Introduction:

Background:

With the development of Chinese economy and technology, more and more international students came to China for further education. Many international students want to get intuitive, systematic and comprehensive knowledge of Chinese universities. This project is a web app which contains the following functions: user login, voting for universities, Chinese universities' information searching, successful application cases display, user management, user authorization and summary charts presentation. We hope that our app could provide helpful information for international students who are planning to apply for Chinese universities.

Technology Stack:

Front-end:

React (react, react-redux, react-dom, react-router-dom, ...),

AntDesign (UI design),

echarts (JavaScript visualization tool used for creating charts),

Axios (Promise based HTTP client for the browser and node.js),

ES6, Less, webpack

Back-end:

node.js+mongodb (mongoose), first **express** framework is used to achieve all functions, then **koa2** framework is used to rewrite and refactor the existing code which improves the maintainability and running speed of the code.

Project Structure and Logic:

Users are divided into 4 classes in our app: visitor, VIP, manager and administrator (admin).

When the user hasn't logged in, it will be identified as visitor and it could visit the home page and university information page. If the user want to know more, it could click "more info", now the login button will appear and after inputting the correct username and login at the login page, the user could login.

After logging in, if the user is a VIP user, then the user will be allowed to visit the application cases page and summary charts page, but user is not allowed to modify the information.

If the user is a manager, then the user will have access to all pages except the "role manage" page and could modify the information displayed on the website.

Administrator has access to all pages and all commands.

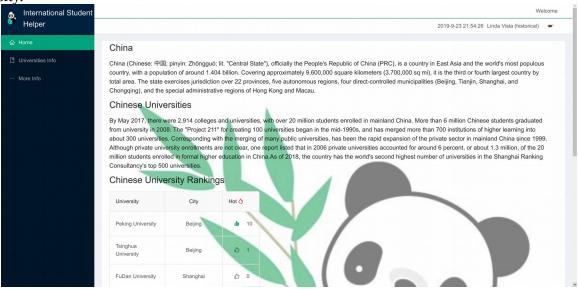
"Sign in" is not supported in this project, VIP and manager users must be created by other managers or administrator on "user manage" page.

Administrator could create new roles and authorize for them in "role manage" page.

Project display:

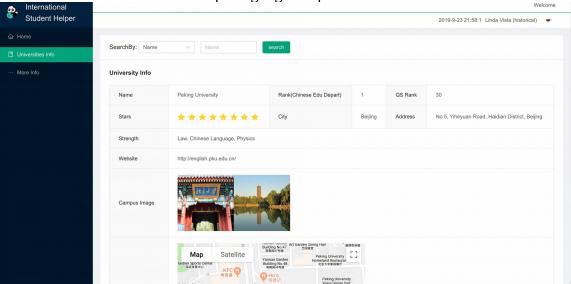
Home Page:

The left side is navigation for the pages in the website, the header of the right side shows the current location of the user (may not be very accurate), the local weather and current time. In the body of the right side there is a brief introduction of China and Chinese universities, user can vote for their favorite university.

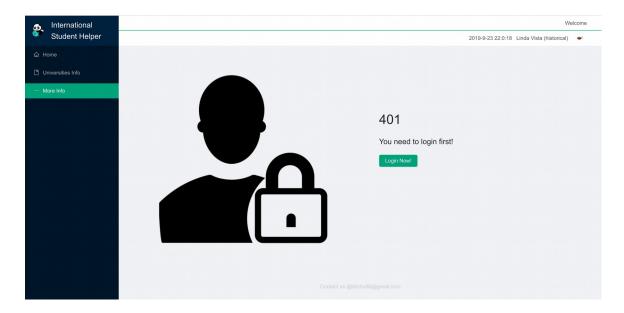


Chinese universities information page:

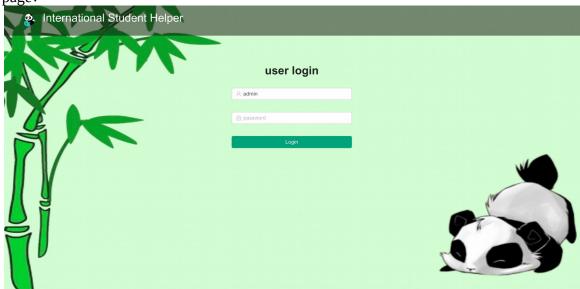
After searching by name or rank, user could find the name, rank, address, website, etc of the university he/she is interested in. User could look up the google map below to find the location of the university.



More info (warning, login is required to unlock more information):

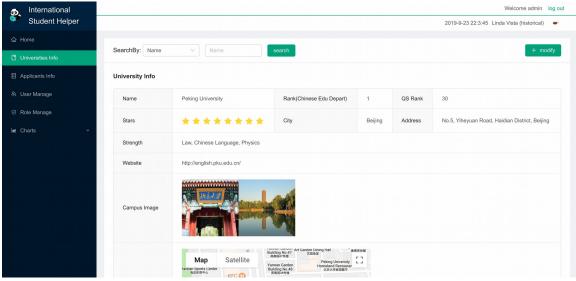


Login page:



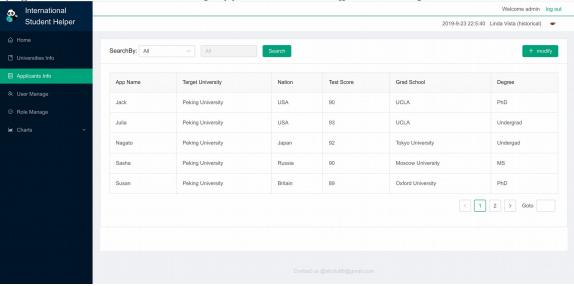
Chinese universities info page (login as a manager):

Now we could find that there is a "modify" button on the right, this means that we could modify information displayed on the website.



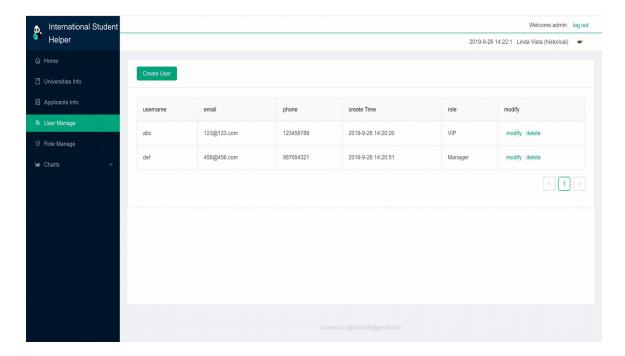
Successful application cases page:

On this page, user could search cases by applicant name, target university, test scores, etc.



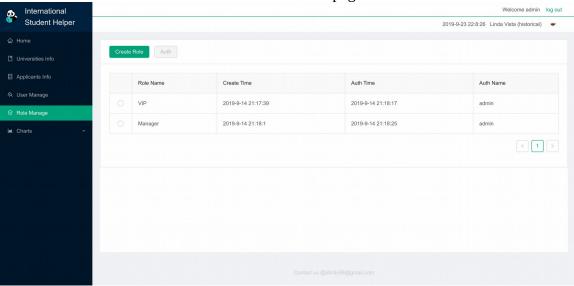
User manage:

Managers and administrator could modify and delete user on this page.



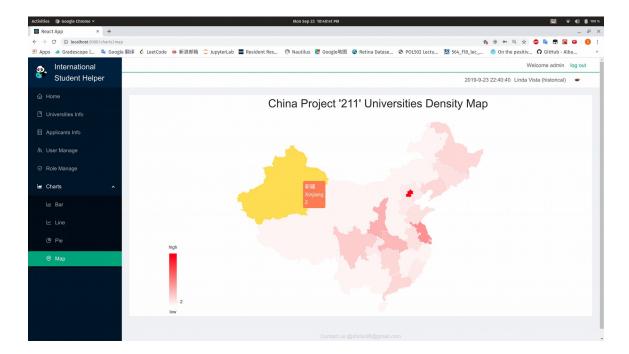
Role manage (authorization):

Administrator could create role and authorize them on this page.



Summary charts (eg: Chinese top 100 university distribution map):

The tool tip shows the Chinese name, English name and number of best universities of the province where the mouse is hovering over.



Not found (404) page:

If the url the user inputs is not correct or the user does not have access to this page, then this page will appear, this shows that our project has route protection function.

