

Create a Simple Django Application

Environment: Python 3.x, Django 2.x, PostgreSQL

The task is to create a simple Django application that satisfies the following requirements.

1. Create an Employee model. It should consist of:

- First name;
- Last name;
- Position title.

2. Create a Branch model which should consist of:

- Branch name;
- Facade image (uploading to S3 is a preferred option);
- Latitude and Longitude (coordinates of the branch office). A user should be able to fill them in two ways: by typing values in the text boxes or by pointing a location on a map (e.g. Google Maps, but every provider would suffice) with subsequent autocompletion of the latitude and longitude fields.

On the same page users should be able to add employees to a branch (e.g. inline models can be used for that purpose).

On the employee list admin page, there should be a filter by first name and last name of a person.

Requirements

1. The code should be provided as a link to a Git repository (e.g. at Github or BitBucket).
2. The web application should be developed using Python 3.x and Django 2.x. It should support production deployment with PostgreSQL.
3. Implement a REST API that provides access to branches and employees with filtering by branch name and with possibility to choose sorting order by first name, last name, position and branch name.
4. Please generate 10 mock branches and 10,000 mock employees in Django migrations.

Would be a plus

1. Create roles for users and assign permissions to hide map coordinates editing if a particular user doesn't have required permissions.
2. Provide a Docker distribution of the application (e.g. create a Docker compose file) to deploy the app with all dependencies.
3. in API, implement filtering allowing to find the closest branch by coordinates (latitude, longitude), e.g. `/api/branches/?lat=...&lng=...`