Getting started with Anki flashcards

An introductory guide on installation and basic functions

Slade Matthews
Raymond Lui

What is Anki?

Anki is a popular flashcard software designed to facilitate effective memorisation. It uses two pedagogical concepts to enhance information retrieval within the mind:

(1) ***Active recall testing***, the process of being presented with a question and attempting to remember the answer. In doing so, the memory of the tested concept is strengthened thus increasing the chance of remembering it in the future. Failure to recall the answer indicates the need to review or relearn the concept being tested.

> The Anki interface allows for questions to be presented on the front side of a flashcard and answers on the reverse side of the flashcard. It is important to review flashcards frequently (e.g. daily) to ensure the memories of tested concepts are continually strengthened. However, as we learn more material over time and the number of flashcards grow, it may become difficult to review every card every day. Spaced repetition aims to address this:

(2) ***Spaced repetition***, the process of incorporating time intervals between the review of learned material. Anki determines the length of time through the user's feedback on how well they were able to recall the answer to a question. If the user indicates they can remember it easily, then the time interval between reviews of that flashcard is increased (i.e. the flashcard is shown less frequently) so the user can spend more time studying other cards. Conversely, if the user indicates they found it difficult to remember the answer, then the time interval is decreased (i.e. the flashcard is shown more frequently) so the user can study it more often.

In summary, Anki enables the active learning of material through constant recall exercises while keeping the process efficient by showing flashcards deemed more important for the user to learn.

1-1. Installing Anki

(1) Visit the Anki website (apps.ankiweb.net) and scroll down to "*Download Anki*".

(2) Download the installation file depending on your operating system (Windows or Mac)
  - Anki can also be used on mobile (free for Android, paid for iOS), although some flashcard editing features may be limited. If you wish to use the mobile app, it is recommended to create and edit flashcards on computer then use the mobile app to conveniently review them.
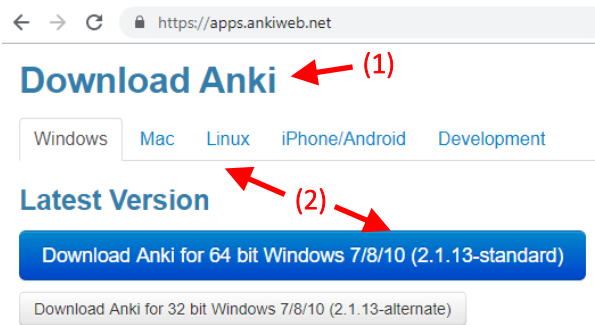
For Windows users:

(3) Locate and open the downloaded .exe file on your computer to start the installation.

(4) Select a destination folder in which to install Anki (the default suggestion is adequate).

(5) Click "*Install*" and wait for the progress bar to complete before closing.
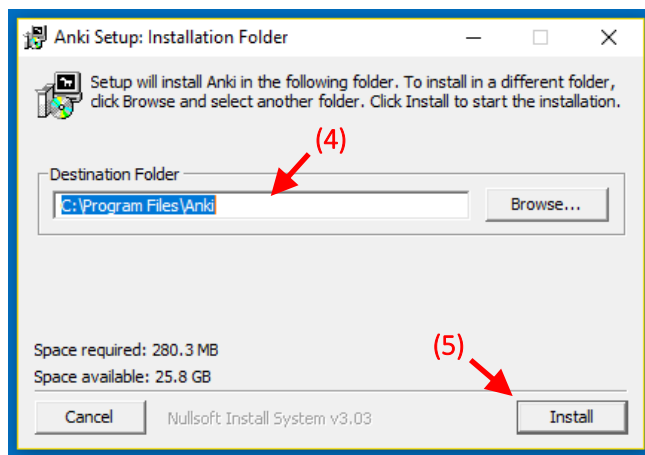
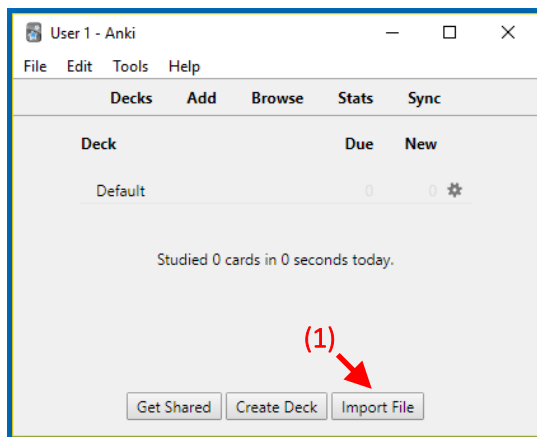(6) Locate the installed Anki shortcut to open the program (may differ with operating system).


For Mac users:

(3) Locate and open the downloaded .dmg file on your computer.

(4) Drag the Anki program to your Applications folder in the dock, or to your Desktop.

1-2. Importing flashcard decks

(1) Open Anki and click "*Import File*" located on the bottom of the home screen.

(2) Locate and open the deck you have downloaded when prompted with the "*Import*" window. Anki flashcard decks have the file extension ".apkg" (stands for Anki deck package). Upon opening, a window will show the notes that have been added to Anki – this can be closed.
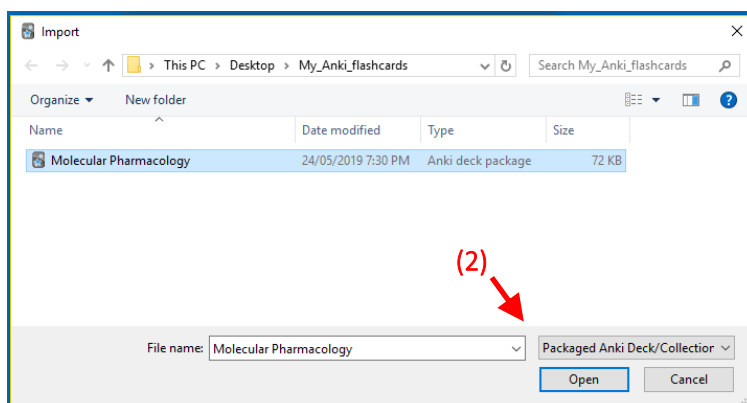

(3) The newly imported deck will be added to a list on the home screen.

(4) If you would like to browse the cards first, click on "*Browse*" at the top of the home screen (see Section *2-1. Browsing and editing your flashcards* (pg. 9) for more information on navigating the window).
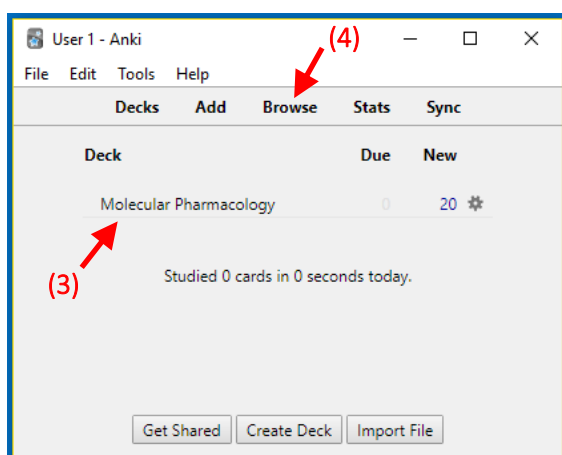
1-3. Using spaced repetition flashcards

(1) Next to the newly imported deck, there are two numbered columns: "*Due*" and "*New*". "*Due*" refers to the number of flashcards that are waiting to be reviewed today – the default number of flashcards to be reviewed per day for each deck is 20. "*New*" refers to the number of new, unreviewed flashcards ready to be learned on that day.

(2) To begin learning/reviewing flashcards, click on the desired deck, followed by "*Study Now*".
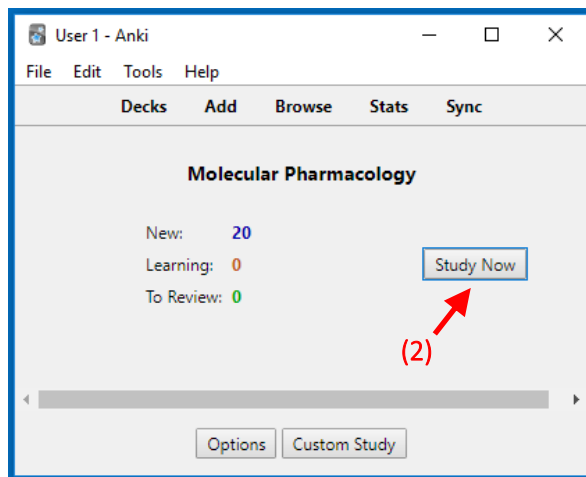
(3) The front of the flashcard containing a question or prompt will show. Take a moment to recall the answer in your mind, or ideally <u>say it out loud or write it down</u>. Then, press "*Show Answer*" at the bottom of the screen. If you cannot remember the answer, it is recommended to move on (by pressing "*Show Answer*" as aforementioned) and clicking "*Again*" which will give you another go later in that review, as well as tell Anki to show the flashcard more frequently in subsequent reviews.
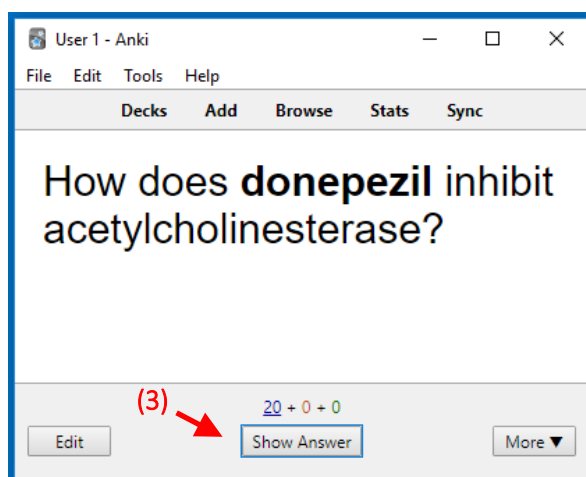

(4) The back of the flashcard containing the answer or statement will show. Compare your answer taking note of what you were able or unable to remember. Finally, review your performance by selecting one of the following:
- "*Again*" (failed to remember; Anki will show the flashcard more frequently);
- "*Good*" (remembered normally; Anki will show the flashcard at the same rate);
- "*Easy*" (only for the easiest of cards; Anki will show the flashcard less frequently).
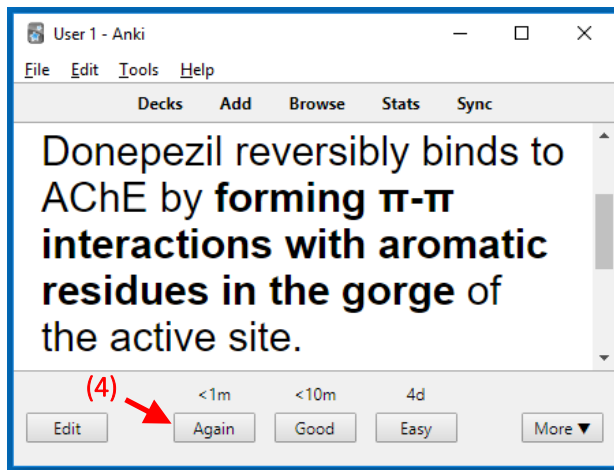
(5) The next flashcard will show; repeat steps (3) and (4) until you have completed today's review of that deck. As you proceed through the queued flashcards, you will notice three sets of numbers near the bottom of the screen (X + Y + Z) indicating today's progress:

- X refers to the number of new, unseen cards in the queue;
- Y refers to the cards being learned in the queue (this number usually increases by 1 if you click "Good" so you learn it constantly, but increase by more than 1 if you click "Again" since Anki will show that failed card again more than once to ensure you learn it more thoroughly);
- Z refers to the cards Anki has determined you have successfully learnt and are now in the reviewing stage.
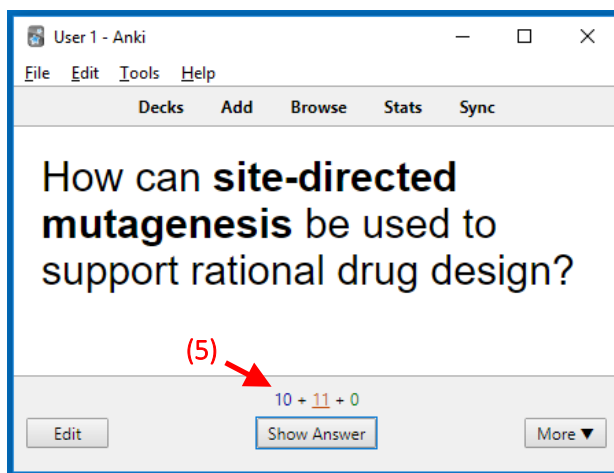
2-1. Creating your own flashcards

(1) Click "*Add*" located at the top of the home screen.
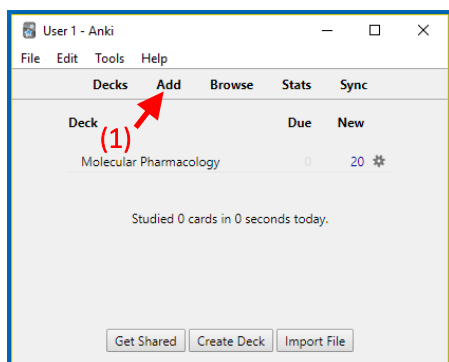
(2) You will be prompted with an "*Add*" window where you can fill in the fields with the learning material you want to add. Font and attachment options are available in the top right corner.
- (a) "*Type*" – Select the type of card you want to create:
  - (i) "*Basic*" – The traditional flashcard which shows the question on the front side then reveals the answer on the back side.
  - (ii) "*Basic (and reversed card)*" – A two-way flashcard which tests both front-to-back (the basic card, as above) and back-to-front (the reversed card), requiring the user to also recognise the prompt/question (front) from a statement/answer (back). This works well for definitions, drug MOAs, etc.
  - (iii) "*Cloze*" – A cloze passage where the user must remember key words or phrases that have been omitted from a statement. Words and phrases can be omitted by highlighting them and clicking the "[...]" button next to the fonts.
- (b) "Deck" – Select the deck you want to add the new card to.
- (c) "Tags" – Allows you to type in a tag to help categorise and organise your cards within the selected deck. E.g. an "Autonomic Nervous System" deck may have cards pertaining to the sympathetic system tagged as "Sympathetic Nervous System" and other cards pertaining to the parasympathetic system tagged as "Parasympathetic Nervous System".
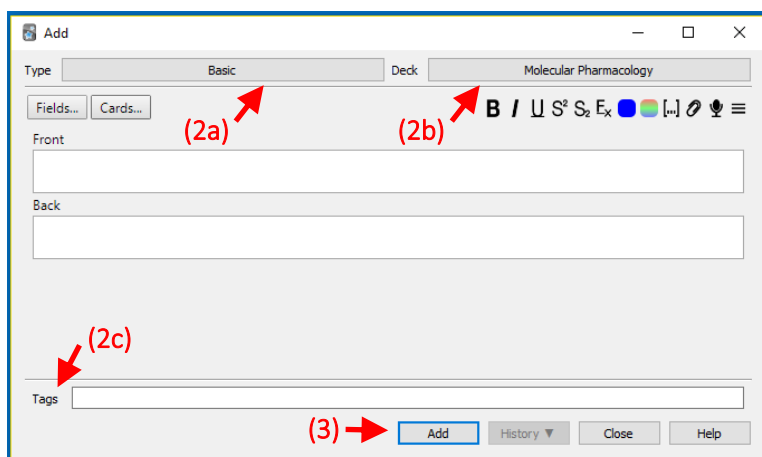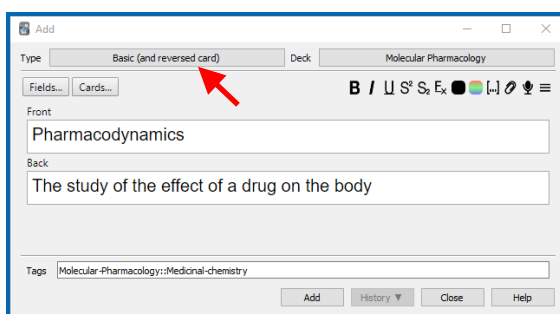

(3) Click "*Add*" to create the new card.

(4) Some examples of different types of flashcards for reference:
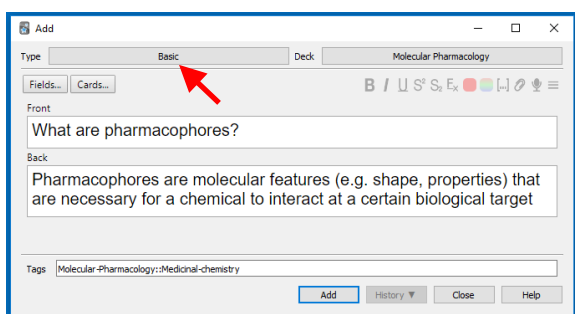
A basic card which shows the question on the front side before revealing the answer on the back side of the flashcard. A tag is used to categorise the flashcard under the "Medicinal chemistry" section of the "Molecular Pharmacology" deck.


A basic + reversed card which allows the user to test the definition of pharmacodynamics (i.e. shown front to back), as well as test what term is used for the study of the effect of a drug on the body (i.e. shown back to front).
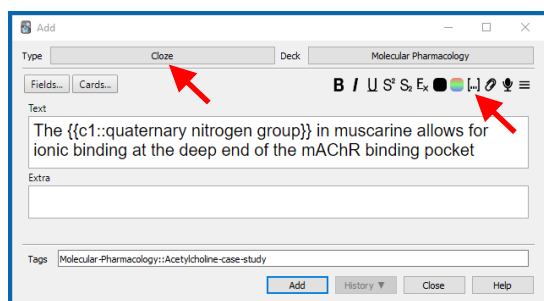

A cloze passage card which omits "quaternary nitrogen group" from the sentence shown on the front side of the card. The user must fill in the blank, which is revealed on the back side.
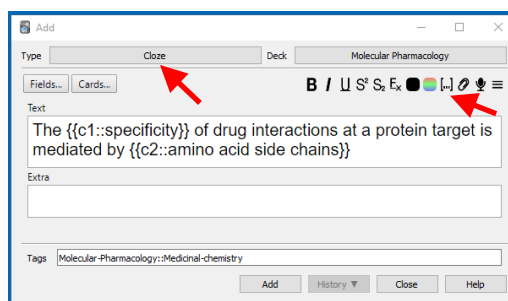
A cloze passage with more than one omission. "c1" and "c2" indicates two cards are generated; one for each omission. "c2" can be changed to "c1" so that only one card is made containing both omissions.
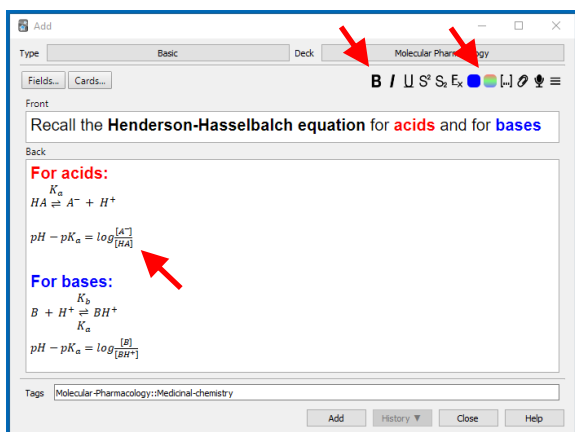

A card making use of bold and coloured font. Anki supports the use of equations, which can be copied and pasted from Microsoft Word documents.
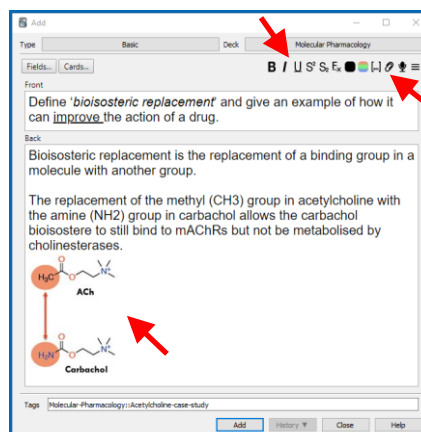

A card making use of italic and underlined font. Anki supports the use of images, which can be copied and pasted, or attached by clicking the paperclip in the top right.

2-2. Browsing and editing your flashcards

(1) To browse your ever-growing collection of imported and self-created flashcards/decks, click "Browse" at the top of the home screen.
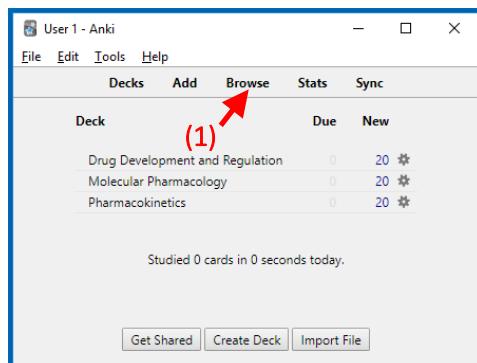
(2) A "*Browse*" window will open with a navigation pane on the left-hand side. Here you can view all your flashcards currently in Anki, or sort through them by deck, card type, or tag. You can also use the search bar at the top of the screen to look for flashcards containing certain words.
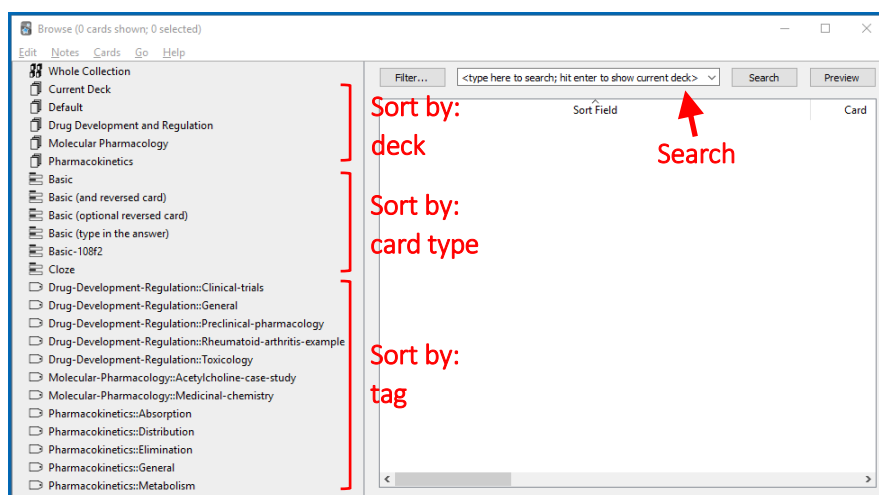
(3) Select a category of your choice and the associated flashcards will be listed on the right-hand side. Click on a flashcard to bring up its fields along with its editing functions and options.
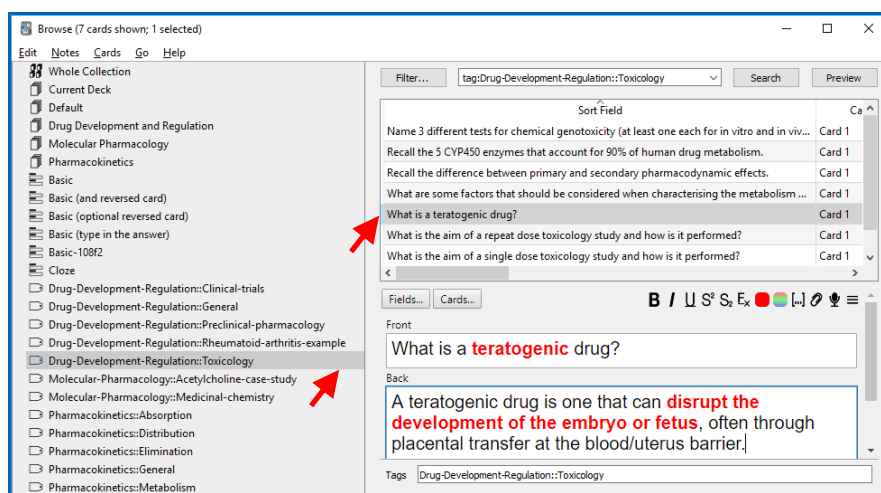
2-3. More customisable features to tailor your study

This guide has been an introduction to the basic and typical functionality of Anki spaced-repetition flashcards.

If you're feeling adventurous, there are many other options to further customise your study experience. Below is a brief list of options and functions that you may find useful. **For a complete documentation of Anki, visit** https://apps.ankiweb.net/docs/manual.html.

- **Custom study sessions:** To study a deck outside the normal spaced repetition schedule, click on the deck from the home screen, and click "*Custom Study*" at the bottom. Select one of the pre-set options on which to base your custom study – these "pull" cards out from the "home" deck into a separate deck to custom study. The cards are returned back to their original "home" deck after reviewing, if you click "Empty" in the custom deck, or if you delete the custom deck. For more information: https://apps.ankiweb.net/docs/manual.html#filtered-decks-&-cramming.

  - o If you find you are always creating custom study sessions because e.g. the default spaced repetition schedule is too short or too long, you can modify the schedule to your preference by clicking the settings cog wheel next to a deck and clicking "*Options*". Here, you can change how many cards are learned/reviewed per day, how the cards are displayed, and even the spaced repetition schedule itself (e.g. when the next card is shown).

- **Filtered decks:** Like custom study sessions, filtered decks are another way to generate additional decks from the original decks for customisable study. Click "*Tools*" at the top of the home screen, then "*Create Filtered Deck*". A new window appears for you to customise your filtered deck including what flashcards to select, how many flashcards to select, how the flashcards are selected from the original decks, and whether to modify the spaced repetition schedule. For more information: https://apps.ankiweb.net/docs/manual.html#creating-manually.

  - o E.g. A simple filtered deck would be useful if you want to study multiple decks at once before a final exam. To create, open the "*Create Filtered Deck*" window as above, and in the search bar type (example decks used here): "deck:Molecular Pharmacology" OR "deck:Pharmacokinetics" OR "deck:Drug Development and Regulation". This will create a separate filtered deck combining the three decks for you to study. You can rename the new filtered deck in the home screen by clicking the settings cog wheel next to the deck. For other ways to search in the search bar: https://apps.ankiweb.net/docs/manual.html#searching.

- **Flashcard formatting:** To change how a flashcard is styled, click "Browse" from the home screen, select any deck from the left-hand side, then click "Cards…" on the right-hand side. Here, you can modify the template of the flashcard and see a preview of how it would look. For more styling options: https://apps.ankiweb.net/docs/manual.html#card-styling.

  - o If you are a visual learner, you may find that adding an image to the front side of a flashcard can help with memorisation when presented with the same question or image in a testing situation.