Maktab116_GroupProject

✹ Maktab116 Cafe Shop Adventure: The Quest for the Ultimate Django Full stack Project ✹

Welcome, young Django developers, to the Maktab116 Cafe Shop Adventure! You have been selected to embark on a thrilling journey to create the ultimate Django full-stack project for a cafe in Tehran. As students of the Maktab116 Bootcamp, you have the skills and expertise necessary to build an online menu and staff panel.

Your mission, should you choose to accept it, is to create a fully functional web application that will allow customers to browse the cafe's menu, place orders, and earn rewards, while also enabling staff members to manage orders, view sales analytics, and update the menu. The Product Manager, Sajjad Kashi, has called upon you to take on this quest, and your Bootcamp instructors will guide you through this exciting journey.

Your task is divided into four sections, with each section having a score of 100 points. Each section will take one week to complete. You will also follow the Agile methodology in weekly sprints, with one team member serving as **the Scrum Master**.

To encourage quality work, thorough testing, and documentation, we expect the test coverage to be over 95%, and each group must create a README file for their GitHub repository that explains the project and provides setup and run instructions.

🏹 Project Sections and Points 🎯

Section 1: Project Setup, Basic Models, and Authentication (100 points)

Scrum Tasks (15 points)

- Create a detailed project plan outlining the tasks that need to be completed in each section.
- Set up a Trello board or another task management tool to track progress and assign tasks.

Cafe Template 🍴 (15 points)

- Choose a suitable template for the project and create the necessary template structure.
- Write the template pages required for the cafe website, including the home page, menu page, cart page, checkout page, and staff panel page.

Project Setup 🛠️ (10 points)

- Create a new Django project and app.
- Configure the app to use PostgreSQL as the database.
- Initialize a Git repository and commit your initial project files.
- Create an ERD (Entity Relationship Diagram) for your data model.

Basic Models 📊 (25 points)

- Create the necessary models for cafe items and categories.
- Create models for staff, customer orders, and order items.
- Define relationships between the models.

Authentication 🔒 (35 points)

- Implement Django Form Objects, Django Sessions, and Django Users and Authentication.
- Create a custom backend authentication for Django using phone numbers.

🏆 **Achievements:** Detailed project plan, a suitable template for the project, basic project setup, data models, and authentication.

🎁 **Incentives:** A solid foundation for your project, the admiration of your peers.

🏍️ **Deliverables:** A working Django project with a suitable template for the cafe website, basic models and authentication in place, as well as a detailed project plan.

Section 2: Online Menu and Staff Panel (100 points)

Online Menu 🍔 (40 points)

- Implement the online menu with categories and items.
- Allow customers to view items, search, and see details.
- Handle cart functionality using cookies, and track orders using sessions.

Staff Panel 🧑‍💼 (60 points)

- Implement Django Class Views.
- Create a staff panel with authorization, allowing staff to see and manage orders.

🏆 **Achievements:** An interactive online menu and a functional staff panel.

🎁 **Incentives:** A step closer to completing the project, growing fame for your Bootcamp in Tehran.

🚀 **Deliverables:** A fully functional online menu and staff panel.

Section 3: Analytics Feature, Finishing Touches and Frontend Magic (100 points)

Manager's Dashboard: Analytics and Reports 📈 (60 points)

- Implement an analytics dashboard for the manager view that displays key sales metrics and trends.
- Enable the manager to generate and download detailed sales reports.
- The analytics feature should provide insights into the most popular cafe items, peak business hours, and customer demographic data.

Frontend Magic ✦ (40 points)

- Implement frontend frameworks and libraries.
- Add animations, transitions, and interactive elements.
- Optimize the website for mobile devices and ensure it is responsive.

🏆 **Achievements:** A polished, interactive, and user-friendly web application.

🎁 **Incentives:** The admiration of your peers, a fully developed project to add to your portfolio.

🚀 **Deliverables:** A complete, fully functional, and responsive web application.

Section 4: Testing, Documentation (100 points)

Final Features ✦ *(40 points)*

- Implement Django Generic Views.
- Add statistics and insights for the manager.
- Implement manager-specific features using Django permissions in views and templates.
- Improve the user interface and user experience.

Testing ✐ *(40 points)*

- Write unit tests for the code.
- Ensure test coverage of at least 95%.
- Handle and resolve any bugs or issues.

Documentation ✍ *(20 points)*

- Write clear, concise, and comprehensive documentation.
- Create a README file that accurately describes the project, provides setup and run instructions, and explains how to contribute.

🏆 Achievements:

- Create a comprehensive analytics dashboard with detailed sales reports.
- Deliver a well-tested codebase with a test coverage of at least 95%.
- Deliver clear and comprehensive documentation that facilitates the project's maintenance and future development.
- Deliver a well-documented, and well-tested project that meets the project's requirements.

🎁 Incentives:

- Move a step closer to project completion and earn admiration from Bootcamp instructors for implementing a complex feature.
- Ensure project quality and earn the admiration of your Bootcamp instructors.
- Earn the admiration of your Bootcamp instructors and ensure project sustainability.
- Earn the admiration of the Product Manager and instructors, have a project to be proud of, and achieve test coverage of at least 95%.

🚀 Deliverables:

- Update the staff panel with a functional analytics dashboard and reporting feature.
- Provide a codebase with comprehensive unit tests.
- Provide clear and comprehensive documentation for the project.
- Provide a well-documented, well-tested, and live web application.

Final Note 📌

Remember, this is a team project. Collaboration, communication, and creativity are key. Make the most of this opportunity to learn, grow, and create something amazing together. Good luck, and may the odds be ever in your favor!