Specific problem:

To solve the problem of language barrier without the connecting to the internet all the time. With visual dictionary, live translation, translation history and a built in database which can be upgraded via internet connection.

Design Principles:

- Use distinguishable backgrounds to draw user's attention to the main sections of the App
- Use darker colors for menus
- Use universal shapes for buttons and menu bars
- Position the main point of interest in the middle of the screen
- Position unimportant point of interest to the side or the bottom of the screen

User needs:

- Offline portable translation device
- Combination of statistical and grammatical rule-based approaches
- Fast and accurate translation, which allows the user to instantly respond back
- Visual representation of words feature
- An fast and efficient way to get ideas across in the form of visual representations
- User friendly interface

Environmental requirements:

- Initial WIFI connection to download App and update database
- Outlet connection

Functional requirements:

- Visual dictionary with search function
- Translation screen with input and output text
- Input through voice recognition or text
- Language select
- Translation history
- Initial setup
- Menu system, allows the user to browse through different windows
- Settings

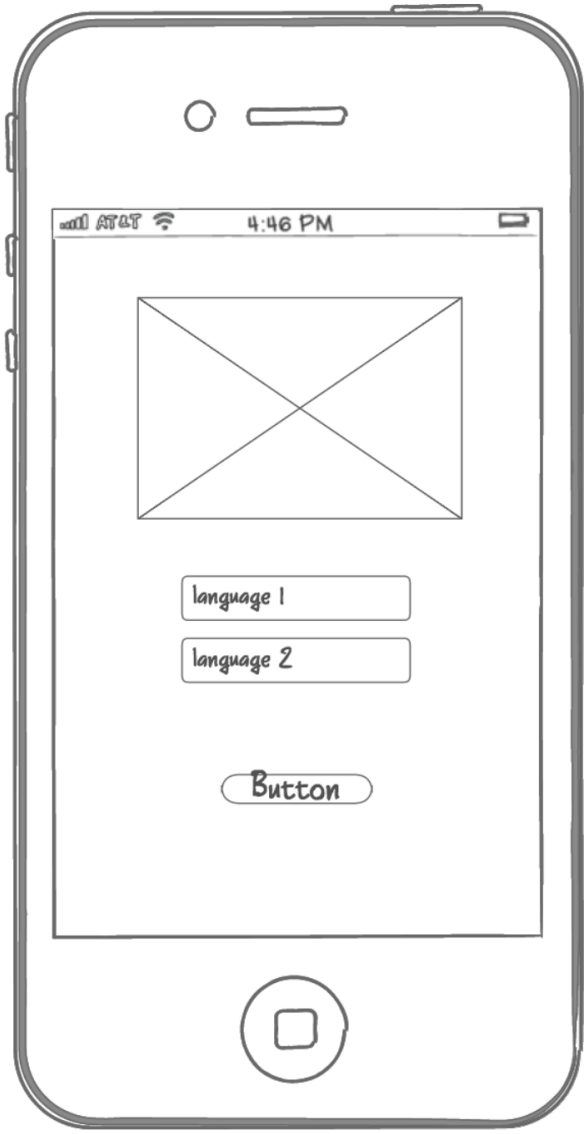
Technical requirements:

- At least 1GB of free space
- Smartphone OS:
- Android: Jellybean or higher
- Iphone: IOS 6 or higher
- Any smartphone released during 2013 or later

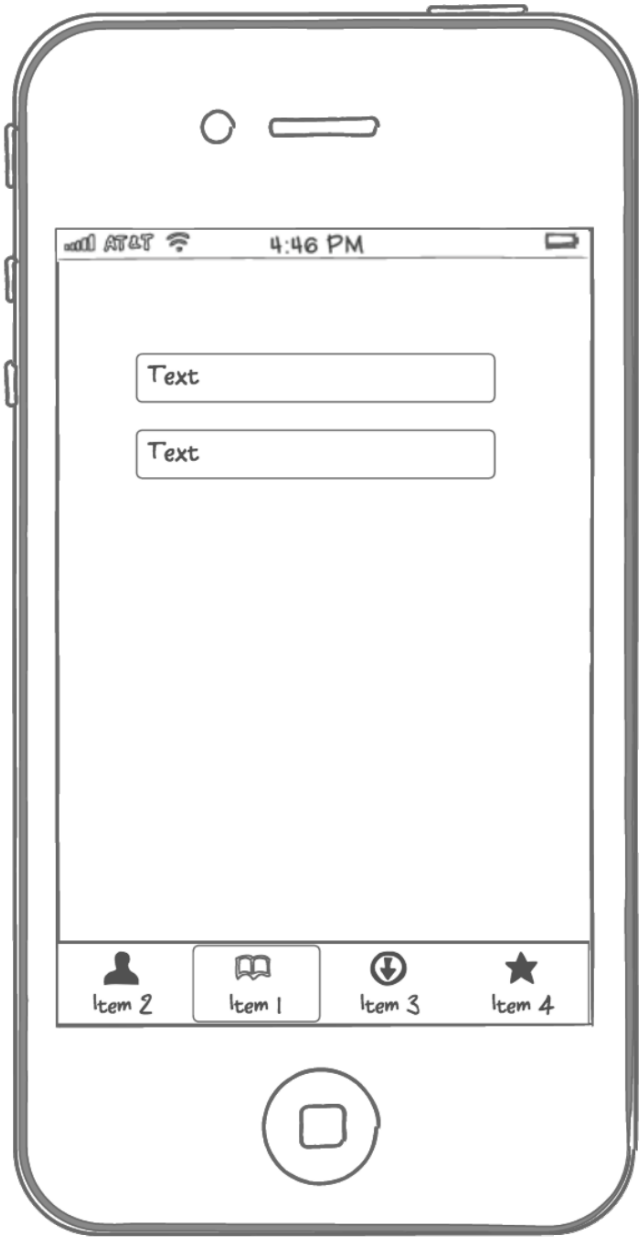
Usability requirements:

- Be able to use the App with one hand
- Simple interface
- Use what people are already familiar, which makes the App easier to use
- Fast and reliable translation

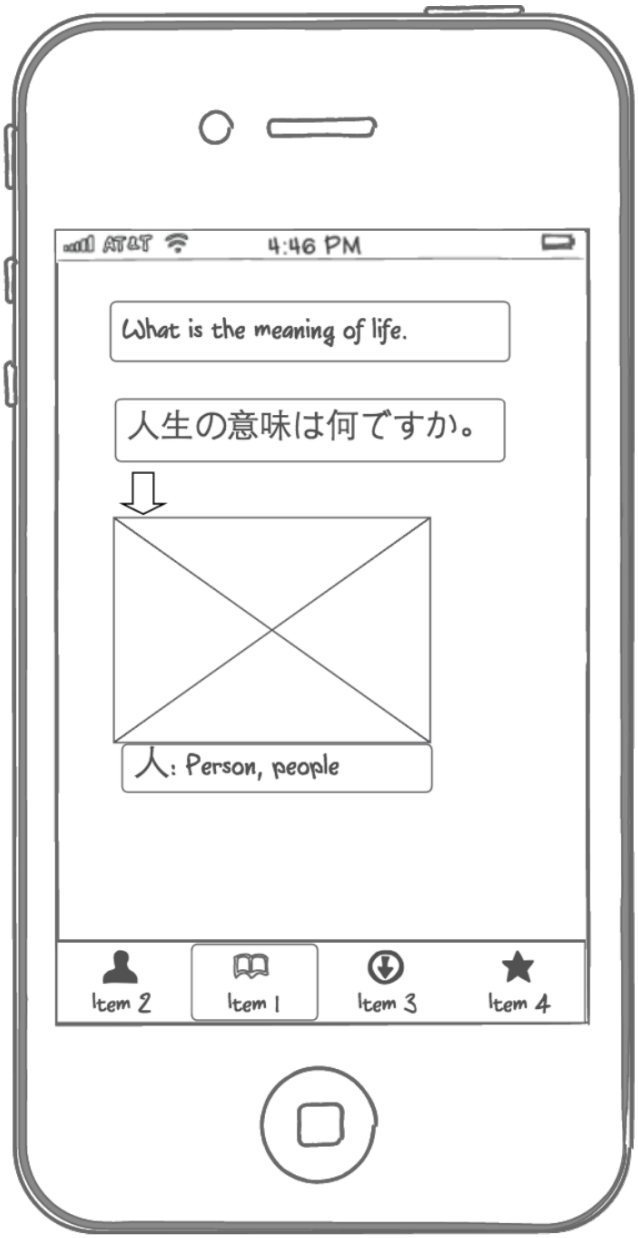
Prototype example:



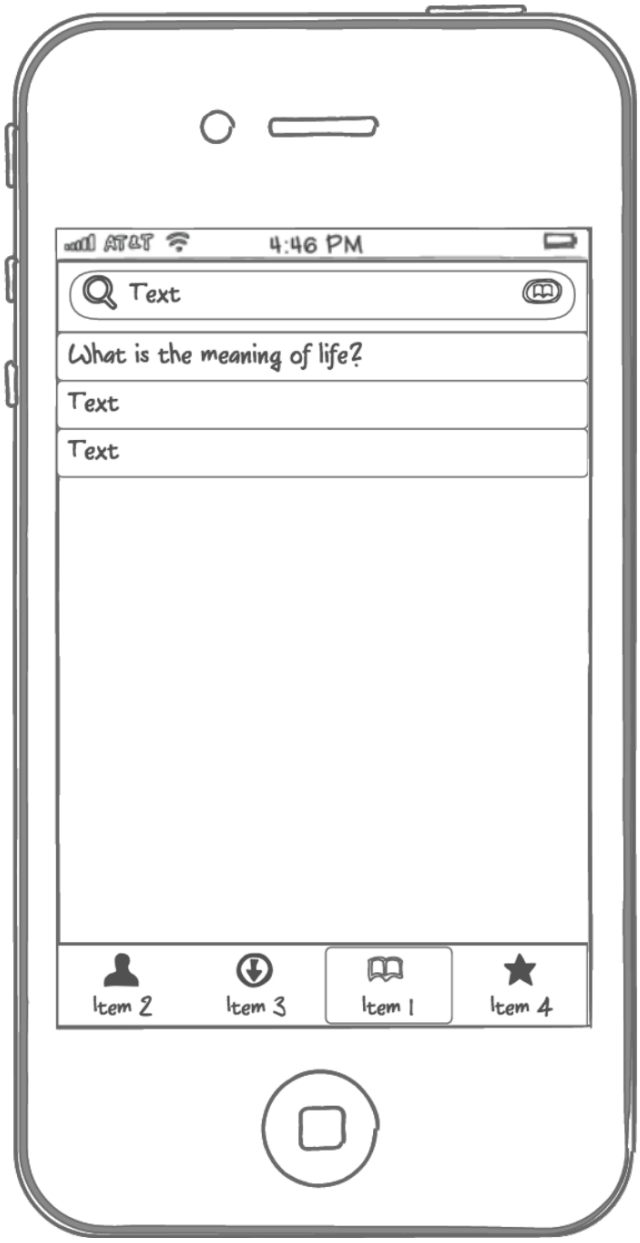
Screen shown on first use of the App, tells the user to input the languages that he/she will be working with.



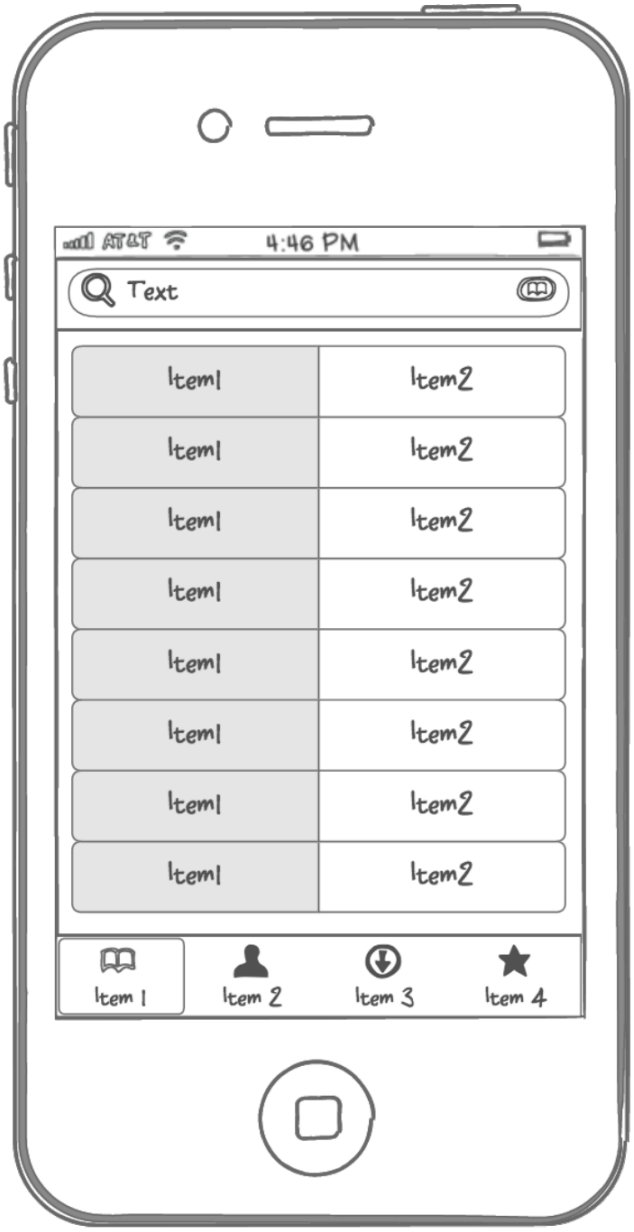
Once the user have inputed the two languages that the user is currently working with, the user then can begin right away with translation. Input either by keyboard, or my voice recognition.



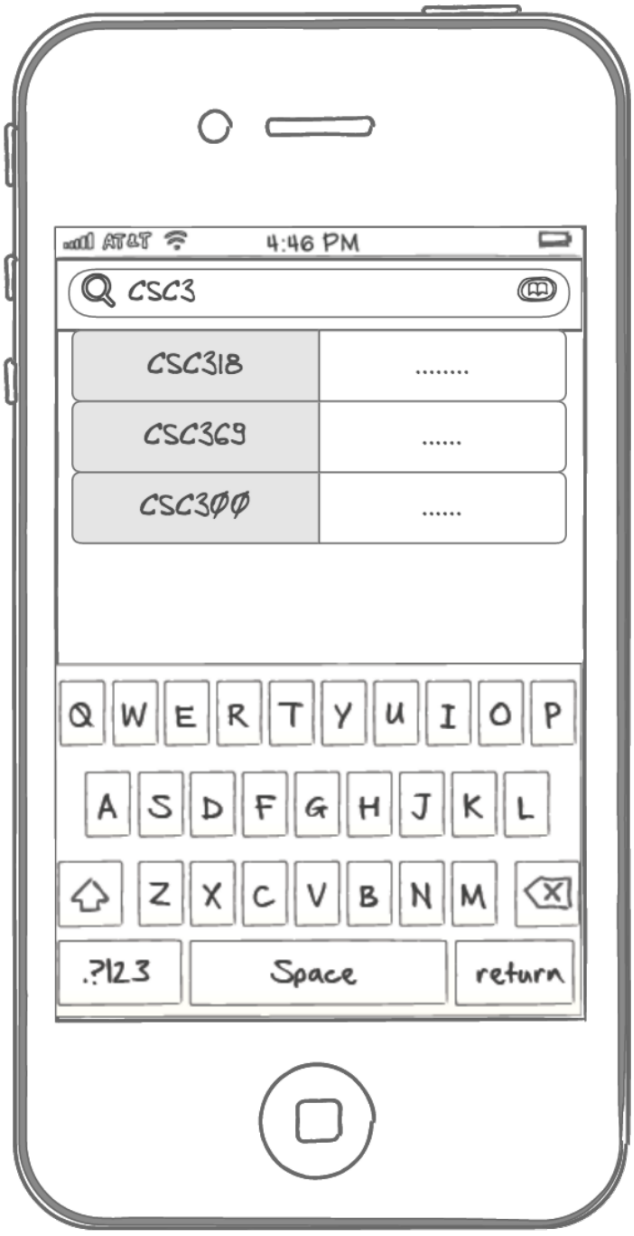
When there is input, the app then translate it into the target language. By clicking on individual nouns on the sentence it will bring up a visual dictionary further explaining that specific noun.



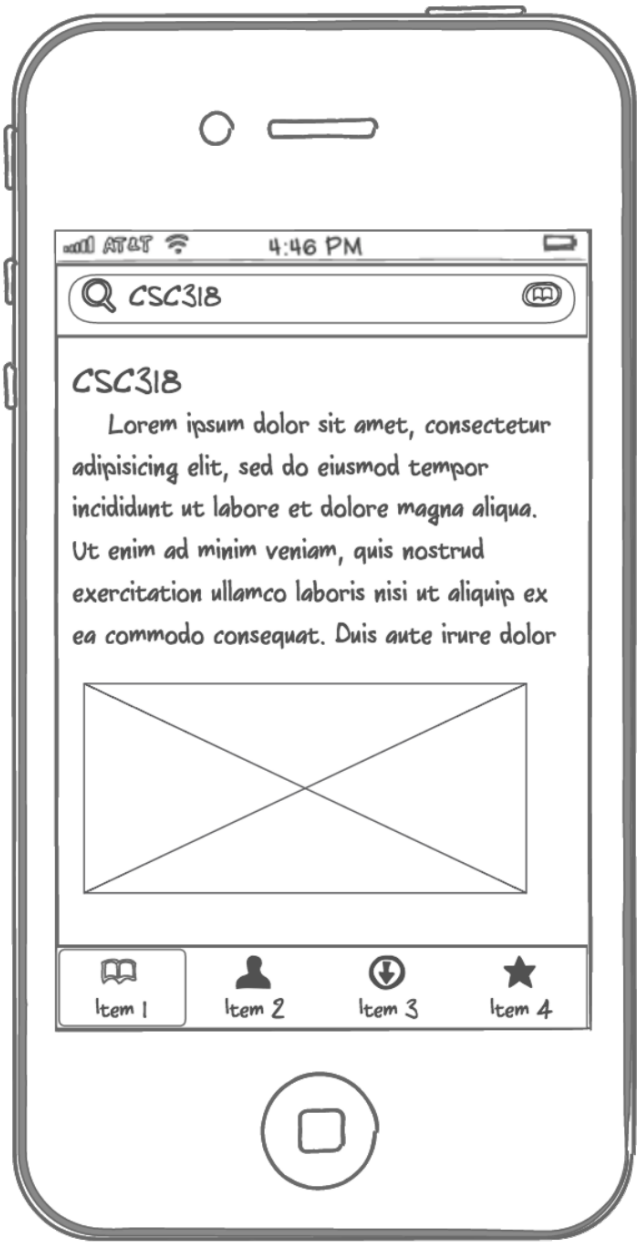
The translation then could be saved into history so the user can access it anytime when they need to.



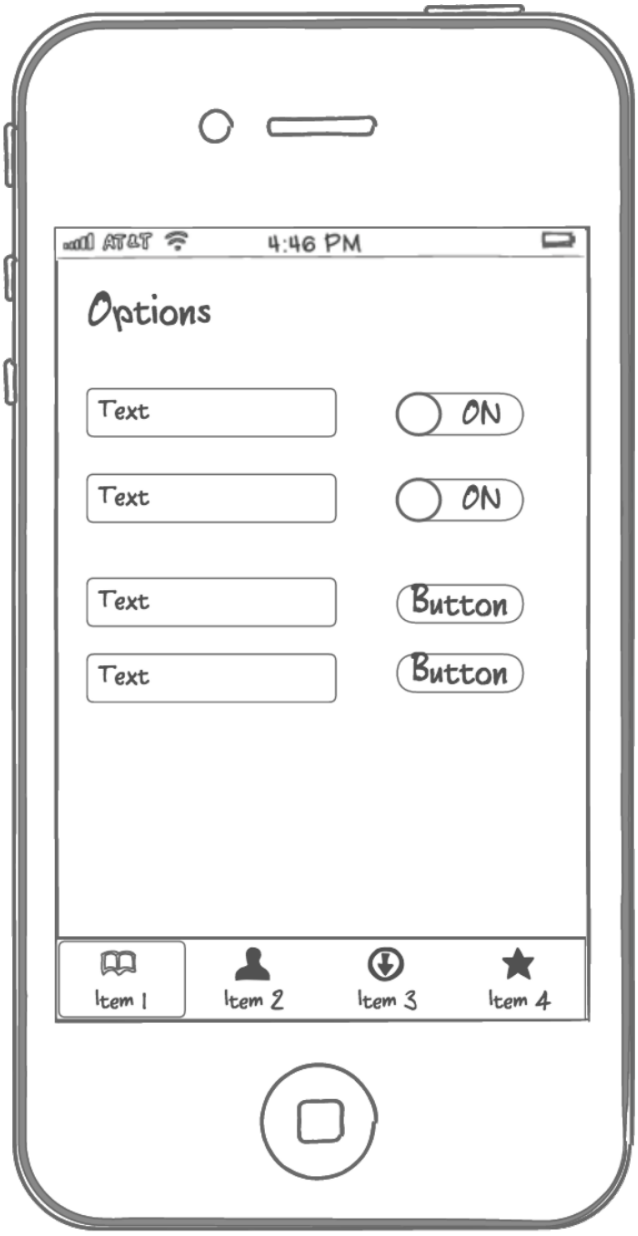
The other function is the visual dictionary. Based on the settings it will show you the most relevant words that the user may or may not use.



The search function filters unwanted vocabularies, and show the user definition of the searched word.



Click on the word for a more detailed description. An image then is accompanied by the description.



The settings.