VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018, Karnataka

INTERNSHIP (18CSI85) REPORT

ON

"MCQ QUIZ WEB APPLICATION DEVELOPED USING DJANGO"

For the requirement of 8th semester B.E in Computer Science and Engineering

Submitted By

Pushparani M (1KT20CS060)

Internship Carried out at

Edunet Foundation

Under the Guidance of

Internal Guide

Lokesh H D
Assistant Professor
Dept. of CS&E, SKIT, Bangalore

External Guide

Helvin M Geever
Master Trainer
Edunet Foundation

Department of Computer Science and Engineering
Sri Krishna Institute of Technology
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Bengaluru-560090

Dec 2023 -Jan 2024

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post

Bengaluru-560090.

Department of Computer Science and Engineering

CERTIFICATE

This is to certify that the Internship titled "**MCQ Quiz Web Application Developed Using Django**" carried out by **Pushparani M (1KT20CS060)**, a bonafide student of Sri Krishna Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Computer Science** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (18CSI85).

Signature of Guide **Signature of HOD** **Signature of Principal**

External Examination

Name of the Examiners Signature with Date

1._____

2._____

LETTER OF UNDERTAKING

Date: 22nd December 2023

Dear Mr./Ms. Pushparani M
Student ID: STU6565de5ce11e81701174876
Internship ID: INTERNSHIP_170003939765548ae545859

We extend our warmest congratulations on your selection for an internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at nocost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from 18th December 2023 to 31st January 2024. Throughout this period, you will have the opportunity to work independentlyon a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 1	Orientation of Internship, Master session on Resume Building, Project allocation	⌐ Uploading Resumes on the LMS ⌐ portal ⌐ Active Participation in Master Sessions Commence Project Related Tasks
Week 2	Master session on Model Deployment: Bridging Full Stack, Python, and Power BI, Mentorship sessions	⌐ Complete Weekly Milestone ⌐ Self-Paced learning ⌐ Preparation of Project PPT

Week 3	Master session on Design Thinking in Real World Applications, Mentorship sessions	⌐ Project related tasks ⌐ Self-paced learning ⌐ Complete the Weekly Milestone and feedback form
Week 4	Master session on Managing codebase with Git Hub, Mentorship sessions	⌐ Complete Weekly Milestone ⌐ Self-Paced learning ⌐ Project and PPT submission
Week 5	Master session on DevOps: Code to Production, Mock project presentations	⌐ Presentation of Project in front of ⌐ Mentors Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	Final Presentation of Project before Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

Stipend:

There will be NO stipend for this internship.
We wish you a great learning experience during the internship. Thank you!

Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation

COMPANY CERTIFICATE

EY Building a better working world

edunet foundation

CERTIFICATE

OF APPRECIATION

INTERNSHIP_170003939765548ae545859

PROUDLY PRESENTED TO

PUSHPARANI M

STU6565de5ce11e81701174876

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from **18th December 2023 to 31st January 2024** on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

DECLARATION

I **Pushparani M** student of the 8th semester, B.E, Department of the Computer Science and Engineering, Sri Krishna Institute of Technology, Bangalore, USN **1KT20CS060**, states that I have completed internship from "**EDUNET Foundation**" . The entitled project "**MCQ Quiz Web Application Developed Using Django**" is a bonafide work done during the course of internship, under supervision of **Mr. Helvin M Geever** , EDUNET Foundation. I have done the work assigned to me during the internship period and all the contents about work assigned are prepared and presented by me.

The 8th semester B.E internship has been done by me under the supervision of Dr. Deepak S Sakkari, Internal guide, Professor and HOD Computer Science and Engineering Department, Sri Krishna Institute of Technology, Bangalore and External Guide Mr. Helvin M Geever in completion of Internship for Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-24.

Pushparani M(1KT20CS060)

EXECUTIVE SUMMARY

Edunet Foundation is a social enterprise which was founded in 2015 and focuses on bridging the academia-industry divide, enhancing student employability, promoting innovationand creating an entrepreneurial ecosystem in India.

Web development involves creating and maintaining websites and web applications. It encompasses a range of activities, including web design, front-end and back-end development, database management, and website deployment.

In web design, designers create the visual elements of a website, such as its layout, color scheme, and typography. Front-end development involves writing code in HTML, CSS, and JavaScript to create interactive and responsive user interfaces. Back-end development involves building the server-side components of a website or web application, such as databases and application servers.

Overall, web development is a complex and multidisciplinary field that requires a rangeof technical and creative skills. The field is constantly evolving as new technologies and best practice merge, and it offers many opportunities for professionals who are interested in building websites and web applications.

ACKNOWLEDGEMENT

It gives me an immense pleasure and a great sense of deepest gratitude in expressing my heart felt thanks to all the concerned people without whom the successful completion of this Internship would not have been possible.

I would like to profoundly thank the **Management of Sri Krishna Institute of Technology**, for providing such a healthy environment for the successful completion of my Internship.

I would like to express my sincere thanks to **Dr. Mahesha K, Principal of Sri Krishna Institute of Technology** for his encouragement that motivated me for the successful completion of this Internship.

I wish to express my gratitude to **Dr.Deepak S Sakkari, Professor and HOD, Department of Computer Science and Engineering,** Sri Krishna Institute of Technology, Bengaluru, for his valuable suggestions and support.

It gives me great pleasure in placing a record of deep sense of gratitude to my guide **Ms. Sowmya C.V, Assistant Professor, Department of Computer Science & Engineering** for his expert guidance, initiative and encouragement that led me through my Internship.

I would like to express my gratitude to my external guide **Mr. Helvin M Geever** for her constant support, expert guidance and for providing a good learning environment.

I would like to thank all the teaching and non-teaching staff members in our **Department of Computer Science and Engineering,** Sri Krishna Institute of Technology, Bengaluru, for their support.

Finally, I would like to thank all my friends and family members for their constant support, guidance and encouragement.

Pushparani M(1KT20CS060)

TABLE OF CONTENT

LIST OF FIGURES

CHAPTER 1

ABOUT THE COMPANY

1.1 COMPANY OVERVIEW

Edunet Foundation is a social enterprise which was founded in 2015 and focuses on bridging the academia-industry divide, enhancing student employability, promoting innovation and creating an entrepreneurial ecosystem in India.

Working primarily with emerging technologies, and striving to leverage them to augment, upgrade the knowledge ecosystem and equip the beneficiaries to become contributors themselves, we work extensively to build a workforce with an IR 4.0 enabled career.

The organization has enjoyed Special Consultative Status with the Economic and Social Council (ECOSOC) of the United Nations since 2020. With a national footprint, EF's programs, online and instructor-led, benefit tens of thousands of learners every year.

Edunet Foundation is a renowned non-governmental organization (NGO) dedicated to advancing education, employability, and entrepreneurship. Since its establishment, the foundation has made significant strides in promoting these key areas, with a focus on creating educational networks that benefit learners nationwide. With a strong emphasis on online and instructor-led programs, Edunet Foundation has been able to reach tens of thousands of learners annually, making a tangible impact on their lives and career prospects.

One of the distinguishing features of EDUNET Foundation is its Special Consultative Status with the Economic and Social Council (ECOSOC) of the United Nations, a recognition that highlights the organization's commitment to global development goals. This status allows Edunet Foundation to participate in ECOSOC's work, providing valuable insights and contributions to international initiatives related to education and entrepreneurship.

FIGURE 1.1 EDUNET Foundation Logo

1.1 VISION

"An innovative path for future good of the youth".

1.2 MISSION

- To increase access to education by providing online courses and resources that canbe accessed by anyone, anywhere in the world.
- To improve learning outcomes by using technology to personalize learning, provide real-time feedback, and track student progress.
- To partner with educational institutions to develop customized solutions and to collaborateon research and development.
- To support professional development by offering courses and resources for educators, administrators, and other professionals in the education industry.
- Providing ocean of opportunities by sharing the trending technology to the seekingpersonnel.

1.3 SERVICES PROVIDED BY EDUNET FOUNDATION

As an NGO focused on education and entrepreneurship, Edunet Foundation likely offers a range of services and programs aimed at promoting these areas. Some potential services they might offer include:

- **Educational Programs:** They may offer online or instructor-led educational programs designed to enhance skills and knowledge in various fields, potentially including vocational training, technical skills development, and entrepreneurship education.
- **Employability Training:** They might provide training programs focused on enhancing employability skills such as communication, leadership, problem-solving, and teamwork.
- **Entrepreneurship Support:** They may offer support and resources for aspiring entrepreneurs, such as business planning workshops, mentorship programs, and access to funding opportunities.
- **Networking Opportunities:** Edunet Foundation might facilitate networking opportunities for learners and entrepreneurs to connect with industry professionals, potential employers, and other stakeholders.
- **Advocacy and Awareness:** They may engage in advocacy efforts to promote the importance of education, entrepreneurship, and employability, as well as raise awareness about relevant issues.

CHAPTER 2

ABOUT THE DOMAIN

2.1 INTRODUCTION

Web development is the process of creating websites, web applications, and other web-based services using a variety of programming languages, frameworks, and tools. It involves both the design and development of a website or web application, and encompasses a range of activities, including client-side scripting, server-side scripting, database management, and content management.

Web development can be broken down into two main categories: front-end development and back-end development. Front-end development focuses on the user interface and the design of the website or application, while back-end development focuses on the server-side functionality and the database management.

Some of the key technologies used in web development include HTML, CSS, JavaScript, Django, and Python among others. These technologies are used to create websites that are interactive, user-friendly, and easy to navigate.

As the internet continues to grow and evolve, web development has become an increasingly important field.

Businesses and organizations of all sizes rely on websites and web applications to reach customers, communicate with employees, and manage their operations. As a result, web developers are in high demand, and the field is expected to continue to grow in the coming years.

2.2 WEB DEVELOPMENT METHODS

- **Planning and Requirements Gathering:** This involves understanding the client's goals and needs, identifying the target audience, and defining the requirements and scope of the project.
- **Design:** In this stage, the web designer creates wireframes, mockups, and prototypes to visually represent the structure and layout of the website or application.
- **Development:** This is the stage where the actual coding and development of the website or application takes place. Developers typically use programming languages such as HTML, CSS, JavaScript, and server-side scripting languages like PHP or Node.js.
- **Testing:** Once the development is completed, the website or application is tested to ensure that it is functioning correctly, has no bugs or errors, and is compatible with various browsers and devices.

2.3 TYPES OF WEB DEVELOPERS

- **Front-End Developers:** Front-end developers are responsible for the design and development of the user interface of a website or application. They typically work withHTML, CSS, and JavaScript to create responsive and user-friendly web pages.
- **Back-End Developers:** Back-end developers focus on the server-side of web development, managing data and processing requests from the client-side. They typicallywork with languages like PHP, Ruby, Python, and Node.js to build web applications.
- **Full-Stack Developers:** Full-stack developers are proficient in both front-end and back- end development, allowing them to develop and maintain entire web applications. They have a broad range of skills and expertise, making them versatile and valuable members ofa development team.
- **Mobile Developers:** Mobile developers specialize in developing mobile applications forAndroid and iOS devices. They work with programming languages such as Java and Swift to create applications that are optimized for mobile devices.
- **E-commerce Developers:** E-commerce developers specialize in building online stores and marketplaces. They work with platforms like Magento, Shopify, and WooCommerceto create customized e-commerce solutions.
- **CMS Developers:** CMS developers specialize in building and customizing content management systems (CMS), such as WordPress, Drupal, and Joomla. They create customplugins and themes to enhance the functionality and design of the CMS.
- **Game Developers:** Game developers specialize in building and designing web-based games using programming languages such as HTML5, CSS, and JavaScript. They use gaming frameworks like Phaser and Unity to create engaging and interactive games.

CHAPTER 3

TECHNICAL BACKGROUND

3.1 FRAMEWORK

There are several technologies and frameworks that are commonly used for web development,some of which include:

- **HTML/CSS:** HTML is the markup language used to create the structure and content of webpages, while CSS is used to style and layout the content.
- **JavaScript**: JavaScript is a programming language that enables dynamic and interactive behavior on web pages. You can use JavaScript to add client-side interactivity, handle user input, manipulate the DOM (Document Object Model), make AJAX requests, and more.
- **Django:** Django is a web application framework that is written in the Pythonprogramming language. It is often used for building complex web applications.
- **Python**: Python is a versatile programming language that is commonly used for web development, data analysis, artificial intelligence, and more. With Python, you'll write server-side code to handle business logic, process data, interact with databases, and serve dynamic content to users.

These are just a few examples of the technologies and frameworks that are commonly used forweb development. Depending on the specific project requirements and goals, other tools and technologies may be used as well.

COMMON TECHNICAL SKILLS REQUIRED FOR WEB DEVELOPMENT ARE:

3.1.1 HTML

- HTML, or Hypertext Markup Language, is the standard language used for creating webpages and web applications. It provides a way for developers to structure and format content on the web using tags and attributes. HTML is a markup language, meaning it consists of a series of tags that define the structure and appearance of content.

- HTML tags are used to create different types of content, including headings, paragraphs, images, links, and lists. For example, the <h1> tag is used to create a heading on a web page, while the <p> tag is used to create a paragraph of text. The <img> tag is used to embed an image on a web page, while the <a> tag is used to create a hyperlink to another web page or resource.

- HTML also provides the ability to create forms that allow users to input data and interact with web applications. Forms can be created using HTML tags such as <form>,<input>, and <button>. Forms can be used for a variety of purposes, including user registration, search queries, and e-commerce transactions.
- In addition to its core features, HTML has evolved over the years to include new elements and features that enhance the user experience. For example, HTML5 introduced new tags such as
- <video>, <audio>, and <canvas> that allow developers to create multimedia content on the web.HTML5 also includes new APIs and features such as geolocation, offline storage, anddrag-and-drop functionality.

3.1.2 CSS

- CSS, or Cascading Style Sheets, is a language used for describing the presentation and styling of HTML documents. CSS enables developers to separate the presentation of webcontent formats structure and content, making it easier to create consistent, visually appealing web pages.
- CSS uses a set of rules, or styles, to describe the appearance of HTML elements. These rules are applied to specific elements or groups of elements on a web page. Styles can bespecified using a variety of selectors, which identify the elements to which the styles should be applied.
- CSS also provides the ability to define styles for different devices and media types, allowing developers to create responsive web designs that adapt to different screen sizes and devices. This is done using media queries, which allow developers to specify differentstyles based on the device's screen size, orientation, and other factors.
- In addition, CSS is constantly evolving to incorporate new features and capabilities. CSS3 introduced new properties and selectors for creating complex layouts, typography, and animations. CSS Grid and Flexbox are two examples of CSS3 features that enabledevelopers to create advanced, responsive layouts and positioning effects.
- Overall, CSS is a crucial technology for web development that allows developers to create visually appealing, responsive, and engaging web content. It provides a powerful Overall, CSS is a crucial technology for web development that allows developers to create visuallyappealing, responsive, and engaging web content.
- It provides a powerful way to separate the presentation of web content from its structure and content, making it easier to create complex and dynamic web pages. With its continued evolution and development, CSS will remain a critical technology for web development for many years to come.

3.1.3 JAVASCRIPT

- JavaScript is a popular and powerful programming language used primarily for developing dynamic, interactive, and responsive web pages and web applications. It is a client-side scripting language, meaning that it runs on the user's web browser and can modify the contents and behavior of web pages in real-time, without requiring a round-trip to the server.

- JavaScript is a popular and powerful programming language used primarily for developing dynamic, interactive, and responsive web pages and web applications. It is a client-side language, meaning that it runs on the user's web browser and can modify the contents and behavior of web pages in real-time, without requiring a round-trip to the server.

- One of the key features of JavaScript is its ability to manipulate the Document Object Model (DOM), which is the programming interface for HTML and XML documents. JavaScript can be used to modify the content, structure, and style of web pages in response to user interactions and other events, allowing developers to create dynamic and interactive user interfaces.

- JavaScript also includes a variety of built-in data types, such as strings, numbers, and arrays,as well as a wide range of built-in functions and methods for working with data. It also includes support for asynchronous programming through the use of callbacks, promises, and async/await, allowing developers to handle complex and time-consuming tasks without blocking the user interface.

- In addition, JavaScript is often used in conjunction with a range of libraries and frameworks, such as jQuery, React, Angular, and Vue, to simplify and streamline web development. These libraries and frameworks provide pre-built components and tools for building complex web applications, and they often incorporate best practices and design patterns for web development.

3.1.4 PYTHON

- Python is a high-level, interpreted programming language known for its simplicity, readability, and versatility.

- Python is a general-purpose language, meaning it can be used for a wide range of applications, including web development, data analysis, scientific computing, automation, machine learning, artificial intelligence, and more.

- Python code is executed line by line by the Python interpreter, which translates the code into machine-readable bytecode. This makes Python suitable for rapid development and prototyping.

- Python emphasizes readability and simplicity with a clean and straightforward syntax. It uses indentation to define code blocks (instead of curly braces or keywords), making it easy to understand and maintain.

- Python is dynamically typed, meaning you don't need to declare the data type of variables explicitly. Variable types are determined at runtime based on the assigned values.

- Python comes with a comprehensive standard library that provides a wide range of modules and functions for various tasks, such as file I/O, networking, data processing, regular expressions, and more. This eliminates the need for external dependencies in many cases.

- In addition to the standard library, Python has a vast ecosystem of third-party packages and frameworks available through the Python Package Index (PyPI). These packages extend Python's capabilities and cover almost every imaginable use case, from web development frameworks like Django and Flask to data science libraries like NumPy, pandas, and scikit-learn.

- Python supports object-oriented programming concepts such as classes, inheritance, encapsulation, and polymorphism. This allows you to create reusable and modular code by organizing functionality into objects and classes.

- Python has a large and active community of developers who contribute to its growth and evolution. The Python community is known for its inclusivity, supportiveness, and dedication to open-source principles. You can find resources, tutorials, forums, and conferences to help you learn and grow as a Python developer.

- Python is cross-platform, meaning it runs on various operating systems, including Windows, macOS, and Linux. This allows you to write code once and run it on different platforms without modification.

3.1.5 DJANGO

- Django is a high-level Python web framework that facilitates rapid development and clean, pragmatic design. It follows the "batteries-included" philosophy, providing developers with a set of tools and libraries to build web applications quickly and efficiently.

- Django follows the Model-Template-View (MTV) architecture pattern, which is similar to the Model-View-Controller (MVC) pattern. In Django's MTV architecture, the "Model" represents the data structure, the "Template" handles the presentation layer, and the "View" handles the business logic and user interactions.

- Django follows the "Don't Repeat Yourself" (DRY) principle, encouraging developers to write clean, reusable code. It provides features such as class-based views, template inheritance, and reusable components to minimize code duplication and maximize code maintainability.
- One of Django's standout features is its built-in admin interface, which allows developers to create, read, update, and delete (CRUD) database records without writing any custom code. The admin interface is highly customizable and can be extended to fit the needs of your application.
- Django is a versatile framework that can be used to build a wide range of web applications, including content management systems (CMS), e-commerce platforms, social networks, APIs, and more. It scales well from small projects to large, high-traffic websites.
- Django has a large and active community of developers who contribute to its development, documentation, and ecosystem. There are numerous third-party packages and extensions available for Django, covering various use cases and extending its functionality.
- Django has comprehensive and well-maintained documentation, providing detailed guides, tutorials, and reference materials for developers. The documentation makes it easy to learn Django and find solutions to common problems.

CHAPTER 4

PROJECT SETUP

4.1 SETUP OF DJANGO AND WEBPAGE DESIGNING

Follow the below steps to Setup and use Django:

4.1.1 STEP 1: Django Get Started

```
python --version
```

If Python is installed, you will get a result with the version number, like this

```
Python 3.9.2
```

If you find that you do not have Python installed on your computer, then you can download it for free from the following website: https://www.python.org/

To install Django, you must use a package manager like PIP, which is included in Python from version 3.4.

To check if your system has PIP installed, run this command in the command prompt:

```
pip --version
```

If PIP is installed, you will get a result with the version number.

For me, on a windows machine, the result looks like this:

```
pip 20.2.3 from c:\python39\lib\site-packages\pip (python 3.9)
```

If you do not have PIP installed, you can download and install it from this page: https://pypi.org/project/pip/

4.1.2 STEP 2: Create Virtual Environment

It is suggested to have a dedicated virtual environment for each Django project, and one way to manage a virtual environment is venv, which is included in Python.

The name of the virtual environment is your choice, in this tutorial we will call it myworld.

Type the following in the command prompt, remember to navigate to where you want to create your project:

Windows:

```
py -m venv myworld
```

Unix/MacOS:

```
python -m venv myworld
```

This will set up a virtual environment, and create a folder named "myworld" with subfolders and files, like this:

```
myworld
  Include
  Lib
  Scripts
  pyvenv.cfg
```

Then you have to activate the environment, by typing this command:

Windows:

```
myworld\Scripts\activate.bat
```

Unix/MacOS:

```
source myworld/bin/activate
```

Once the environment is activated, you will see this result in the command prompt:

Windows:

```
(myworld) C:\Users\Your Name>
```

Unix/MacOS:

```
(myworld) ... $
```

4.1.3 **STEP 3:** Install Django

Now, that we have created a virtual environment, we are ready to install Django.

Django is installed using pip, with this command:

Windows:

```
(myworld) C:\Users\Your Name>py -m pip install Django
```

Unix/MacOS:

```
(myworld) ... $ python -m pip install Django
```

Which will give a result that looks like this (at least on my Windows machine):

```
Collecting Django
  Downloading Django-4.0.3-py3-none-any.whl (8.0 MB)
     |████████████████████████████████| 8.0 MB 2.2 MB/s
Collecting sqlparse>=0.2.2
  Using cached sqlparse-0.4.2-py3-none-any.whl (42 kB)
Collecting asgiref<4,>=3.4.1
  Downloading asgiref-3.5.0-py3-none-any.whl (22 kB)
Collecting tzdata; sys_platform == "win32"
  Downloading tzdata-2021.5-py2.py3-none-any.whl (339 kB)
     |████████████████████████████████| 339 kB 6.4 MB/s
Installing collected packages: sqlparse, asgiref, tzdata, Django
Successfully installed Django-4.0.3 asgiref-3.5.0 sqlparse-0.4.2 tzdata-2021.5
WARNING: You are using pip version 20.2.3; however, version 22.3 is available.
You should consider upgrading via the 'C:\Users\Your Name\myworld\Scripts\python.exe -
m pip install --upgrade pip' command.
```

That's it! Now you have installed Django in your new project, running in a virtual environment!

You can run this project on either one. There are some small differences, like when writing commands in the command prompt, Windows uses py as the first word in the command line, while Unix and MacOS use python:

Windows:

```
py --version
```

Unix/MacOS:

```
python --version
```

You can check if Django is installed by asking for its version number like this:

```
(myworld) C:\Users\Your Name>django-admin --version
```

If Django is installed, you will get a result with the version number:

```
4.1.2
```

4.1.4 **STEP 4:** Django create Project

Once you have come up with a suitable name for your Django project, like mine: my_tennis_club, navigate to where in the file system you want to store the code (in the virtual environment), I will navigate to the myworld folder, and run this command in the command prompt:

```
django-admin startproject my_tennis_club
```

Django creates a my_tennis_club folder on my computer, with this content:

```
my_tennis_club
    manage.py
    my_tennis_club/
        __init__.py
        asgi.py
        settings.py
        urls.py
        wsgi.py
```

These are all files and folders with a specific meaning, you will learn about some of them later in this tutorial, but for now, it is more important to know that this is the location of your project, and that you can start building applications in it.

4.1.5 **STEP 5**: Run the Django Project

Now that you have a Django project, you can run it, and see what it looks like in a browser.

Navigate to the /my_tennis_club folder and execute this command in the command prompt:

```
py manage.py runserver
```

Which will produce this result:

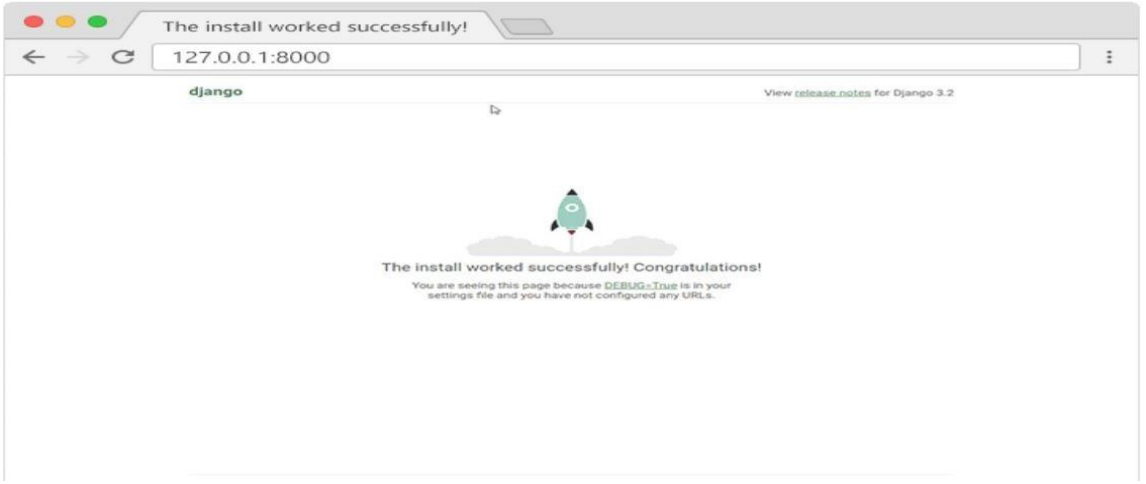
```
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply
the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
October 27, 2022 - 13:03:14
Django version 4.1.2, using settings 'my_tennis_club.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

Open a new browser window and type 127.0.0.1:8000 in the address bar.

The result:



4.2 DJANGO CREATE APP

4.2.1 **STEP 1**: I will name my app members.

Start by navigating to the selected location where you want to store the app, in my case the my_tennis_club folder, and run the command below.

If the server is still running, and you are not able to write commands, press [CTRL] [BREAK], or [CTRL] [C] to stop the server and you should be back in the virtual environment.

```
py manage.py startapp members
```

4.2.2 STEP 2: Django creates a folder named members in my project, with this content:

```
my_tennis_club
    manage.py
    my_tennis_club/
    members/
        migrations/
            __init__.py
        __init__.py
        admin.py
        apps.py
        models.py
        tests.py
        views.py
```

4.3 DJANGO VIEWS

Django views are Python functions that takes http requests and returns httpresponse, like HTML documents.

A web page that uses Django is full of views with different tasks and missions.Views are usually put in a file called views.py located on your app's folder.

There is a views.py in your members folder that looks like this:

my_tennis_club/members/views.py :

```
from django.shortcuts import render

# Create your views here.
```

Find it and open it, and replace the content with this:

my_tennis_club/members/views.py :

```
from django.shortcuts import render
from django.http import HttpResponse

def members(request):
    return HttpResponse("Hello world!")
```

4.4 DJANGO URL

Create a file named urls.py in the same folder as the views.py file, and type this code in it:

my_tennis_club/members/urls.py :

```
from django.urls import path
from . import views

urlpatterns = [
    path('members/', views.members, name='members'),
]
```

The urls.py file you just created is specific for the members application. We have to do some routing in the root directory my_tennis_club as well. This may seem complicated, but for now, just follow the instructions below.

There is a file called urls.py on the my_tennis_club folder, open that file and add the include module in the import statement, and also add a path() function in the urlpatterns[] list, with arguments that will route users that comes in via 127.0.0.1:8000/.

Then your file will look like this:

my_tennis_club/my_tennis_club/urls.py :

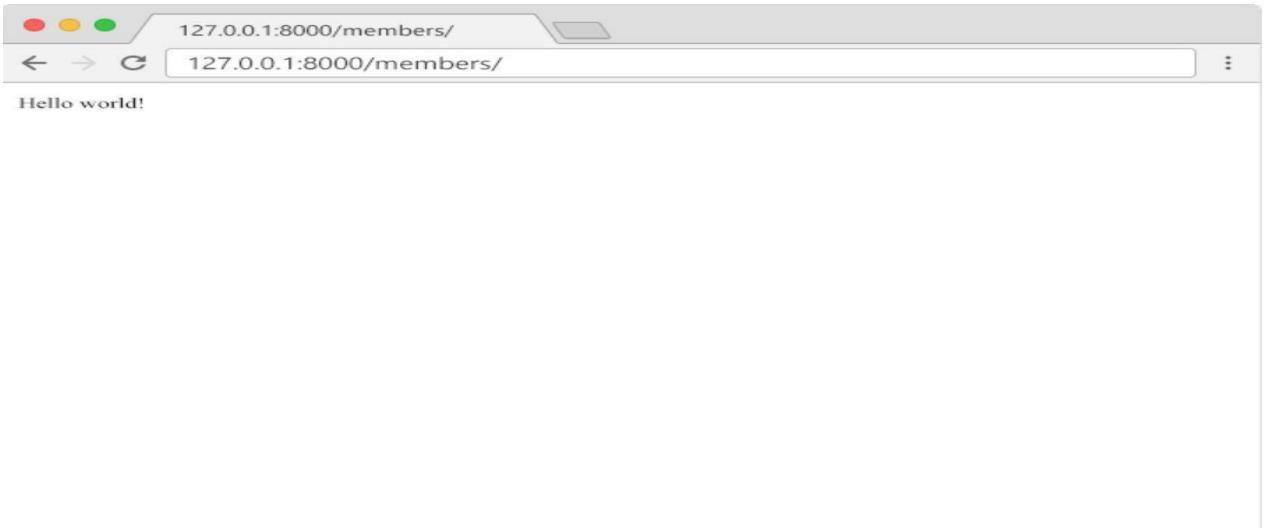
```
from django.contrib import admin
from django.urls import include, path

urlpatterns = [
    path('', include('members.urls')),
    path('admin/', admin.site.urls),
]
```

If the server is not running, navigate to the /my_tennis_club folder and execute this command in the command prompt:

```
py manage.py runserver
```

In the browser window, type 127.0.0.1:8000/members/ in the address bar.



4.5 DJANGO TEMPLATES

4.5.1 TEMPLATES

In the Django Intro page, we learned that the result should be in HTML, and it should be created in a template, so let's do that.

Create a templates folder inside the members folder, and create a HTML file named myfirst.html.

The file structure should be like this:

```
my_tennis_club
    manage.py
    my_tennis_club/
    members/
        templates/
            myfirst.html
```

Open the HTML file and insert the following:

my_tennis_club/members/templates/myfirst.html :

```
<!DOCTYPE html>
<html>
<body>

<h1>Hello World!</h1>
<p>Welcome to my first Django project!</p>

</body>
</html>
```

4.5.2 MODIFY THE VIEW

Open the views.py file and replace the members view with this:

my_tennis_club/members/views.py :

```
from django.http import HttpResponse
from django.template import loader

def members(request):
  template = loader.get_template('myfirst.html')
  return HttpResponse(template.render())
```

4.5.3 CHANGE SETTINGS

To be able to work with more complicated stuff than "Hello World!", We have to tell Django that a new app is created.

This is done in the settings.py file in the my_tennis_club folder.

Look up the INSTALLED_APPS[] list and add the members app like this:

my_tennis_club/my_tennis_club/settings.py :

```
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'members'
]
```

Then run this command:

```
py manage.py migrate
```

Which will produce this output:

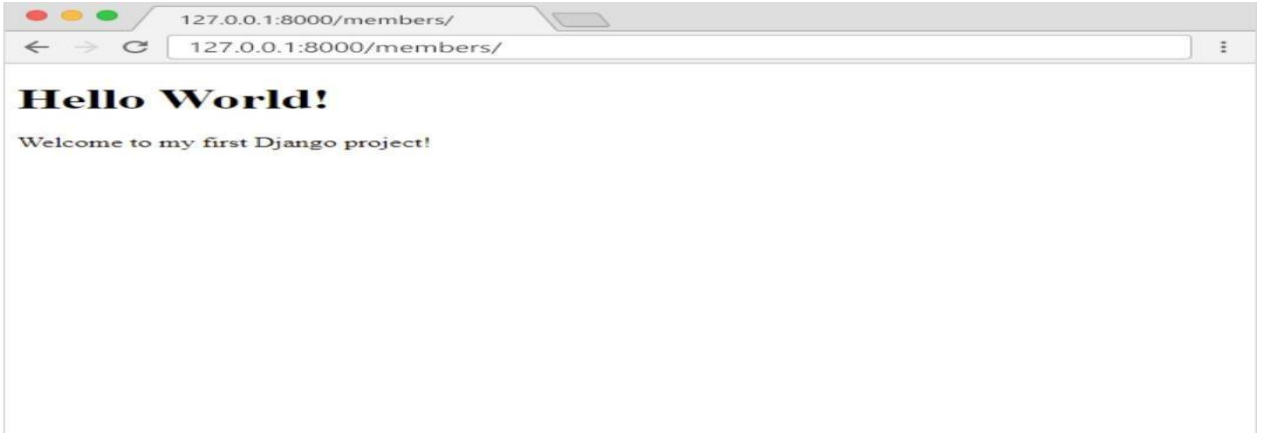
```
Operations to perform:
  Apply all migrations: admin, auth, contenttypes, sessions
Running migrations:
  Applying contenttypes.0001_initial... OK
  Applying auth.0001_initial... OK
  Applying admin.0001_initial... OK
  Applying admin.0002_logentry_remove_auto_add... OK
  Applying admin.0003_logentry_add_action_flag_choices... OK
  Applying contenttypes.0002_remove_content_type_name... OK
  Applying auth.0002_alter_permission_name_max_length... OK
  Applying auth.0003_alter_user_email_max_length... OK
  Applying auth.0004_alter_user_username_opts... OK
  Applying auth.0005_alter_user_last_login_null... OK
  Applying auth.0006_require_contenttypes_0002... OK
  Applying auth.0007_alter_validators_add_error_messages... OK
  Applying auth.0008_alter_user_username_max_length... OK
  Applying auth.0009_alter_user_last_name_max_length... OK
  Applying auth.0010_alter_group_name_max_length... OK
  Applying auth.0011_update_proxy_permissions... OK
  Applying auth.0012_alter_user_first_name_max_length... OK
  Applying sessions.0001_initial... OK
```

Start the server by navigating to the /my_tennis_club folder and execute this command:

```
py manage.py runserver
```

In the browser window, type 127.0.0.1:8000/members/ in the address bar.

The result should look like this:



4.6 DJANGO MODELS

4.6.1 CREATE TABLE (MODEL)

To create a model, navigate to the models.py file in the /members/ folder.

Open it, and add a Member table by creating a Member class, and describe the table fields in it:

my_tennis_club/members/models.py :

```
from django.db import models

class Member(models.Model):
  firstname = models.CharField(max_length=255)
  lastname = models.CharField(max_length=255)
```

The first field, first name, is a Text field, and will contain the first name of the members.

Thesecond field, last name, is also a Text field, with the member's last name.

Both first name and last name is set up to have a maximum of 255 characters.

4.6.2 MIGRATE

Now when we have described a Model in the models.py file, we must run a command to actually create the table in the database.

Navigate to the /my_tennis_club/ folder and run this command:

```
py manage.py makemigrations members
```

Which will result in this output:

```
Migrations for 'members':
  members\migrations\0001_initial.py
    - Create model Member

(myworld) C:\Users\Your Name\myworld\my_tennis_club>
```

Run the migrate command:

```
py manage.py migrate
```

Which will result in this output:

```
Operations to perform:
  Apply all migrations: admin, auth, contenttypes, members, sessions
Running migrations:
  Applying members.0001_initial... OK

(myworld) C:\Users\Your Name\myworld\my_tennis_club>
```

Now you have a Member table in you database!

4.6.3 VIEW SQL

As a side-note: you can view the SQL statement that were executed from the migration above. All you have to do is to run this command, with the migration number:

```
py manage.py sqlmigrate members 0001
```

Which will result in this output:

```
BEGIN;
--
-- Create model Member
--
CREATE TABLE "members_member" ("id" integer NOT NULL PRIMARY KEY AUTOINCREMENT,
"firstname" varchar(255) NOT NULL, "lastname" varchar(255) NOT NULL); COMMIT;
```

CHAPTER 5

IMPLEMENTATION

5.1 LIST OF PAGES

Here's a brief explanation of Page:

- **Homepage:** This page serves as the entry point for users. It typically displays a welcome message and a list of available quizzes. Users can click on a quiz title to navigate to the quiz detail page.
- **Quiz Detail Page:** This page displays details of a specific quiz. It includes the title of thequiz and a list of questions associated with it. Each question is displayed along with its options. Users can select an option for each question and submit their responses.
- **Quiz Result Page:** After submitting quiz responses, users are redirected to the quiz resultpage. This page shows the user's score and any feedback based on their responses. It mayalso display correct answers and explanations for questions that were answered incorrectly**.**
- **User Dashboard:** A dashboard page provides users with an overview of their quiz activity. It can display a list of completed quizzes, scores achieved, and any ongoing orupcoming quizzes.
- **Admin Interface:** An admin interface allows administrators to manage quizzes, questions, and user responses. Admins can create, edit, or delete quizzes and questions.They can also view and analyze user responses and generate reports.
- **Authentication Pages:** If your project includes user authentication, you'll need pages foruser registration, login, logout, and password reset. These pages allow users to create accounts, sign in, and manage their authentication credentials.
- **Static Pages:** You may also include static pages such as an "About Us" page, "Contact"page, or "FAQ" page to provide additional information about your Quiz Master project and help users navigate the platform.

5.2 WEBSITE SCREENSHOTS

FIGURE 5.2.1 Home Page

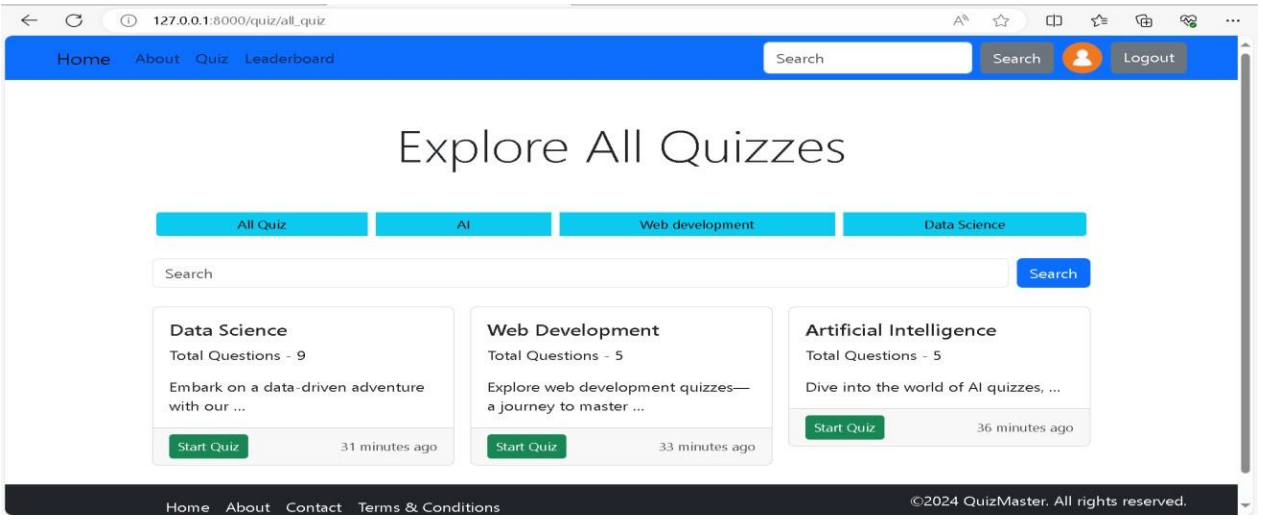


FIGURE 5.2.2 Quiz Page

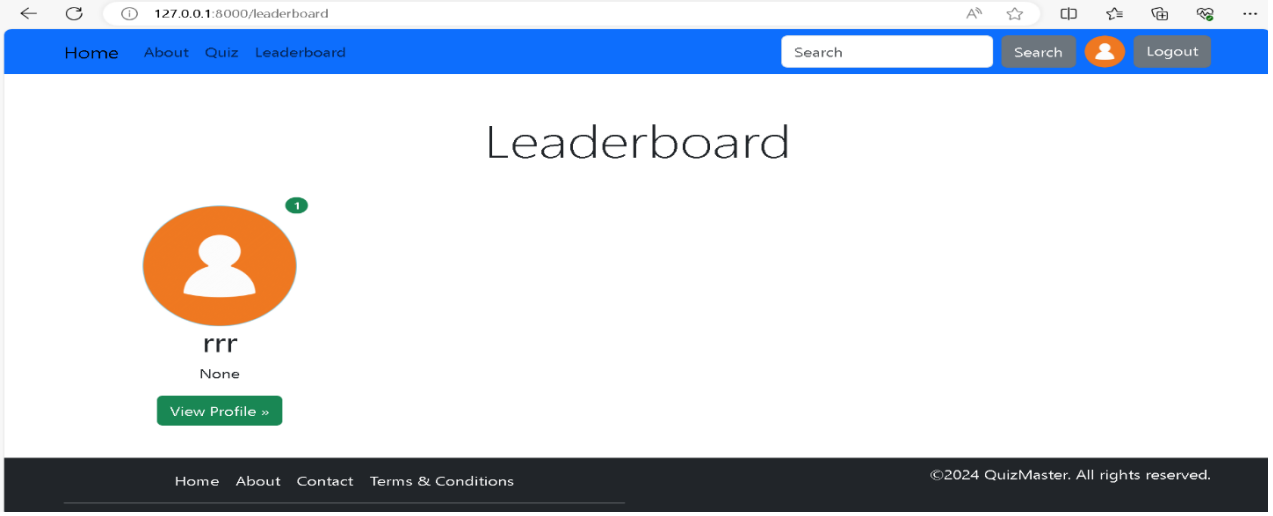


FIGURE 5.2.3 Leaderboard Page

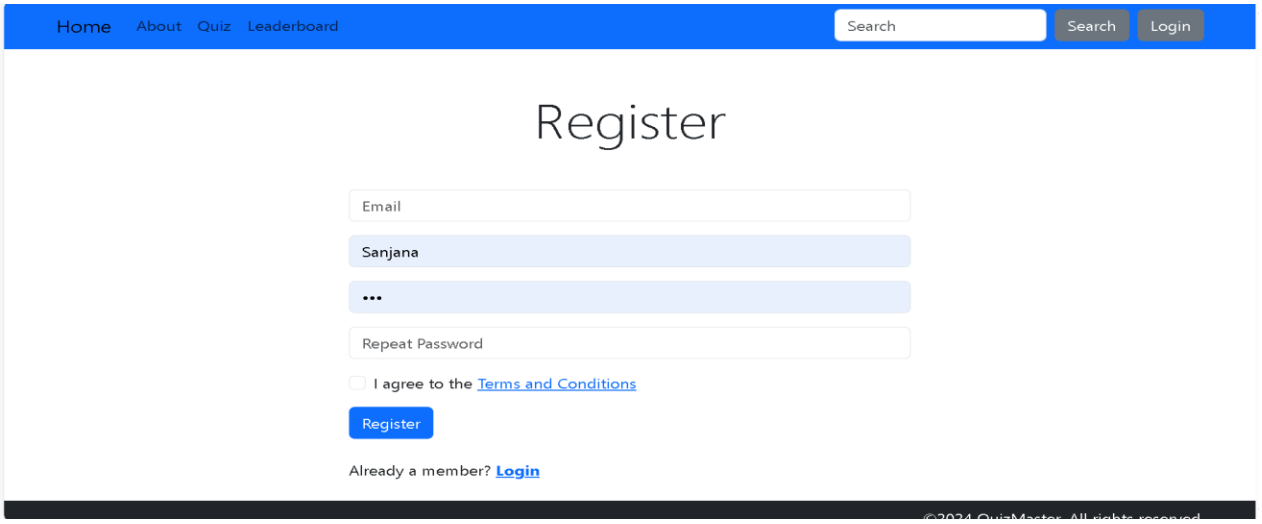


FIGURE 5.2.4 Registration Page

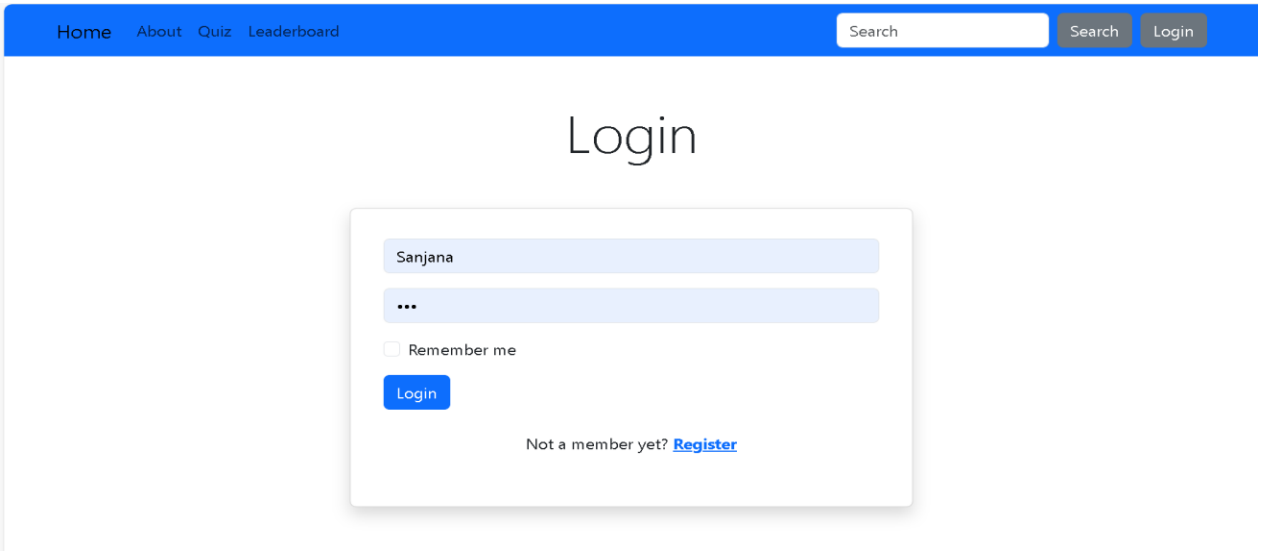


FIGURE 5.2.5 Login Page

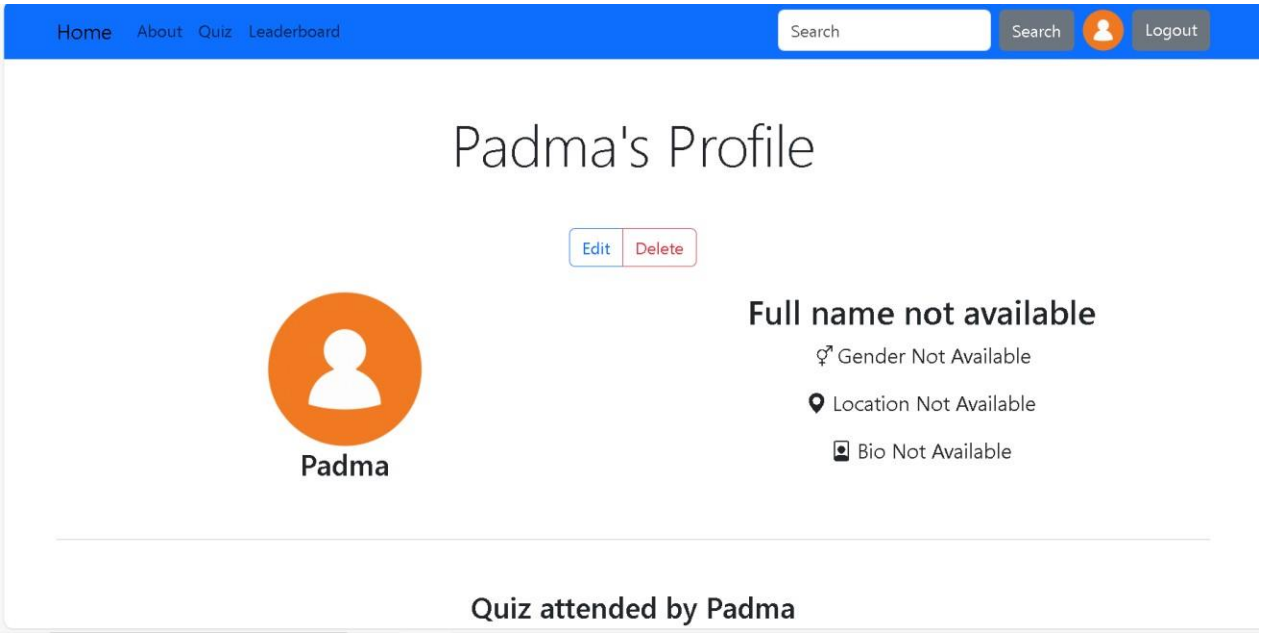


FIGURE 5.2.6 User Page

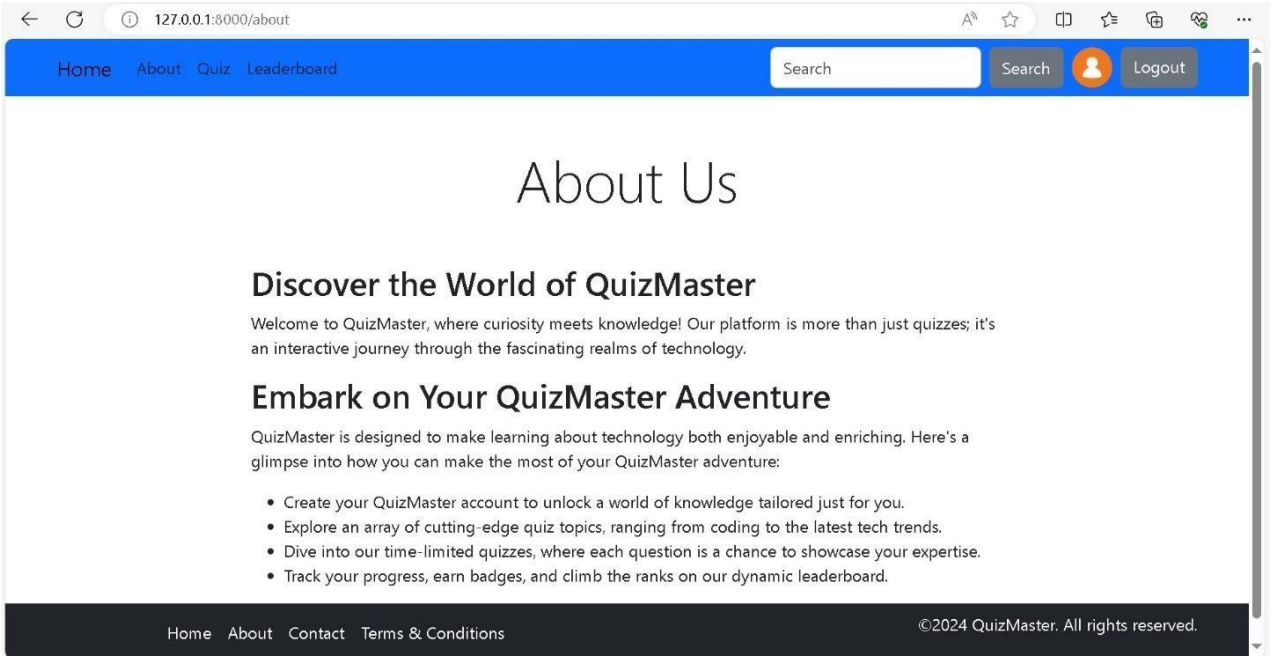


FIGURE 5.2.7 About Us Page

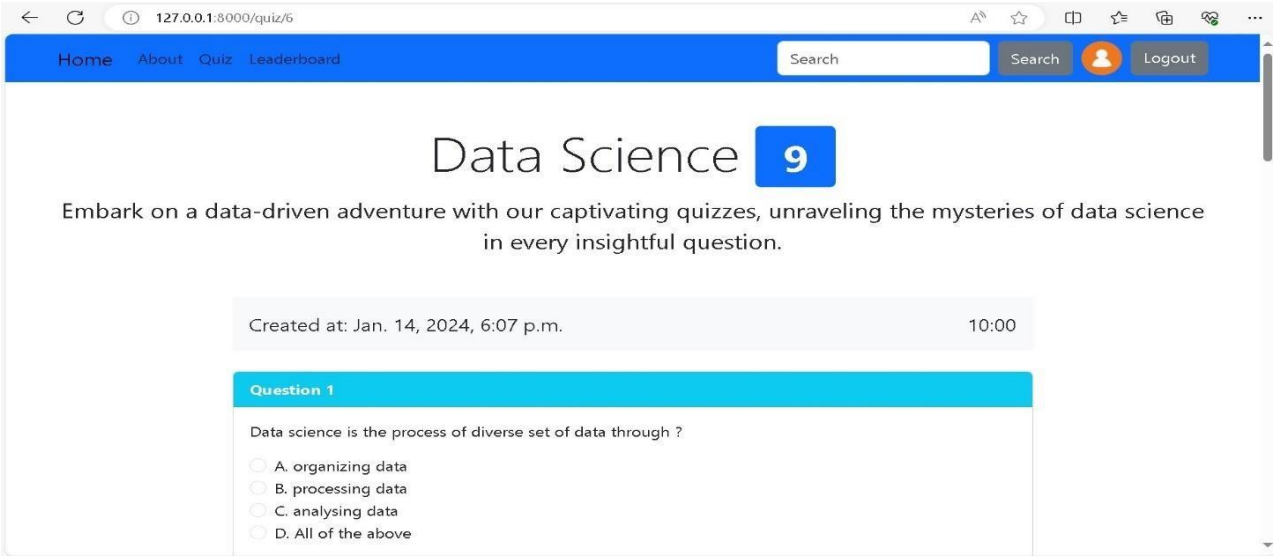


FIGURE 5.2.8 Quiz Attending Page

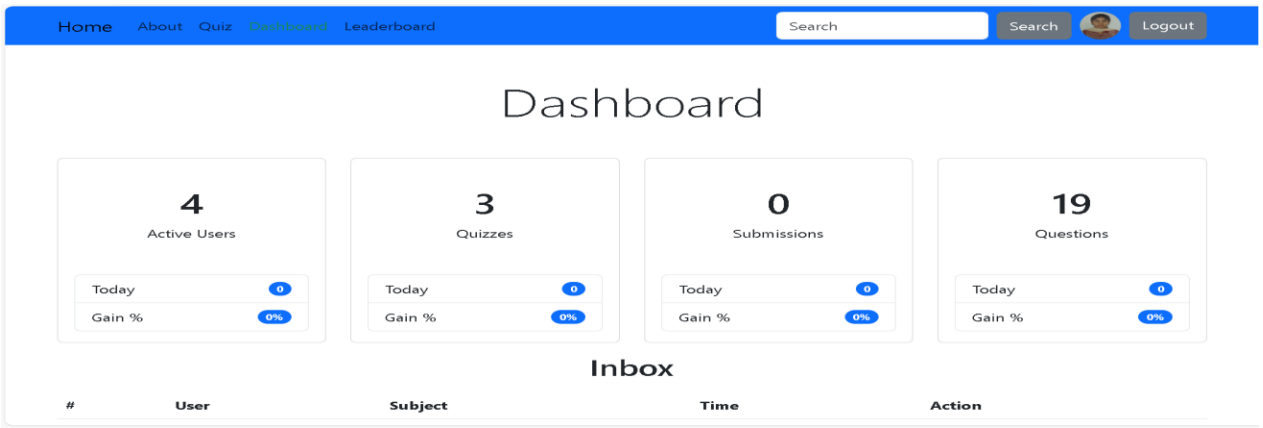


FIGURE 5.2.9 Dashboard Page

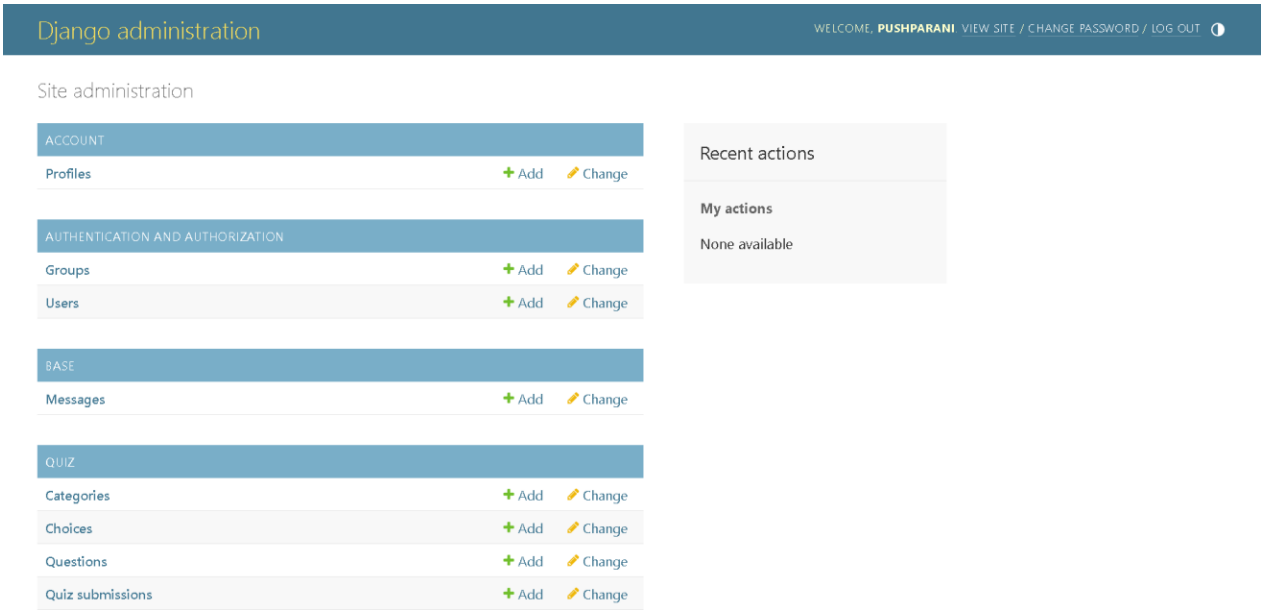


FIGURE 5.2.10 Admin Dashboard

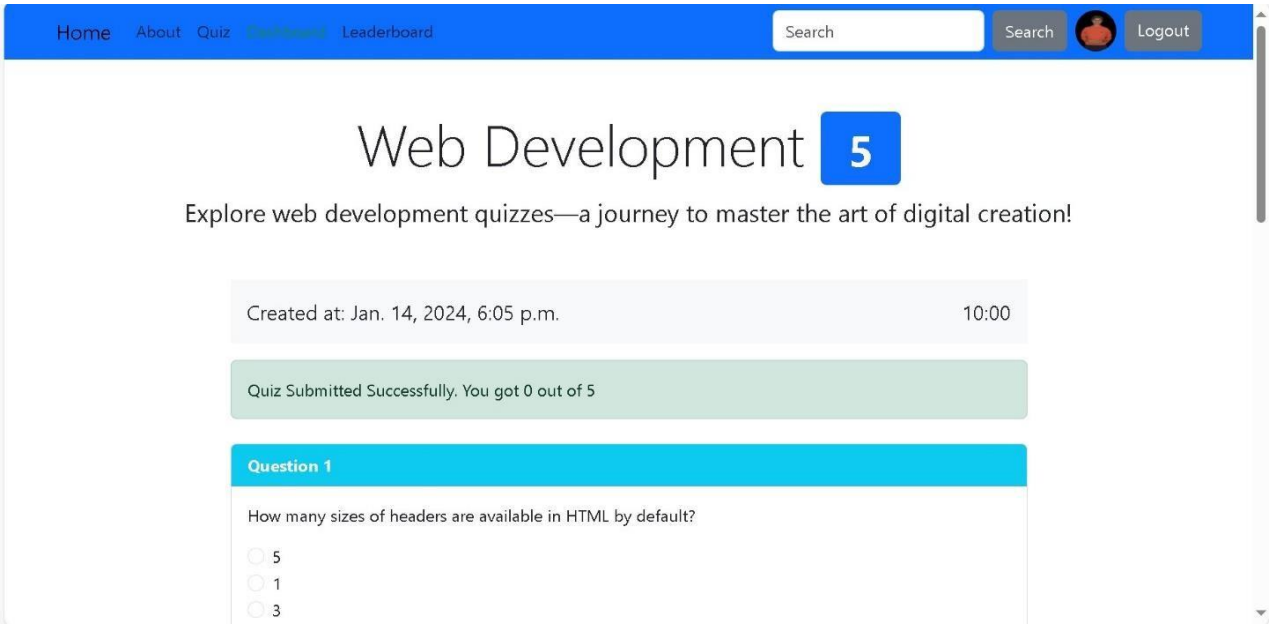


FIGURE 5.2.11 Quiz Submitted Page

CHAPTER 6

INTERNSHIP OBJECTIVES

To obtain an internship in web development that will enable me to gain practical experience and technical skills necessary to launch a successful career in this field. Through this internship, I aim to build upon my academic background and develop my skills in web development while contributing tothe success of the company.

I am a current computer science student with a strong interest in web development. I have completed courses in HTML, CSS, and JavaScript, as well as in back-end development languages like Pythonand PHP. Additionally, I have experience in using popular front-end frameworks such as APPSMITH,React, Vue.js, and Angular, and I am familiar with database management systems such as MySQL,PostgreSQL and MongoDB.

My passion for web development and eagerness to learn more about this field have driven me to seekened internship in the industry. I am confident that an internship in web development will provide me with the hands-on experience I need to enhance my skills and develop my expertise in this field.

6.1 INTERNSHIP GOALS

During the internship, I hope to achieve the following goals:

- Learn new web development frameworks and technologies: I hope to learn and gain hands-on experience with new web development frameworks, such as React Native and Vue.js, and become proficient in using them for developing websites and web applications
- Contribute to the development of web projects: I aim to contribute my skills to thedevelopment of web projects under the guidance of senior developers. This will allow me to gain experience in working with teams and contribute to real-world projects.
- Gain exposure to back-end web development: I hope to gain exposure to back-end web development by working with databases, creating and modifying APIs, and integrating front-end code with back- end code.
- Enhance my communication and problem-solving skills: Through working in a team environment and communicating with clients, I aim to enhance my communication skills, problem-solving skills, and overall professionalism.
- Learn best practices in web development: I aim to learn best practices in web development,such as code quality, testing, and maintenance, and apply them to my work during the internship.

CHAPTER 7

REFLECTION NOTES

- Throughout my internship at Learn Basics, I had the opportunity to gain invaluable insight into the inner workings of a project. Our time there allowed us to experience a diverse rangeof tasks, all of which contributed to our professional growth and development.
- My confidence grew rather quickly when I started to contribute to these processes.
- I found that the skills I developed during my college courses were put to good use. My timeat Learn Basics was a great stepping stone towards my future careers, and I feel fortunate to have had the opportunity to gain such hands-on experience.
- Overall, my internship was a truly enriching experience. It opened my eyes to new processes and situations that I had not been aware of before, and I believe that the knowledge I have gained will serve well in the future

CHAPTER 8

CONCLUSION

Undertaking an internship is an excellent opportunity for individuals to enhance their skills, abilities , and knowledge. Personally, I have experienced the benefits of such programs and would highly recommend them to anyone looking to improve their professional development. My internship experience at Learn Basics was truly enriching, and I am grateful for the opportunity to have learned from such a diverse group of people. Learn Basics provided an excellent environmentfor my internship. The tutors were exceptional and offered valuable guidance and mentorship, allowing me to gain practical skills and knowledge that I wouldn't have acquired through conventional classroom learning. We have learned from different people. We are grateful and thankful to everyone in the company for the tutoring.

One of the standout benefits of my internship was the opportunity to work on my weaknesses. The guidance provided by Learn Basics helped me to identify my shortcomings, and they offered practical solutions to address them. Through their guidance, I was able to hone my strengthsand turn my weaknesses into strengths. This was a transformative experience that I will never forget,and I am grateful to have had the opportunity to work with such an incredible team. Throughout myinternship, I received support and guidance from everyone at Learn Basics. They provided me with valuable feedback and advice, which helped me to develop new skills and grow as a professional. The company invested time and resources into my development, which is a testament to their commitmentto fostering the next generation of industry professionals.

Overall, my internship experience at Learn Basics was a wonderful opportunity that allowed me to learn and grow. I am grateful for the opportunity to have worked with such an exceptional team of professionals, and I would highly recommend the program to anyone looking to enhance their skills and gain practical industry experience. Practical experience is invaluable, and internships offer the perfect opportunity to gain that hands-on experience that is so crucial for career success.

REFERENCES

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[13] https://www.postgresql.com

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