UNITEC INSTITUTE OF TECHNOLOGY

Cognitive App Design Document

ISCG7436 Advance Mobile Development

Li Qi SID:1520143 and Dian Jiao SID:1517377

2019/11/10

GitHub project address: https://github.com/LiQi811227/cognitive-app

Content

1 Lean Canvas 1

2 Wire frame design 2

3 X code Testing: 3

4 Self and Peer Evaluation Form 1 5

5 Self and Peer Evaluation Form 2 6

1 Lean Canvas

UsawUlearnt - UsawUlearnt

PROBLEM

Modern dictionary only helps if the user knows how to call the object in one's own native tongue.

Object like a container for water has different forms, e.g. a cup and a mug, user has the need to expand vocabulary.

Some objects are not commonly used, to describe them requires using more than one dictionary or searches.

EXISTING ALTERNATIVES

Products made by other group's assignment from the same course.

Snap & Translate - Translator - Apalon Apps.

Camera Translator: Translate+ -Vulcan Labs Company Limited.

SOLUTION

Visual guide to let the user simply use the phone camera to take a picture of any object, the possible translation matches displayed for the user to choose.

A translation allows the user to see the object in both English and Chinese language.

KEY METRICS

App store ratings

API traffics

UNIQUE VALUE PROPOSITION

You came, you saw, you undersood.

There is no noues that you can't handle.

Learn to say one thing at a time, life is so simple.

HIGH-LEVEL CONCEPT

UNFAIR ADVANTAGE

Existing apps can be easily found, the differences is down to the app UI design.

Designers are bilingual, who know the pain of being unable to call an object.

CHANNELS

Word of Mouth.

Making keywords easier to appear in google search in both English and Chinese language when user are struggled by the PROBLEM.

Tell our intent to people in the Church, who will help spreading the good app.

CUSTOMER SEGMENTS

Chinese travellers

Elderly Chinese who has migrated to NZ.

Chinese students who choose to start oversea education.

Upgrade to allow English speakers to learn Chinese.

EARLY ADOPTERS

Elderly immigrants who have little knowledge in fancy technology or confuesd by overly designed UI.

Keen lingustic learner.

COST STRUCTURE

Cloud service cost. e.g. Once upgrade to better Azure cognitive services.

iOS Developer cost

REVENUE STREAMS

Donation.

Advertisement at the bottom of the App. e.g. display language school ad.

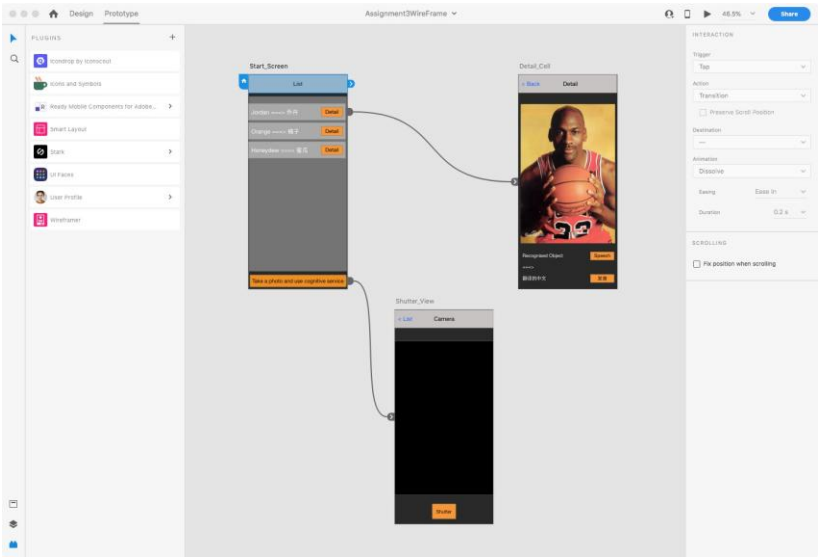
Co-existing with bigger dictionary provider.

Li Qi and Dian Jiao

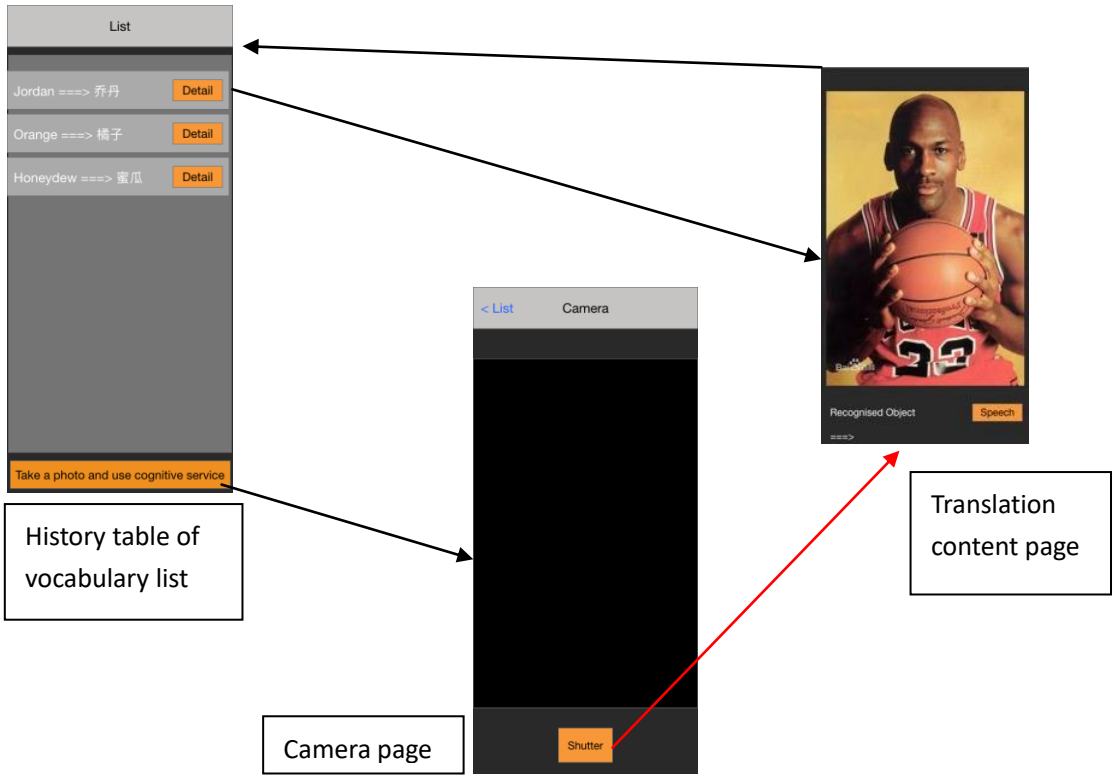
2 Wire frame design

Design Tools:

Wire frames were designed by using Adobe XD, this allows to use the "prototype" play through function, mainly to show how the navigation works in the app, also how the app appears to the user.



Wire Frames:



3 X code Testing:

X code has provided build-in app testing tools, we tested the following functions:

```
Override func setUp() {
        // Put setup code here. This method is called before the invocation of each test method in the class.
        itemList = [
            Item(id:1,date: Date(), image: "jodan.jpg", wordFrom: "Jodan", wordTo: "乔丹", soundFrom: "", soundTo: ""),
            Item(id:2,date: Date(), image: "james.jpg", wordFrom: "James", wordTo: "詹姆士", soundFrom: "", soundTo: ""),
            Item(id:3,date: Date(), image: "kury.jpg", wordFrom: "Kury", wordTo: "库里", soundFrom: "", soundTo: "")
        ]

        wirteData()
    }
    override func tearDown() {
        // Put teardown code here. This method is called after the invocation of each test method in the class.
        clearData()
    }
    func testReadData() {
        //Given
        print("------------testReadData-------------")
        //When
        let list:[Any] = readData() as! [Any]
        print(list.count)
        //Then
        XCTAssert(list.count==3,"Sandbox does not have the expected number of items!")
    }
    func testWirteData() {
        //Given
        clearData()
        //When
        wirteData()
        //Then
        let list:[Any] = readData() as! [Any]
        XCTAssert(list.count==3,"Sandbox does not have the expected number of items!")
    }
    func testAddItem() {
```

```
        //Given
        var itemWillBeAdded = Item(id:5,date: Date(), image: "jodan.jpg",
wordFrom: "Jodan", wordTo: "乔丹", soundFrom: "", soundTo: "")
        //When
        addItem(itemWillBeAdded)
        //Then
        let list:[Any] = readData() as! [Any]
        XCTAssert(list.count==4,"Sandbox does not have the expected number of
items!")
    }

    func testClearData() {
        //Given

        //When
        clearData()
        //Then
        XCTAssert(FileManager.default.fileExists(atPath:
archiveURL.path)==false,"Plist file is not being deleted!")
    }

    func testSaveImageToSandBox() {
        //Given
        guard let image = UIImage(named:"Jodan.jpg") else { return }

        //When
        saveImageToSandBox("Jodantest",image)
        //Then

        XCTAssert(FileManager.default.fileExists(atPath:
getImageFromSandBox(fileName:"Jodantest"))==true,"Wrong image saving!")
    }
```

4 Self and Peer Evaluation Form 1

Use this form to evaluate yourself and your peers. Write your name and the name of the person you are evaluating. For each person, indicate the extent to which you agree with the statement on the left column, using a scale of -2 to 2 (-2=strongly disagree; -1=disagree; 0=neutral; 1= agree; 2=strongly agree). Total the numbers at the end of each column.

Your name: Li Qi
Team member's name: Dian Jiao

Evaluation Criteria	**Myself**	**Team member**
Demonstrates a cooperative and supportive attitude.	2	2
Responds well to feedback and criticism	2	2
Completes assigned tasks on time.	2	1
Prepares work in a quality manner.	2	2
Contributes significantly to the success of the project.	2	2
TOTAL	10	9

General comments on performance:
The Student account for azure stopped working during the development of the app, Teammate was confused. I had to use my personal account to apply for a temporary access to Cognitive service. Not sure when is the API key going to expire.

Team mate has got out dated hardware which can only run Swift 4.2 and iOS Ver. 12.1, therefore has to adapt Pair Programming.

5 Self and Peer Evaluation Form 2

Use this form to evaluate yourself and your peers. Write your name and the name of the person you are evaluating. For each person, indicate the extent to which you agree with the statement on the left column, using a scale of -2 to 2 (-2=strongly disagree; -1=disagree; 0=neutral; 1= agree; 2=strongly agree). Total the numbers at the end of each column.

Your name: Dian Jiao
Team member's name: Li Qi

Evaluation Criteria	**Myself**	**Team member**
Demonstrates a cooperative and supportive attitude.	2	2
Responds well to feedback and criticism	2	2
Completes assigned tasks on time.	1	2
Prepares work in a quality manner.	2	2
Contributes significantly to the success of the project.	2	2
TOTAL	9	10

General comments on performance:
It is very pleasant to work with Li Qi, but due to my hardware limitation and the team wishes to develop in higher version of Swift, I can only work on the App when Li Qi is around physically, and therefore my response to change and task managing is low.

The Azure account for student is not working, and I was wrong to determine that there should be other cognitive service available; the unstable environment really slows down the development. Apart from that the assignment process is very smooth and interesting.