

Zijie Pan

31 August 2018

ACTparks administration app

Design document(before audit2 presentation)

General:

The administration app use Django as the backend framework. Django is a well developed web framework. It is an open-source project that written in python. It is the most widely used framework so far. However, Django lacks official supports for Nosql databases such as Mongoddb. Other projects such as Django-nonrel project are either not reliable or aborted. In the meanwhile Django is more complex compare to other frameworks(such as Flask), so it is hard to configure some of its settings.

Database administration:

The superuser(administrator) has permission to alter all data of the database. For example, he can add new users, alter user permissions, or create new park information. All new users must be authorised by the superuser, the superuser can give limited permissions to the new user or make the new user a superuser.

Data security concerns:

The passwords of superusers and other users are encrypted by pbkdf2 and hashed by SHA256 by default. In the meantime, the server machine is designed to be accessed via LAN only. It is almost impossible to break from outside.

Further improvements:

Use Json files instead if sqlite3 database. because sql database cannot handle large data easily. Should improve the UI to make it more user friendly. Add more features, for example, the user can upload pictures and maps to the app.