

Anki Tutorial

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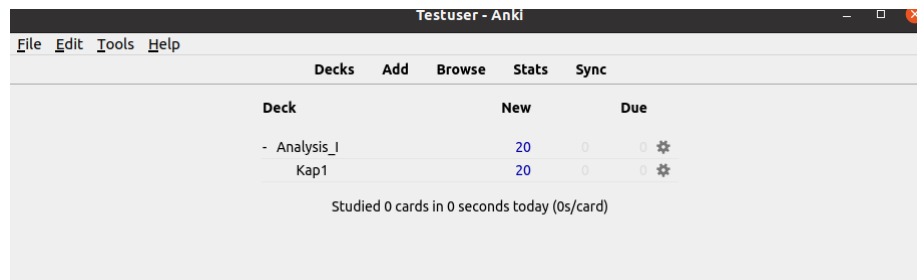
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1 What is Anki

Anki is a spaced repetition app, which is compatible with most common mobile and desktop environments. It allows for a lot of configuration to suit your learning style. It is free for all platforms except for IOS¹ More info @ <https://apps.ankiweb.net/>

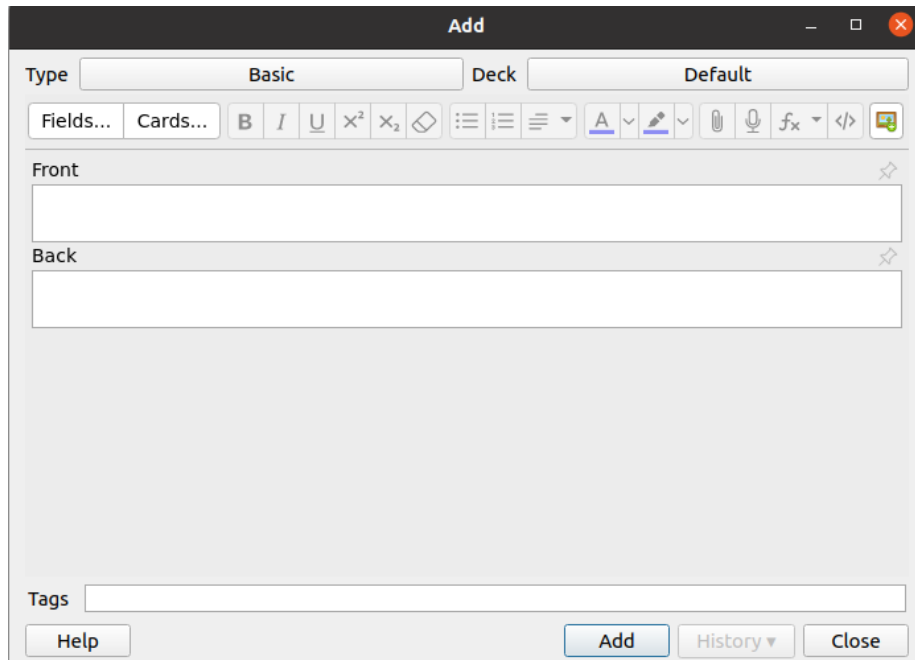
2 How to write Anki Flashcards

2.1 The Interface



To create new cards you need to press the "Add" button, which will prompt you to the following interface.

¹I have nonetheless bought the app and there is a workaround 3.2



The things you will need to use are:

- Type
- Deck
- Front/Back
- Tags

With type you can select the card type you want to create (if you started with the wrong type you can still change it later). More info on types follows.

Deck allows you to (you guessed it) select to which deck you want to add the cards. Decks need to be named like this:

`Analysis_I::yourdeckname`

This allows us to group all the decks into one big deck

Now the most important part: Front/Back This can also be called Text/Back Extra if you are creating a cloze card. This behaves just as you would expect. You write whatever you want to be on the front and on the back. (You can also add formatting using the buttons above.)

Tags allows you to categorize your card. This is useful later on when you want to only learn a specific topic with a specific tag. The only thing you need to note is that tags need to be one word as each space will create a new tag.

2.2 Card types


There are three important card types in Anki, which can be used for a variety of question types.

- Basic
- Basic (and reverse)
- Cloze
- (Occlusion)

2.2.1 Basic (and reverse)

Behaves just as one would expect. I would not recommend using reverse cards, as clozes can do the same thing just better imo.

2.2.2 Cloze

Cloze allows you to make a "fill in the blanks" type of question. To do it you first write whatever text you want to be the answer. You can then select a part of the text and press Ctrl+Shift+C (or select this symbol  (only available when creating a cloze card)) This will insert the following into your card

```
{{c1::whatever you wrote}}
```

The c1 part is the number of the cloze. If you want to hide multiple things at once you can just change the number to match (numbering starts at 1) There is one tricky part when hiding math formulas. As sometimes you will need the curly braces "}" in the math formula the parser can get confused. To fix this you need to separate any consecutive curly braces which are not a part of the cloze with a space. Example:

```
\[ {{c1::\frac{1}{x^{2}}}}= x^{-2} \]
```

Will not work as the three curly braces at the end confuse the parser. To fix this you can simply change it to this:

```
\[ {{c1::\frac{1}{x^{2} } }}= x^{-2} \]
```

Notice that the only curly braces that are not separated by a space are the first and the last of the cloze. The result looks like this:

Front

$$[\dots] = x^{-2}$$

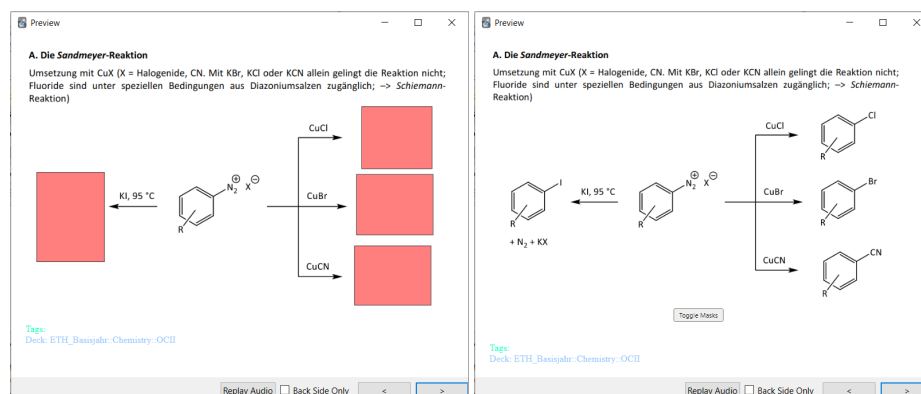
Back

$$\frac{1}{x^2} = x^{-2}$$

2.2.3 Occlusion

To write this card type some additional setup is required (but it's absolutely worth it)

Occlusion cards are cards where an image is presented with certain parts obscured. Occlusion cards are best for covering up details of graphs or sketches.



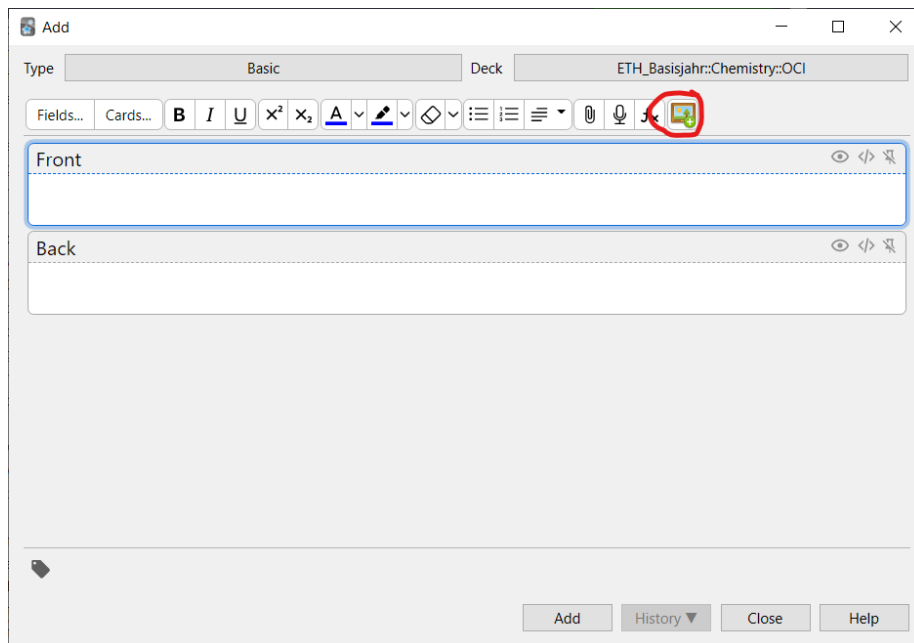
(a) Front

(b) Back

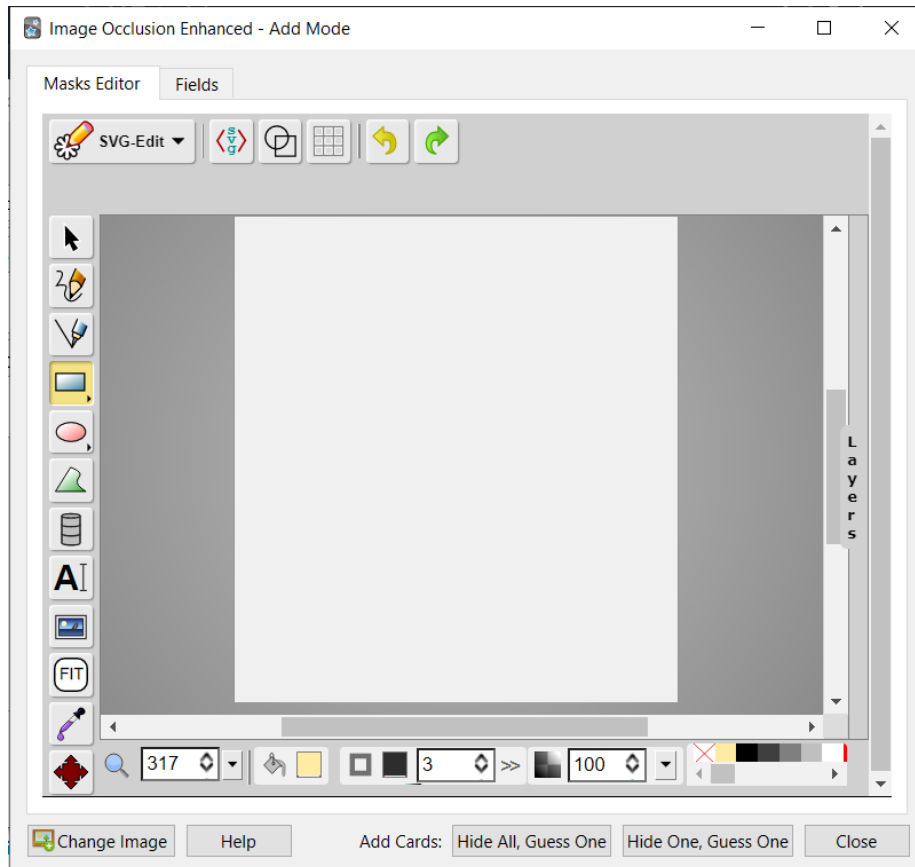
Setup The plugin we are using for occlusion cards is the Image Occlusion Enhanced plugin. To install go to **Tools>Add-ons>Get Add-ons** and paste the following code: (1374772155). You can also get the code by visiting the website above and scrolling to the bottom.

Now restart Anki and you should have installed the plugin

Creating a card When creating a new card you should now see a new icon on the top right (make sure already that you are in the correct deck):



Upon clicking a new interface will show up.



- In the center you will see the last image which was in your clipboard (this will be important later).
- To the left there are multiple different drawing tools.
- On the bottom you see the buttons to finish your work and save the card.

To start you can take your textbook or whatever image you want to transform into a card and open it. On windows you can now press **Win + Shift + S**². This will open your systems Snipping Tool. Now screenshot the portion of the document you want in your card.

Pressing the **Change Image** button on the bottom left should now insert this image to the editing field in the center.

Now you can cover all the parts of the image you want to learn with the boxes, circles or freehand shapes on the left. If you want multiple coverings to

²Command-Control-Shift-4 on MacOS. For the Linux users this is dependent on the distro (sry)

be considered as one you can select them while holding down **shift** and then group them via a new button on the top or via pressing **G**

If you have covered all the important information you can now decide which type of card you want:

- Hide All, Guess One
- Hide One, Guess One

The titles are quite self explanatory and you should know which suits your card best. Upon pressing the button the plugin will create a new card for each group of boxes according to your choice.

For more information and more advanced use cases visit: [The Wiki](#)

2.3 Exporting and Importing

The easyssest way to export Anki decks is exporting as apkg. To do this `file>export>export format>*.apkg`. This file can be easily shared and imported by other people. If a deck is changed the import will only apply the changes without disrupting your already learned cards. Also make sure to export the deck without the scheduling information to give the other people a clean deck.

2.4 Amsmath & MathJax

Now we come to the most important part of this document. How to write maths: In Anki you have two types of math environments: MathJax inline and MathJax block Those two types do exactly what one would expect so I will not elaborate further.

To use the blocks you can type

```
\[ maths \  
\( maths \  
\)
```

Where the first results in a block and the second in an inline statement. You can also use the shortcut **Ctrl+M** and then **M** for inline or **E** for block.

Within a block the following statements will be usefull:

x^y	x^y
x^{y+z}	x^{y+z}
x_y	x_y
\sqrt{x}	\sqrt{x}
$\frac{x}{y}$	$\frac{x}{y}$
$\sum_{k=0}^n k$	$\sum_{k=0}^n k$
$\lim_{x \rightarrow x_0} f(x)$	$\lim_{x \to x_0} f(x)$
$\forall x \in \mathbb{R} \exists y \in \mathbb{C}$	$\forall x \in \mathbb{R} \exists y \in \mathbb{C}$
$X \implies Y$	$X \implies Y$
$X \iff Y$	$X \iff Y$
$X \vee Y$	$X \vee Y$
$X \wedge Y$	$X \wedge Y$
$X \cap Y$	$X \cap Y$
$X \cup Y$	$X \cup Y$
$\pi, \varepsilon, \delta, \Delta$	$\pi, \varepsilon, \delta, \Delta$

The list is obviously incomplete but it should cover the basics. If you need a symbol whose name you don't know I can strongly recommend <https://detexify.kirelabs.org/classify.html> where you can draw the symbol you are looking for. If you need more complicated things like case distinctions etc just google for amsmath or latex. It will work 90% of cases.

2.5 Closing remarks

I hope this Tutorial has helped you getting started with creating Anki flashcards. I recommend looking up common pitfalls when using Anki so you can get the best learning experience. If you decide on making a deck your fellow students will certainly appreciate you sharing your work! ³

Now have fun learning!

³This document can be redistributed and changed as long as it remains open source and attributed:)

3 Appendix

3.1 Syncing with AnkiWeb

If you are like me you have multiple devices you use on a daily basis. So wouldn't it be great if you could synchronise your anki progress on all your devices.

Great news! You can. To do this you just need to create a (free) account on AnkiWeb and log in with this account on your devices.

TADA!!

3.2 IOS Workaround

If you don't want to pay for the anki app on IOS there is a workaround which you can use to still learn cards. To do this visit AnkiWeb and create an account (it's free). On a PC with Anki installed sign in to your account. Import the decks you want to use and sync with AnkiWeb.

If you now log in to the online anki web, you should see the cards. You can now review those cards on your IOS device (as long as you have internet). I would still recommend buying the app, as it greatly supports the creators of this amazing tool.