

# A Japanese-English vocabulary library application

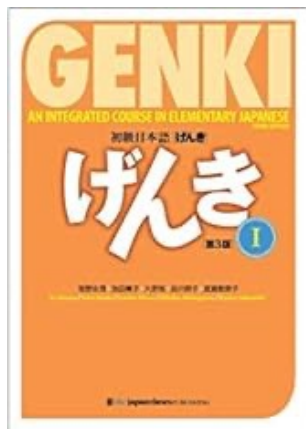
SUN, YUMING (sun.yumi@northeastern.edu)

LIAO, TIANZHI (liao.tian@northeastern.edu )

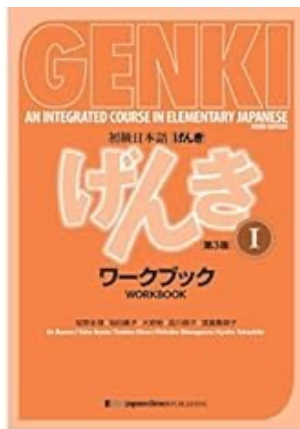
# Introduction



371 grams, A4 size



Textbook

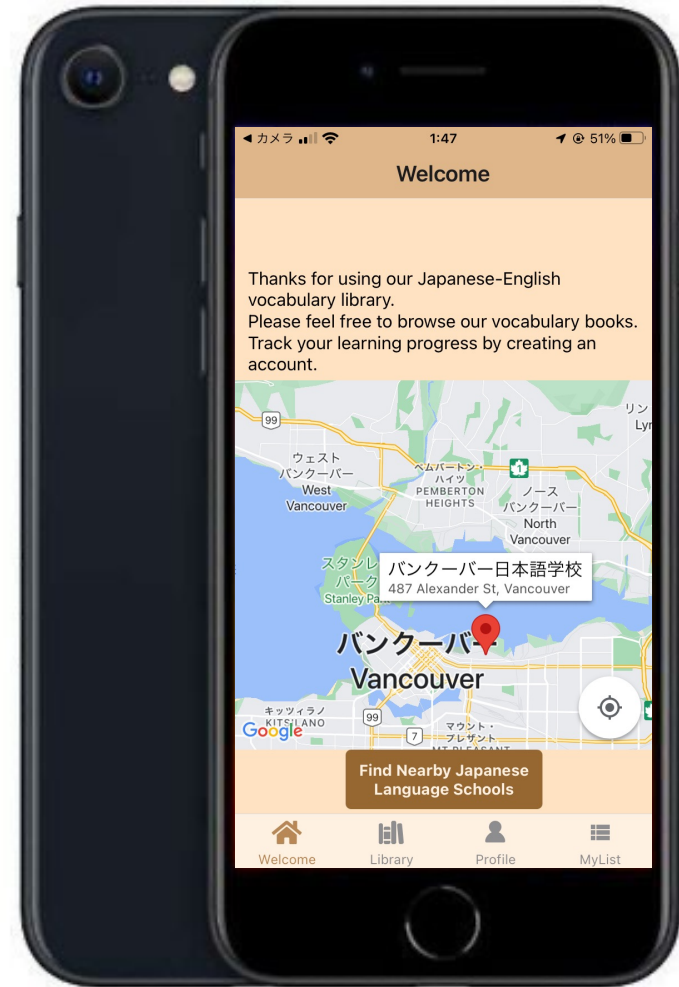


Workbook



979 grams, A4 size

789 grams,  
A4 size



144 grams

# Introduction

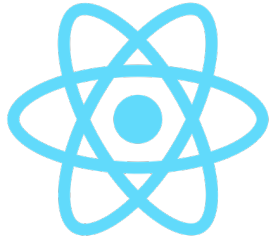


**Everyone** can browse the word book

**Users** can create their own word lists

Find the nearest Japanese language school to learn Japanese

# TECHNOLOGY STACK



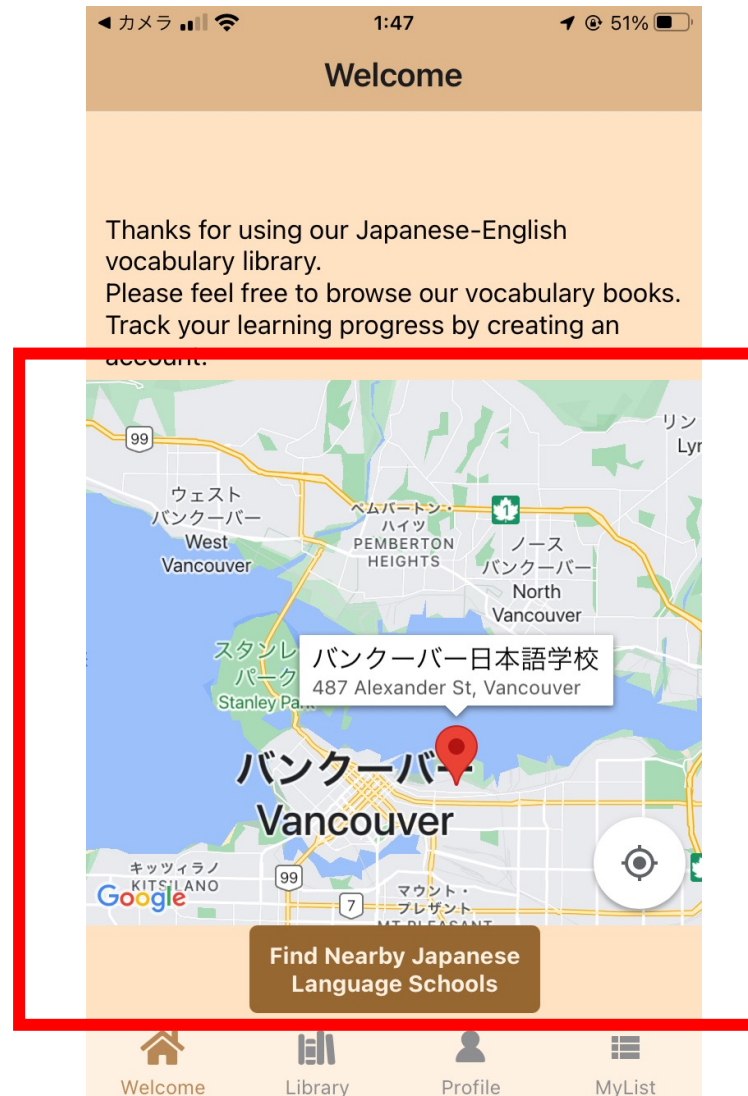
React Native

**REACT-NATIVE**  
FRONT-END PLATFORM



Firebase

**FIREBASE**  
BACK-END PLATFORM  
FIRESTORE DATABASE,  
AUTHENTICATION, STORAGE



**Use Google Maps API**  
**Find language school**  
**based on user's location**



**Use pronunciation API**  
**Play Japanese**  
**pronunciation of word**

# Database collection

## Hierarchical Data

### Collection library

document id:OGODS1FHAGff9v1qMYuJ

imageUri:"bookCover/186....jpg"(string)

nativeLanguage:"JP"(string)

number:"3"(string)

title:"JLPT-N2"(string)

translationLanguage:"GB"(string)

### Collection wordlist

document id: “刑務所”






nativeWord:"刑務所"(string)



translationMeaning:”jail”(string)

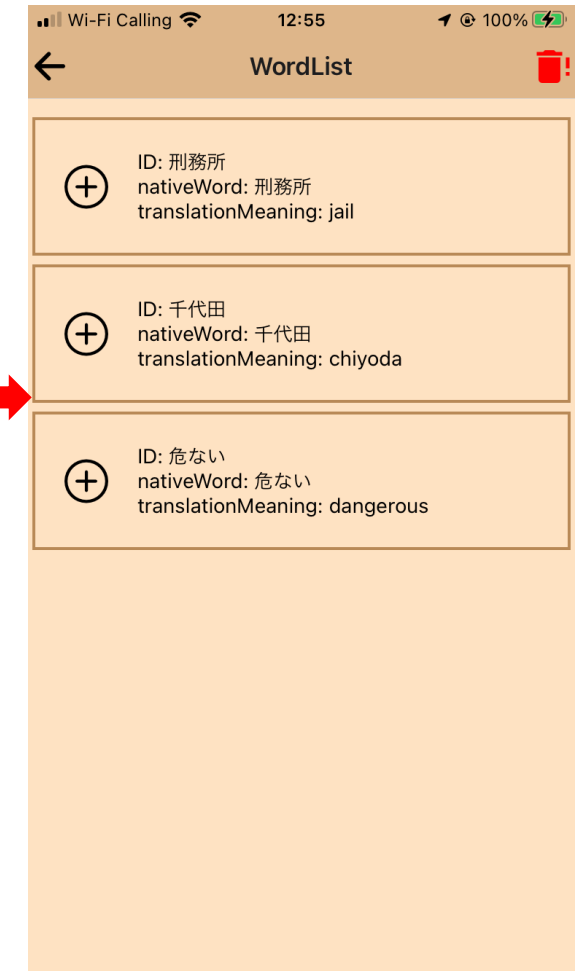
.....

.....

gs://groupproject-e9078.appspot.com > bookCover

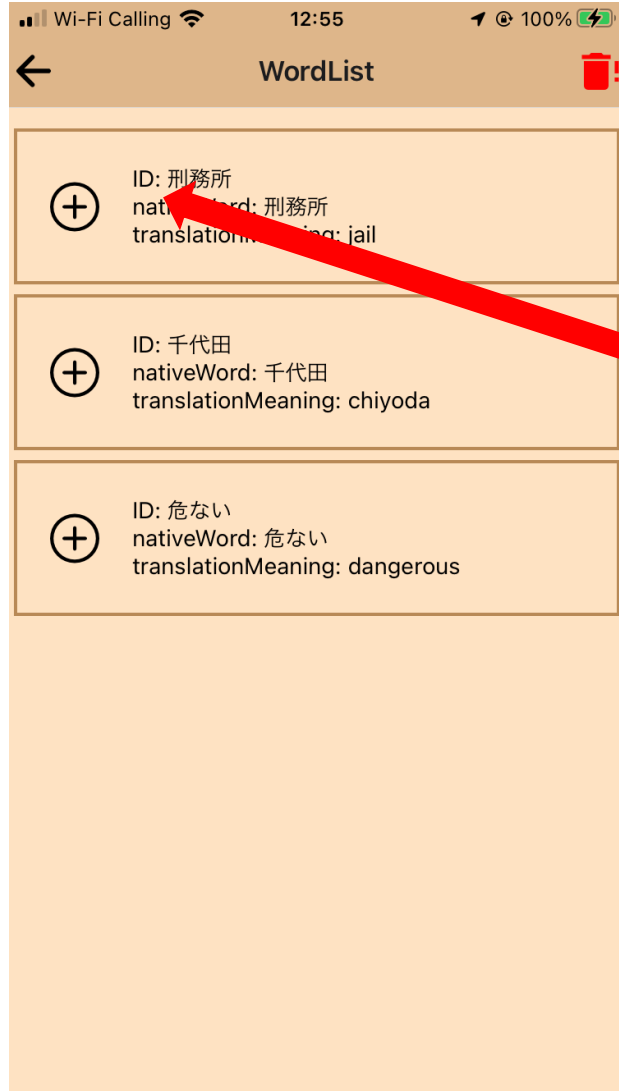
<input type="checkbox"/>	Name	Size	Type	Last modified ↑
<input type="checkbox"/>	 14C2E998-5A05-475F-B954-E9EA4A5D54F9.jpg	165.89 KB	image/jpeg	Apr 15, 2024
<input type="checkbox"/>	 186F84BA-36B9-4B92-B36D-7586847DF93C.jpg	364.87 KB	image/jpeg	Apr 19, 2024
<input type="checkbox"/>	 26efc9c9-48d1-4411-bf9a-51c5a71d9a0d.jpeg	101.17 KB	image/jpeg	Apr 19, 2024
<input type="checkbox"/>	 27CD7B4D-E0E6-4022-BBE4-7738ECCC718A.jpg	214.23 KB	image/jpeg	Apr 15, 2024
<input type="checkbox"/>	 451832F5-CF0F-405A-BB1B-16B06BE07D78.jpg	221.39 KB	image/jpeg	Apr 16, 2024

 186F84BA-36B9-4B... ×  
  
Name  
[186F84BA-36B9-4B92-B36D-7586847DF9...](#)



# CRUD OPERATIONS C

## Add Word to User's List



### Collection users

document id: 1hSjn6451sR1RYieo18sBnMPvo12  
email:"2ww2w@qq.com"(string)  
imageUri:"profileImages/9.jpg"(string)  
isAdmin:false(boolean)  
nickname:"45678"(string)

### Collection wordlist

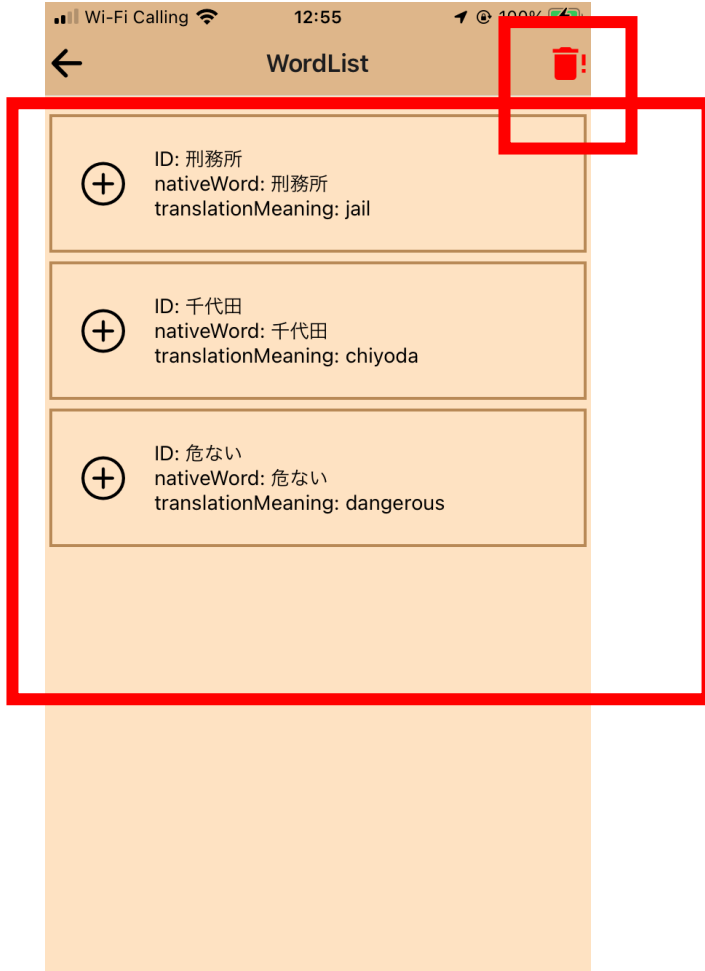
document id: "刑務所"  
nativeWord:"刑務所"(string)  
nativeWordShow:true(boolean)  
remember:false(boolean)  
translationMeaning:"jail"(string)  
translationMeaningShow:false(boolean)





DEMO

# Challenging-Delete



## Collection library

Delete document in the library secondly

document id:OGODSIFHAGff9v1qMYuJ  
imageUri:"bookCover/186...jpg"(string)  
nativeLanguage:"JP"(string)  
number:"3"(string)  
title:"JLPT-N2"(string)  
translationLanguage:"GB"(string)

## Collection wordlist

Delete all document in wordlist firstly

document id: “刑務所”  
nativeWord:"刑務所"(string)  
translationMeaning:”jail”(string)

.....

.....

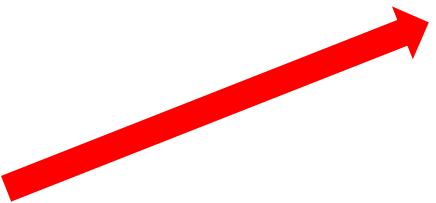


# Future

## Universal and expandable dictionary format

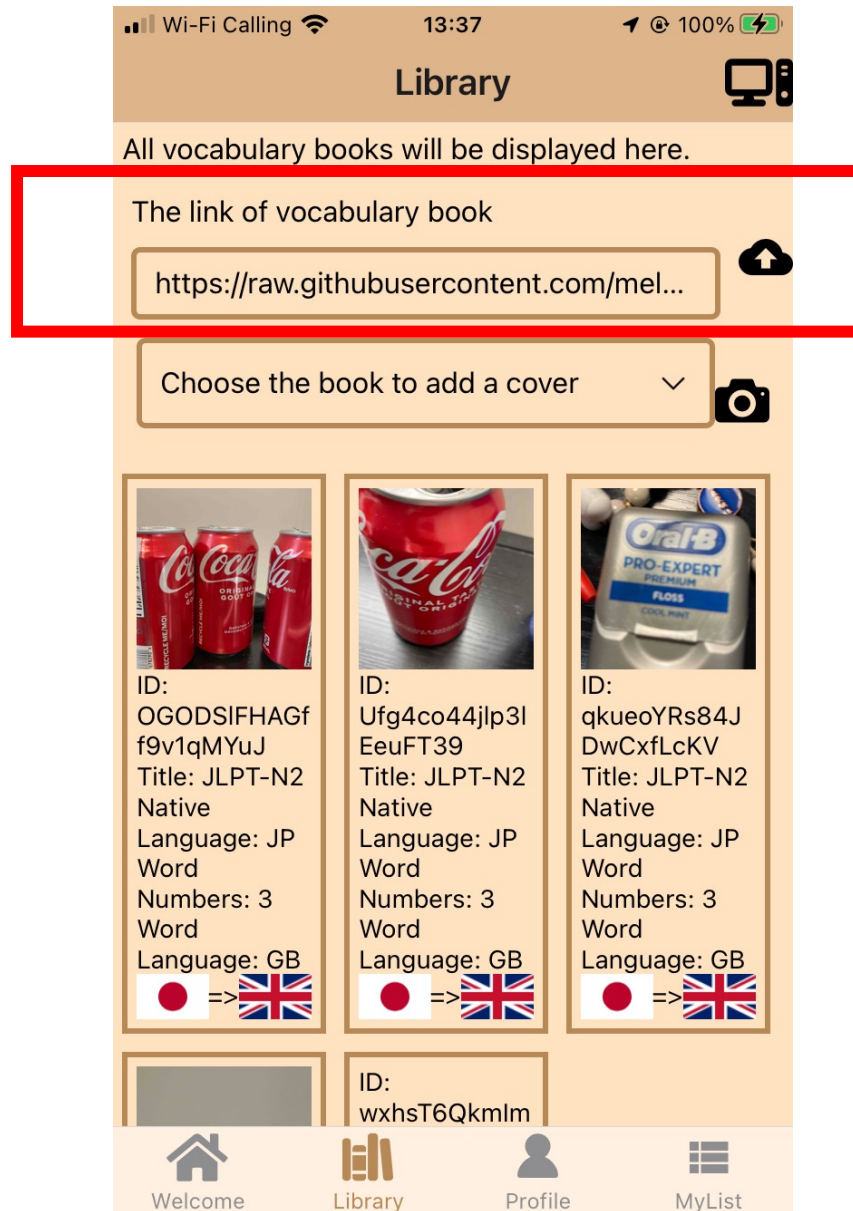
```
[
{
  "title": "JLPT-N2",
  "nativeLanguage": "JP",
  "number": "3",
  "translationLanguage": "GB",
  "wordlist": {
    "危ない": {"nativeWord": "危ない",
    ", "translationMeaning": "dangerous" },
    "刑務所": {"nativeWord": "刑務所",
    ", "translationMeaning": "jail" },
    "千代田": {"nativeWord": "千代田",
    ", "translationMeaning": "chiyoda" }
  }
}
```

Multilingual support



# Future

## More ways to add vocabulary book



# Thanks

A Japanese-English vocabulary library application

Thanks

# Database collection

## Hierarchical Data

### Collection Library

document id:OGODS1FHAGff9v1qMYuJ

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nativeLanguage:"JP"(string)

number:"3"(string)

title:"JLPT-N2"(string)

translationLanguage:"GB"(string)

### Collection wordlist

document id: “刑務所”

nativeWord:"刑務所"(string)

nativeWordShow:true(boolean)

remember:false(boolean)


translationMeaning:”jail”(string)

translationMeaningShow:false(boolean)

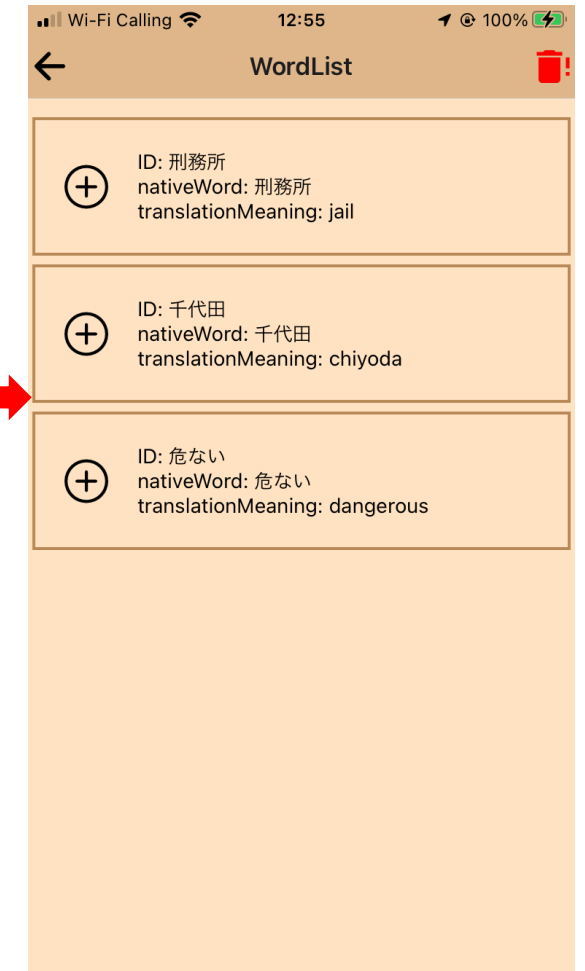
gs://groupproject-e9078.appspot.com > bookCover

<input type="checkbox"/>	Name	Size	Type	Last modified ↑
<input type="checkbox"/>	14C2E998-5A05-475F-B954-E9EA4A5D54F9.jpg	165.89 KB	image/jpeg	Apr 15, 2024
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186F84BA-36B9-4B...



Name  
186F84BA-36B9-4B92-B36D-7586847DF9...



# NO Authentication

- View the welcome screen
  - Use location function
- View the library screen
  - Look inside the vocabulary book
- View the profile screen
  - Login/Sign-up



# Authentication, NO ADMIN Authorization

- View the mylist screen
- View the library screen
  - Look inside the vocabulary book
  - Add words from the wordlist
- View the mylist screen
  - Use local notification function
- View the profile screen
  - Loaded the correct information
  - Use camera function
- View the mylist screen
  - Change remember/forget function
  - Filter the remembered/ forgotten word
  - Delete words
- View the profile screen
  - Logout

# Authentication, ADMIN Authorization

- View the mylist screen
- View the library screen
  - Open the admin terminal
  - Load a book
  - Use camera function to add a cover
  - Use camera function to change a cover
  - Look inside the vocabulary book
  - Delete this book
- View the mylist screen
  - Select review function
  - Play the sound
- View the profile screen
  - Logout

# NON Authentication