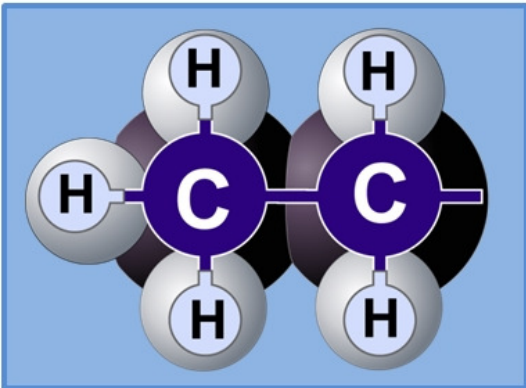
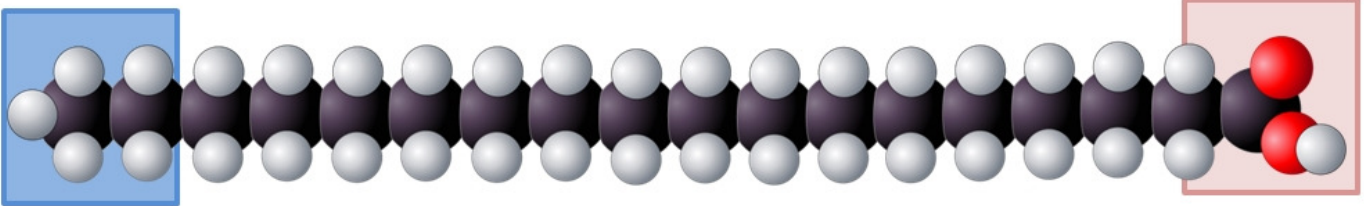
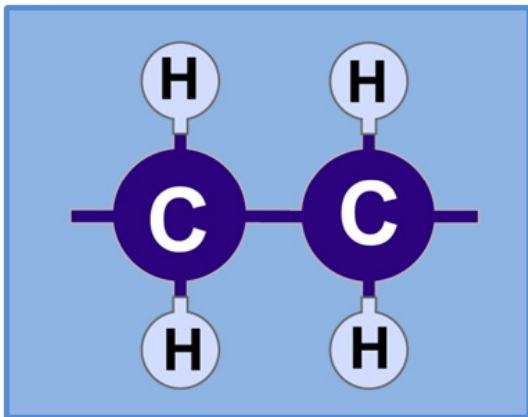


Fat chemistry story – Fatty acids

Fatty acids (fats)

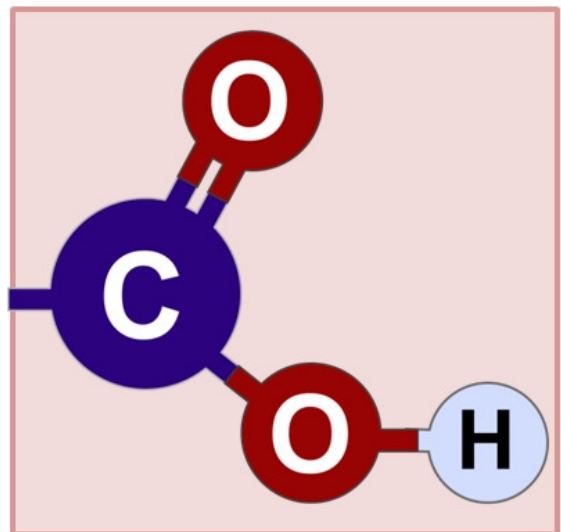


All fatty acids have a chain of carbon & hydrogen atoms



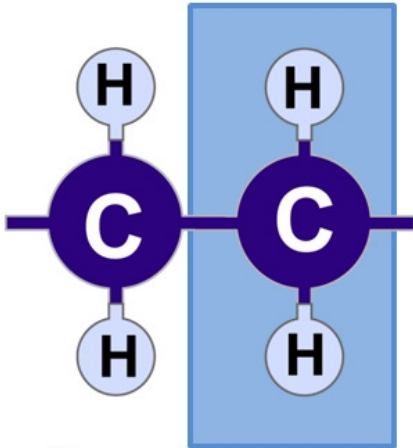
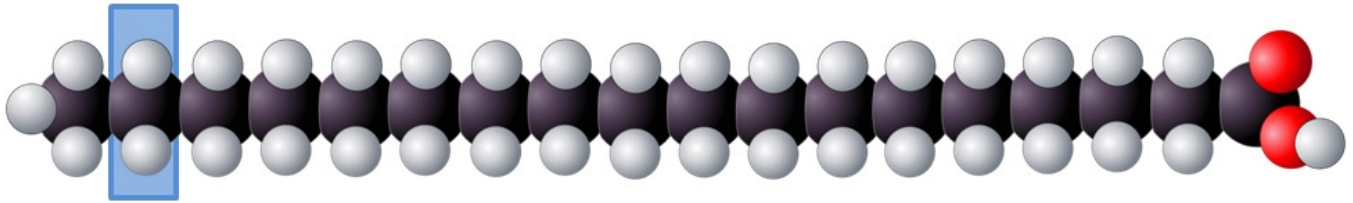
A carbon atom links with another carbon atom to make the chain

Fatty acids have a head with:
1 carbon atom,
2 oxygen atoms and
1 hydrogen atom



Fat chemistry story – Fatty acids

Saturated fatty acids



Saturated fatty acids have 2 hydrogen atoms and one carbon atom in each link.

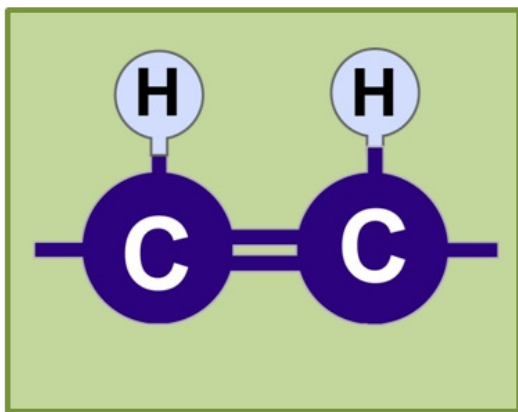
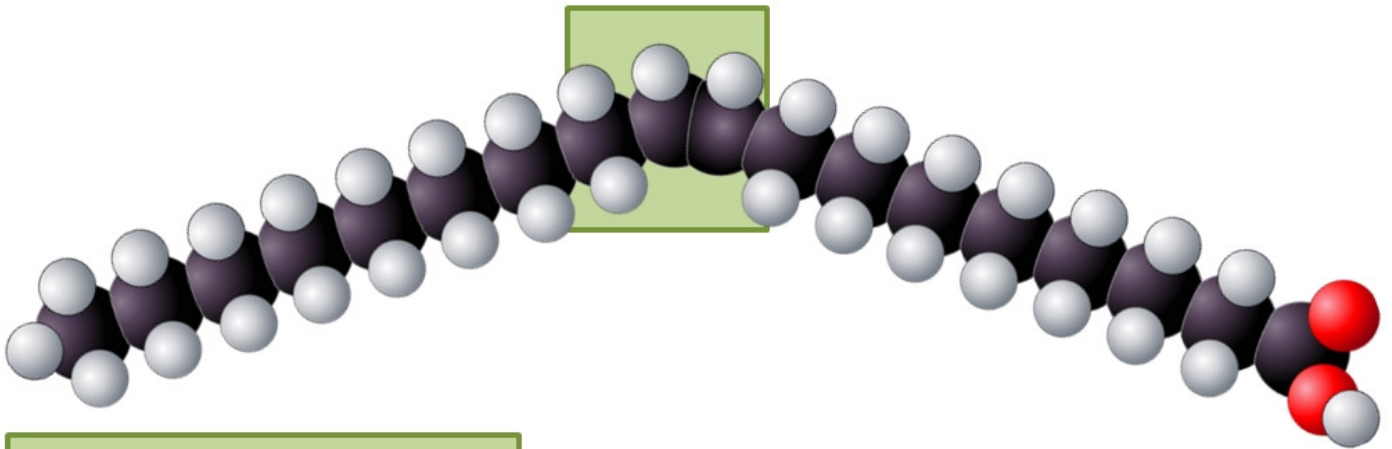
All animal fats contain saturated fatty acids.



Some plant fats like palm oil, coconut oil, Copha (hydrogenated coconut oil) contain mostly saturated fatty acids.



Mono-unsaturated fatty acids



Unsaturated fats are when 2 of the hydrogen atoms are missing.

Instead of hydrogen atoms the carbon atoms have two links instead of one.

Mono unsaturated fatty acids have only **one** lot of carbon atoms with two bonds.

Mono-unsaturated fatty acids are good for you. You find this fat in vegetable oils, avocados & nuts.

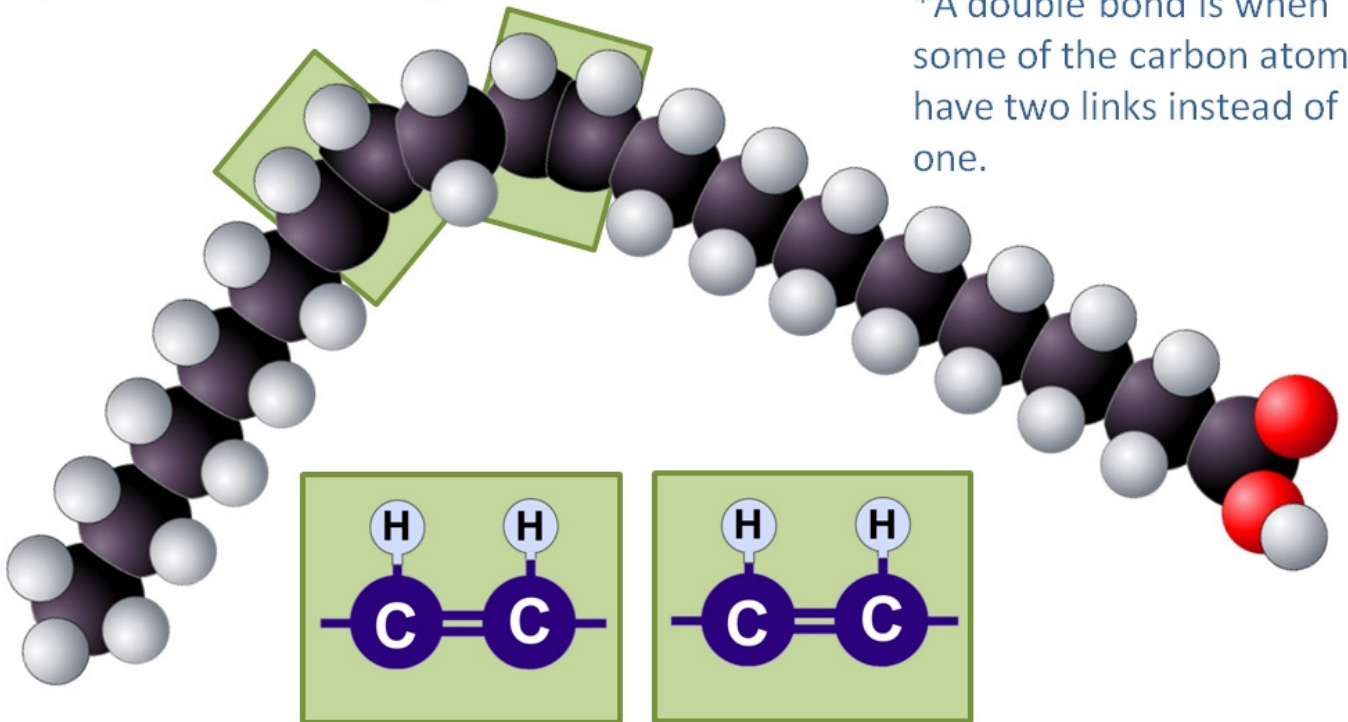


Examples: olive oil, canola oil, peanut oil, safflower oil and sesame oil.

Examples: avocados, nuts

Poly-unsaturated fatty acids

*A double bond is when some of the carbon atoms have two links instead of one.



Poly-unsaturated fats have 2 or more ***double bonds**

Poly-unsaturated fatty acids are good for you. They help prevent heart disease and keep your blood pipes healthy

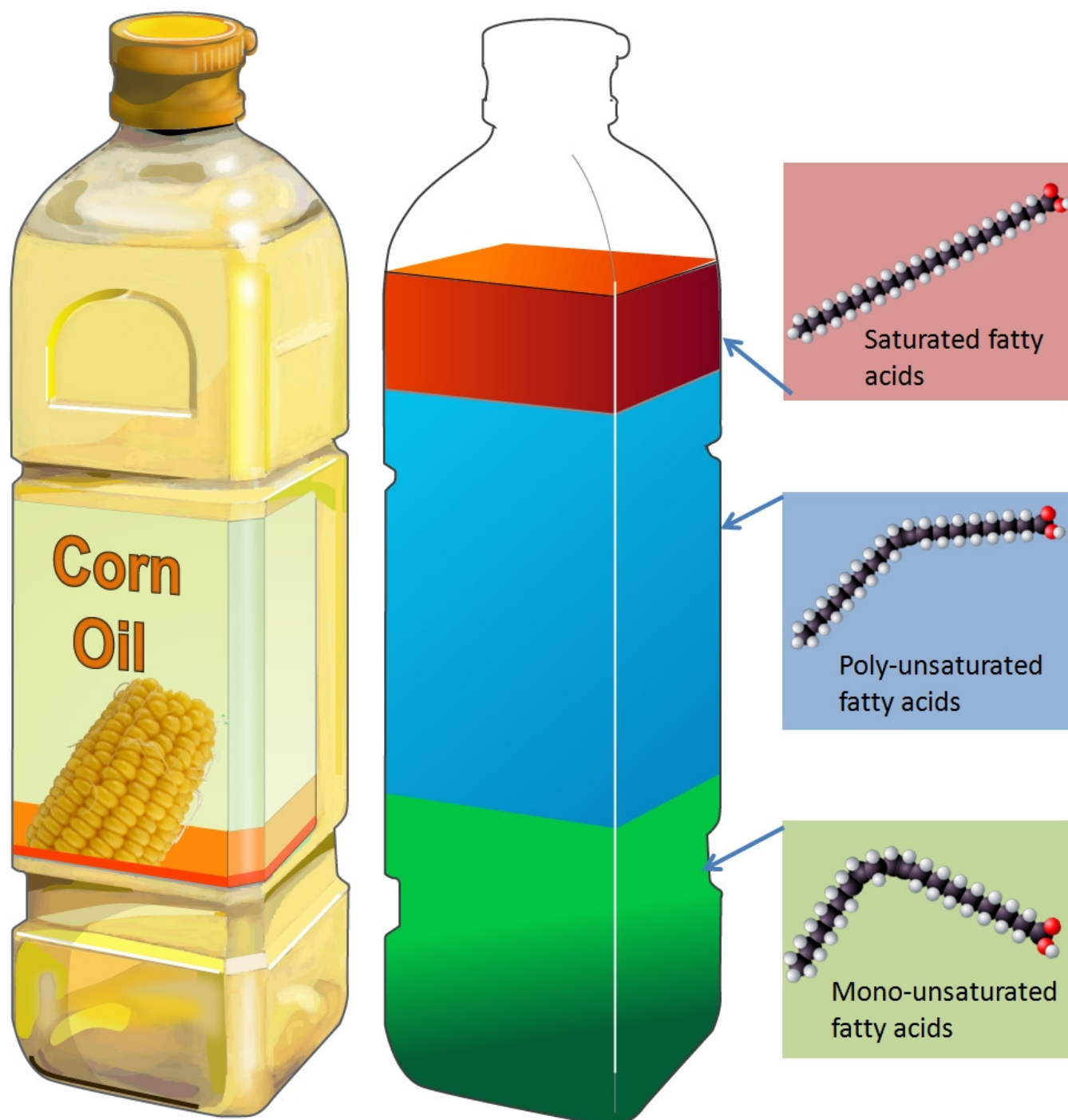


Examples: soybean oil, corn oil and sunflower oil, as well as fatty fish such as salmon, mackerel, herring and trout.

Fat chemistry story – Fatty acids

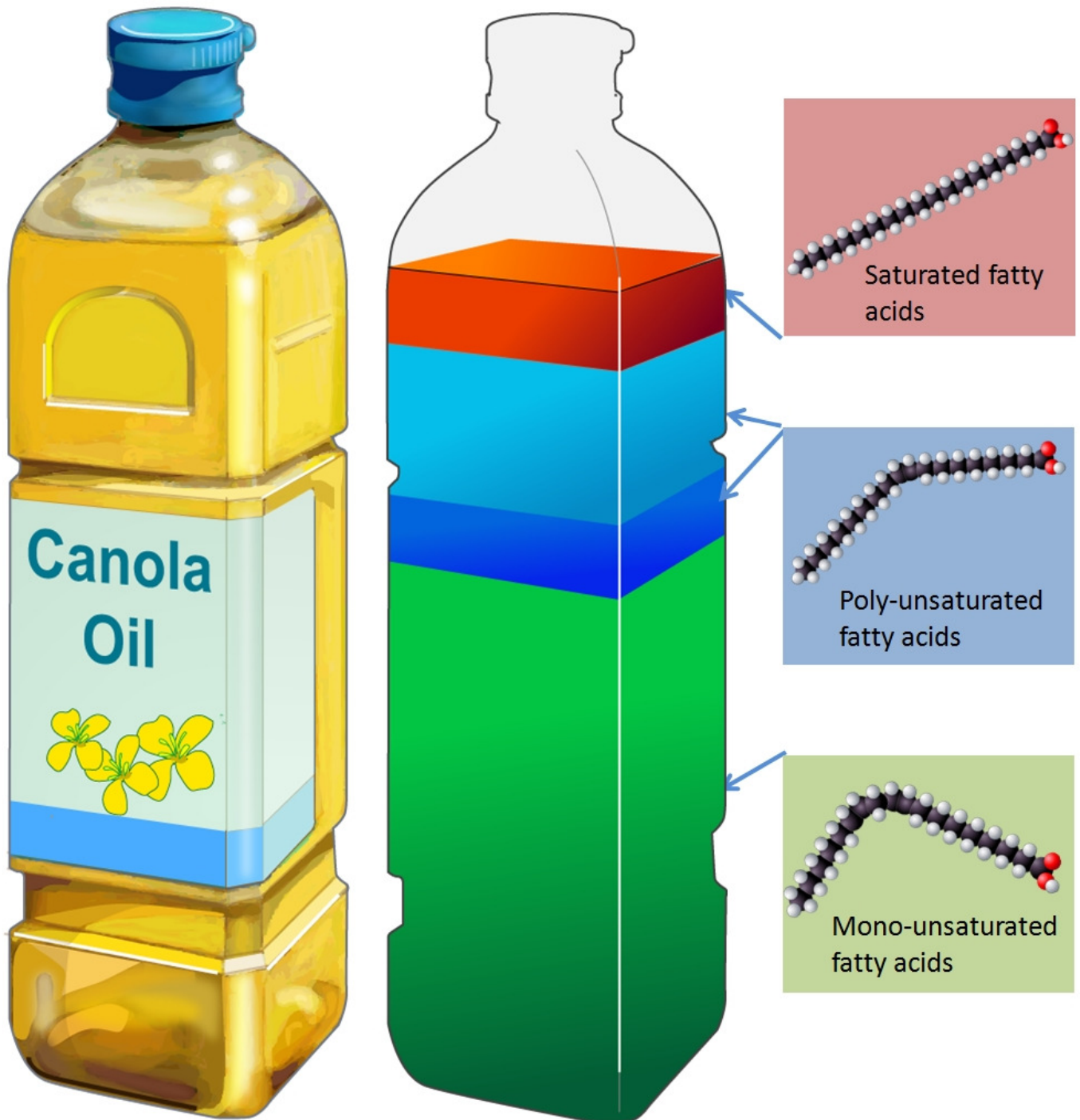
Oils are mixtures, they will contain different amounts of the different fatty acids. This example is of a poly-unsaturated fatty acid

Corn oil contains:



You need a mixture of mono & poly-unsaturated fatty acids

Canola is described as a mono-unsaturated acid but it has both mono & poly-unsaturated fatty acids . It is cheap and a good choice



There is no need to print the following page when printing and using this resource

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Purpose of resource:

To support the delivery of practical cooking and nutrition education sessions.

Subject:

The chemistry of different fatty acids.

Target group:

This resource is designed to be used by Australians of all ages.

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