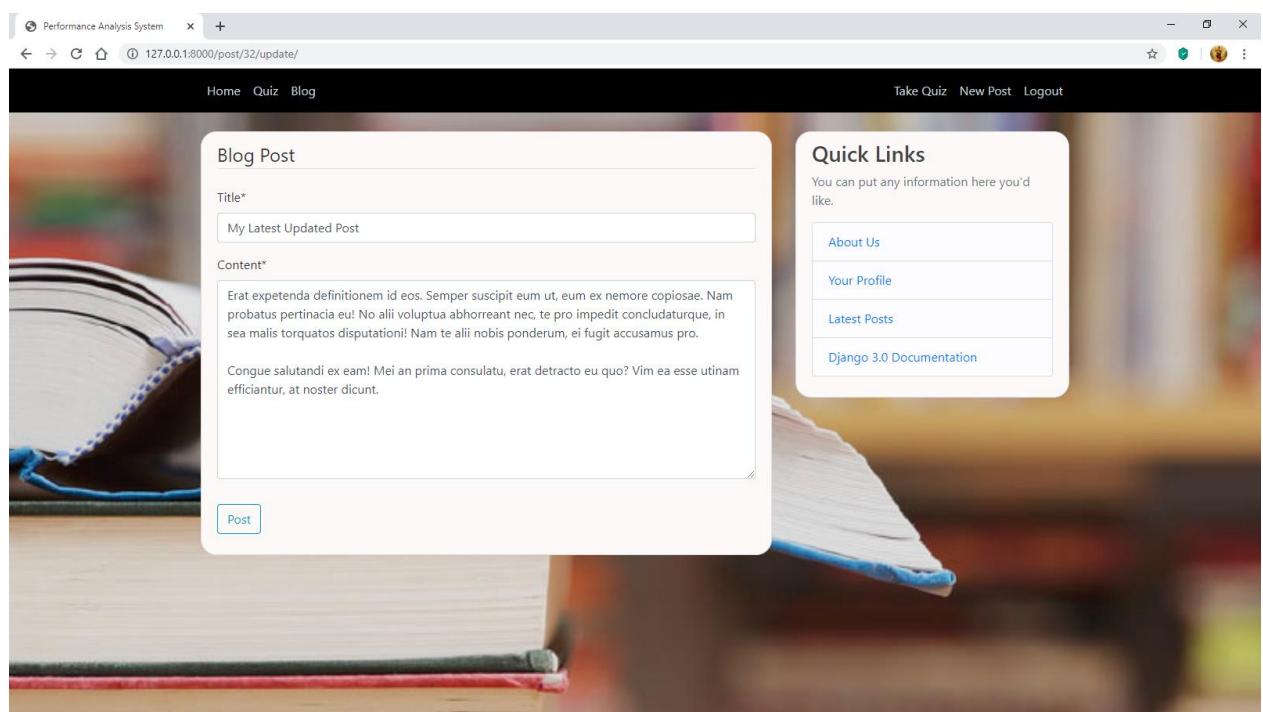
Posts by an Individual Author: - (The below happens when the Post Title is clicked)

The screenshot shows a web browser window titled "Performance Analysis System" with the URL "127.0.0.1:8000/post/32/". The page displays a post card for "My Latest Updated Post" over a background image of an open book. The post card contains the text: "Erat expetenda definitionem id eos. Semper suscipit eum ut, eum ex nemore copiosae. Nam probatus pertinacia eu! No alii voluptua abhorreant nec, te pro impedit concludaturque, in sea malis torquatos disputationi! Nam te alii nobis ponderum, ei fugit accusamus pro." Below the post card is a large image of an open book.

Updating/Deleting the post: - (The previous image is the same as that is below but the below image is when the user/author “AdminUSER” has logged in, the author can update or delete the post)



Blog – Update – Post Page: - (Only when user/author has logged in)



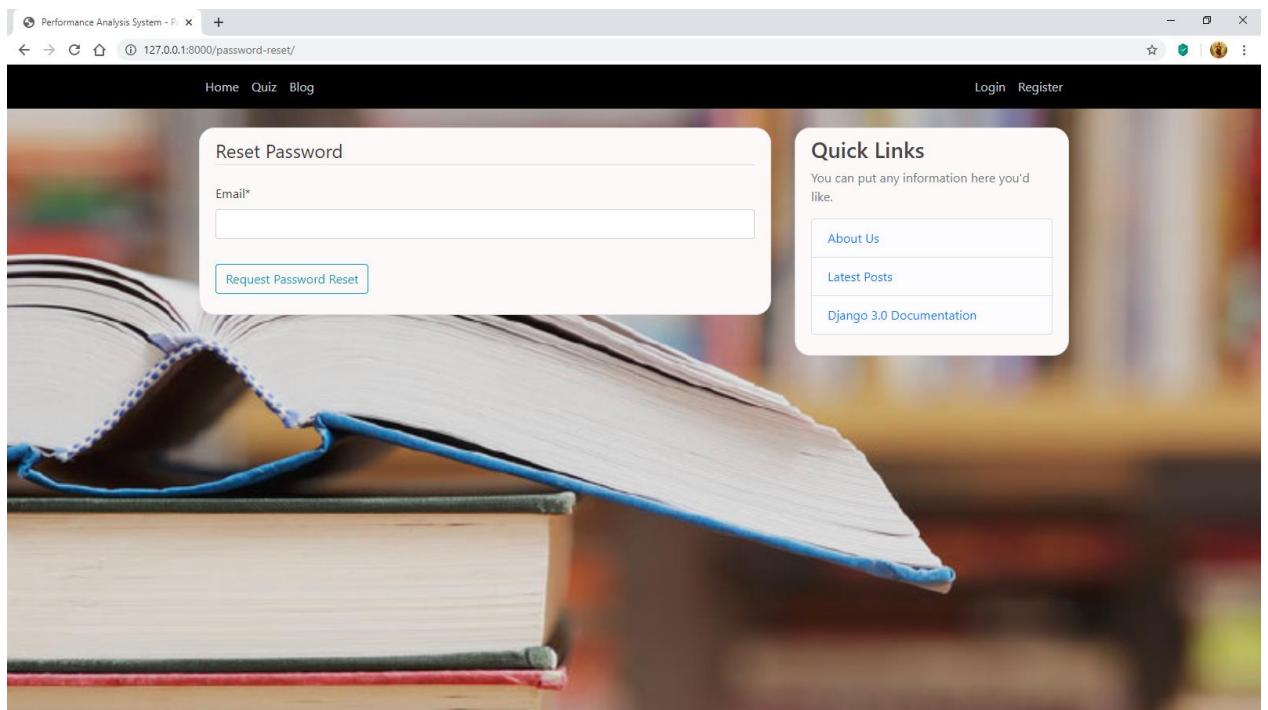
Profile Page: - (Only when user/author has logged in)

The screenshot shows a web browser window titled "Performance Analysis System" with the URL "127.0.0.1:8000/profile/". The page has a dark header with "Home", "Quiz", and "Blog" links, and a dark footer with "Take Quiz", "New Post", and "Logout" links. The main content area features a background image of an open book. On the left, there is a circular profile picture of a sunset over water. The profile info section displays the username "AdminUSER" and email "djangoblog2020@gmail.com". Below this, there are fields for "Username*", "Email*", and "Image*". The "Image*" field shows the current profile picture path: "profile_pics/account_img_tMZPYRy.jpg". There is also a "Change:" link and a file upload input field with "Choose File" and "No file chosen" placeholder text. A blue "Update" button is at the bottom. To the right, a "Quick Links" sidebar contains links to "About Us", "Your Profile", "Latest Posts", and "Django 3.0 Documentation".

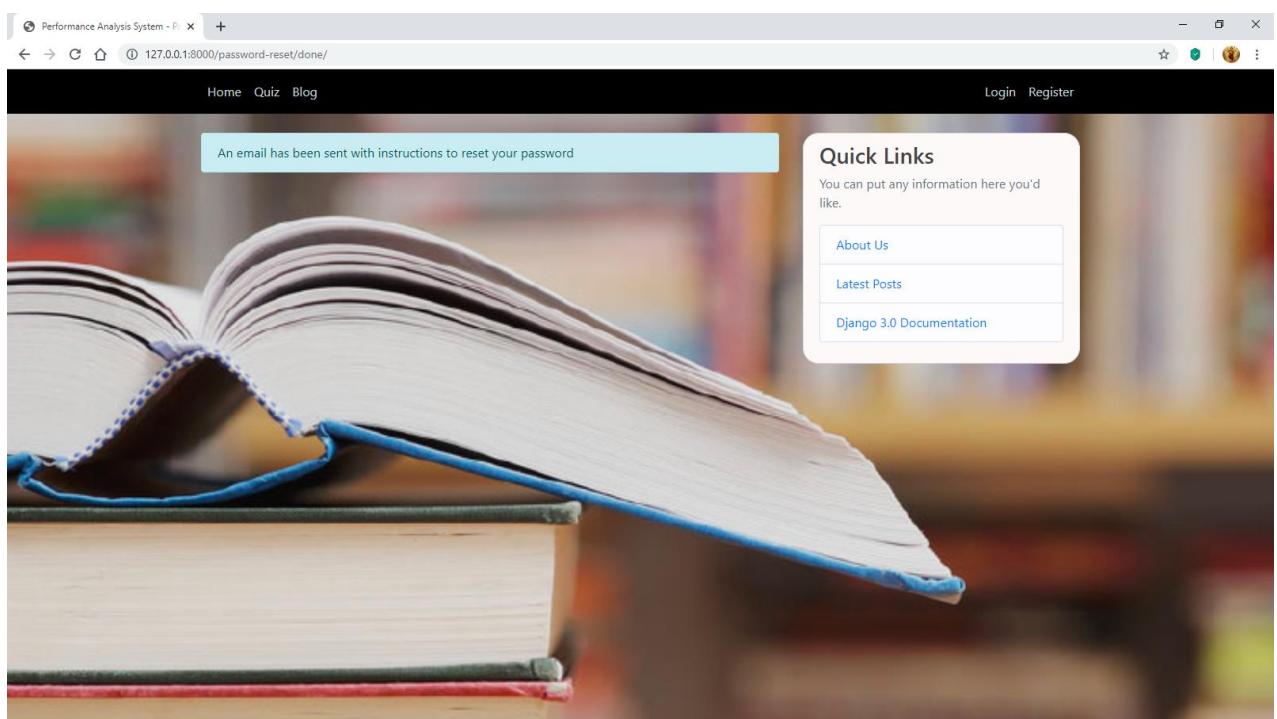
Blog – New – Post Page: - (Only when user/author has logged in)

The screenshot shows a web browser window titled "Performance Analysis System" with the URL "127.0.0.1:8000/post/new/". The layout is identical to the Profile Page, with a dark header, dark footer, and an open book background. The main content area contains a "Blog Post" form with fields for "Title*" and "Content*". A blue "Post" button is at the bottom. To the right, a "Quick Links" sidebar contains links to "About Us", "Your Profile", "Latest Posts", and "Django 3.0 Documentation".

Forgot Password Page: -



After sending an email to the entered mail-id: - (Notice the blue strip)



The email sent to registered Gmail account: - (Notice the first email)

A screenshot of a Gmail inbox. The left sidebar shows 'Compose', 'Inbox' (1), 'Starred', 'Snoozed', 'Sent', 'Drafts', and 'More'. The right pane shows the 'Primary' tab selected. There are three messages from 'me':

- 1 Password reset on 127.0.0.1:8000 - You're receiving this email because you requested a password reset for your user account at 127.0.0... 8:07 PM
- 2 Password reset on 127.0.0.1:8000 - You're receiving this email because you requested a password reset for your user account at 127.0.0... Apr 17
- 3 Password reset on 127.0.0.1:8000 - You're receiving this email because you requested a password reset for your user account at 127.0.0... Apr 17

Below the inbox, it says 'No recent chats' and 'Start a new one'. On the right, it shows '0 GB (0%) of 15 GB used' and 'Manage'. At the bottom, there are links for 'Terms · Privacy · Program Policies' and 'Last account activity: Apr 20 Details'.

The email message from the web-app: -

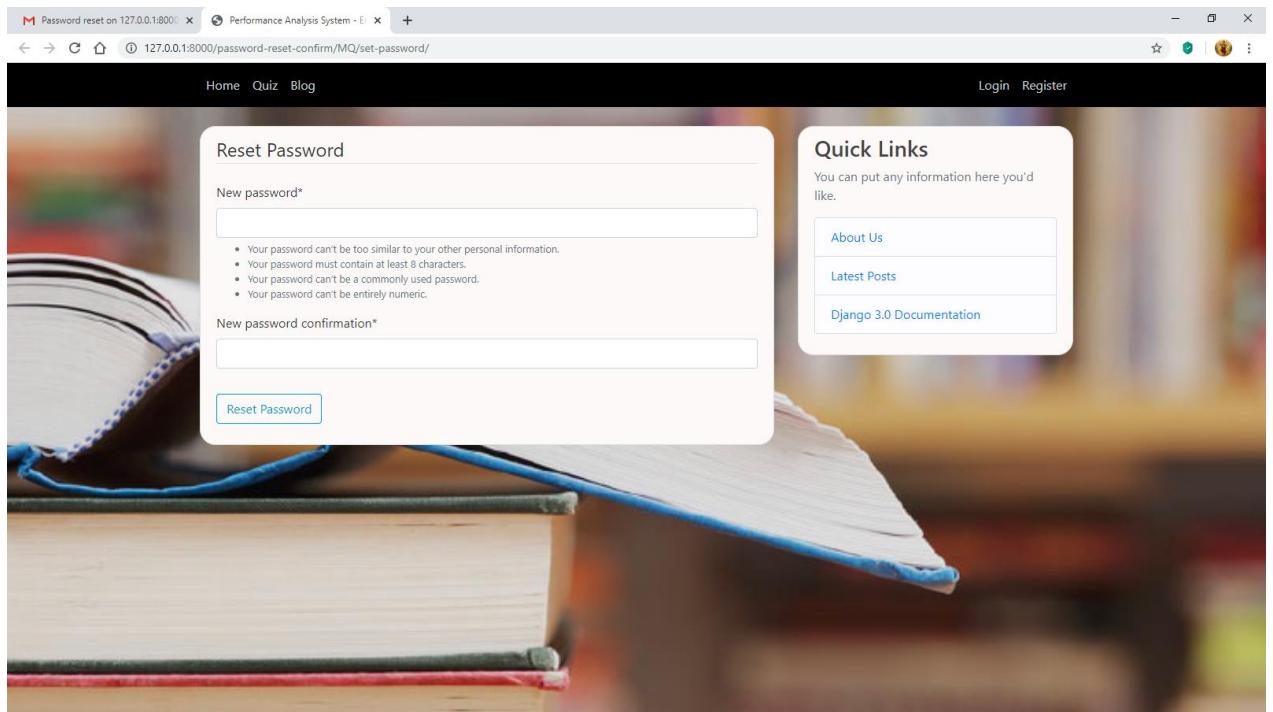
A screenshot of a Gmail inbox. The left sidebar shows 'Compose', 'Inbox' (1), 'Starred', 'Snoozed', 'Sent', 'Drafts', and 'More'. The right pane shows the message details for 'Password reset on 127.0.0.1:8000' from 'Performance Analysis Team <djangoblog2020@gmail.com> to me' at 8:07 PM (0 minutes ago).

The message content is:

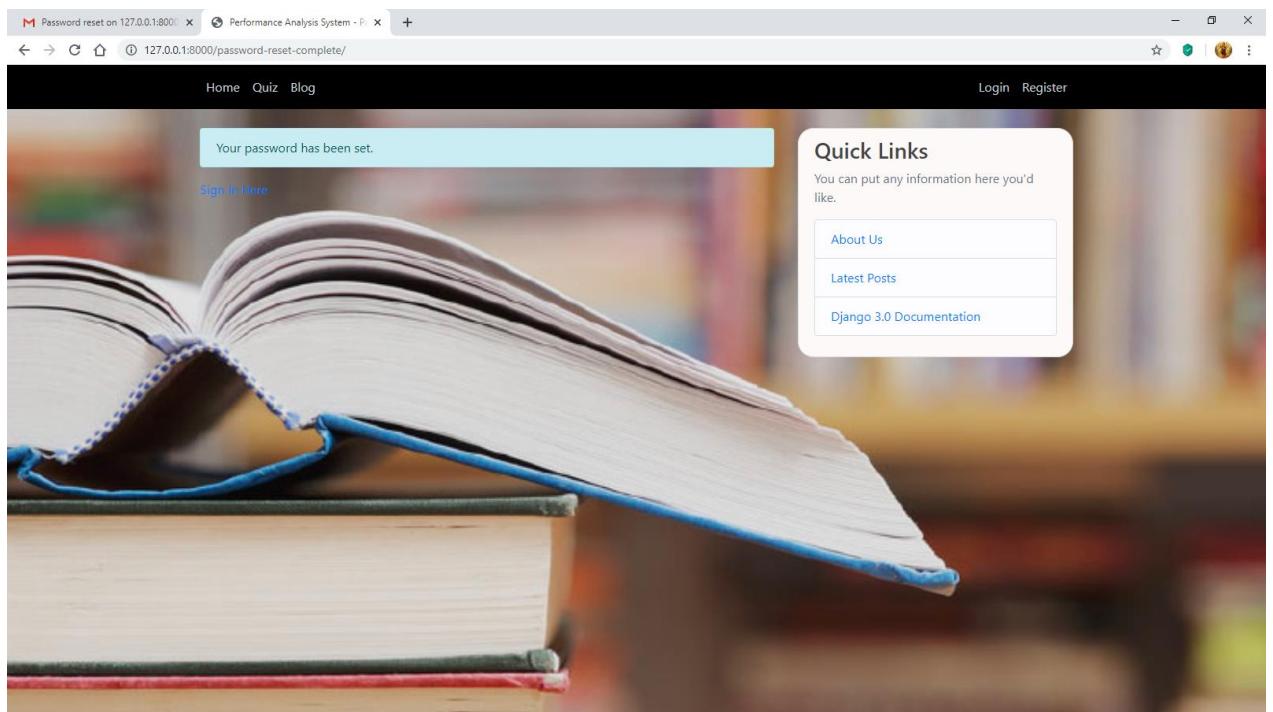
You're receiving this email because you requested a password reset for your user account at 127.0.0.1:8000.
Please go to the following page and choose a new password:
<http://127.0.0.1:8000/password-reset-confirm/MQ5gh-1963899ad548b99e502c/>
Your username, in case you've forgotten: AdminUSER
Thanks for using our site!
The 127.0.0.1:8000 team

At the bottom, there are 'Reply' and 'Forward' buttons. Below the inbox, it says 'No recent chats' and 'Start a new one'.

Reset Password Page: - (After clicking the link to reset Password link in the mail)



Success message after resetting the password: - (Notice the blue strip)



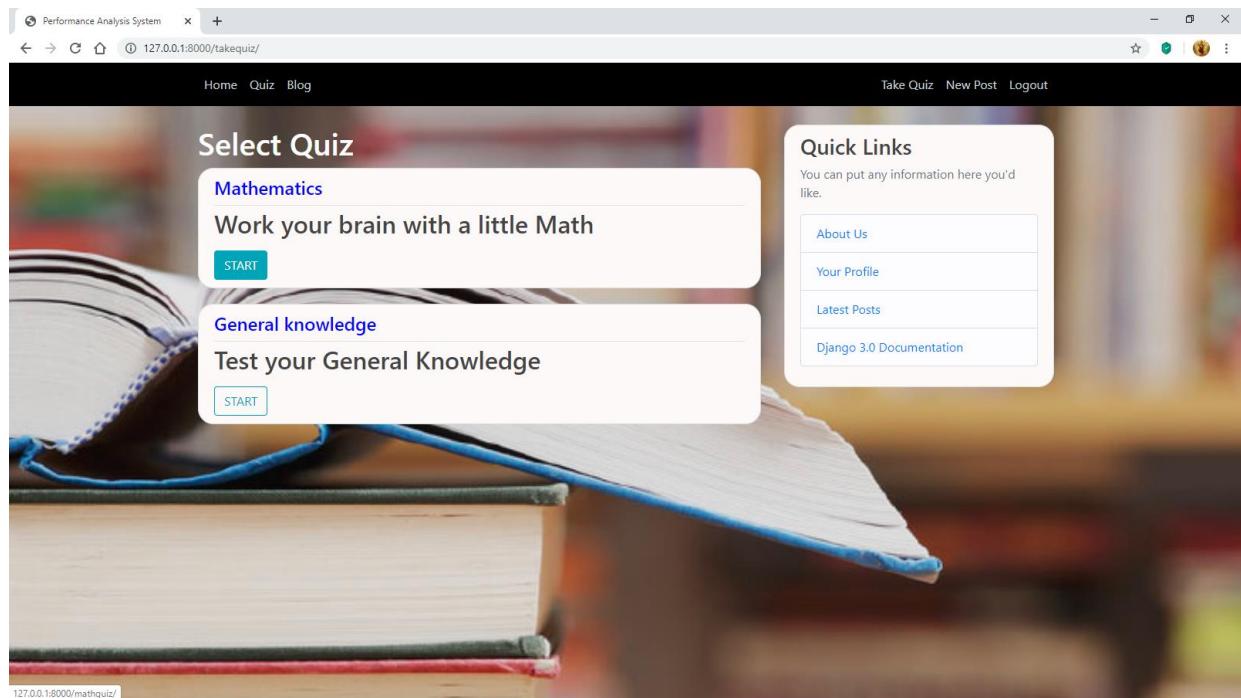
Quiz Page: - (Before logging in)

The screenshot shows a web browser window with the URL `127.0.0.1:8000/quiz/`. The page has a header with 'Home' and 'Quiz' links, and a 'Login' and 'Register' button. The main content area features a large image of an open book. Two quiz cards are displayed: one for 'Mathematics' titled 'Work your brain with a little Math' and another for 'General knowledge' titled 'Test your General Knowledge'. Both cards show a list of questions and a link to 'Click [Login](#) to test yourself'. A 'Quick Links' sidebar on the right contains links to 'About Us', 'Latest Posts', and 'Django 3.0 Documentation'.

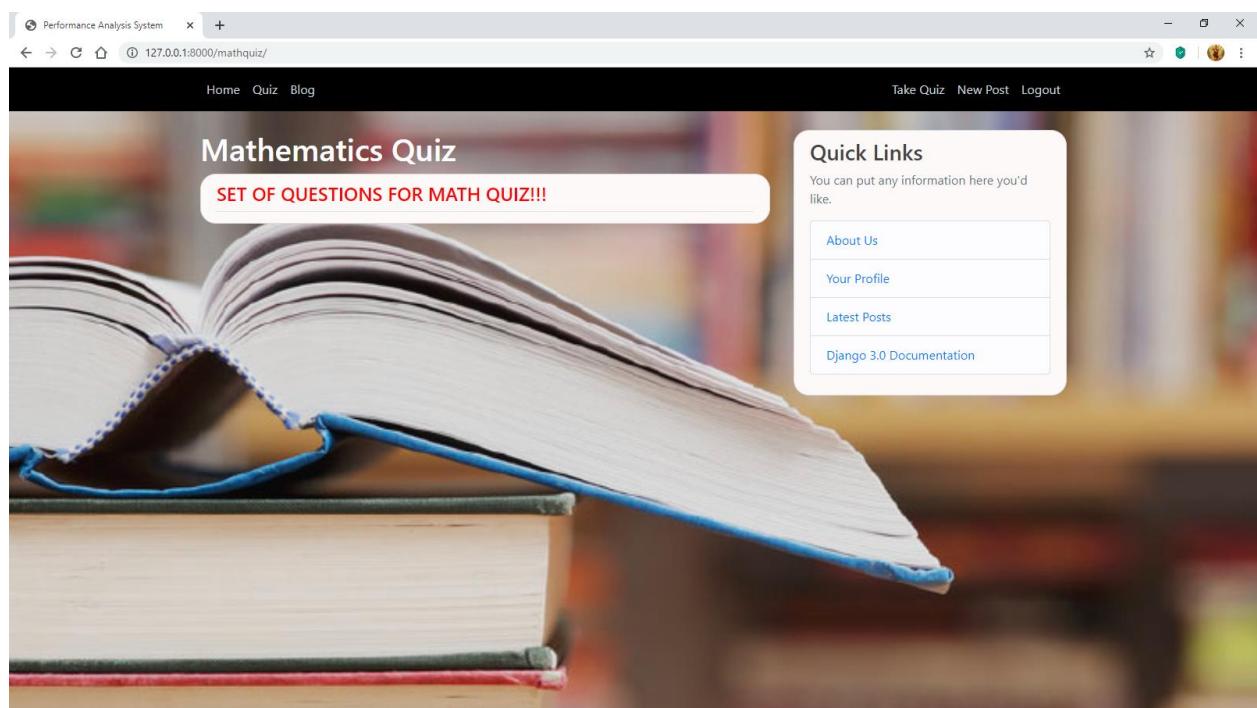
Quiz Page: - (After logging in, notice the navigation bar changes)

The screenshot shows the same web browser window after logging in. The navigation bar now includes 'Take Quiz', 'New Post', and 'Logout' links. The rest of the page content remains the same, including the 'Quiz' header, the book image, the two quiz cards, and the 'Quick Links' sidebar.

Take Quiz Page: -



Quiz Session Page: - (This part is not yet developed as we were combining the “Quiz-app” with “Blog-app”)

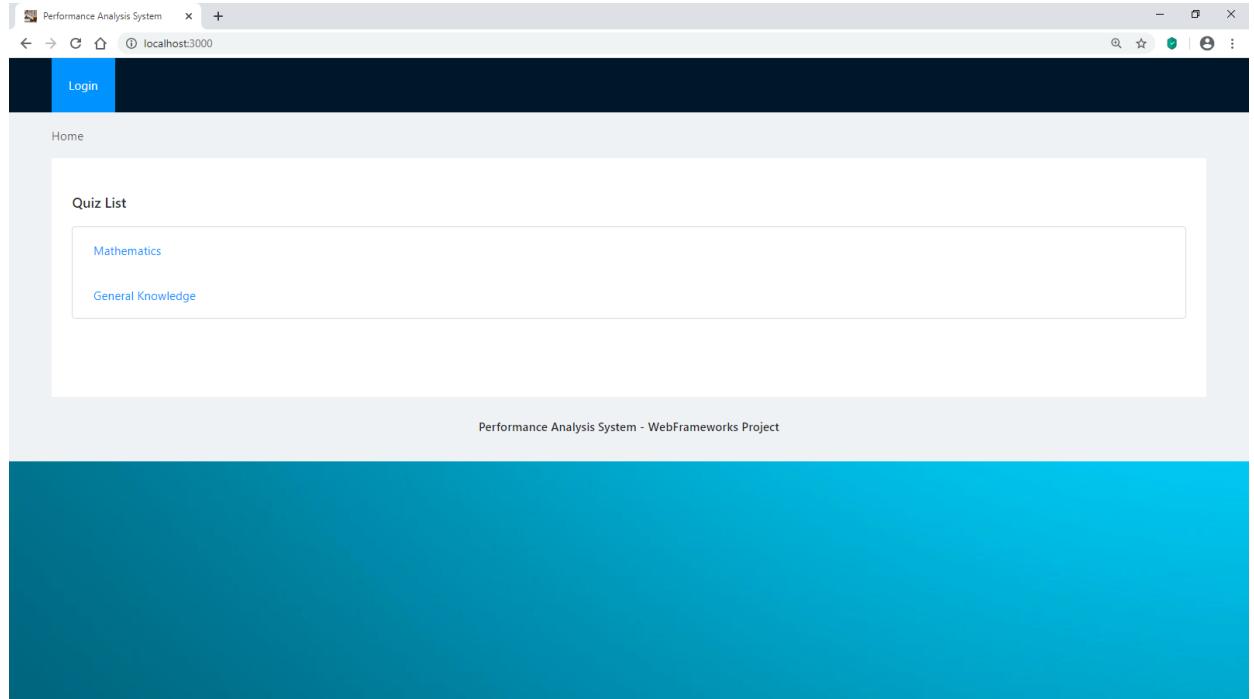


IMPORTANT POINT TO NOTE: -

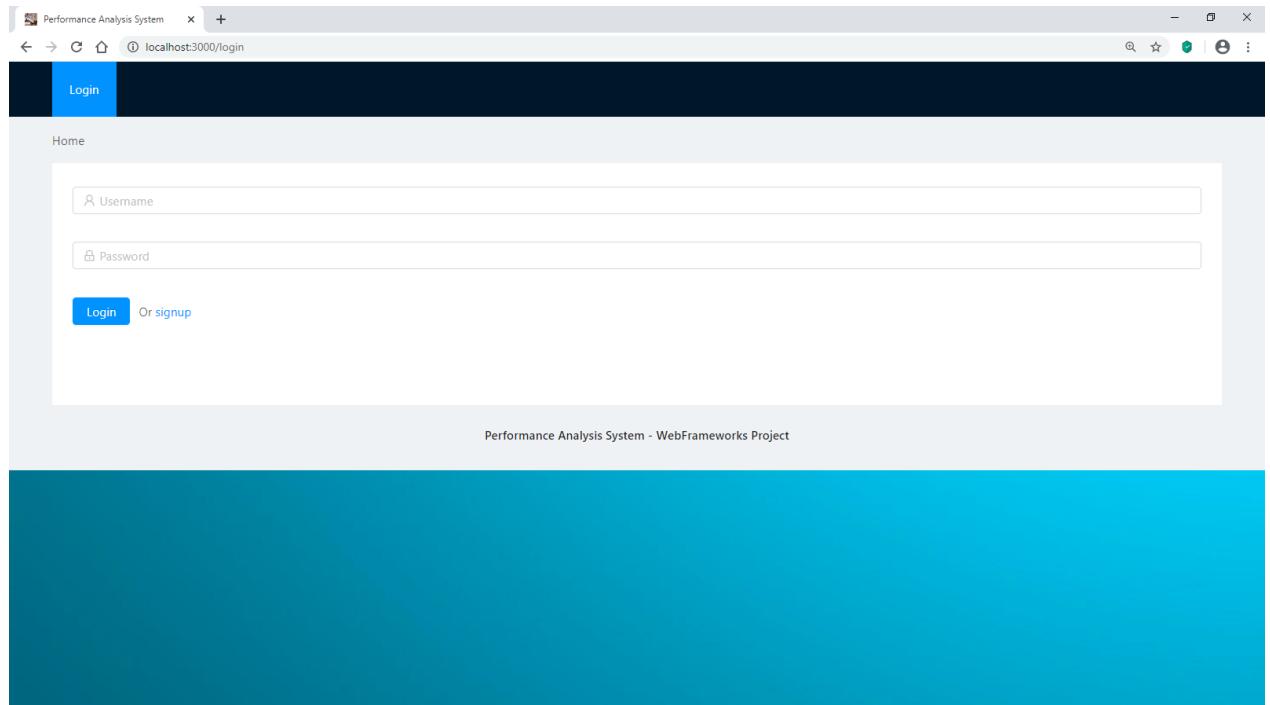
The quiz part was supposed to be combined with the blog part shown above. This could not happen due to the lack of time and complexity of both the sub-projects. Explained thoroughly in “9. Updated Schedule” .

II Phase 2: (React Js, Django and Django-Rest Framework)

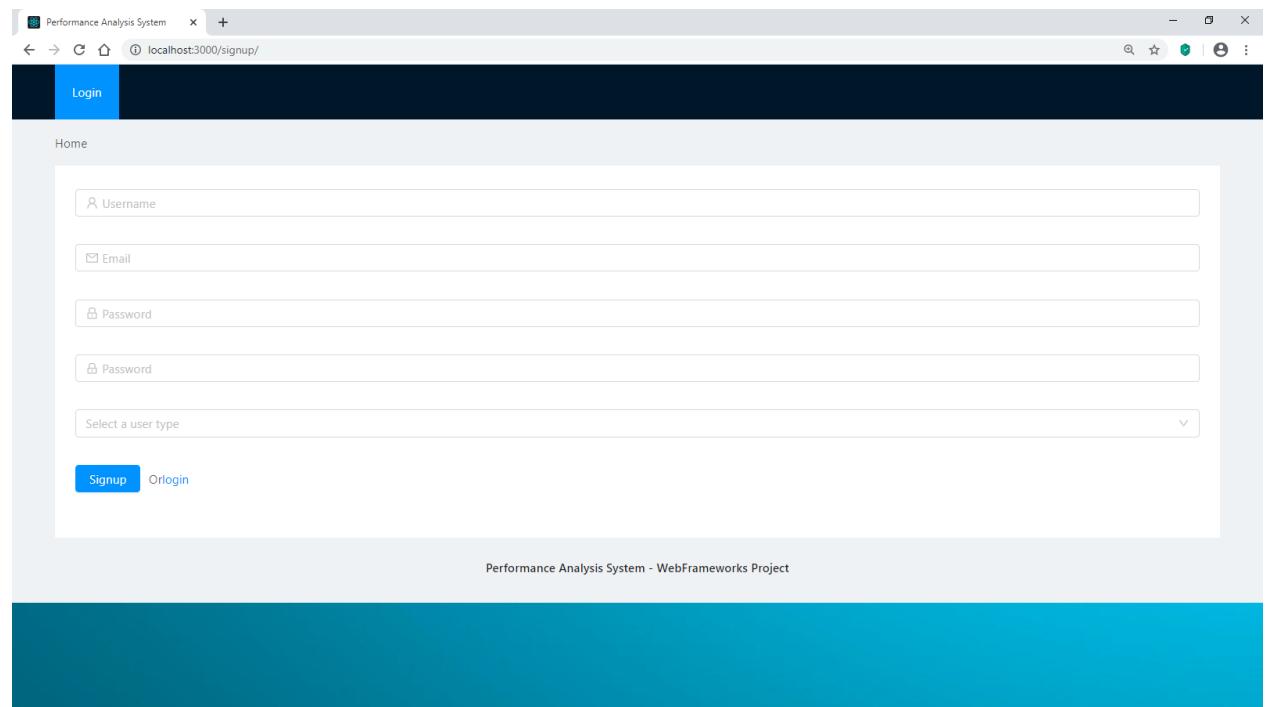
Home Page: -



Login Page: -

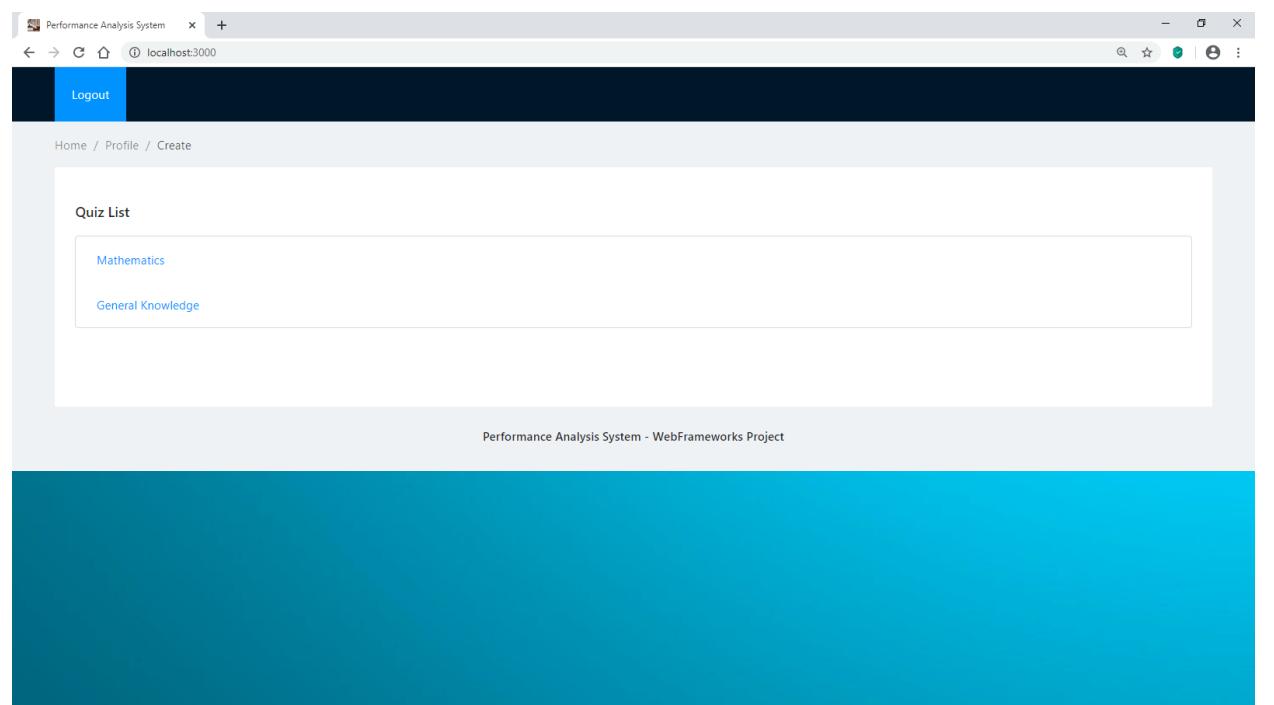


Registration Page: -



A screenshot of a web browser window titled "Performance Analysis System". The URL in the address bar is "localhost:3000/signup/". The page has a dark blue header with a "Login" button. Below the header, the word "Home" is displayed. The main content area contains five input fields: "Username" (with a user icon), "Email" (with an envelope icon), "Password" (with a lock icon), and another "Password" field. Below these is a dropdown menu labeled "Select a user type". At the bottom of the form are two buttons: "Signup" (blue) and "Orlogin" (light blue). The footer of the page reads "Performance Analysis System - WebFrameworks Project".

Home Page After Logging in: - (If user is Faculty/Teacher)



A screenshot of a web browser window titled "Performance Analysis System". The URL in the address bar is "localhost:3000". The page has a dark blue header with a "Logout" button. Below the header, the navigation path "Home / Profile / Create" is shown. The main content area displays a "Quiz List" with two items: "Mathematics" and "General Knowledge". The footer of the page reads "Performance Analysis System - WebFrameworks Project".

Creating test Page: - (Only if user is teacher)

Performance Analysis System

localhost:3000/create

Logout

Home / Profile / Create

Create an assignment

* Title:

Add a title

* Question:

Add a question

* Answer:

What is the answer?

+ Add an answer choice

+ Add question

Submit

Performance Analysis System - WebFrameworks Project

Home Page After Logging in: - (If user is Student)

Performance Analysis System

localhost:3000

Logout

Home / Profile

Quiz List

Mathematics

General Knowledge

Performance Analysis System - WebFrameworks Project

Attempting Quiz: - (User is Student)

The screenshot shows a web browser window titled "Performance Analysis System" with the URL "localhost:3000/assignments/2". The page has a dark blue header with a "Logout" button. Below the header, the URL "localhost:3000/assignments/2" is visible. The main content area displays a quiz titled "General Knowledge". A progress bar at the top indicates the user is on question 2 of 5. The question is "2. when is India's Republic day?". Four options are listed: "26th August", "26th January", "15th August", and "4th July". At the bottom of the quiz section are "Next" and "Previous" buttons. The footer of the page reads "Performance Analysis System - WebFrameworks Project".

Results Page: - (Only after attempting the Quiz)

The screenshot shows a web browser window titled "Performance Analysis System" with the URL "localhost:3000/profile/3". The page has a dark blue header with a "Logout" button. Below the header, the URL "localhost:3000/profile/3" is visible. The main content area displays a message "Hi student1" above two circular progress indicators. The first indicator shows "50%" and the second shows "66.666666%". The footer of the page reads "Performance Analysis System - WebFrameworks Project".

Conclusion and Future Scope:

1. Conclusion: -

- Development of a single web application can be done using Django, which is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. It takes care of much of the hassle of Web development, so we can focus on writing your app without needing to reinvent the wheel. It's free and open source.
- We can develop single page application with the combined implementation of Django, React Js, and the Django Rest Framework.
 - Here Django (backend support) is used to create Models and Views.
 - The frontend support by React Js, where we code Js files which produce the data we want.
 - Django Rest Framework is used to connect the actions in the web-app happening by the click and entries from the keyboard with the database maintained by Django and visualized with help of React Js.
- Using the technologies mentioned above it also needs adequate for developing a single page web application.

2. Future Scope: -

- We plan to combine both the sub-projects Quiz-app and Blog-app and provide a fully functional web-app with quiz and blog features which can be used by educational institutions on a large scale.
- For the above to take place we could also deploy the web application using hosting services provide by,
 - Netlify
 - Heroku, etc.
- We also would like to have restrictions on the topics which will be posted in the blog sections to topics related to academics, to topics related to professional careers and topics related for a healthy and active student life.

Appendices:

1. Definitions, Acronyms, Abbreviations:

Sl.No	Definition of	Description
1.	StarUML (Open source UML Tool)	StarUML is an open source software modeling tool that supports the UML (Unified Modeling Language) framework for system and software modeling. It is based on UML version 1.4, provides eleven different types of diagram and it accepts UML 2.0 notation.  The Open Source UML/MDA Platform

Bibliography/References:

1. References:

SL.NO	Reference of	Description
1.	Django 3.0 Documentation	https://docs.djangoproject.com/en/3.0/
2.	React Js Documentation	https://reactjs.org/docs/getting-started.html
3.	Django REST framework documentation	https://www.django-rest-framework.org/
4.	Book 1	Django for APIs: Build web APIs with Python & Django (3.0) – by William S. Vincent
5.	Book 2	Learning React: A Hands-On Guide to Building Web Applications using React and Redux (2nd Edition) 2nd Edition – by Kirupa Chinnathambi