# Flashcard Game - JapaneseStudy

#### **Game Features**

- 1. N5-N1 Difficulty Vocab Quizzes (MCQ)
- 2. Character Quizzes (MCQ)
- 3. Learn the Vocabs
- 4. Learning the Characters
- 5. Mistake Practice
- 6. End-of-Quiz Reviews
- 7. Reset

### **Learning Vocab / Characters**

Upon choosing 'Learning the Vocabs', the game will ask the user to choose a JLPT level. It will then display the vocabularies for that specific level.

```
Choice | 3

Learn the Vocabs
Please choose which level vocabulary you want to learn!

1. N5 (Beginner)

2. NA (Basic)

3. N3 (Intermediate)

4. N2 (Upper-Intermediate)

5. N1 (Advanced)
...or enter 'r' to return to the Main Menul

Choice | 2

Learn JUPT N4 Vocabulary
Here are all the N4 vocabularies and their pronunciations:

1. 挨拶 (あいさつ) - greeting
 2. 味 (あじ) - taste flavor
 3. 赤ちゃん (あかちゃん) - baby
 4. 安全 (あんぜん) - safety
 13. 遅れる (おくれる) - to be late
 4. 安全 (あんぜん) - safety
 14. 落ちる (おちる) - to bellate
 5. アルバイト (アルバイト) - part-time job
 6. 医院 (いいん) - clinic
 7. 意見 (いけん) - opinion
 8. 受付 (うけつけ) - reception desk
 9. 運転 (うんてん) - driving
 10. 造魔 (えんりょ) - restraint reserve

Press Enter to return to the previous menu... | □
```

Upon choosing 'Learning the Characters', the game will display all the Japanese characters.

#### **Quiz Flow**

The user will be presented with a main menu.

Upon choosing the '1. JLPT Quiz', the user will be presented with a list of difficulty levels and their respective progress will be shown on the side too. Alternatively, inputting 'r' will bring the user back to the main menu.

```
Choice | 1

Please choose your proficiency level!

1. N5 [18/20 mastered!]

2. N4 [3/20 mastered!]

3. N3 [0/20 mastered!]

4. N2 [0/20 mastered!]

5. N1 [0/20 mastered!]

...or enter 'r' to return to the previous menu!

Choice | []
```

Choosing a difficulty level will immediately start the quiz. Each quiz consists of 10 questions. Each question has four options to choose from. If the user gives the wrong answer, the question will show the correct answer. After answering each question, the system will give the user some time to think about the question they just answered. The user will then be asked to enter a command to go to the next question. The user can also input 'q' to quit the current quiz and go back to the main menu. This will ignore all the progress the user had in this quiz attempt.

```
Tips:
- Inputs are NOT case-sensitive! (e.g. You can enter a or A.)
- You can input q or Q to quit the current quiz and return to the main menu.
[WARNING: THIS WILL NULLIFY THIS QUIZ ATTEMPT]

Q1. Choose the meaning most suited for the following vocabulary.
医院
A | meeting place
B | clinic
C | safety
D | never by no means

Answer | []
```

```
Answer | q
Are you sure? You will lose all your current progress! [Y/N] | y
Quiz terminated. No progress saved.

Please choose what you want to do today!

1. JLPT Quiz
2. Character Quiz
3. Learn the Vocabs
4. Learn the Characters
5. Mistake Practice [7 mistakes right now!]
6. Reset
7. Quit

Choice | []
```

Upon choosing the Character Quiz, the user will be immediately presented with the quiz. Each quiz consists of 10 questions. Each question has four options to choose from. If the user gives the wrong answer, the question will show the correct answer. After answering each question, the system will give the user some time to think about the question they just answered. The user will then be asked to enter a command to go to the next question. The user can also input 'q' to quit the current quiz and go back to the main menu. This will ignore all the progress the user had in this quiz attempt.

```
Choice | 2

You have chosen Character Quiz!

Tips:
- Inputs are NOT case-sensitive! (e.g. You can enter a or A.)
- You can input q or Q to quit the current quiz and return to the main menu.
[WARNING: THIS WILL NULLIFY THIS QUIZ ATTEMPT]

Q1. Choose the reading most suited for the following character.

A | ki
B | na
C | mu
D | mi

Answer | ■
```

In the main menu, the Mistake Practice mode will have a progress status attached to it so that the user can keep track of their mistakes.

```
4. Mistake Practice [0 mistakes right now!]
```

If there are no mistakes at the moment, the system will display an error message and ask the user to try again later. The user will return to the main menu.

```
Choice | 4

There are no mistakes to practice right now.

Complete some quizzes first and come back later!

Press Enter to return to the Main Menu... | []
```

If there are mistakes, the user will be immediately presented with the same quiz questions they've answered wrong.

```
Mistake Review
Let's review the 10 mistakes from this quiz.
For each question, try to answer correctly to clear it from your mistake list.
Review Q2. Choose the meaning for:
先生 (せんせい)
A | now
B | tomorrow
C | teacher
D | influence clout

Answer | []
```

Once a mistake is corrected, that question will be removed from the mistake data bank.

Finally, the user can input '5' to exit the application.

#### Choice | 5

Thanks for using JapaneseStudy! See you soon! 頑張りましょう!

### **Question Marking**

The system will immediately check the user's answer for each question. If the right option has been chosen. It will notify the user and prompt them to move the next question. Otherwise, the system will show the right answer. Inputting 'y' / 'Y' will present the user with the next question.

```
Q1. Choose the meaning most suited for the following vocabulary.
あ
A \mid a
B \mid i
C \mid u
D | e
Answer | b
Correct.
Press Enter to go to the next question... |
Q2. Choose the meaning most suited for the following vocabulary.
U
A \mid a
B \mid e
C \mid i
D \mid o
Answer | a
Wrong.
Correct Answer: C | い[i].
Press Enter to go to the next question... |
```

## **Progress Tracking**

Each JLPT proficiency level will show the mastery progress to let players track their progress.

Please choose your proficiency level!

- 1. N5 [15/20 mastered!]
- 2. N4 [11/20 mastered!]
- 3. N3 [4/20 mastered!]
- 4. N2 [0/20 mastered!]
- 5. N1 [1/20 mastered!]

At the end of each quiz attempt, the user can check their score and the mistakes they've made. They can also choose to practice these mistakes immediately. Correcting the mistakes will remove them from the mistake data bank. Refusing to review mistakes will take the user back to the main menu.

Quiz Summary
You got 7/10 correct.
Review these words:
- 医院 (you chose: いけん, correct: いいん)
- 受付 (you chose: うんてん, correct: うけつけ)
- 会場 (you chose: かいぎ, correct: かいじょう)

Would you like to review these mistakes right now? [Y/N] | N

Welcome to JapaneseStudy!

Please choose what you want to do today!

- 1. JLPT Quiz
- 2. Character Quiz
- 3. Learn the Characters
- 4. Mistake Practice [0 mistakes right now!]
- 5. Reset
- 6. Quit

Choice |

#### Reset

The user can choose to reset their entire game progress. That includes mastery and mistakes for all levels. Since this cannot be undone, the players will be asked to confirm if they really want to reset their progress.

Please choose what you want to do today!

- 1. JLPT Quiz
- 2. Character Quiz
- 3. Learn the Characters
- 4. Mistake Practice [0 mistakes right now!]
- 5. Reset
- 6. Quit

Choice | 5

Are you sure you want to reset your progress? (That includes all mastery and mistakes!) [Y/N] | Y

Your progress has been reset! Happy Learning!

Upon resetting, the user progress for each JLPT quiz will be reset to 0 and the mistake data bank will be emptied. After resetting, the user will return to the main menu.

### **Quiz Algorithm**

In this game, the order of the questions and options in each question will be randomized. In order to achieve that, the *random* module will be imported and used to generate random orders for the questions and options. That way the questions will appear randomly and options will not look the same after each attempt.

The way the game achieves this is to get a list of all the questions available. Then it will randomly select three vocabs / characters to serve as distractors, thus forming the question with four options (one correct + 3 distractors).

Another important note, the order of the choices for each question are also randomized everytime a question is generated. The correct answer won't be at the same location every time then!

### **Data Structure Design**

A csv file will be allocated for each JLPT Quiz, the Character Quiz, characters, mistakes, and user progress.

```
jlpt_n5.csv
jlpt_n4.csv
jlpt_n3.csv
jlpt_n2.csv
jlpt_n1.csv
characters.csv
mistakes.csv
```

Each file will contain the format and corresponding data. For example:

```
kanji,kana,meaning
足,あし,leg; foot
明日,あした,tomorrow
犬,いぬ,dog
```

The main program will read and write into these files for all the program operations.