



Dukemon - User Guide



1. Introduction - What is Dukemon?	2
2. Getting Started	2
2.1. Installation	2
2.2. User Interface	3
2.3. Switching Modes	4
2.4. AutoComplete Bar	5
2.5. QuickStart	6
2.6. Purposes of each mode	8
3. Commands	9
3.1. Switch Commands	10
3.2. Card Commands	11
3.3. WordBank Commands	13
3.4. WordBank Statistics Commands	15
3.5. Game Commands	15
3.6. Settings Commands	18
3.7. Misc. Commands	22
4. Statistics	23
4.1. Game Result	23
4.2. WordBank Statistics	24
4.3. Global Statistics	25
5. <i>WordBank</i> management	26
5.1. Drag and drop	26
5.2. Revision <i>WordBank</i>	27
6. Command Summary	28
7. Upcoming Features	29
7.1. Leaderboard [coming in v2.0]	29
7.2. Reminders [coming in v2.0]	29
7.3. User profiles [coming in v2.0]	29
7.4. Customizable Difficulty [coming in v2.0]	29
8. FAQ	30

By: S**Erebros** Since: September 2019 Licence: MIT

1. Introduction - What is Dukemon?

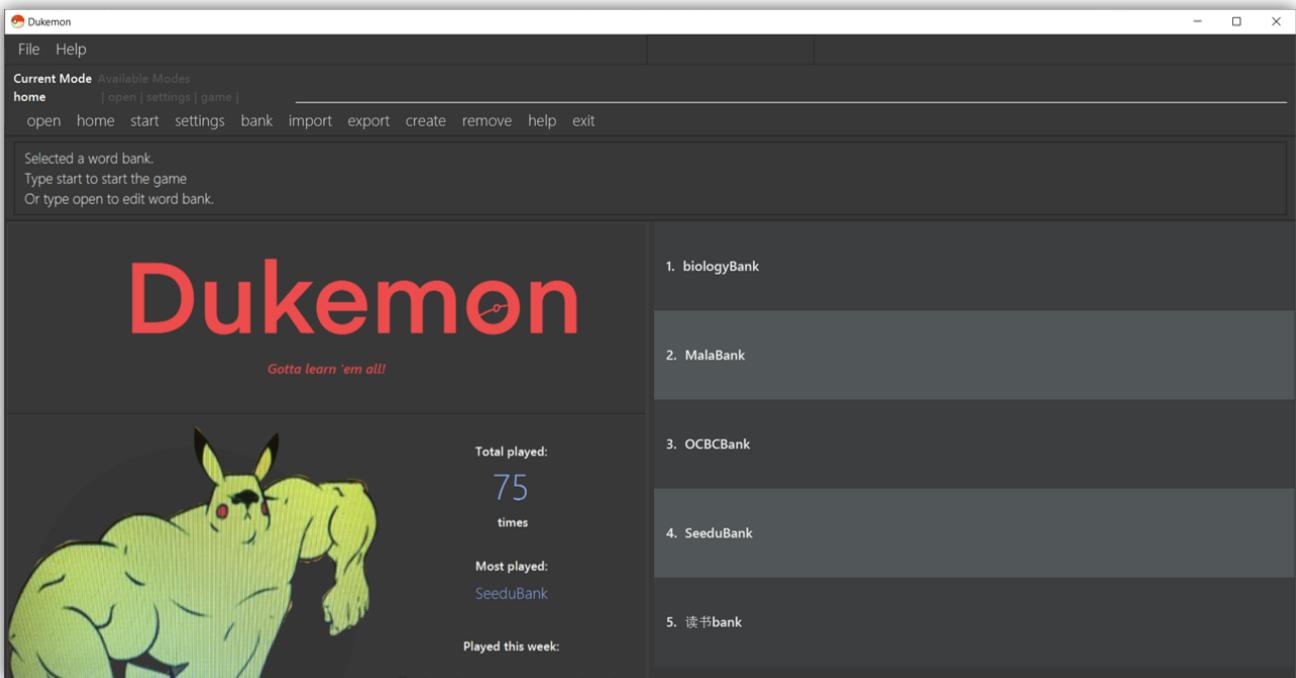


Figure 1. Home screen of Dukemon.

Welcome to Dukemon , the Flashcard app of the future!

Dukemon aims to streamline and gamify the process of learning words or definitions through the use of self-created digital flashcards. **Supercharge your learning with Dukemon!**

2. Getting Started

2.1. Installation

1. Ensure you have Java **11** or above installed on your system.
2. Download the latest **Dukemon.jar** [here](#).
3. Copy the file to the folder you want to use as the home directory of *Dukemon* (this is where your data will be stored).
4. Double-click the **Dukemon.jar** to run the app.
5. Before getting to the quick start instructions, get familiar with our interface and application modes.

2.2. User Interface

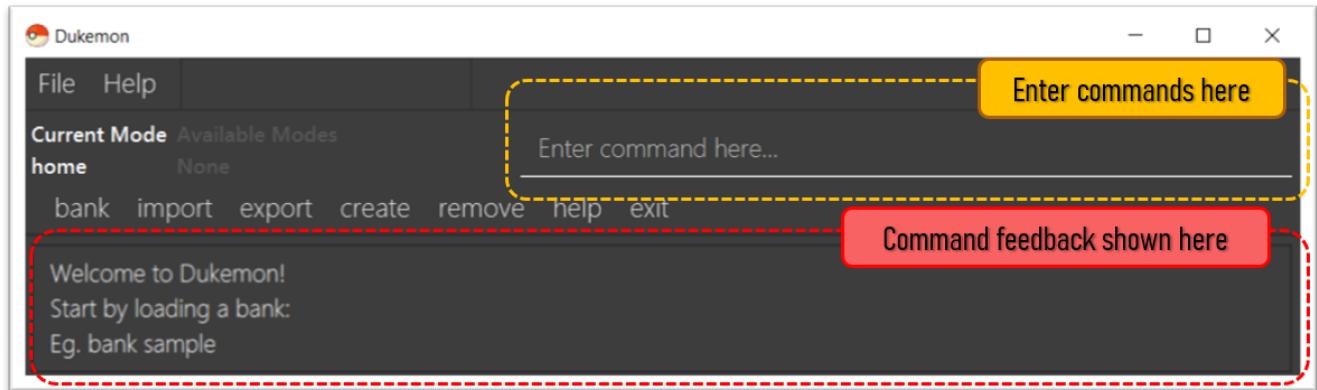


Figure 2. Regions of the UI where commands are entered (via CLI) and feedback from Dukemon is shown.

1. Click on the *CommandBox* as shown above (region in yellow box) and type commands in.
2. Use **Enter** to execute commands.
 - a. e.g. Typing **help** into the *CommandBox* and pressing **Enter** will open the *Help* window.
3. Text-based feedback for each command entered is shown in the *ResultDisplay* (region in red box).

2.3. Switching Modes

There are 4 application modes.

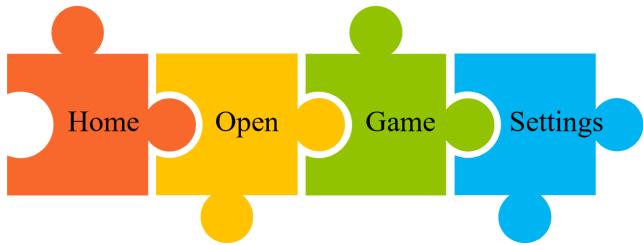


Figure 3. Application modes



Figure 4. Mode Display

In the highlighted section above, you can see the current mode you are in and the available modes.

To transition between them you have to enter the **SwitchCommand** that represents each mode into the Command Box that says *Enter command here...*

- **open** Enter
to enter **open** mode
- **start** Enter
to enter **game** mode
- **settings** Enter
to enter **settings** mode
- **home** Enter
to enter **home** mode

Requirements before changing mode

- A bank should be selected
- No game should be running

Current Mode Available Modes
home | open | settings | game |

Figure 5. If other modes are available, they will be displayed beside the Command Box

Yes, it feels like a steep learning curve >_<

But do not worry as we have the AutoComplete Bar that auto completes the available commands whichever mode you are in.

2.4. AutoComplete Bar

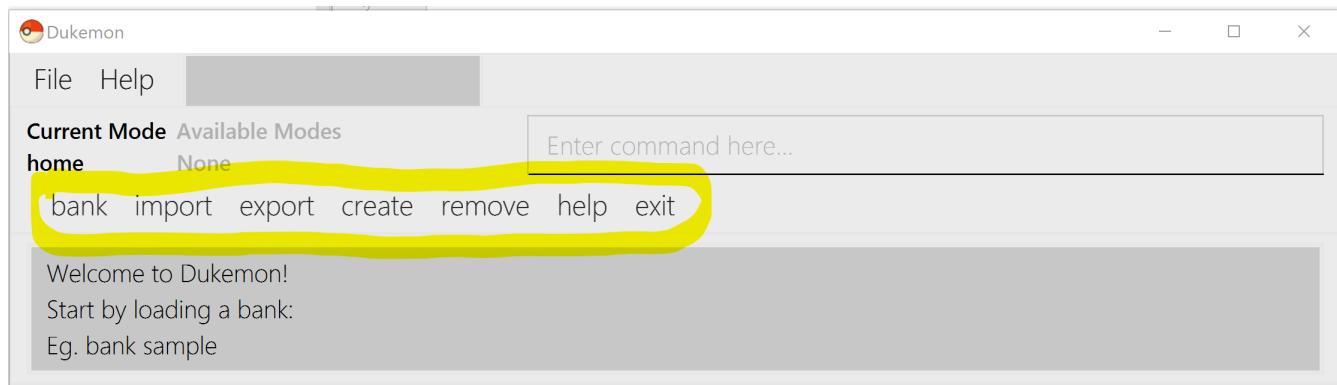


Figure 6. AutoComplete Bar

The highlighted section shows what commands are currently available. You can click them to automatically fill it in for you. Each of your keystroke will dynamically update the AutoComplete bar, just like the keyboard on your smartphone.

2.5. QuickStart

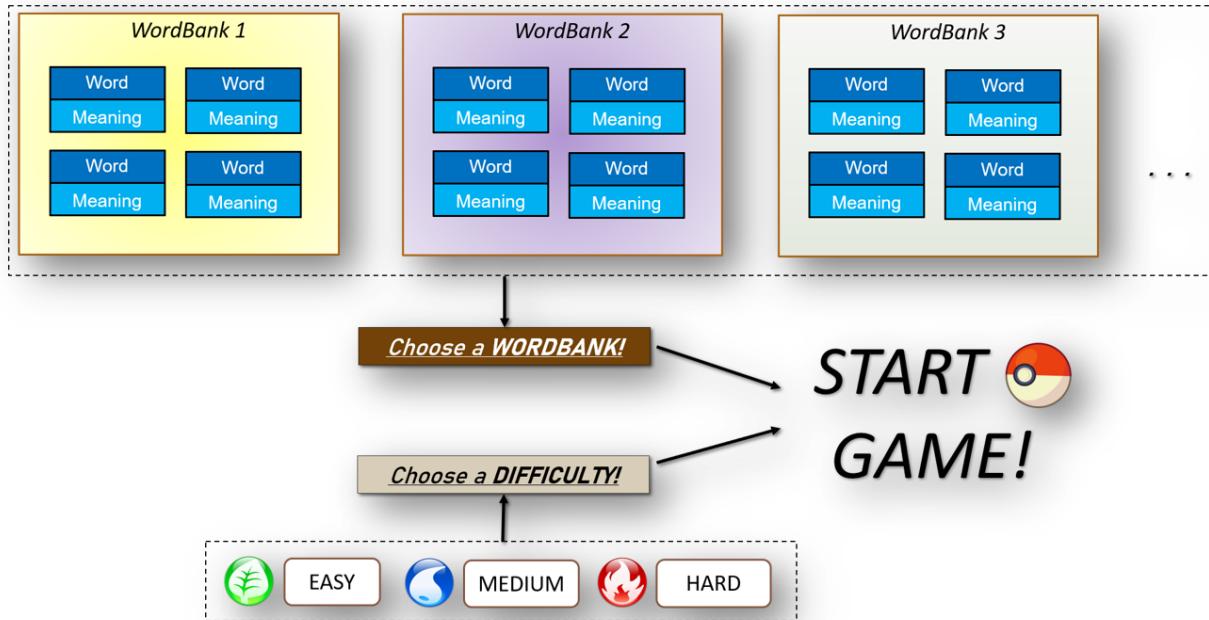


Figure 7. General program flow of Dukemon, showing how the different parts work together.

Let's select the sample WordBank and play a game to get familiar.

1. `select sample` Enter
 - This would allow you to switch modes
2. `open` Enter
3. `start` Enter
4. `guess <your_guess>` Enter
 - keep guessing till the statistics screen appears
 - you can switch modes now
5. `home` Enter

Getting comfortable? Ready to master the application commands?

Some typical commands to get familiar with are:

- **create <NAME>**: Creates an empty *WordBank* with specified name. (in Home Mode)
- **select <NAME>**: Selects and switch to *WordBank* with the specified name. (in Home Mode)
- **add w/<WORD> m/<MEANING>**: Adds a new *Card* with specified *Word* and *Meaning* into the current *WordBank*. (in Open Mode)
- **list**: Lists all *Cards* in the current *WordBank*. (in Open Mode)
- **start <EASY/MEDIUM/HARD>**: Starts a *Game* session with the specified *Difficulty*. Default difficulty in *Settings* will be used if not specified. (after selecting *WordBank*)
- **guess <YOUR_ANSWER>**: Makes a *Guess* for the current *Word* whose *Meaning* is shown on the UI. (in Game Mode)
- **stop**: Stops the current *Game* session. (in Game Mode)
- **exit**: Exits *Dukemon*. (in any mode except Game)

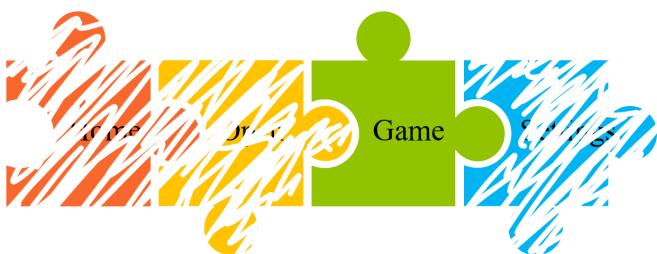
2.6. Purposes of each mode



- Create/Choose a *Wordbank*
- View Global Statistics



- Create/Add/Modify *Cards* of your *WordBank*. (Each *Card* contains a *Word* and *Meaning*).
- View Statistics belonging to a specific *WordBank*



- Guess *Words* based on each *Meaning* that appear as quickly as possible.
- Finish the *Game* and view the *Statistics* for your game session.



- Configure your preferred *Settings*. (change *Difficulty*, *Theme* etc.)

3. Commands

Command Format

- Words in **UPPER_CASE** are the parameters to be supplied by the user.
Eg. in `add w/WORD m/MEANING`, **WORD** is a parameter which can be used as
`add w/Charmander m/Fire starter pokemon.`
- Items in square brackets are optional.
Eg. `w/WORD [t/TAG]` can be used as
`add w/Squirtle m/Water starter pokemon t/Water type` or as
`add w/Squirtle m/Water starter pokemon.`
- Items with **...** after them can be used multiple times including zero times.
E.g. `[t/TAG]...` can be used as (i.e. 0 times), `t/CS2040, t/CS2040 t/GRAPH` etc.
- Parameters can be in any order.
E.g. if the command specifies `w/WORD m/MEANING, m/MEANING w/WORD` is also acceptable.

3.1. Switch Commands

(Available in all modes as long as *WordBank* is selected and game is not running)

3.1.1. Switch to home page: `home`

Welcome home.

Format: `home`

3.1.2. Open *WordBank* content: `open`

Opens the page to edit the *WordBank* selected.

Format: `open`

- Use the select command to select a *WordBank*. Otherwise it won't work.

3.1.3. Start the game: `start`

Starts the game with the *WordBank* selected.

Format: `start [DIFFICULTY]`

- Use the select command to select a *WordBank*. Otherwise it won't work.

Examples:

- `start`
- `start easy`

NOTE Entering the start command after *WordBank* is selected will enter game mode. In event that there are fewer than 3 *cards*, the game would not run. You would have to go to `open` mode to add *cards*.

3.1.4. Customise game play: `settings`

Enters settings page, so that the user can customise the game play.

3.2. Card Commands

(Available in Open mode)

3.2.1. Add a card: add

Adds a new word-meaning pair to the *WordBank*.

Format: **add w/WORD m/MEANING**

Examples:

- **add w/Dukemon m/the Flashcard app of the future**
- **add w/Newton's third law of motion m/Every action will produce and equal and opposite reaction**
- **add w/Kopi Luwak m/Coffee produced from the coffee beans found in the faeces of a civet cat**

NOTE There can be duplicate *Words*, but duplicate *Meanings* will be rejected.

3.2.2. Delete a card: delete

Deletes the specified index from the *WordBank*.

Format: **delete INDEX**

- Deletes the *card* at the specified **INDEX**.
- The index **must be a positive integer** 1, 2, 3, ..., and must be a valid index within the list.
- The index refers to the index number shown in the displayed *card* list.

Examples:

- **delete 2**
Deletes the 2nd *card*.
- **delete 1**
Deletes the 1st *card* in the results of the **find** command.

3.2.3. Edit a card: edit

Edits a *card*.

Format: **edit INDEX [w/WORD] [m/MEANING] [t/TAG]**

Examples:

- **edit 1 w/new word m/new meaning**
- **edit 2 m/new meaning with tag t/tagged**

3.2.4. Find a card: `find`

Finds entry whose *Word* or *Meaning* or *Tag* contain any of the given keywords.

Format: `find KEYWORD [MORE_KEYWORDS]…`

- The search is case insensitive. e.g `capital` will match `cApiTAl`
- The order of the keywords does not matter. e.g. `key words` will match `words key`
- *Word*, *Meaning* or *Tag* will be searched
- Words contained within will be matched e.g. `formal` will match `Informal`
- *Cards* matching at least one keyword will be returned (i.e. OR search). e.g. `Peter man` will return `Peter Parker, Spiderman`

Examples:

- `find long`

Returns any entries containing `long` in its *Word*, *Meaning* or *Tag*.

- `find mammal fish bird`

Returns any entries containing `mammal`, `fish` or `bird` in its *Word*, *Meaning* or *Tag*.

3.2.5. View all cards: `list`

Views the content of a *WordBank*.

Format: `list`

3.2.6. Clear all cards: `clear`

Clears the *WordBank* by removing all *cards*.

Format: `clear`

3.3. WordBank Commands ☰

(Available in Home mode)

3.3.1. Select a WordBank: `select`

Lets Dukemon know what *WordBank* you have selected.

Format: `select WORD_BANK`

Examples:

- `select arithmetic`
- `select sample`

3.3.2. Create new WordBank: `create`

Creates a new *WordBank* with specified name.

Format: `create WORD_BANK`

Examples:

- `create CS2040`
- `create Biology`

3.3.3. Remove a WordBank: `remove`

Removes a new *WordBank* with specified name.

Format: `remove WORD_BANK`

Examples:

- `remove Gen 3 pokemon`
- `remove Vocabulary`

3.3.4. Import a WordBank: `import`

Imports the *WordBank* from a specified folder path on your system.

Format: `import w/WORD_BANK f/FOLDER`

- `FOLDER` is the folder where the *WordBank* file reside.
- `WORD_BANK` is the name of the file without the extension.
- Dukemon can only read json *WordBank* files.

Examples:

(Use \ for Windows)

- `import w/cs2040_graph f/~/downloads`
- `import w/fire pokemons f//Users/chrischenhui/data`

We have a drag and drop feature.

NOTE You can drag and drop a file from your computer into the section which holds the *WordBanks*.

3.3.5. Export a WordBank: `export`

Exports the *WordBank* to a specified file path on your system.

Format: `export w/WORD_BANK f/FOLDER`

- `FOLDER` is the folder where the *WordBank* file reside.
- `WORD_BANK` is the name of the file without the extension.
- Dukemon exports *WordBanks* into json files.

Examples:

- `export w/ma1101r theorems f/~/`
- `export w/biology definitions f/~/downloads`

We have a drag and drop feature.

NOTE You can also drag and drop a *WordBank* outside of *Dukemon*, and into your computer.

3.4. WordBank Statistics Commands

(Available in Open mode)

3.4.1. Resetting the *WordBank* statistics: `reset`

Resets the statistics of the open *WordBank* to an empty statistics.

Format: `reset`

3.5. Game Commands

(Available in Game mode)

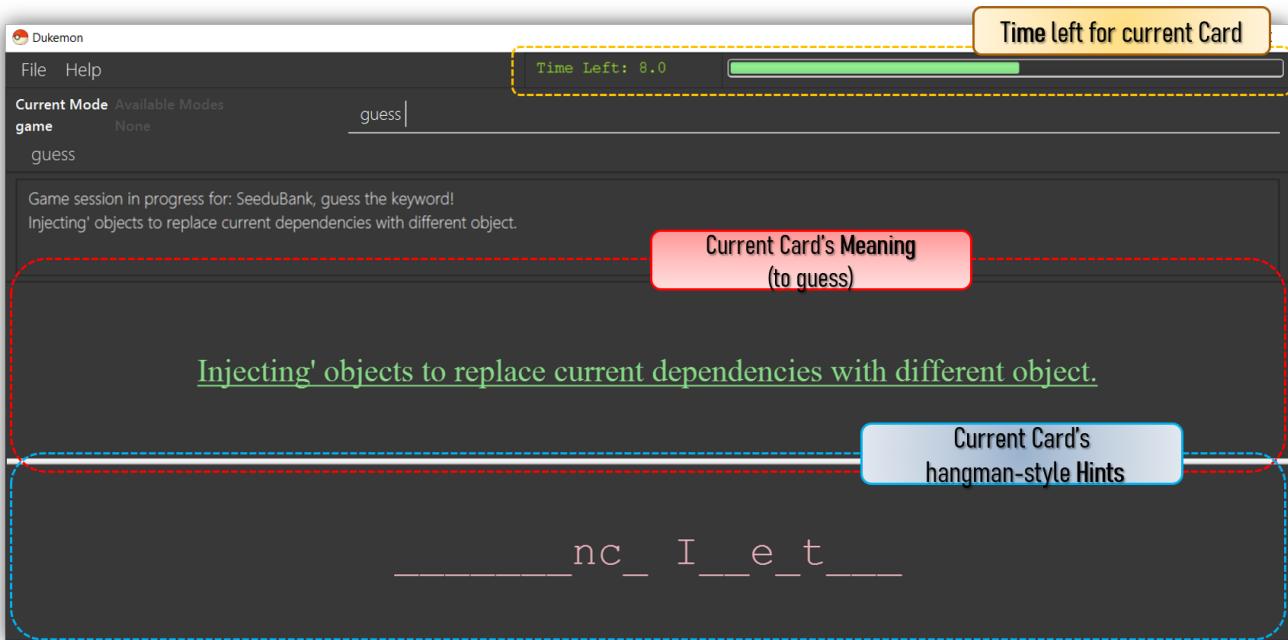


Figure 8. UI regions that are relevant when a Game session is in progress.

This section covers the actions and feedback that are relevant to the *Game* mode. The general layout of the UI when a *Game* is in progress is as seen above.

1. The timer will be activated to reflect the time left before the *Game* skips over to the next *card*. (region in yellow box)
2. The *Meaning* of the current *Card* is shown in the region contained by the red box. Based on this *Meaning* you will make a *Guess* for the *Word* it is describing.
3. *Hints* (if enabled) will be periodically shown as time passes (region in the blue box) in a Hangman-style. The number of hints given differs across each *Difficulty*.

3.5.1. Game Mode - Starting



The relevant command(s) are:

1. Starting new game session:

Format: `start [EASY/MEDIUM/HARD]`

- Starts a game session with the currently selected *WordBank* and specified *Difficulty*. (*WorkBank* selection is done in *Home* mode.) If no *Difficulty* is specified, the default *Difficulty* in *Settings* will be used.

3.5.2. Game Mode - Playing

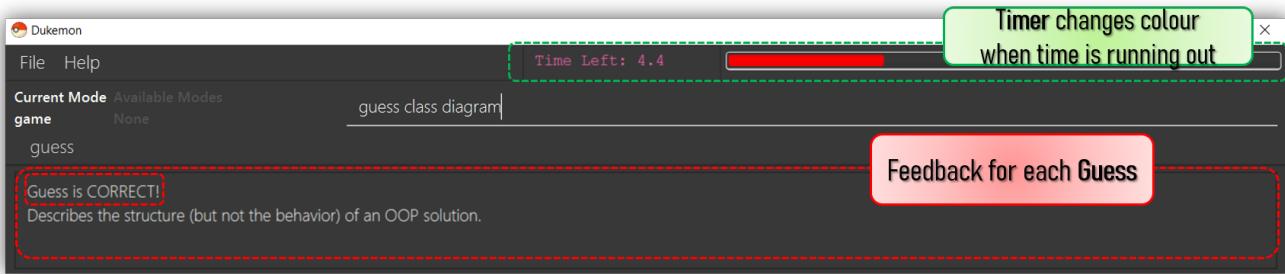


Figure 9. Timer and feedback for each Guess during a Game session. (Timer changes color based on time left).

The relevant command(s) are:

1. Making a Guess for a Word:

Format: `guess WORD`

- Makes a guess for the *Word* described by the currently shown *Meaning*. (**non case-sensitive**)

NOTE

The `guess` keyword is automatically enabled for you for every question - there is no need to type `guess` before every Guess of a Word.

2. Skipping over a Word:

Format: `skip`

- Skips over the current *Word*. (**is counted as a wrong answer**)

3.5.3. Game Mode - Terminating & Statistics

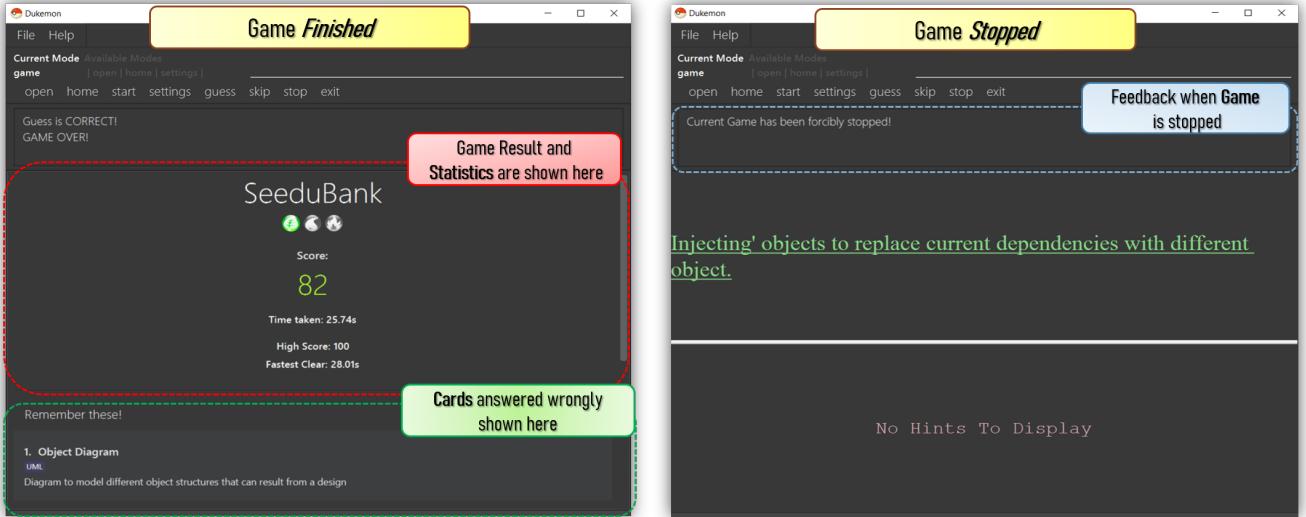


Figure 10. Comparison of UI Regions between Game finished vs. Game forcibly stopped.

A *Game* finishes when **all Cards have been attempted**. *Statistics* are **automatically shown** upon completion of a *Game* (see Fig. 6 above). The user can choose to **stop** a *Game* before it has finished—**all current Game progress is lost**, and **no Statistics are collected** (see Fig. 7 above).

The relevant command(s) are:

1. Stopping a *Game* (before it has finished):

Format: **stop**

- Forcibly terminates the current active *Game* session.

3.6. Settings Commands

(Available in Settings mode)

Goes into the settings menu.

Format: `settings`

3.6.1. Changing the theme: `theme`

Changes the theme of the UI.

Format: `theme dark/light`

Examples:

- `theme dark`

Changes the UI theme to dark.

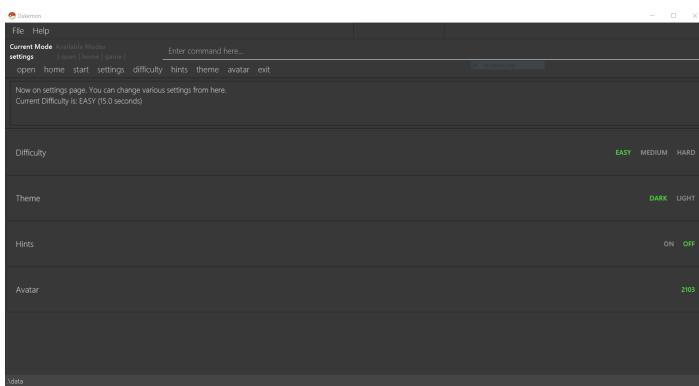


Figure 11. Dark Theme

- `theme light`

Changes the UI theme to light.



Figure 12. Light Theme

3.6.2. Turning hints on/off: `hints`

Turns hints on or off.

Format: `hints on/off`

Examples:

- `hints on`

Turns hints on.

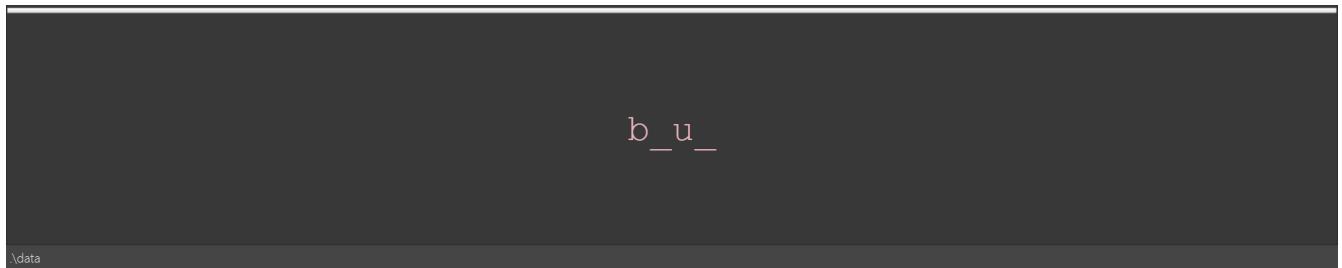


Figure 13. Hints on

- `hints off`

Turns hints off.



Figure 14. Hints off

3.6.3. Changing difficulty: **difficulty**

Changes the difficulty of the game.

Format: **difficulty easy/medium/hard**

Examples:

- **difficulty easy**

Changes the difficulty to easy. (Timer = 15 seconds)



Figure 15. Easy difficulty (15 seconds)

- **difficulty medium**

Changes the difficulty to medium. (Timer = 10 seconds)

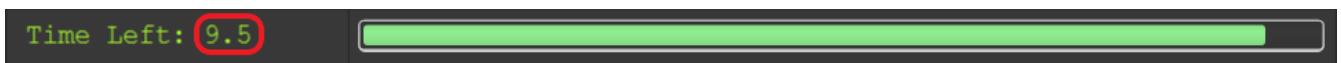


Figure 16. Medium difficulty (10 seconds)

- **difficulty hard**

Changes the difficulty to hard. (Timer = 5 seconds)

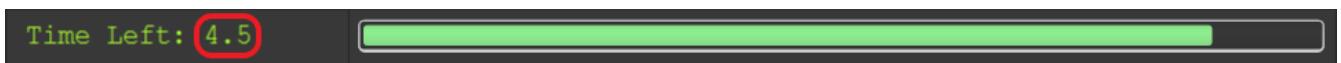


Figure 17. Hard difficulty (5 seconds)

3.6.4. Changing Avatar : `avatar`

Changes the avatar in the home screen. The avatar is one of the 151 original pokémon, so pick and choose! (There is a secret avatar as well. See if you can find it!)

Format: `avatar [0 - 151]`

`avatar 0` sets the avatars to random.

Examples:

- `avatar 0`

Changes the avatar to a random one everytime a new command is called.

- `avatar 1`

Changes the avatar to 001 in the original Pokédex, which is Bulbasaur.



Figure 18. Avatar number 1, in this case, Bulbasaur.

- `avatar 151`

Changes the avatar to 151 in the original Pokédex, which is Mew.

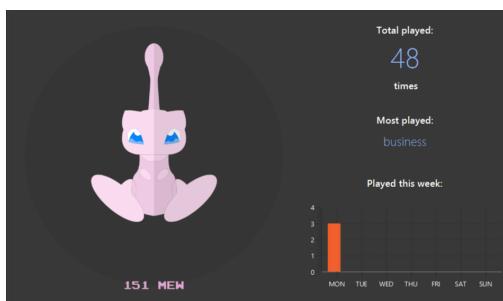


Figure 19. Avatar number 151, in this case, Mew.

3.7. Misc. Commands



NOTE

`help` is available in *Home* mode
`exit` is available in any mode **except** *Game* mode)

3.7.1. Ask for help: `help`

Shows the link to the User Guide (appears as a pop-up).

Format: `help`

3.7.2. Take a break: `exit`

Exits and closes *Dukemon*.

Format: `exit`

4. Statistics

This section covers the *Statistics* shown to the user.

4.1. Game Result

The game result is shown to the user every time a Game finishes. It contains information regarding the finished *Game* session and *Statistics* for the selected *WordBank*.

We use a simple formula to calculate the score: $\text{floor of } (\text{Number of correct answers}) / (\text{Total questions}) * 100$.

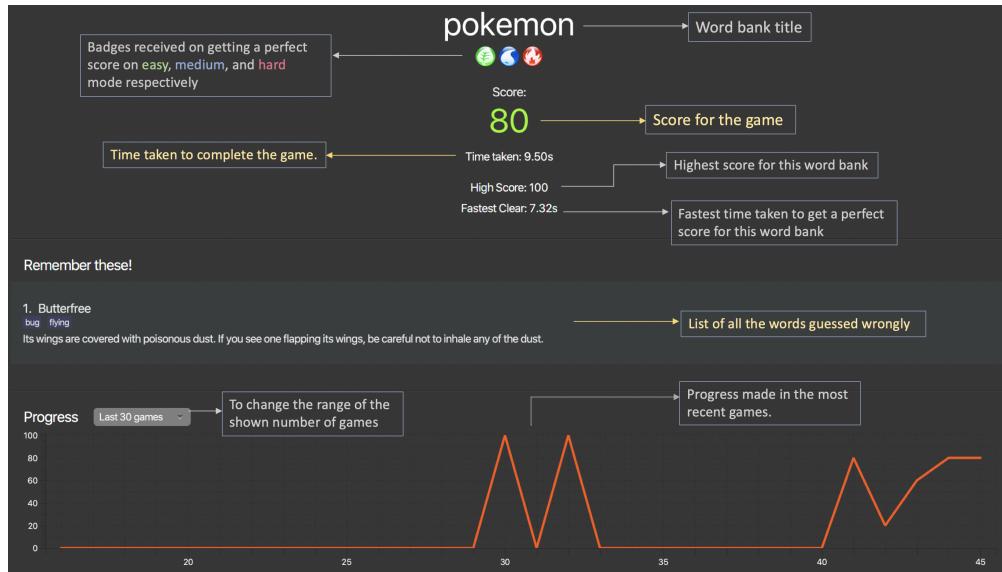


Figure 20. Game Result UI.

4.2. WordBank Statistics

The *WordBank* statistics is shown in the *Open* mode and contains all information regarding the selected *WordBank*.

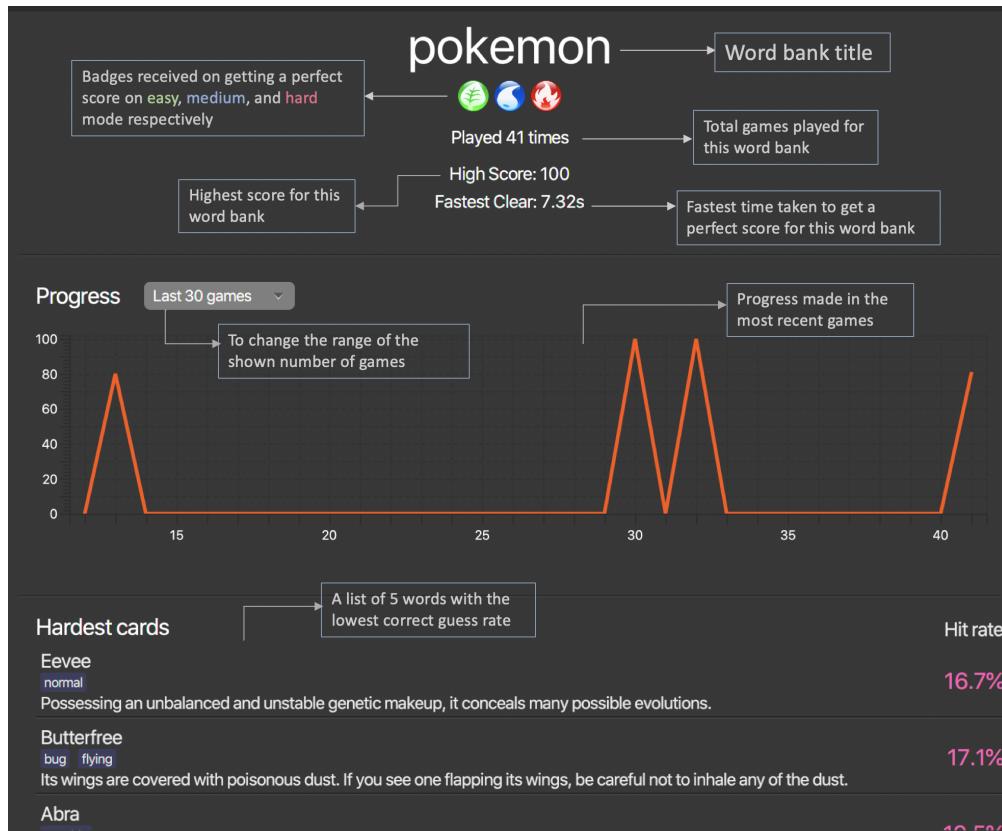


Figure 21. Wordbank Statistics UI.

NOTE

The high score and fastest clear timing of a *WordBank* will not be reset upon adding/deleting *cards*.

4.3. Global Statistics

The global statistics is shown on the main title page and contains all information regarding the user's overall usage of the app.

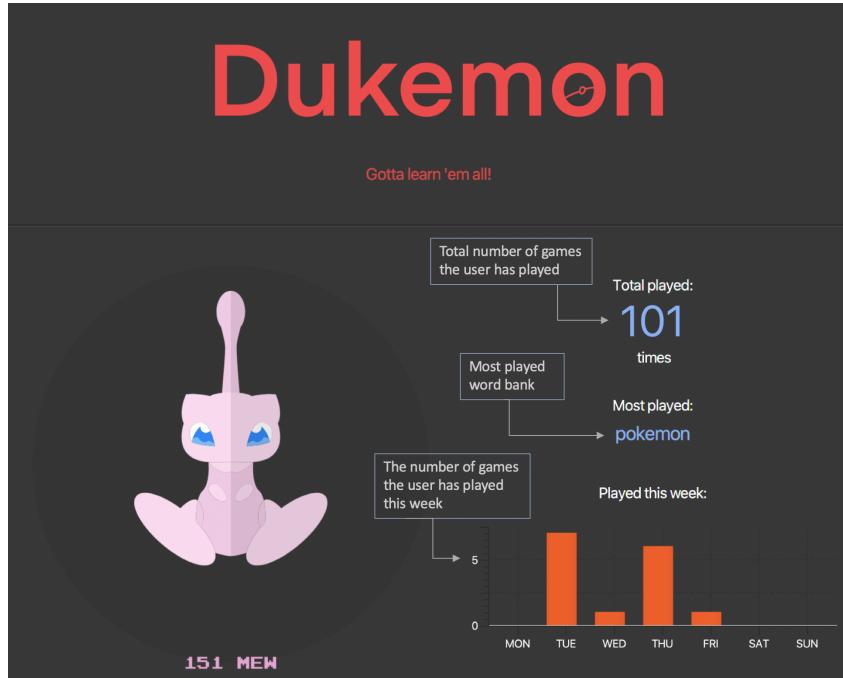
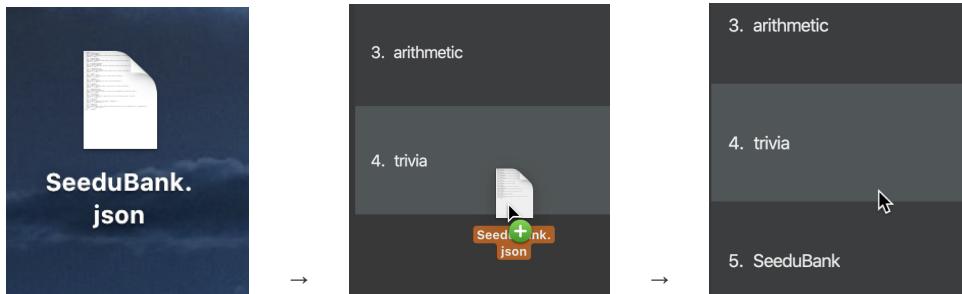


Figure 22. Global Statistics UI.

5. WordBank management

5.1. Drag and drop

Streamlines the process of sharing of *WordBanks* with friends.



From **HOME** mode, you can view your *WordBanks*.

Simply drag and drop a *WordBank* json file from your computer into the *Dukemon* GUI.



Likewise, drag and drop a *WordBank* out of the application, into say, your desktop, or chat applications.

Try it!

NOTE

Dukemon only accepts json files when importing *WordBanks*. Attempting to import or export other types files will not be successful.

5.2. Revision *WordBank*

A revision bank is automatically updated for you, every time a game session ends. It collates all your wrong *cards*, whichever *WordBank* it may have came from. It is also smart enough to remove the *cards* if you have cleared it afterwards.

Quick look at revision bank's page.

The screenshot shows a dark-themed user interface for a revision bank. On the left, there is a sidebar with the title "revision" and three small circular icons representing different categories. Below the title, it says "Played 0 times", "High Score: 0", and "Fastest Clear: -". The main area contains three cards, each with a number, a question, a difficulty level, and a note about the word bank it came from. Card 1: "1. 1024" (Medium) - "2 ^ 10 = ? [Word Bank: arithmetic]". Card 2: "2. 2103" (EZ) - "21 * 100 + 3 = ? [Word Bank: arithmetic]". Card 3: "3. Mewtwo" (psychic) - "Mew's clone [Word Bank: pokemon]".

Card Number	Question	Difficulty	Word Bank
1. 1024	$2 ^ 10 = ?$	Medium	[Word Bank: arithmetic]
2. 2103	$21 * 100 + 3 = ?$	EZ	[Word Bank: arithmetic]
3. Mewtwo	Mew's clone	psychic	[Word Bank: pokemon]

The revision bank is best appreciated when you actually play around with some *WordBanks*, and then visit the revision bank to revise wrong *cards*. Give it a try!

6. Command Summary

Command Type	Command Keyword	Parameter(s) (if any)
Switch Commands (Available in all modes as long as WordBank is selected and game is not running)	home	
	open	
	start	[EASY/MEDIUM/HARD]
	settings	
Card Commands (Available in Open mode)	add	w/WORD m/MEANING [t/TAG]
	delete	INDEX
	edit	INDEX w/WORD m/MEANING [t/TAG]
	find	KEYWORD [MORE_KEYWORDS]…
	list	
	clear	
WordBank Commands (Available in Home mode)	select	WORD_BANK
	create	WORD_BANK
	remove	WORD_BANK
	import	w/WORD_BANK f/FOLDER
	export	w/WORD_BANK f/FOLDER
WordBank Statistics Commands (Available in Open mode)	reset	
Game Commands (Available in Game mode)	guess	WORD
	skip	
	stop	
Settings Commands (Available in Settings mode)	difficulty	EASY/NORMAL/HARD
	theme	DARK/LIGHT
	hints	ON/OFF
	avatar	INDEX
Misc. Commands	help (Available in Home mode)	
	exit (Available anywhere except Game mode)	

7. Upcoming Features

7.1. Leaderboard [coming in v2.0]

View and compare your statistics with peers on the internet.

7.2. Reminders [coming in v2.0]

Smart algorithms to pop reminders for you to know which bank you have not visited and is most likely to forget soon.

7.3. User profiles [coming in v2.0]

Have more than one account to monitor statistics on the same computer

7.4. Customizable Difficulty [coming in v2.0]

Create your own difficulties with customized time durations.

8. FAQ

Q: *Dukemon* is not starting up/crashes upon load-up, how can I rectify this?

A: Move *Dukemon* to a new, **empty** file directory. Ensure that all data and configuration files in the same directory are deleted (*some files may be corrupted*). *Dukemon* will perform a clean start from the new directory.

Q: The *Game* failed to start, what can I do?

A: Ensure that your selected *WordBank* has at least three *Cards* to be able to start. Also note that you will be **brought to the *Game* mode** regardless, and will need to switch out of it.

Q: Switching modes is not working, what can I do?

A: Ensure that **you have selected a *WordBank*** before attempting to switch modes. Check that you have **stopped the *Game* session** if you want to switch to certain modes.

Q: How do I pronounce the app name?

A: Think *Pokemon*.

Q: The GUI (Graphical User Interface) seems to be lagging, is this an issue?

A: *Dukemon* aims to run at around 60fps, but performance varies across machines.

Q: How can I transfer/share *WordBanks* across machines?

A: Use the **export** and **import** functionalities to move data to specific file directories. From there you can share your files manually. You can make use of the drag and drop feature to accelerate the process.

Q: How can I save my data?

A: *Dukemon's* data is saved to the hard disk automatically (eg. adding *cards/words*, statistics etc). There is no need to manually save data or Game **Statistics**.

Q: I edited some files and *Dukemon* doesn't work properly now. How do I resolve this?

A: Please edit only if you know what you are doing, for non-advanced players, interact through *Dukemon*.

To resolve, refer to the FAQ: "Dukemon is not starting up/crashes upon load-up, how can I rectify this?".