AI English Learning Website

Introduction – 30s.

Allowing users to practice spoken English and receive analysis about his grammar, vocabulary, pronunciation, fluency without paying for teacher.

1. Built with Django REST Framework, React.js, and PostgreSQL.

2. Key features: Speech analysis, quizzes, and role-based access.

Course: Django Advanced Regular Exam @ SoftUni

- **Web Pages**:

  - 10 pages: 5 class-based views, 5 function-based views.

- **Models**:

  - AccountUser, BaseScore, Testimonials, Question, Section, Category .... (5 independent models).

- **Forms**:

  - Register/LoginForm, ChangePassForm, ProfileInfoForm, ContactForm, QuizForm …

- **Templates**:

  - Home, IELTS, Practice&Quizzes, Practice../Quiz, Profile, ResultPage …

- **Database**:

  - PostgreSQL for structured data storage.

- **Security**:

  - CSRF protection, ORM for SQL Injection prevention, role-based access.

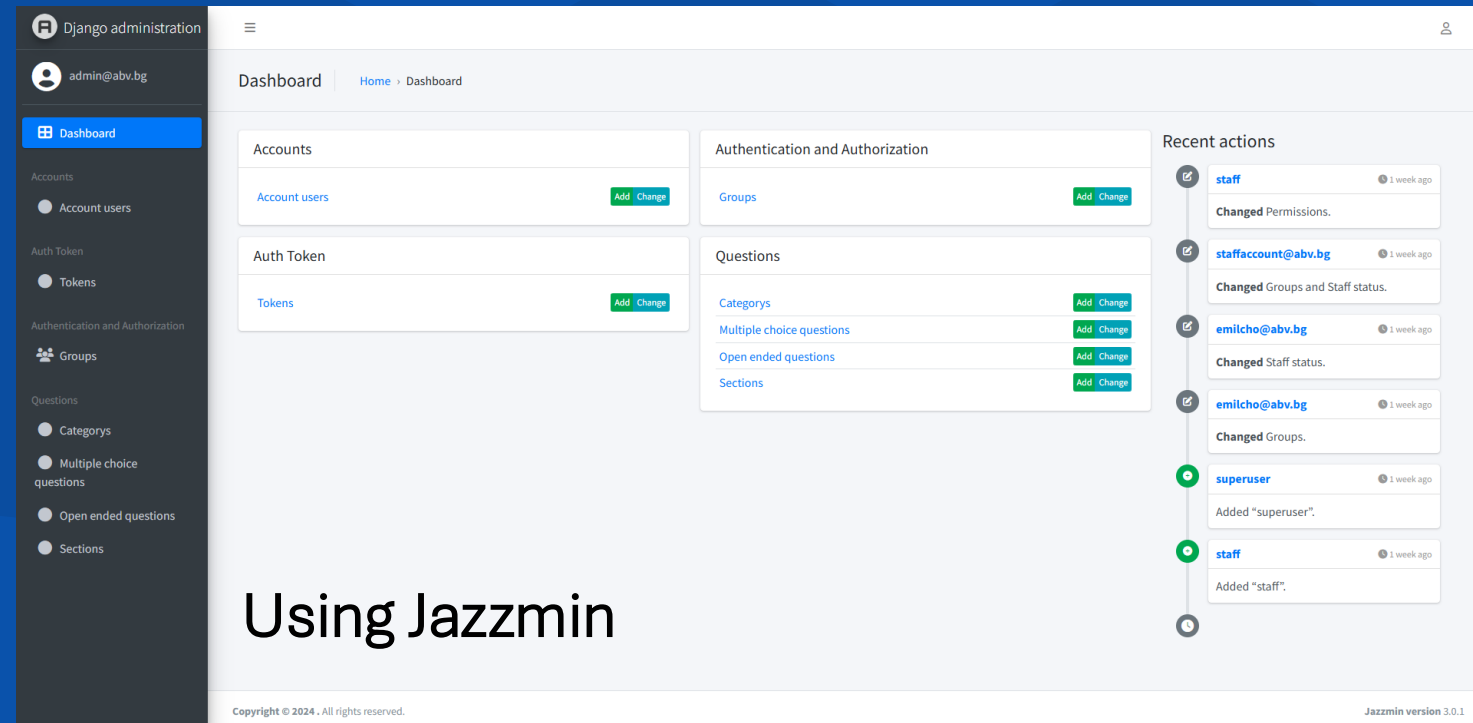# ADMIN CUSTOMIZATIONS (1 MINUTE)

Role Groups:

- <u>Manager</u> = "create and read" permissions for all question related models

- <u>Staff</u> = Full CRUD for Question related models and "read, delete" for accounts

- <u>Superuser</u> = Full Crud for all content

Admin Customization:

<u>AccountUser ;</u>
- list_display,
- list_filter,
- search_fields,
- list_per_page,
- fieldsets

Using Jazzmin

DEMO (5 MINUTES)

Login/Register (1 minute):

- Register a user and log in.

- Show the private dashboard for authenticated users.

Speech-to-Text Analysis (1.5 minutes):

- Take IELTS test.

- Display results (vocab, grammar, fluency.. analysis).

Quizzes (1.5 minutes):

- Show quiz creation.

- Take a quiz and display results.

Admin Panel (1 minute):

- Show role management, custom filters, and admin controls.

EXCEPTION HANDLING AND VALIDATION (1 MINUTE)

- Quiz validation if every questions is answered

- Authentication validators.

- Form validations.

Thank you

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