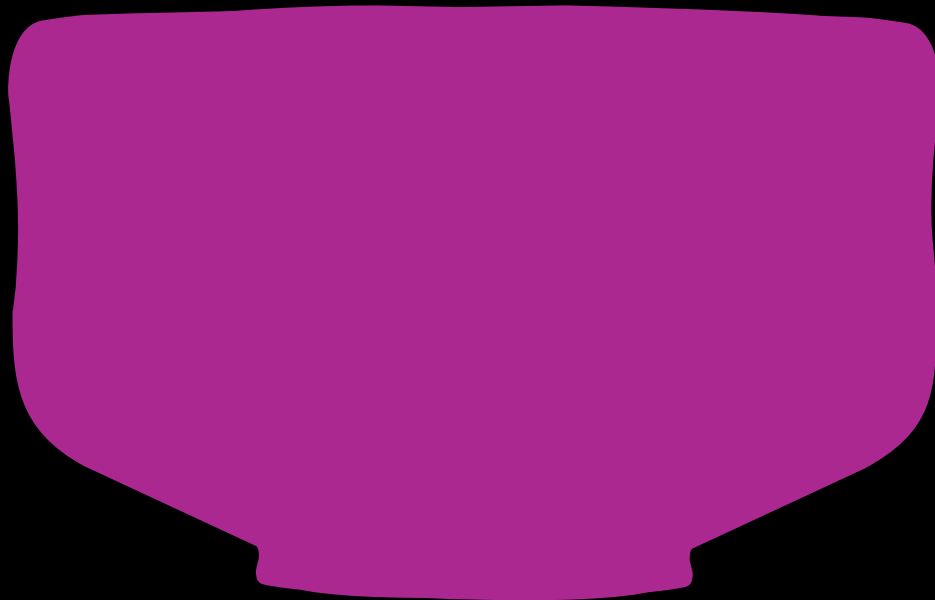




MATCHA
PROJECT
E-BOOK

Understanding the
flavors and quality
of matcha tea.



ESCOLA DE CHÁ®  EMBAHÚ

São Bento do Sapucaí ★ São Paulo ★ Brazil

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MATCHA
PROJECT
E-BOOK



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Welcome!



Matcha is a tea made of *Camellia sinensis* leaves, which have been processed and pulverized into a fine powder, primarily to be consumed mixed in hot water. Its origins throw back to hundreds of years ago in China, with further ritualization in Japan. Today, Matcha gains popularity throughout the world.

In order to follow up the evolution of such a special tea, the **“Matcha Project”** was created. Our focus of study lies in its contemporary use, along with all due respect to the matcha ceremonial tradition.

Part of this work consisted in discussing the most common words utilized in tasting evaluation of matcha, compiling a lexicon which resulted in a matcha Flavor Wheel.

While researching about flavor, there comes the quality question. A product so specific, with a remote origin, eventually arrives in the western world with a less detailed description. The discovery of complex flavors and to overcome the paradigm that matcha does not necessarily need to be bitter, reveals quality standards. And hence all the price point variation in the market.

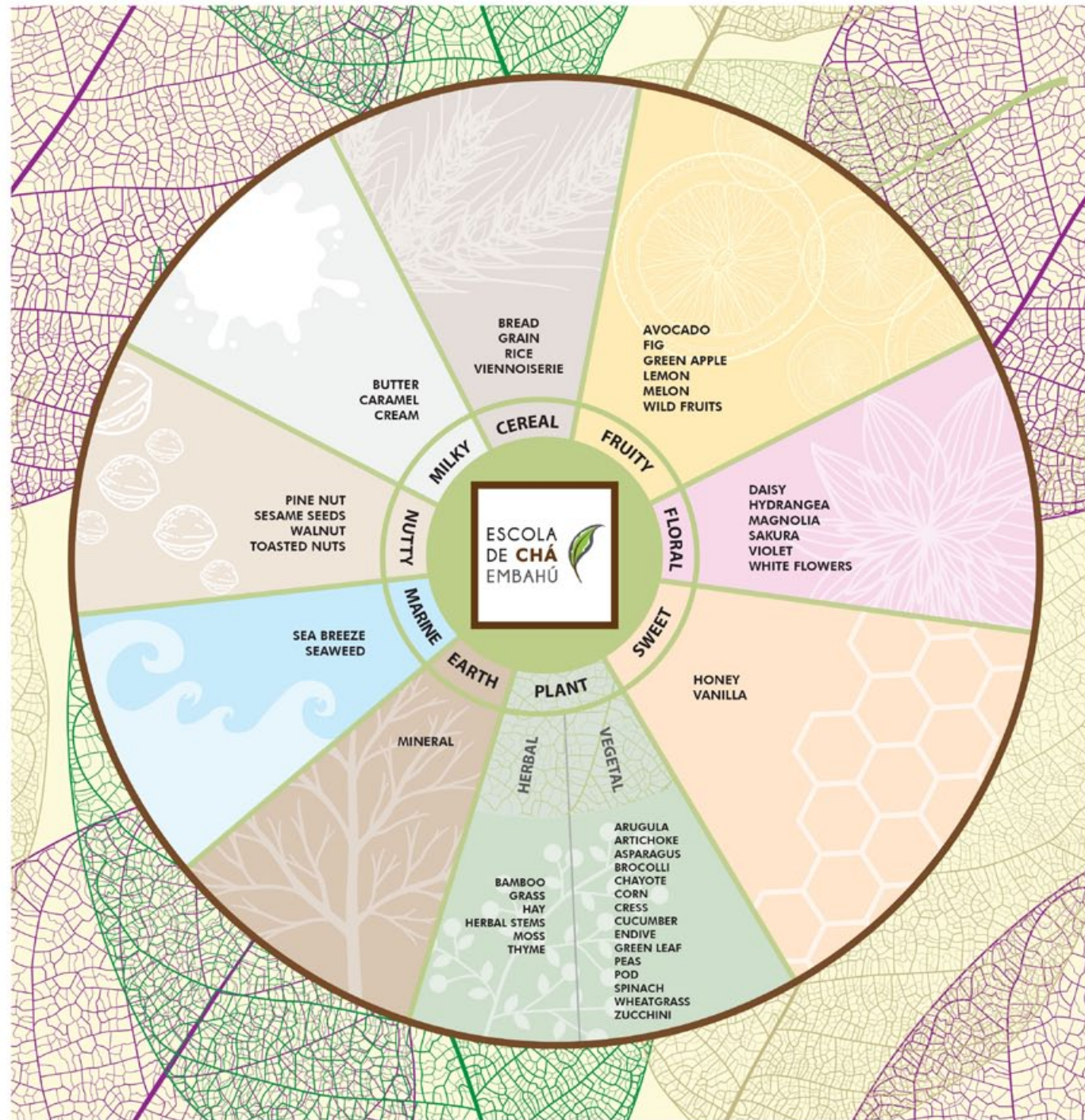
Equally important, the geographical origin and processing of the tea is emphasized. A fundamental value for the analysis of special tea, from taste to nutritional potential.

This is an educational project, aimed at widespread knowledge about matcha and to promote its diversity of use nowadays.

We wish you a great reading experience.
Made by matcha lovers, to matcha lovers:
“Matcha Project” team



FLAVOR WHEEL



VERSION 1.0 ENGLISH

MATCHA PROJECT ★ BRAZIL

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Escola de Chá@Embahú - Tea School's
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BASIC TASTES

SWEET

The taste stimulated by sucrose and other sugars, such as fructose, glucose etc.

SOUR

The taste stimulated by acids, such as citric, malic, phosphoric etc.

SALTY

The taste stimulated by sodium salts, such as sodium chloride and sodium glutamate, and in part by other salts, such as potassium chloride.

BITTER

The taste stimulated by substances such as quinine, caffeine, and hop bitters.

UMAMI

The taste that enhance our sensation of many flavors and improves succulence. The "savory" taste, stimulated by monosodium glutamate.

FLAVORS

PLANT - Vegetal

ARUGULA

Bright green fibrous, crisp leaves, succulent and slightly chewy. Distinct peppery, somewhat bitter vegetal taste, of subtle mustard spicy notes.

ARTICHOKE

Compact floret with pistachio and lime green tones with deep flavors of toasted nuts, dry grass and sweetness.

ASPARAGUS

Deep pistachio green stalks, succulent, mildly grassy, nutty, sweet and buttery taste.

BROCCOLI

Green vegetable, sweet, herbaceous, with a hint of bitter and dryness.

CHAYOTE

Sweet juicy vegetable and mild flavor. Reminds of cooked cucumber.

FLAVORS

PLANT - Vegetal

CORN

- Raw: Sweet, starch and acid.
- Cooked: crunchy and succulent. Lightly sweet, milky, with fresh vegetal taste.

Green leaf and vegetable, with a bitter and spicy background.

CRESS

CUCUMBER

Dark forest green skin with pale inner flesh, crisp, succulent, aqueous texture, mild flower, cooling and grassy flavor.

ENDIVE

Tender soft and crunchy texture with delicate crunch with a pleasant bitter flavor. White leaves with slight yellow reddish leaf edges.

GREEN LEAF

Ordinary green leaves like lettuce are fibrous, crispy, slightly bitter, slightly sweet, fresh.

FLAVORS

PLANT - Vegetal

PEAS

Cooked grass green color pods, soft, creamy texture, sweet and nutty.

POD

Like English green garden pea, round and sweet, succulent and tender. Bright and fresh.

SPINACH

Leafy dark green, mild subtle herb-like taste, grassy flavor of iron and metallic notes, slightly acidic, earthy and nutty.

WHEATGRASS

Grass field color of crisp green. Strong earthy, bitter, pungent taste. Concentrated grassiness. Intense.

ZUCCHINI

Dark vibrant green of glossy skin. Flavors of mild squash flavor, slight peppercorn and nutty tones. Slightly sweet and grassy.

FLAVORS

PLANT - Herbal

BAMBOO

The mixture of the short and pointy green leaves with its trunk results in softly grassy, mineral, sweet and fresh aromas.

GRASS

The green leaves that grow over the soil; the sweetness and fresh smell of smooth green grass being cut.

HAY

A mixture of dry grasses; sweet smell, dusty, moldy; slightly smoky.

HERBAL STEMS

The thick and green part of a new plant; Fresh green notes, mineral, herbal, sweetness and slightly sour. Associated with fresh cut grass and cucumber.

MOSS

The moldy blue-green plants which grow over wet stones and wood; watery and mineral smell, soft. Velvety, spongy, earthy.

FLAVORS

PLANT - Herbal

THYME

Savory and aromatic small green wild herb, fresh, oily, slightly citric, softly smoky and a little bit pungent.

FLAVORS

MILKY

BUTTER

Milky and oily, with a hint of sour and sweetness.

CARAMEL

Sweet (heated sugar) and sticky, a little bit salty and milky.

FLAVORS

MILKY

CREAM

Curdled milky, fat and acid freshness. Sour and light sweetness. Intense texture.

FLAVORS

FLORAL

DAISY

A delicate wildflower character. It has a subtle, herbaceous green scent.

HYDRANGEA

It is sweetly scented, fresh floral with hints of clean, camphorous tonalities, jasmine-like.

FLAVORS

FLORAL

MAGNOLIA

Lightly fruity tinged floral, fresh, fat and lush at the same time.

SAKURA

A fantasy floral note of light fresh blooms, candy-like.

VIOLET

A sweet and powdery, airy and dewy floral note with a hint of green plant.

WHITE FLOWERS

Floral impression associated with white flowers such as jasmine, gardenia, orange blossom, honeysuckle.

FLAVORS

MARINE

SEA BREEZE

Salty oceanic freshness with seaweed tones.

SEAWEED

A kind of water plant which grows in the sea.

- Edible: extremely soft and mineral, sweet and salty; a lot of umami.
- Sea Shore: dark and fermented.

FLAVORS

FRUITY

AVOCADO

Earthy, mildly nutty and creamy texture.

FIG

Fruity, tree bark, sweetness and mellow.

FLAVORS

FRUITY

MELON

Sweet, fresh, crispy and succulent fruit.

GREEN APPLE

Bright intense green with white, crispy, juicy, hard flesh that is sweet, refreshing, sour and acidic. Tart.

WILD FRUITS

Berries, mixing sour and sweetness and mild astringency.

LEMON

Citric flavor, sour, sweet undertone with fresh and perfume aromatics.

FLAVORS

EARTH - Mineral

MINERAL

Geologic minerals that make up the rocks in the ground; the sensation of chalk or clay; it can also refer to nutrient minerals like in water.

FLAVORS

NUTTY

PINE NUT

It has a soft texture and a sweet, buttery, resinous pine-like flavor.

SESAME SEEDS

Has a mild, sweet, and nutty flavor. When toasted it brings out a stronger almond-like flavor and aroma.

FLAVORS

NUTTY

WALNUT

Fairly mild, but it has a complexity that includes some earthy, tangy and sharp notes.

TOASTED NUTS

Fragrant and flavorful mixed nuts with a light burnt aromatic.

FLAVORS

SWEET

HONEY

A sweet, thick liquid made by honeybees. It has a great range of flavors but usually we associate it with sweet and light floral and very slightly spicy aromatics.

VANILLA

Tasting like a marshmallow. High quality vanilla would have rum, prune, floral/perfume, resinous (aged pine) and tobacco notes.

FLAVORS

CEREAL

RICE

- Raw: the white grain is sweet with a mild and soft cereal aroma.

- Mochi: Japanese pastry made of cooked glutinous rice and sugar. It has a creamy viscosity.

BREAD

Grainlike notes in the aroma with burnt, toasted, brown, sour, salty, and bitter notes in the flavor.

VIENNOISERIE

French for “things from Vienna” – describes a whole category of pastry that includes white flour, sugar and butter. Flavors are rich and sweet. Examples: croissant, brioche etc.

GRAIN

It is an overall grainy impression characterized as sweet, brown, dusty, and sometimes generic nutty or starchy.



Nutella or Matcha Waffle?



**MATCHA
MOUTHFEEL**

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MOUTHFEEL

ASTRINGENT

Causes a rough sensation (not soft) in the mouth, the sensation of having the tongue/mouth tightened.

BRISK

A pleasant acidity.

CLEAN

Refers to clean, crisp finish. No lingering layer left in the palate.

CREAMY

Of soft and smooth consistency, richness, dense attributes like cream.

COMPLEX

Multiple, different and combined sensations in the mouth, in a good way.

MOUTHFEEL

DRY

Sensation left inside the mouth, tongue and inner cheeks due to astringency presence, used to describe something that has no water or any other liquid in.

DUST

Harsh, almost sandy sensation over the tongue left by not so finely grounded tea and/or not well dissolved tea in hot water.

FLAT

Not complex, not interesting.

FRESH

Pleasant sensation from the young leaves, herbal/grassy notes and a hint of acidity.

FLUID

Light liquid that slips inside the mouth, weak body.

MOUTHFEEL

GRAINY

Or coarse. A sensation of small particles of powdery, grainy and chalky texture.

HARD

Full-bodied and strong presence in the mouth, notable astringency in a positive way.

METALLIC

A hard finish of metal notes.

ROUGH

Unpleasant astringency, sharp bitterness.

ROUNDED

All encompassing, balanced, uniformity all-around texture.

MOUTHFEEL

SHARP

The unbalanced sensation, caused by excessive acidity.

SILKY

Soft, smooth and plane, like silk.

SOFT

Pleasant and smooth, not hard or rough.

SMOOTH

Silky and soft texture coming from a good tea dissolution in water, balanced flavours.

TANNIC

The sensations of eating an unripened fruit, dry.

MOUTHFEEL

THICK

Refers to having full syrupy body and mouth coating. Full weight on the tongue.

VIVACIOUS

Live flavours combined with pleasant acidity and freshness, light without being flat.

VIGOROUS

Strong, vivacious and astringent.

WEAK

Or thin. Refers to having thin body, flat taste. Lacking texture or flavor.



**MATCHA
COLOR**

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COLOR

NAME

EMERALD

FOREST

GRASS

MINT

PISTACHIO

AVOCADO

MOSS

DIJON MUSTARD

OLIVE

ARMY

Matcha Quality



The quality of matcha depends on factors including: cultivation, management, shading, harvest, processing, pulverization and storage.

On a global scale, there is not a single grading system for quality indication. Each producer has its own internal classification. It's up to us, tea lovers and professionals in the field, to identify the product's characteristics in order to establish whether cost benefits are coherent with the current market price points.

On the next page, we gathered some of the most frequently used terms, categorized by approximate quality. At the top, there are tea grades of best quality (green color) and, as you go down through the infographic, quality decreases (yellow color).

Matchas aimed for plain drinking (**SIPPING**) have greater flavor complexity. Their harvest is usually done with the young part of the plant, ensuring a major concentration of health benefits.

Matchas intended for recipes or **BLENDING** with other ingredients, have a flat flavor profile. They present evident bitterness due to older tea leaves being used, or an off-season harvest. Because of their flavor profile, these are best used in culinary dishes, drinks or lattes (even though the product color might be attractive).

This knowledge of matcha flavors builds up the values we should expect from the product. With an emerging market, minimally instrumented, there is a wide range of quality among so many products. This diversity needs better transparency in terms of origin and quality.

We count on you on this quest for a greater appreciation for matcha that connects us with producers and nature.

QUALITY

GRADES

SIPPING



Ceremonial Grade
Master Grade
Heritage Grade

Everyday Ceremonial
Standard Ceremonial
Premium

BLENDING



Culinary Grade
Café / Latte Grade
Cocktail Grade

Industrial / Culinary

Usage Tips



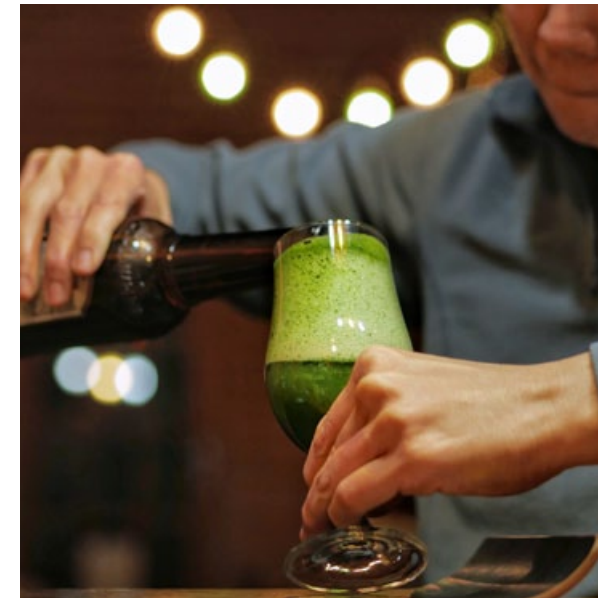
Now for a very fun subject: using matcha as an ingredient in recipes!

Since matcha is a very fine powder, it is easily incorporated into various culinary dishes. Therefore, it soon gained popularity in the food industry, with products in areas such as baking, ice creams, drinks, and much more!

Here we have a few ideas of simple preparations to be easily done at your daily life. However, do not hesitate in exploring way further: the important aspect is to understand the resulting flavor combinations. For sure, you will find a favorite recipe using matcha!



Several types of sweets made with Matcha.



MATCHA BIRU

Mix 1 to 2 g of Matcha in 30 ml of lukewarm water - leave aside until it cools down. Add the mixture to a glass of choice and fill up with a pilsner style beer.



MATCHA BUTTER

Add half teaspoon of matcha in about 50 g of salted butter. Mix well. To be used in culinary dishes or simply over bread - particularly sourdough becomes really special!



MATCHA MERINGUE

Just add half teaspoon of match into your favorite meringue recipe!



Passionfruit Lemonade Matcha Cooler



During the “Matcha Lovers Webinar” for Escola de Chá Embahú®, Yvette Arizala brought us the Matcha jar making method. The following recipe was highly appreciated among our public:

PASSIONFRUIT LEMONADE MATCHA COOLER RECIPE

by Yvette Arizala

You'll need:

-1 mason jar (about 1 cup in size)

Ingredients:

-1/2 passionfruit

-1/4 wedge from whole lemon or lime squeezed

-1 chasaku spoon of Culinary Matcha (or 1/2 tsp)

-1 cup water

- Sugar syrup, honey or sweetener of your choice

- ice (optional)

Instructions:

Put all the ingredients together in the mason jar, starting with the matcha, lemon, passionfruit. Then add water & sweetener. Shake shake shake vigorously for 30 seconds. And voila! Pour over a glass of ice and garnish.



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ABOUT

Matcha Project

team:



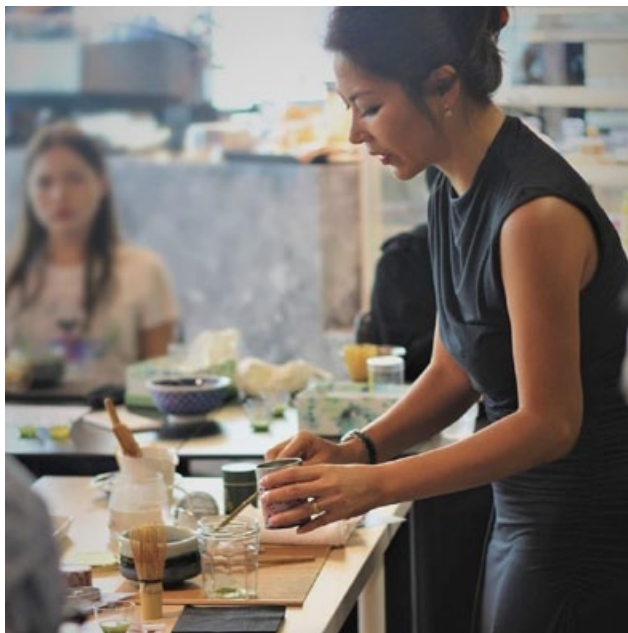
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Shaded tea fields in Wazuka, Kyoto, Japan.



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