

# **Project Report** **iCT Multi-platform** **Flashcard software** **for learning English**

**COURSE: SOFTWARE ENGINEERING**

**GROUP X:** - Bùi Thị Phương Anh  
- Nguyễn Việt Anh  
- Trần Vũ Hải  
- Trần Thị Thoa  
- Phạm Nguyên Khánh Phong

# OUTLINE

- 1. Overview**
- 2. Analysis and Design**
- 3. Software  
Implementation/Coding**
- 4. Testing & Document**
- 5. Teamwork**
- 6. Final result**

# 1.OVERVIEW

## Flashcard

=> A **method to learn English** that combine the word, pronunciation and the image data so that people can **learn more easily**.

## iCT Flashcard

=> PROVIDE **VISUAL FLASHCARDS**: we don't have to buy paper flashcard anymore.  
=> LEARN **EVERYWHERE**: we can use both web app and Desktop app to learn.  
=> **MULTIPLE LANGUAGE SUPPORT**: user can choose to use Vietnamese or English language UI.

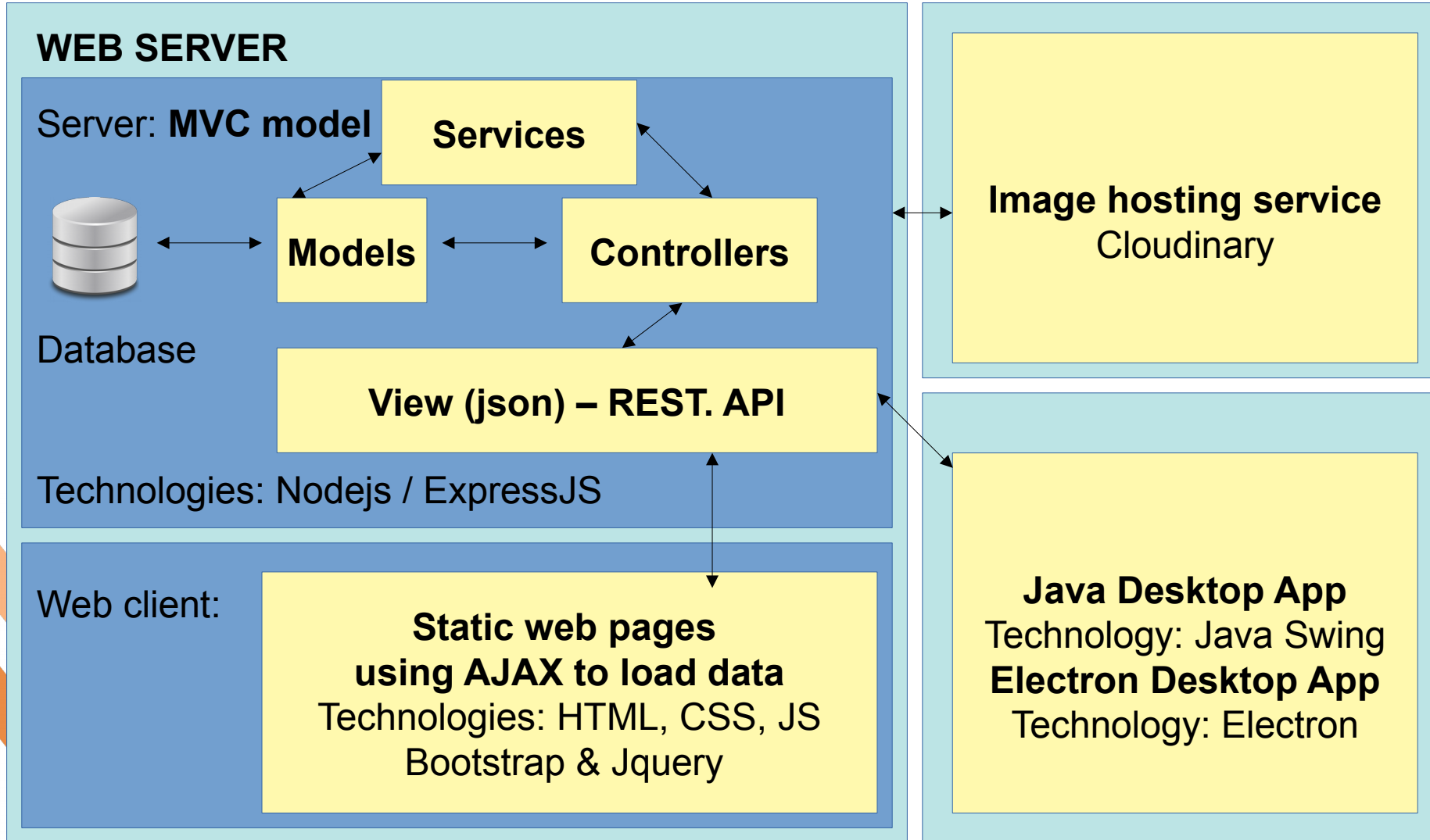
# 2.ANALYSIS AND DESIGN

## PROGRESS:

- **1. Requirement definition** (in design document)
- **2. Design Diagrams** (in design document)
- **3. System architecture design**
- **4. Technology selection**

# 2.ANALYSIS AND DESIGN

## SYSTEM ARCHITECTURE AND TECHNOLOGY SELECTION



# 3.SOFTWARE IMPLEMENTATION / CODING

## - TOOLS USED IN MY TEAM:

### + Server / Web:

VS Code, Sublime text

### + Java desktop app: Eclipse

### + Electron desktop app: Nodejs CLI

### + Team communication:

Facebook Messenger

### + Source Version Control:

Microsoft Github

### + Testing:

Postman test script



# 4. TESTING & DOCUMENTS

## TESTING

- Use Postman Test scripts to test web APIs.



```
Command Prompt
C:\Users\adrian\Documents>curl -X POST http://localhost:3000/api/register
{"status": "ok"}

1. response time is less than 100ms
C:\Users\adrian\Documents>curl -X POST http://localhost:3000/api/login
{"status": "ok"}

2. response time is less than 100ms
C:\Users\adrian\Documents>curl -X POST http://localhost:3000/api/refresh
{"status": "ok"}

3. response time is less than 100ms
C:\Users\adrian\Documents>curl -X GET http://localhost:3000/api/getInfo
{"status": "ok"}

4. response time is less than 100ms
C:\Users\adrian\Documents>curl -X POST http://localhost:3000/api/upload
{"status": "ok"}

5. response time is less than 100ms
C:\Users\adrian\Documents>curl -X POST http://localhost:3000/api/delete
{"status": "ok"}

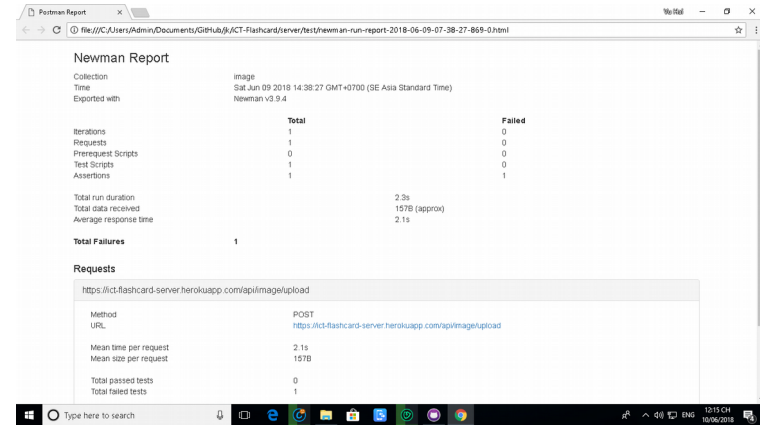
6. response time is less than 100ms
C:\Users\adrian\Documents>curl -X POST http://localhost:3000/api/register
{"status": "ok"}

7. status code is 200

total run duration: 4.7s
total data received: 1024 (approx)
average response time: 40ms

1. response time is less than 100ms
2. response time is less than 100ms
3. response time is less than 100ms
4. response time is less than 100ms
5. response time is less than 100ms
6. response time is less than 100ms
7. status code is 200
```

Run test via console



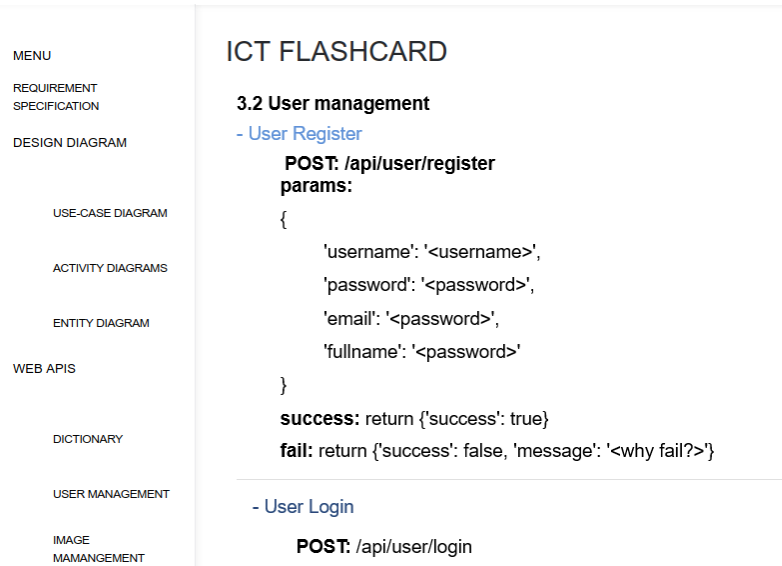
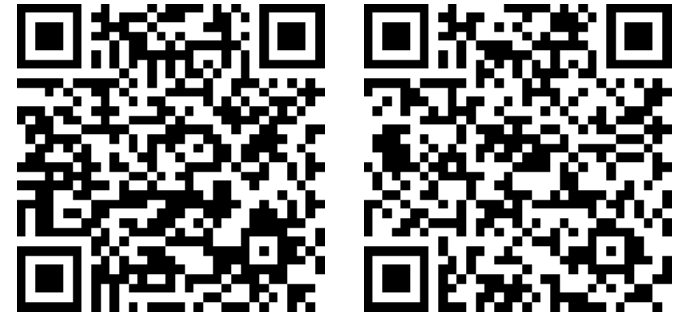
Create web pages as report

# 4. TESTING & DOCUMENTS

## DOCUMENTS

### - DESIGN DOCUMENT:

<https://github.com/vietanhdev/iCT-Flashcard/blob/master/docs/DesignDoc.pdf>



- DOCUMENT PAGE  
FOR DEVELOPER:  
<https://ict-flashcard-server.herokuapp.com/for-developer/>



# 5. TEAMWORK

## 1. SOURCE VERSION CONTROL : GIT

Github Address:

<https://github.com/vietanhdev/iCT-Flashcard>

## 2. TEAM COMMUNICATION:

Facebook Messenger Group

# 5.TEAMWORK

Collaboration is done using github.

## WEB SERVER

### Thoa:

- Design the base structure
- Design database
- MVC model
- Manage images

### VietAnh:

- Implement Restful APIs
- Create dictionary database

## DESKTOP APP

### PhuongAnh:

- Design and implement Java desktop app

### Hai:

- Create initial layouting for desktop app

- Flashcard displaying

### VietAnh:

- Electron desktop app (desktop app based on web technologies)

### Thoa:

- Implement multiple-language.

## TESTING & DOCUMENT

### Hai:

- Write test script using Postman script

### All team:

- Design general structure and UMLs

### VietAnh:

- Create DesignDocument from available diagrams.
- Create slides for presentation.

### Phong:

- Make document page for developer.

### Thoa:

- Webpage testing

### PhuongAnh

- Desktop app testing

## WEB - CLIENT SIDE

### Phong:

- HTML layouting
- About pages

### VietAnh:

- Webpage design / Logic code for client

# 6.FINAL RESULT

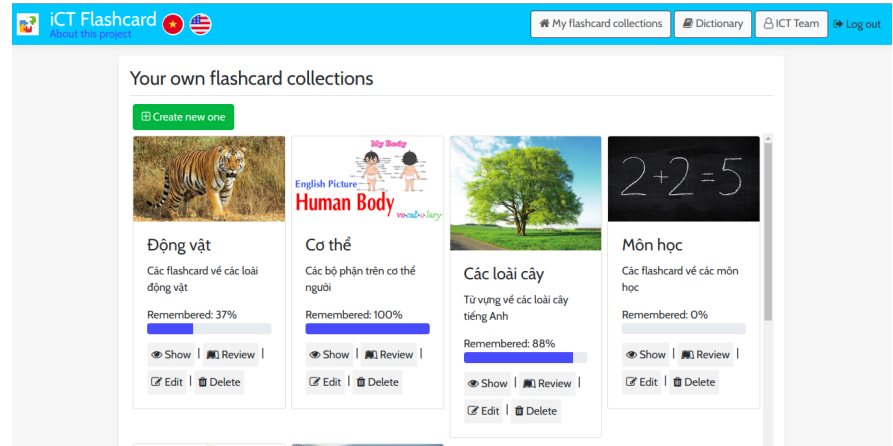
## Webpage

app: **Heroku**;

database: **CleverCloud**;

image: **Cloudinary**

<https://ict-flashcard-serve.r.herokuapp.com/>



## PC Apps (2 versions):

**Java Desktop App:** Optimize the speed

<https://github.com/vietanhdev/iCT-Flashcard/tree/master/pc>

**Election Desktop App:** UI looks like web app. Save internet data.

<https://github.com/vietanhdev/iCT-Flashcard/tree/master/pc-lite>

# 6.FINAL RESULT

## Demo





# Q&A



**THANK YOU YOUR  
ATTENTION!**

