

1. Built for <https://www.fiverr.com/inbox/kfm333>
2. Name: Relock app

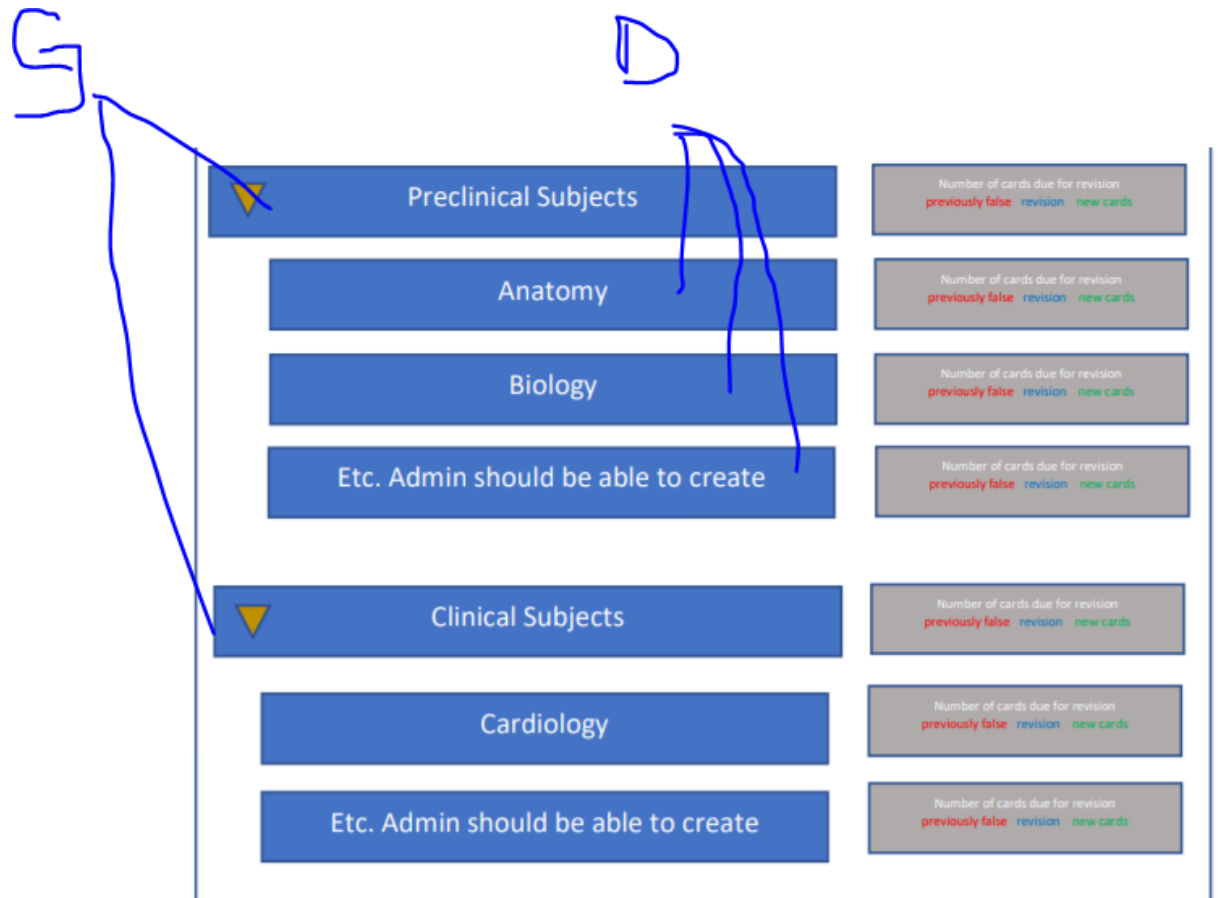
# Workflow

## Admin Dashboard

1. The admin dashboard will be made up of these pages

### 2. Admin Pages

- a. Deck Groups Page
- b. Decks Page
- c. Cards Page
- d. Single Card Page
- e. Tags Page



f.

- i. Where G = Deck groups

- ii. Where D = Decks: A collection of cards
  - 1. Inside a deck group, many cards can be created.
  - 2. Different card types can be created.
    - a. **Basic Card**: Which will create 1 card each time
    - b. **Image annotation**: Which will create multiple cards each time
    - c. **Gap text**: Which will create multiple cards depending on the number of {{c1::answer}}, {{c2::answer2}} that exists in the question
    - d. **Table gap**: Same as gap texts as it will create many cards at once.

### 3. Deck Groups Page

- a. On this page, the admin will be able to create deck groups
- b. This page will be divided into 2 sections, Left and Right
- c. **Left Section (Create new Deck Group)**
  - i. In this section, the admin will be able to create deck groups. To create a deck group, the admin will provide
    - 1. **Deck group name** (Text input)
    - 2. **Deck group tags** (Searchable drop-down to select multiple tags)
      - a. Below this will be a Button (Create tag). When clicked, the admin will see
        - i. **New Tag Name (Text input)**: Provide the new tag name
        - ii. **Create (Button)**: When clicked, the tag will be created
    - 3. **Create (Button)**: When clicked, the deck group will be created.
- d. **Right Section (Deck Group lists)**:
  - i. In this section, the plugin will display a list of all the deck groups in a table.
  - ii. A few of the lists will be displayed at once and paginated as well.
  - iii. You will be able to search for deck groups as well
  - iv. Each row will show
    - 1. **Group name**

2. **Decks** (Link to the decks page and number of decks in this group)
3. **Cards** (Number of cards in this group and also a link to go to the decks page)
4. **Date created**
5. **Edit button**
6. **Delete button:** When a deck group is deleted, all the decks and cards under it will be deleted as well

#### 4. Decks Page

- a. On this page, the user will be able to create card decks.
- b. This page will also be divided into 2 sections
- c. **Left Section (Create new Deck)**
  - i. In this section, the admin will be able to create new decks. To create a deck group, the admin will provide
    1. **Deck name** (Text input)
    2. **Deck tags** (Searchable drop-down to select multiple tags)
      - a. Below this will be a Button (Create tag). When clicked, the admin will see
        - i. New Tag Name (Text input): Provide the new tag name
        - ii. Create (Button): When clicked, the tag will be created
    3. **Create (Button):** When clicked, the deck will be created.
- d. **Right Section (Decklists):**
  - i. In this section, the plugin will display a list of all the decks in a table.
  - ii. A few of the lists will be displayed at once and paginated as well.
  - iii. You will be able to search for the deck by typing in the deck name (or part of it)
  - iv. Each row will show
    1. **Deck name**
    2. **Cards** (Link to the cards page and number of cards in this deck)
    3. **Date created**

#### 4. Edit button

5. **Delete button:** When a deck is deleted, all the cards under it will be deleted as well

### 5. Single Card Page:

- a. On this page, the admin will be able to create or edit a particular card
- b. The admin will be able to create 4 types of cards
  - i. Basic Cards
  - ii. Gap Text Card
  - iii. Table Gap
  - iv. Image annotation
- c. In the WordPress menu, the admin will see menus to create new cards
  - i. Add Basic Card
  - ii. Add Gap Card
  - iii. Add Table Gap Card
  - iv. Add Image annotation card
- d. When he clicks on any of them, he will be taken to the single card page to create the card

#### e. Basic Cards:

- i. Here, the admin will provide
  - 1. **Question (Text input):** To type in the question
  - 2. **Answer (Text input):** To type in the answer
  - 3. **Background Image:** The background image with checkbox to set as default
  - 4. **Tags:** (Auto-suggest input):
    - a. As you type in the tag, you will see a drop-down of suggestions from previous tags that you have added to previous cards.
    - b. Below that will be a button “**Add new tag**” and when clicked, you will see a new input text where you can type in your tag, click enter and that tag will be created and then added to the tag selection
  - 5. **Deck (Dropdown):** Select the deck to create the card under

6. **Create (Button):** When clicked, the plugin will create the card
- f. To create or update a card, the admin can choose to schedule the publishing or publish it right away.
  - i. The admin will be able to select the date he wants the card published if he wants to schedule the publishing.
- g. **Gap Text cards:**
  - i. Here, the admin will supply
    1. **Question (Text input):** To type in the question. The admin can cover more than one box e.g.
      - a. **{{c1::myocardial infarction}} is frequently caused by {{c2::smoking}} and {{c3::actually}}, there is a {{c1::science}} behind that.**
      - b. When this card is created, the plugin will create 3 cards out of this question which will be displayed this way
        - i. [...] is frequently caused by **smoking** and **actually**, there is a [...] behind that.
        - ii. **myocardial infarction** is frequently caused by [...] and **actually**, there is a **science** behind that.
        - iii. **myocardial infarction** is frequently caused by **smoking** and [...] there is a **science** behind that.
    2. **Deck Group:** Select the deck group
    3. **Deck (Dropdown):** Select the deck to create the card under
    4. **Background Image: Background Image:** The background image with checkbox to set as default
    5. **Tags:** (Auto-suggest input):
      - a. As you type in the tag, you will see a drop-down of suggestions from previous tags you have added to previous cards.
      - b. Below that will be a button “Add new tag” and when clicked, you will see a new input text where you can type in your tag, click enter and that tag

will be created and then added to the tag selection

6. **Create (Button):** When clicked, the plugin will create the cards.

#### h. **Table Gap:**

- i. **Name:** Name of the table
- ii. **Background Image:** The background image with checkbox to set as default
- iii. **Tags:** (Auto-suggest input):
  1. As you type in the tag, you will see a drop-down of suggestions from previous tags you have added to previous cards.
  2. Below that will be a button “Add new tag” and when clicked, you will see a new input text where you can type in your tag, click enter and that tag will be created and then added to the tag selection
- iv.
- v. **Columns:**
  1. In the first section of the form, you will provide the columns of the table.
  2. You will be able to add as many columns as you want by specifying the name of the column
  3. To add a column, you click the button “Add column” and this will reveal a section for you to type in the columns name
- vi. **Rows:**
  1. Below the column section will be the rows section. You will be able to add as many rows as you want
  2. When you add a row, you will then be able to edit each cell in each row
  3. The number of cell for each row will correspond to the number of columns you have added
  4. In any part of the table cell, you can close out texts by typing them in this format `{{c1:text}}` and when the card is created, the plugin will create as many cards as possible depending on the closed texts.
- vii. **Displaying Table Gap:**

1. On mobile, the table will still be displayed as a table but the user will then be able to slide left or right to see other parts of the table that are not yet visible

**i. For Image annotation:**

- i. **Name:** Name of the annotation
- ii. **Select Image( From wp media):** Once the image is selected from the wp-media, the plugin will display it as a preview
- iii. **Background Image: Background Image:** The background image with checkbox to set as default
- iv. **Tags:** (Auto-suggest input):
  1. As you type in the tag, you will see a drop-down of suggestions from previous tags you have added to previous cards.
  2. Below that will be a button “Add new tag” and when clicked, you will see a new input text where you can type in your tag, click enter and that tag will be created and then added to the tag selection
- v.
- vi. **Add Box (Button):** By the top, there will be this button that the admin can click to add a box as an annotation to the image
  1. When you add a box, by the right you will see a list of text inputs where you can type in the answers to each box
  2. For each box, you can select a particular point in the image that the pointer for that box will point to
  3. When you add an image, you will see a settings section for you to set
    - a. The width of that image (in pixels)
    - b. The height of that image (in pixels)
    - c.
  4. The width and height of the image should be set once as the points for each box added later needs to correspond to a particular pixel in the image according to the height and width set.

5. For each box you add, there will be a settings section in the form where you will set the x and y coordinate for the pointer of that box in pixels
6. Image annotations when displayed on mobile (on the small screen) will not be responsive and so will make it possible for users to slide the image right or left to get the full view if needed.
7. The admin will also be able to select the Display type from a drop-down
8. **Display Type:**
  - a. **Hide All - Ask One:**
    - i. Here, for each card of this annotation, all the boxes will be covered
    - ii. Only one of the boxes will be asked (red box) (For this, the plugin will create one card for each box)
  - b. **Hide All - Ask All:**
    - i. All boxes will be covered
    - ii. All boxes will be asked (red background)
    - iii. This also means that for this, the plugin will create just one card for this since the user will be able to answer any in just one card shown
    - iv. Once the user has answered all the questions for the day, they will get a message "Congratulations! You have studied all cards of this deck that were due today! Keep it up!"
  - c. **Hide one - Ask one:**
    - i. One box will be covered at a time
    - ii. The same box will be colored red (asked)
- vii. **Create (Button):** When clicked, the plugin will create the card and add display it on the page.



# Users Dashboard

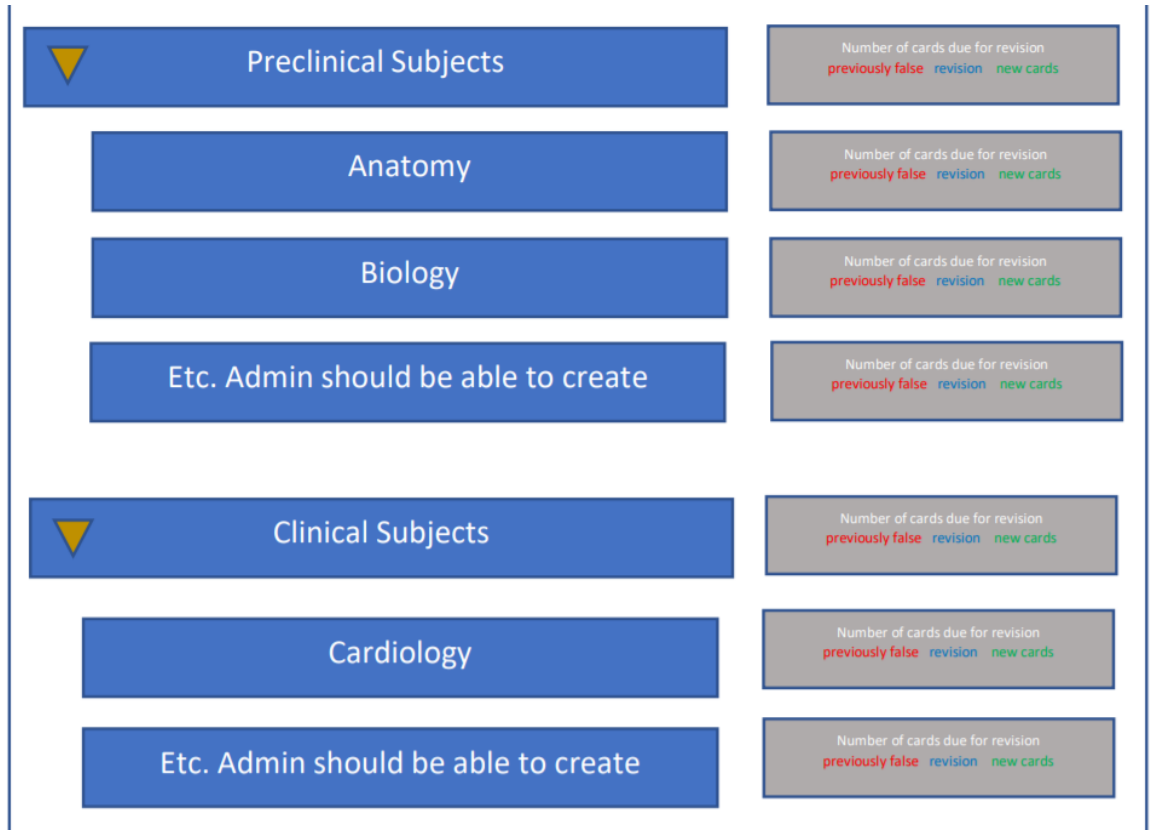
1. The plugin will monitor users according to their subscription in the ARMembers plugin
2. When the user visits the website and is logged in and a valid subscriber, the plugin will add a new menu item in the site's menu where the user can click and go to their dashboard
3. The user's dashboard will be divided into
  - a. Header
  - b. Body
  - c. Footer

## 4. Header:

- a. In the header, the user will see
  - i. **Due cards**
    1. Here, the user will see a number indicating how many cards the user needs to revise on that specific day
  - ii. **Synchronize**
    1. (Not needed as the synchronization should be automatic as long as the designer of the future app can write codes to access the wp database where all the card info will be stored)
  - iii. **Settings:**
    1. This will be a link that will take the user to his settings page where he will be able to set
      - a. TimeZone:
        - i. When not set, the plugin will start counting 24 hours from the time the user clicked on the "Study button" and will start a new session (day) after 24 hours for that particular deck.
        - ii. If the timezone is set, then the plugin will start a new session once at midnight according to his time zone.
  - iv. **Profile:**
    1. This will show the
      - a. User name (Read from the wp user profile of the logged-in user)

## 5. Body Section:

- a. In this section, the user will see a list of all the deck's groups created by the admin with an arrow button they can click to reveal all the decks within a particular deck group



b.

### c. Left Section

- This will display a list of all the decks with arrows to reveal the decks as created by the admin
- When a deck is clicked, the plugin will display a pop-up for the user to create or edit his study plan for that particular deck.
- In the pop-up, the user will see a layout like this (Just for description as the real layout will be more user friendly and modern)

Include Tags:

search

List of selected Tags

Exclude Tags:

search

List of selected Tags

number of cards to revise: ☐ All (checkbox, default: ticked)  
enter number here \_\_\_\_\_

number of new cards: ☐ All (checkbox, default: unticked)  
enter number here \_\_\_\_\_

number of cards on hold: ☐ All (checkbox, default: unticked)  
enter number here \_\_\_\_\_

☐ Include all tags (tickbox), default: on

Study

iv.

- v. This will help the user plan how they want to study this deck.  
He will supply

**1. Include Tags:**

- a. This will be an input text to allow the user to select the related tags he wants to study (according to the tags created by the admin for each card under this deck)
- b. As the user types the text, he gets a suggestion from a drop-down (displayed from the tags attached to the cards that exist under that deck)
- c. The user can select as many tags as he wants

**2. Lists of Include Tags:**

- a. Here all the include tags will be displayed

**3. Exclude tags:**

- a. Just like include tags, users will be able to select multiple tags to exclude from the card suggestions they will get

**4. List of Exclude Tags:**

- a. Lists all the tags excluded from the suggestion

**5. The number of cards to revise:**

- a. This indicates the total number of cards the user would like to answer from this deck. He can select
  - i. **All checked (Checkbox):** Checked by default
  - ii. **Number (Number input):** When the all-checked box is not checked, the plugin will use the number here.

**6. The number of new cards:**

- a. This indicates the total number of new cards the user would like to answer from this deck
  - i. **All checked (Checkbox) Default** (unchecked):
  - ii. **Number (Number input):** When a number is specified, the plugin will only show this number of new cards to the user according to his study schedule

**7. Number of cards on hold**

- a. This indicates the total number of cards on hold that the user will like to answer from this deck.
    - i. **All (Checkbox)**(unchecked by default):
    - ii. **Number** (Number input): when value is provided, the plugin will show only this number of cards (with status on hold)
- 8. **Include all (Checkbox). Default checked:** When this is checked, then all the cards in this sub-deck will be viable to show to the user.
- 9. **Study button:**
  - a. Once the user clicks this button, the plugin will search and schedule the relevant cards as the cards the user would be answering
  - b. Then the user will be taken to another page where they will be able to study this deck according to their selections
- 10. Initially, 200 cards will be shown until the user starts answering some cards and the plugin starts scheduling when next to ask the cards again.

## 6. Right Section:

- a. In this section, the plugin will display the number of cards the user will need to answer for that day
  - i. **Previously False:**
    - 1. This will show the number of cards that the user got previously false that he needs to answer again today (including those he did not answer the previous days)
  - ii. **Revision:**
    - 1. This number indicates the number of cards that the user needs to revise this day (including those he did not answer the previous days)
  - iii. **New cards:**
    - 1. This number indicates the number of new cards that the user needs to answer today. (including those he did not answer the previous days)
- b. All these numbers will be a link that the user can click and then be taken to a page that will show him the statistics for this deck

## 7. Today's Summary

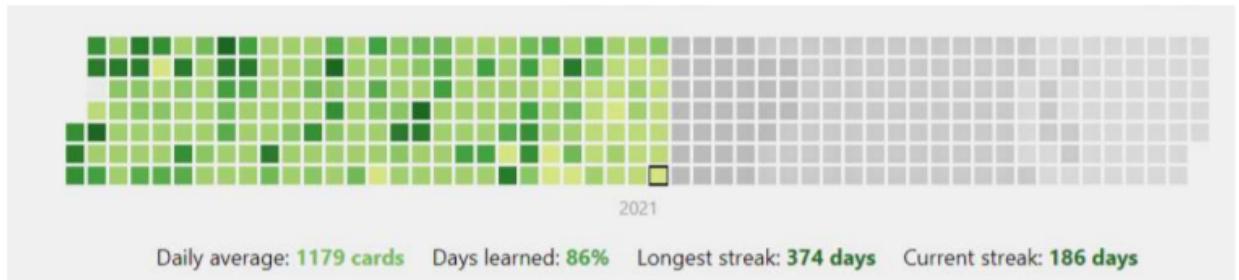
### a. Cards Studied today

- i. This will show a number representing the number of cards the user has studied today.

### b. Time Studied Today

- i. This will show the time in hours and minutes the user has spent studying today

## 8. Progress Chart



- a. This will show block charts showing how strong the user studied on each day
- b. Each block represents a day
- c. The darkest blocks indicate the days he studied all his cards
- d. The darkness of the blocks will be divided into 10, for 0%, 10%, 20%, 30%, ..., 100%. Each getting darker up the scale
- e. The user will have the option to chose the color they want from a drop-down. It can be
  - i. Blue
  - ii. Green
  - iii. Purple
  - iv. Red

## When Admin Updates A Card:

1. What happens when the admin updates a card and a user has already answered the card

- a. When the user revisits the card again, they will be shown a pop up like this

OLD CARD (ANSWER SIDE)

UPDATED CARD (ANSWER SIDE)

Accept changes?

Yes

No

Remind me later

Comment on this change

- b. Old Card:

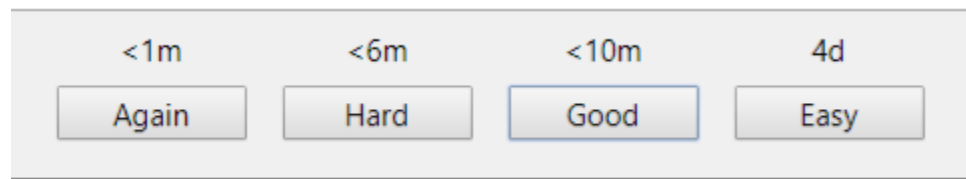
- i. This will show them the answer side of the old answer
- c. **Updated Card**
  - i. Once a card is edited and the user has answered the old question before, as soon as they open the app, the plugin will start showing them the cards that have changed so that they can accept the changes, reject it or chose to be reminded later.
  - ii. This will show them the updated card (answer side)
- d. **Buttons**
  - i. **Accept changes**
    - 1. **Yes:** When clicked, the plugin will replace the already answered answer with the new one (the severity of the answer will still remain. Ie. if the user failed the answer before, that status will still remain)
    - 2. **No:** When clicked, the plugin will no longer show the new answer or question to the user any other time this card was reviewed.
    - 3. **Remind me later:** Then the changes will be shown to the user again the next day.

## Cards View:

1. When the users click on “Study”, the plugin will start showing them due cards
2. On this page, the plugin will start displaying the due cards for the user to select
3. The background image set for each card will be displayed as the background for the card
4. Displaying the Basic Cards:
  - a. The questions are displayed
  - b. Below the question will be displayed the buttons
    - i. “Show answer”
      1. When clicked, the answer will be revealed.
    - ii. “Hold”
      1. When clicked the plugin will reschedule the card
5. Displaying the Gap Text Card:



- a. The question is displayed with each part of the text in this format `{{c1::answer}}` replaced with [...] and when the user clicks on it, the answer is revealed.
6. Displaying the Image annotations:
  - a. The image will be displayed showing the boxes and revealing them according to the type of image annotation the admin set for that particular card
7. Displaying the Table gap text:
  - a. This will display the whole table for each card and for every instance of the table cell where you have `{{c1::answer}}`, the answer will be revealed when the user clicks on [...]
8. Besides the show answer buttons will be the “hold” button which when clicked, will put the card on hold and then reschedule it according to the study schedule for that card
9. Below each card will be 4 buttons which will be shown after the user clicked on the “show answer”



- a.
- b. Again:
  - i. When clicked, indicates that the user would like to revise this card (Same as fail but written again so as not to discourage the user)
- c. Hard:
  - i. When clicked, the card will be rescheduled according to the calculations for hard
- d. Good:
  - i. When clicked, the user will reschedule according to the calculations for good ( same as ok button)
- e. Easy:
  - i. When clicked, the user will have to revise the card according to the calculations

For Calculations

## 1. For (d)

- a.  $d$  = Delay ( in days ) from the due date to the date the card was reviewed. So if the card was due to be reviewed on Monday, but I do so on Tuesday,  $d = 1$ . If the date interval is not yet up to 24 hours, then  $d = 0$

## 2. For (f)

- a.  $f == f'$  = The last button the user clicked when he reviewed the question last (fail, hard, okay, easy). Where  $f$  can be ;
  - i.  $f' = \max(1300, f - 200)$  when you fail a review or clicked "again"
  - ii.  $f' = \max(1300, f - 150)$  for a hard review
  - iii.  $f' = f$  for an ok review. No change in factor.
  - iv.  $f' = \max(1300, f + 150)$  for an easy review
- 3. So if the last time, the card has been reviewed as easy, the 'new  $f'$  (aka.  $f'$ ) =  $\max(1300, 'old f' + 150)$ .
- 4. And this new  $f$  ( $f'$ ) is then used as  $f$  in the formula of the next revision.
- 5. The minimum value for  $f$  is 1300, which is ensured by using 'max(1300,' so we are forced to use the bigger value of the two in the brackets: 1300 or the result of our calculation.

## 6. For I

- a.  $I$  = Most recent interval (in days) a card was reviewed.
  - i. E.g. Dates (intervals)
    - 1. 01.06.2000
    - 2. 05.06.2000
    - 3. 15.06.2000
    - 4. 30.06.2000,
  - ii. the most recent interval would be between 15.06.2000 and 30.06.2000 -> 15 days
  - iii. Therefore:  $i = 15$ .

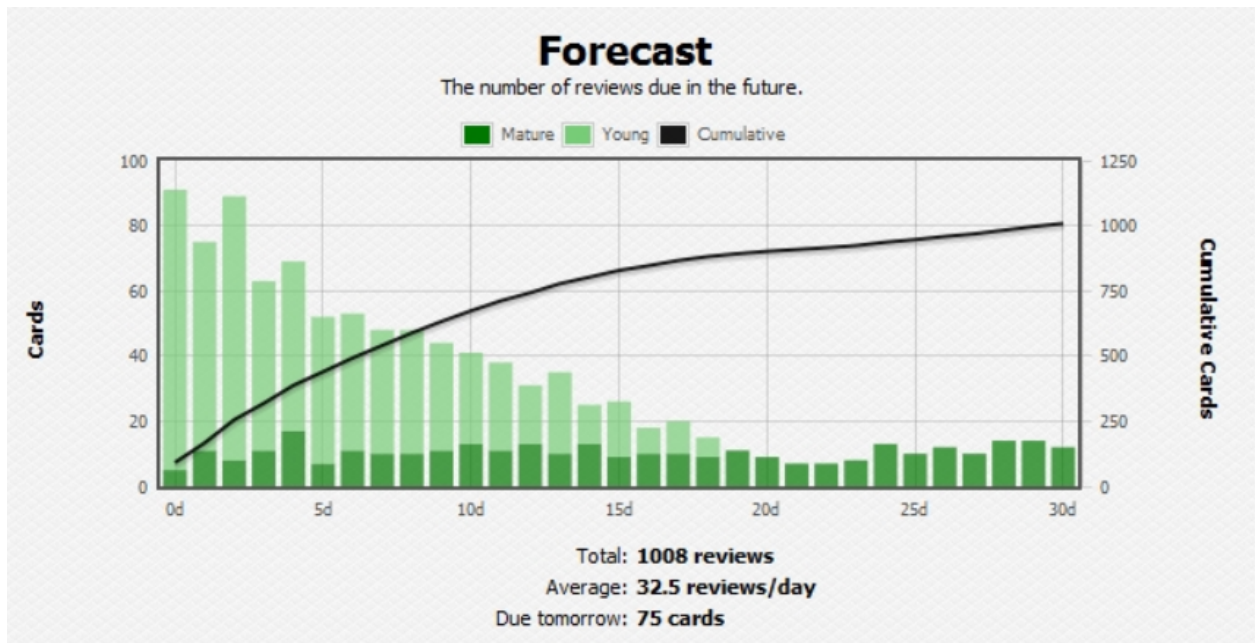
## 7. By default

- a.  $m = 1$
- b.  $m_0 = 0$
- c.  $m_4 = 1.3$
- d.  $d = 0$
- e.  $f = 0$
- f.  $i = 0$

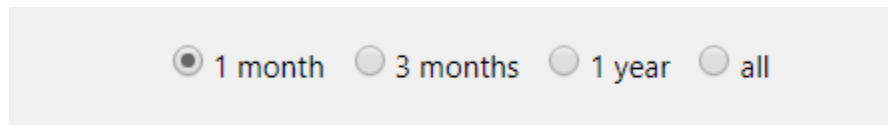
# Card Statistics

The plugin will record and track statistics for all cards the user answers. For each card, as the user answers the cards and click on the 4 (severity) buttons, the plugin will track stats.

## 1. Forecast



- “Mature Cards (Dark green)”** are cards with an interval (that is, the next time you will review it), of 21 days or higher.
- “Young Cards (Light Green)”**... are the others. Cards that you’ve reviewed but their interval is less than 21 days.
- On top of the graph will be a widget for the user to select how long into the future he wants to see



- 
- 
- 
- 
- Left Axis:**
  - This shows the number of cards he will need to study in a particular day

f. **Right axis:**

- i. shows the cumulative of the cards if the user did not study or fails them

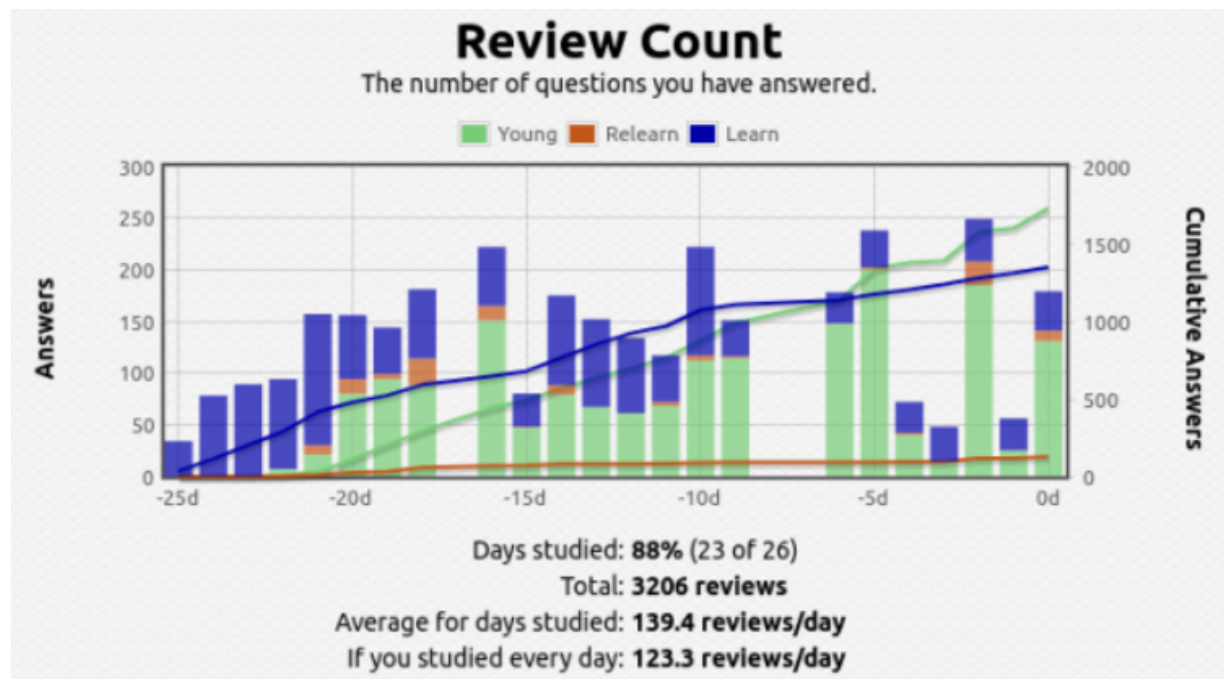
g. **X axis :**

- i. Shows the days into the future starting from that particular day at 0

h. Below the chart will be

- i. **Total:** Total cards to review withing the viewed period
- ii. **Average:** Average number of vards to view withing the viewed period: Total / number of days
- iii. **Due Tomorrow:** The number of cards due tomorrow

## 2. Review Count:



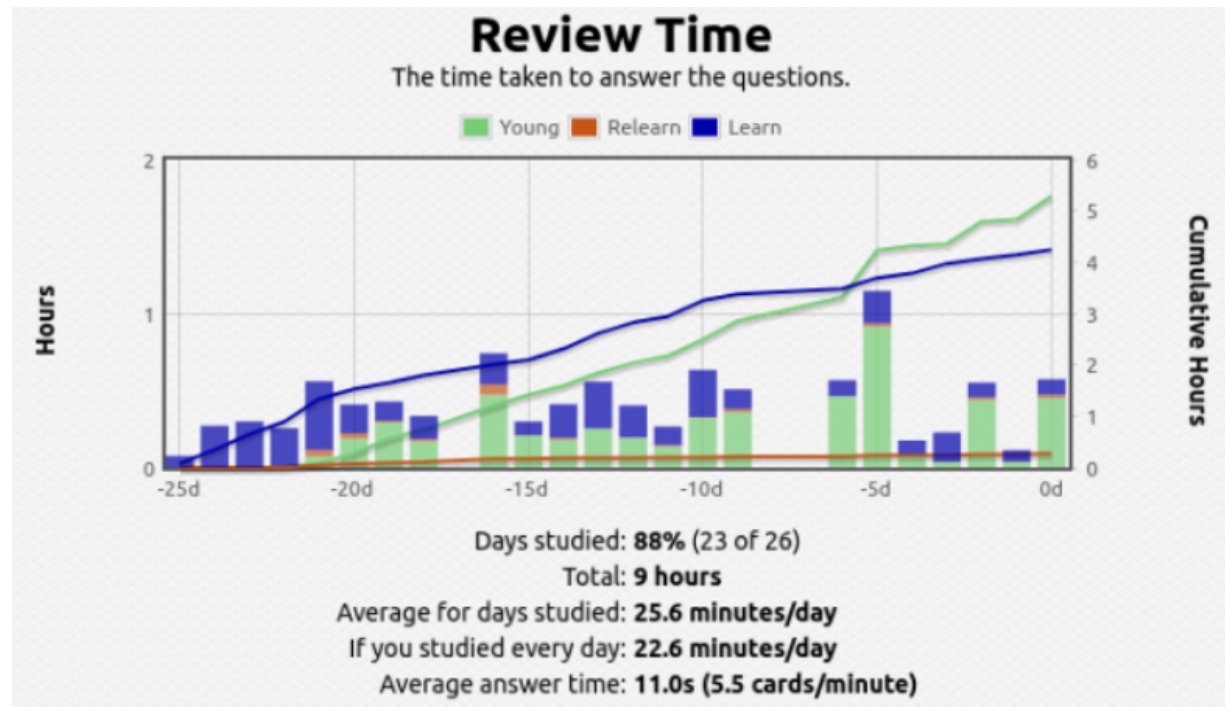
a.

b. This chart shows you the situation of the Reviews of the last 30 days

- i. Mature Cards (Dark Green)
- ii. Young cards (Light Green)
- iii. Newly Learned (Blue)
- iv. Relerned (Orange): Repeated 2 or more times in the same day (because you clicked on again)

- v. Days Studied (The number of days studied in the last 30 days in percent)
- vi. Total (For 30 days)
- vii. Average (Total / Number of days)
- viii. If you studied everyday (Average if they studied everyday)

### 3. Review Time:



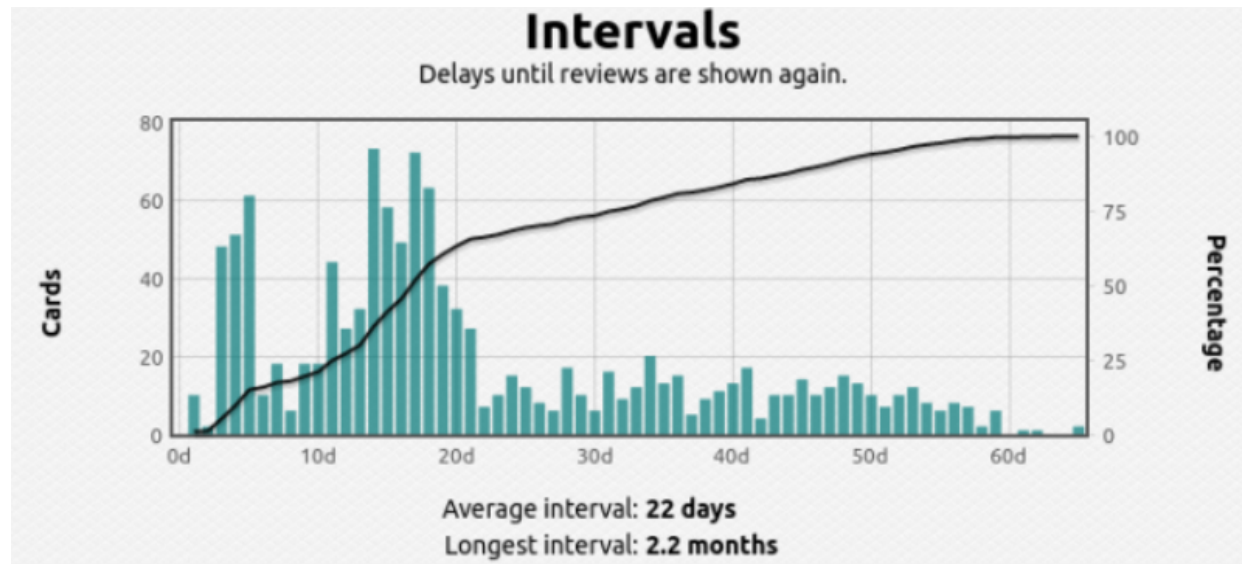
- a.
- b. This is similar to review count but shows the number of hours spent studying in the last month showing
  - i. Days studied
  - ii. Total hours studied
  - iii. Average for days studied
  - iv. If you studied everyday
  - v. Average answer time

#### 4. Added:



- a.
- b. This will show the number of new cards added to study within the time period
- c. Average shows the average of new cards added per day

#### 5. Intervals

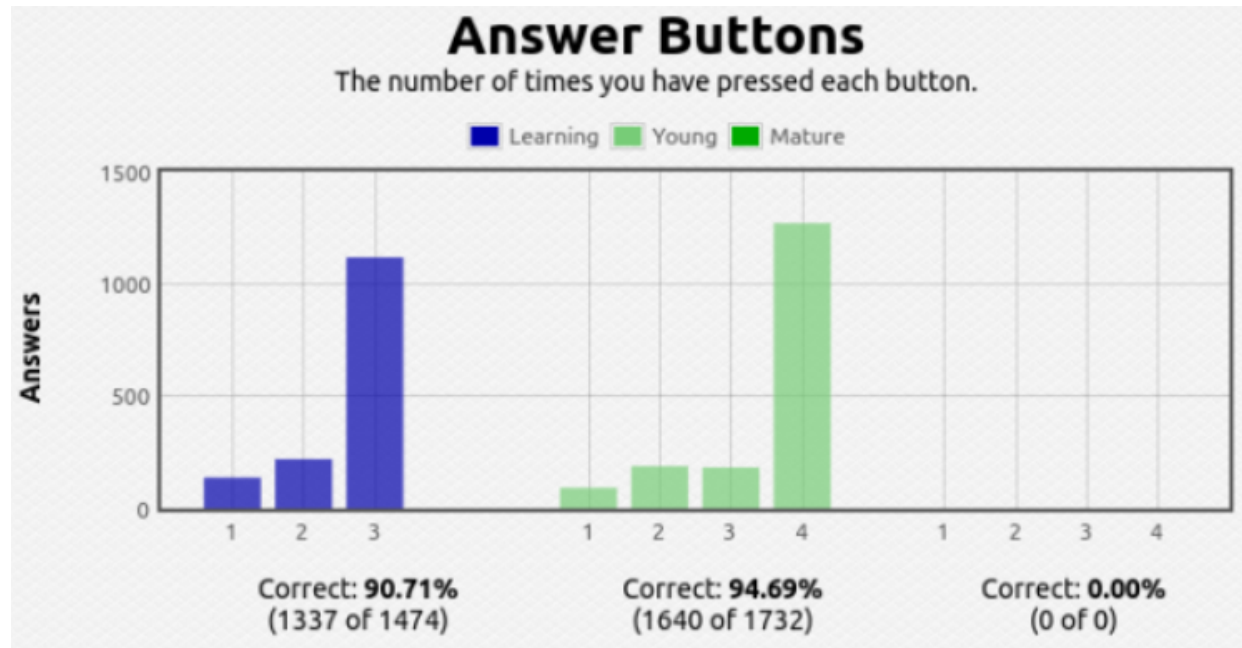


- a.
- b. Average intervals: Average delay interval until cards are reviewed
- c. Longest intervals : Longest delays until cards are reviewed
- d. The bars will show the number of cards to review on each day

#### 6. Hourly Breakdown



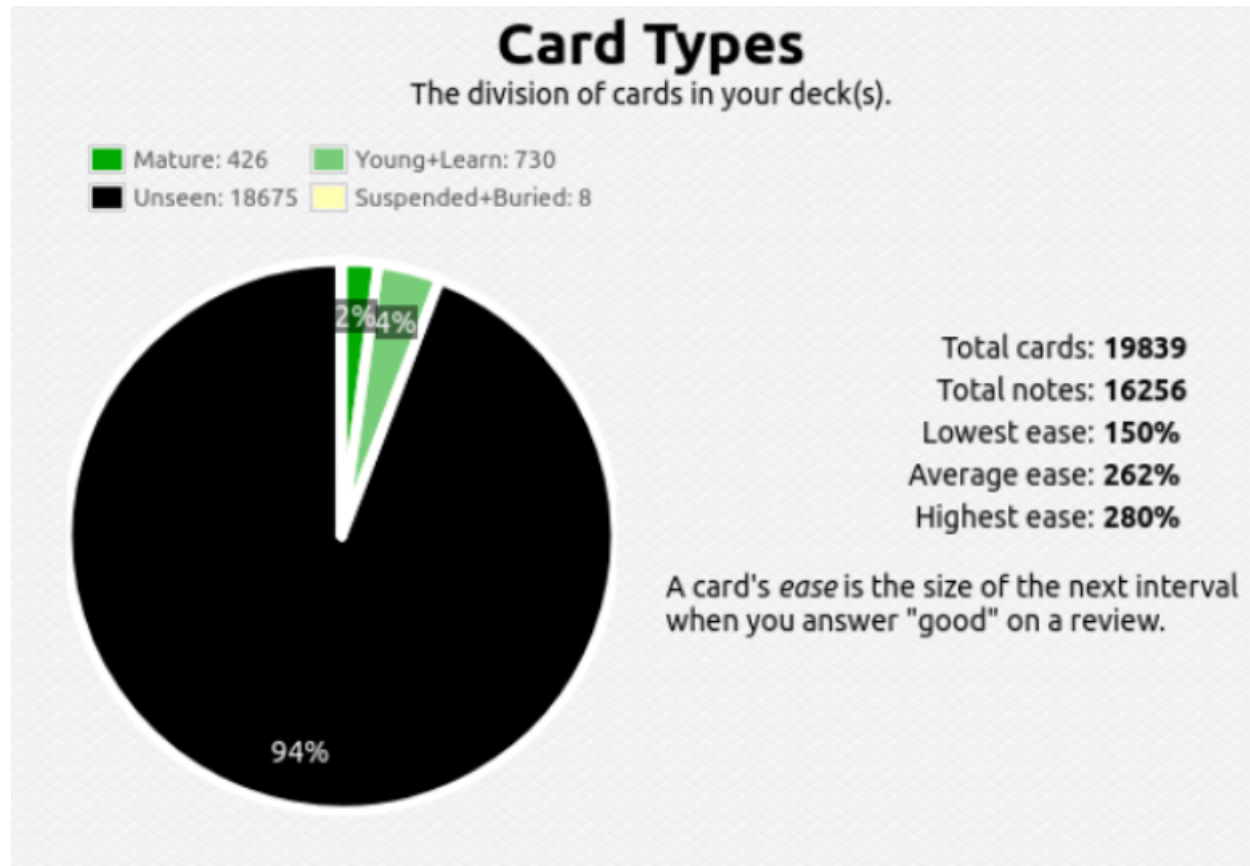
- a.
  - b. This shows the the user's performance according to the time the used the plugin.
  - c. The user will have to select a partiular date (date input) and the pluginwill show them this chat
  - d. Left Axis: Shows the percentage of correct reviews
  - e. Right Axis: Shows the number of reviews made
  - f. X Axis: Shows the hours of the days showing refrence point 10am, 4pm, 10pm
  - g. Grey background: Shows percentage of correct reviews
  - h. Gre gray bar: Shows the number of correct answers
7. Answer buttons:



- a.
- b. The percentage of the total number of clicks represented by the number of clicks on a certain button
  - i. (1, 2 or 3, ie Hard, Good, Easy).

8. Card Types:





a.

b. This shows the division of cards in a deck

## Others

1. To measure how long the user spent studying, the plugin will start counting when the user clicked on the "study" button until they close the browser tab.
2. When the hold button is clicked for a card, the plugin will move that card to the back so as to show them last after the other due cards has been shown.