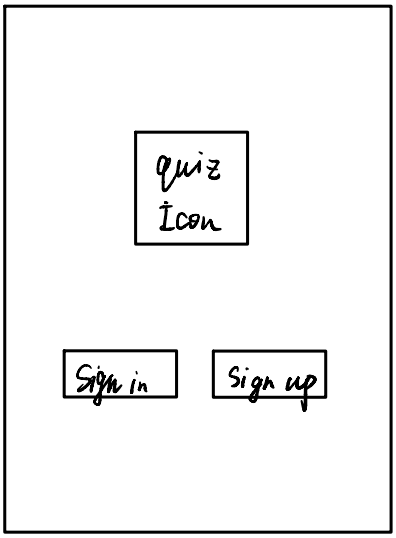
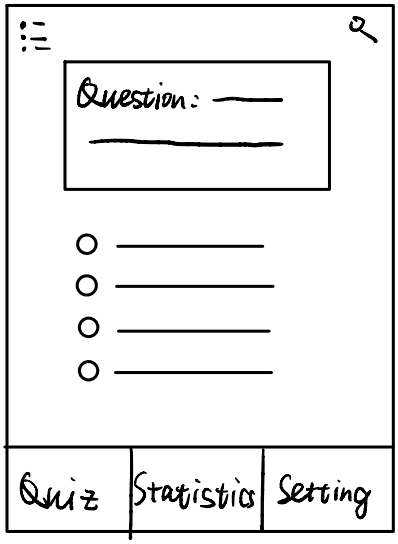


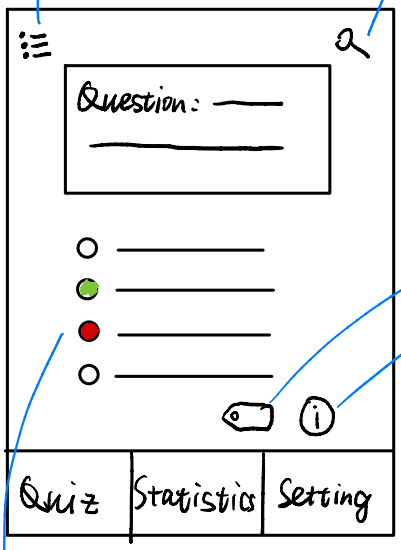
start page



Quiz page

browse all questions

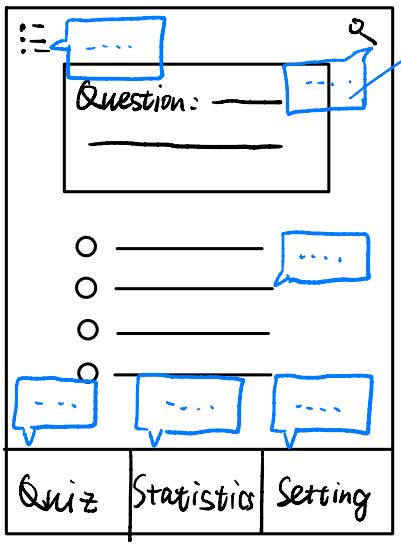
search one question.



Quiz page.

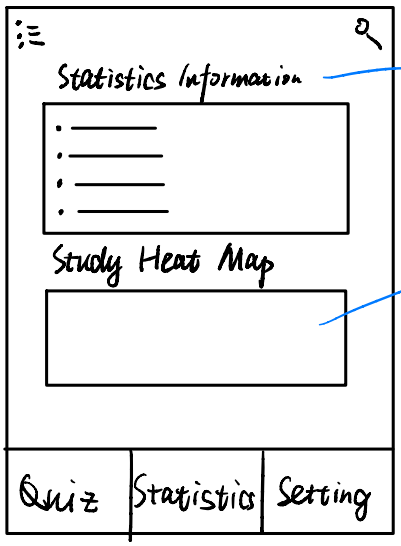
little tag with difficulty level (easy/hard)
click this information button
you will get explanation for
the answer.

after choosing choice
correct answer will appear



some dialog box
used for user guide

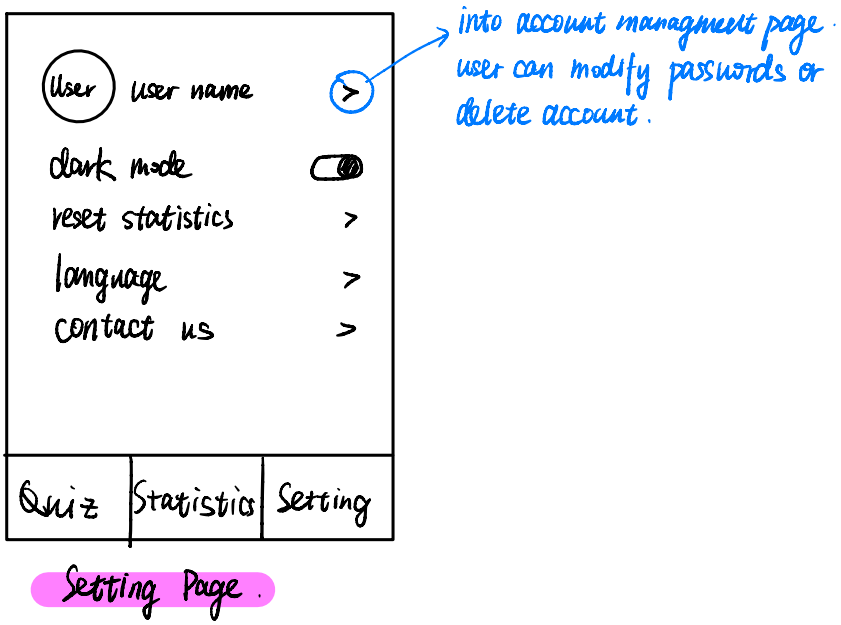
user guide page.



display some information
like accuracy rate,
average time...

a heat map to show
how many question were
answered every day.

statistics page.



1. choose propositional logic quiz
2.The form of the question is: given a logical proposition, determine whether it is true or false.
3. read some source code which can generate propositional logic like [this](https://github.com/tammet/logictools), and implement in back end.
4. Front end:
    1. A screen for the quiz, explanation for the answer, difficulty label
    2. A screen for statistics information, like accuracy rate, spent time, high score tables...
    3. A screen for user guide
    4. A screen for setting and user account
        light/ dart mode
5. Back end:
    1. use JSON-based Rest API to transform data. The server can set up an interface to receive requests from the front-end, these requests include statistical information such as user behavior data and error reports. This data can be collected by the front-end during user interaction with the application and sent to the server.
    2. use HTML interface as Admin management system,show collected information from front end. After autAdmin could add/edit/delete tasks, delete/reset user passwords
    3. Use MySQL to persist all local data
6. User Management:
    1. Synchronise data: upon user login, the front-end can sync local data to the server via an API. To maintain synchronisation on different devices, user data is downloaded from the server when logging in on a new device.
    2. high score tables: The server collects scores from different users, sorts them, and sends the sorted high score list to the front-end.