

Difficulty: **Easy**  
 Prep time: **20 min**  
 Cook time: **20 min**  
 Serving: **4 people**  
 Cost: **Average**  
**Note** + time to soak the clams

## INGREDIENTS

+ read before cooking

420 Kcal Calories per serving

+info

- **Spaghetti** 0.7 lb (320 g)
- **Garlic** 1 clove
- **Extra virgin olive oil** to taste
- **Fine salt** to taste
- **Clams** 2 ¼ lbs (1 kg)
- **Parsley** 1 small bunch
- **Black pepper** to taste
- **Coarse salt** to taste - *for the clams*

## PREPARATION

### HOW TO PREPARE SPAGHETTI WITH CLAMS



To **make spaghetti with clams**, start by cleaning the clams. Make sure there are no broken or empty shells which have to be discarded. Then beat them against the sink or on a cutting board . This step is important to check that there is no sand inside: healthy clams will remain closed, while those full of sand will open. Then place them in a colander over a bowl and rinse them . Place the colander in a bowl and add plenty of coarse salt. Let the clams soak for 2-3 hours .



Once the time has passed, the clams will have purged any residual sand. Heat some oil in a pan . Then add a clove of garlic and, as the oil takes on flavor, **drain the clams well**, rinse them, and plunge them in the hot pan . Cover with a lid and let them cook for a few minutes over high heat .



The clams will open with heat, so shake the pan from time to time until they are completely open . As soon as they are all open, turn off the heat immediately, otherwise the clams will cook too much. Collect the juice by draining the clams, and do not forget to discard the garlic . In the meantime, cook the spaghetti in plenty of boiling salted water and drain halfway through the total cooking time of the spaghetti .



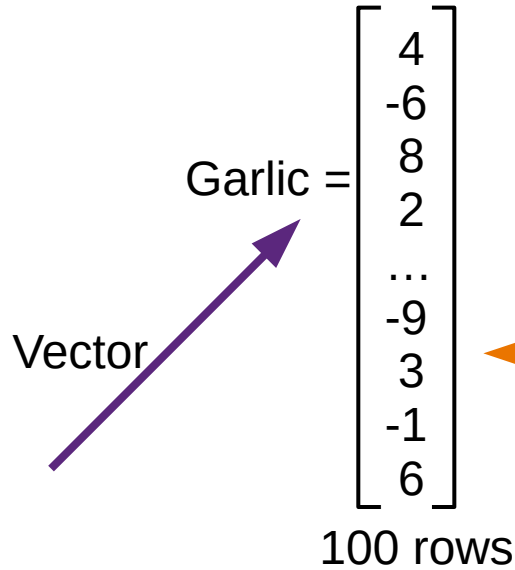
Then pour the sauce into a pan , **add the spaghetti**, and continue cooking using some cooking water. Your pasta will finish cooking in the pan. When cooked, add the clams and chopped parsley . Heat everything on high for a few seconds and the spaghetti with clams is ready: serve immediately .

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2	2	https://www.giallozafferano.com/recipes/Pacche...	{'Difficulty': 'Easy', 'Prep time': '15 min', ...}	['Calamari (squid)', 'Paccheri pasta', 'Cherry...	{0: 'To prepare the paccheri pasta with calama...	Paccheri-pasta-with-calamari
3	3	https://www.giallozafferano.com/recipes/Soft-L...	{'Difficulty': 'Easy', 'Prep time': '15 min', ...}	['Flour 00', 'Sugar', 'Eggs', 'Vegetable oil', ...]	{0: 'The first step when making a soft lemon c...	Soft-lemon-cake
4	4	https://www.giallozafferano.com/recipes/nutell...	{'Difficulty': 'Easy', 'Prep time': '10 min', ...}	['Eggs', 'Flour 00', 'Whole milk', 'Butter', '...	{0: 'To make Nutella crepes, begin by preparin...	nutella-crepes
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347	347	https://www.giallozafferano.com/recipes/Rum-ba...	{'Difficulty': 'Difficult', 'Prep time': '150 ...}	['Eggs', 'Manitoba flour', 'Fine salt', 'Sugar', ...]	{0: 'To prepare rum babà, start with the dough...	Rum-baba-Rum-syrup-infused-sponge-cake
348	348	https://www.giallozafferano.com/recipes/seafoo...	{'Difficulty': 'Average', 'Prep time': '35 min', ...}	['Spaghetti', 'Mussels', 'Clams', 'Calamari (s...	{0: 'To prepare the seafood spaghetti start by...	seafood-spaghetti
349	349	https://www.giallozafferano.com/recipes/Cocoa-...	{'Difficulty': 'Easy', 'Prep time': '20 min', ...}	['Egg whites', 'Egg yolks', 'Sugar', 'Butter', ...]	{0: 'To prepare the cocoa sponge cake, first p...	Cocoa-sponge-cake
350	350	https://www.giallozafferano.com/recipes/Fruit-...	{'Difficulty': 'Average', 'Prep time': '60 min', ...}	['Flour 00', 'Sugar', 'Butter', 'Eggs', 'Lemon...	{0: 'To prepare the fruit tartlets, you'll fir...	Fruit-tartlets
351	351	https://www.giallozafferano.com/recipes/Milk-c...	{'Difficulty': 'Average', 'Prep time': '40 min', ...}	['Unsweetened cocoa powder', 'Honey', 'Eggs', ...]	{0: 'To make the milk cocoa sandwiches, start ...}	Milk-cocoa-sandwiches

352 rows x 6 columns

# Global Vectors for Word Representation

GloVe 100D

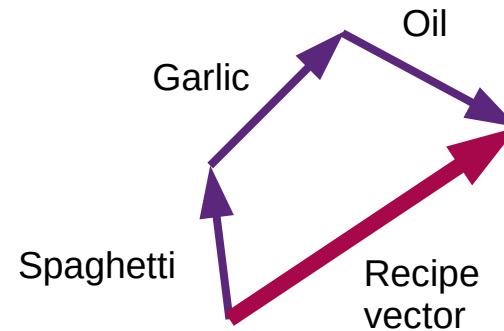


**INGREDIENTS** + read before cooking 420 Kcal Calories per serving +info

- [Spaghetti](#) 0.7 lb (320 g)
- [Garlic](#) 1 clove
- [Extra virgin olive oil](#) to taste
- [Fine salt](#) to taste
- [Clams](#) 2 ¼ lbs (1 kg)
- [Parsley](#) 1 small bunch
- [Black pepper](#) to taste
- [Coarse salt](#) to taste - *for the clams*

Recipe vector = Spaghetti + Garlic + Oil + ...

$$\begin{bmatrix} 174 \\ -74 \\ 142 \\ \dots \\ -10 \\ 521 \end{bmatrix} = \begin{bmatrix} -3 \\ 4 \\ -5 \\ \dots \\ 6 \\ 7 \end{bmatrix} + \begin{bmatrix} 4 \\ -6 \\ 8 \\ \dots \\ -1 \\ 6 \end{bmatrix} + \begin{bmatrix} 2 \\ -7 \\ 1 \\ \dots \\ -1 \\ 6 \end{bmatrix} + \dots$$



Pizza

Lasagne

Tiramisu

Burger

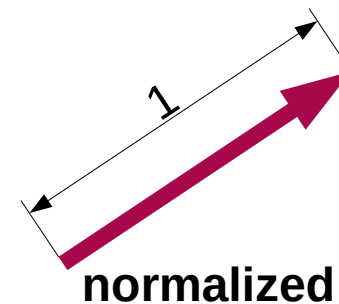
Currywurst

Recipe  
vectors



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1	1	https://www.giallozafferano.com/recipes/Coffee...	{ 'Difficulty': 'Average', 'Prep time': '10 min', ...	['Coffee', 'Sugar', 'Water', 'Heavy cream', 'H...	{0: 'To make the coffee sorbet, start by prepa...	Coffee-sorbet	[-0.106046444693207833, 0.09814874853962259, -0...
2	2	https://www.giallozafferano.com/recipes/Pacche...	{ 'Difficulty': 'Easy', 'Prep time': '15 min', ...	['Calamari (squid)', 'Paccheri pasta', 'Cherry...]	{0: 'To prepare the paccheri pasta with calama...	Paccheri-pasta with-calamar	[-0.13597805570777685, 0.1651299717759864, -0....
3	3	https://www.giallozafferano.com/recipes/Soft-L...	{ 'Difficulty': 'Easy', 'Prep time': '15 min', ...	['Flour 00', 'Sugar', 'Eggs', 'Vegetable oil', ...]	{0: 'The first step when making a soft lemon c...	Soft-lemon-cake	[-0.16109655881771323, 0.07986864516766268, -0...
4	4	https://www.giallozafferano.com/recipes/nutell...	{ 'Difficulty': 'Easy', 'Prep time': '10 min', ...	['Eggs', 'Flour 00', 'Whole milk', 'Butter', '...	{0: 'To make Nutella crepes, begin by preparin...	nutella-crepes	[-0.07926944490816416, 0.0452441481819901, -0....
...	...	...	...	...	...	...	...
347	347	https://www.giallozafferano.com/recipes/Rum-ba...	{ 'Difficulty': 'Difficult', 'Prep time': '150 ...	['Eggs', 'Manitoba flour', 'Fine salt', 'Sugar...	{0: 'To prepare rum babà, start with the dough...	Rum-baba-Rum-syrup-infused-sponge-cake	[-0.17503208570531034, 0.1262516291502524, -0....
348	348	https://www.giallozafferano.com/recipes/seafoo...	{ 'Difficulty': 'Average', 'Prep time': '35 min', ...	['Spaghetti', 'Mussels', 'Clams', 'Calamari (s...	{0: 'To prepare the seafood spaghetti start by...	seafood-spaghetti	[-0.12914882925525775, 0.15024672003567233, -0...
349	349	https://www.giallozafferano.com/recipes/Cocoa-...	{ 'Difficulty': 'Easy', 'Prep time': '20 min', ...	['Egg whites', 'Egg yolks', 'Sugar', 'Butter', ...]	{0: 'To prepare the cocoa sponge cake, first p...	Cocoa-sponge-cake	[-0.10319298527780645, 0.11631024790605009, -0...
350	350	https://www.giallozafferano.com/recipes/Fruit-...	{ 'Difficulty': 'Average', 'Prep time': '60 min', ...	['Flour 00', 'Sugar', 'Butter', 'Eggs', 'Lemon...]	{0: 'To prepare the fruit tartlets, you'll fir...	Fruit-tartlets	[-0.16898955679807262, 0.07781121036804271, -0...
351	351	https://www.giallozafferano.com/recipes/Milk-c...	{ 'Difficulty': 'Average', 'Prep time': '40 min', ...	['Unsweetened cocoa powder', 'Honey', 'Eggs', ...]	{0: 'To make the milk cocoa sandwiches, start ...	Milk-cocoa-sandwiches	[-0.11156840309599768, 0.13376345060182365, -0...

352 rows x 7 columns



Pizza

Lasagne

Tiramisu

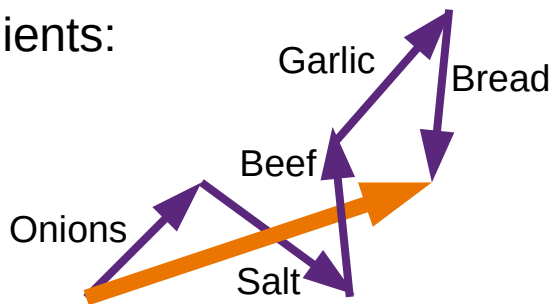
Burger

Currywurst

Recipe  
vectors



Your ingredients:



Pizza

Lasagne

Tiramisu

Burger

Currywurst

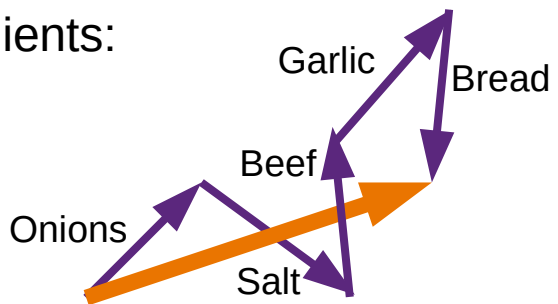
Recipe  
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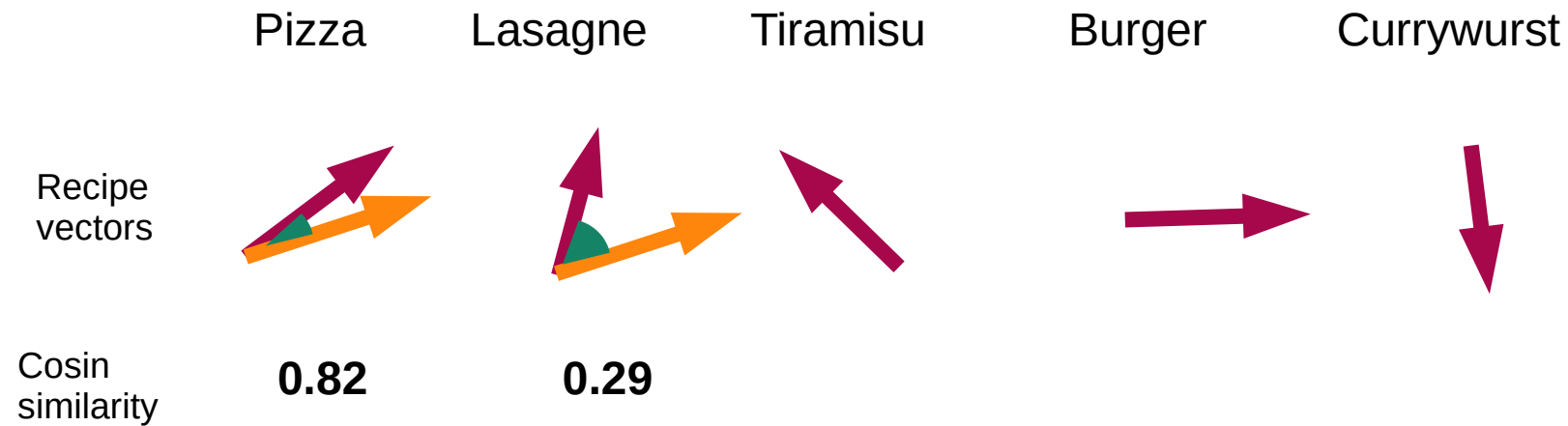


Cosin  
similarity

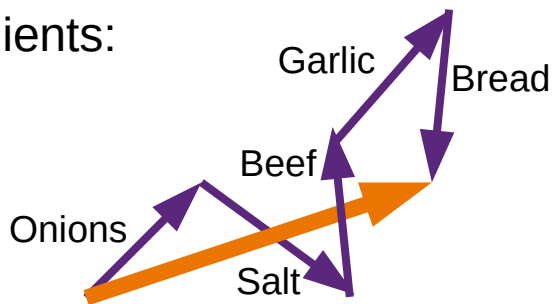
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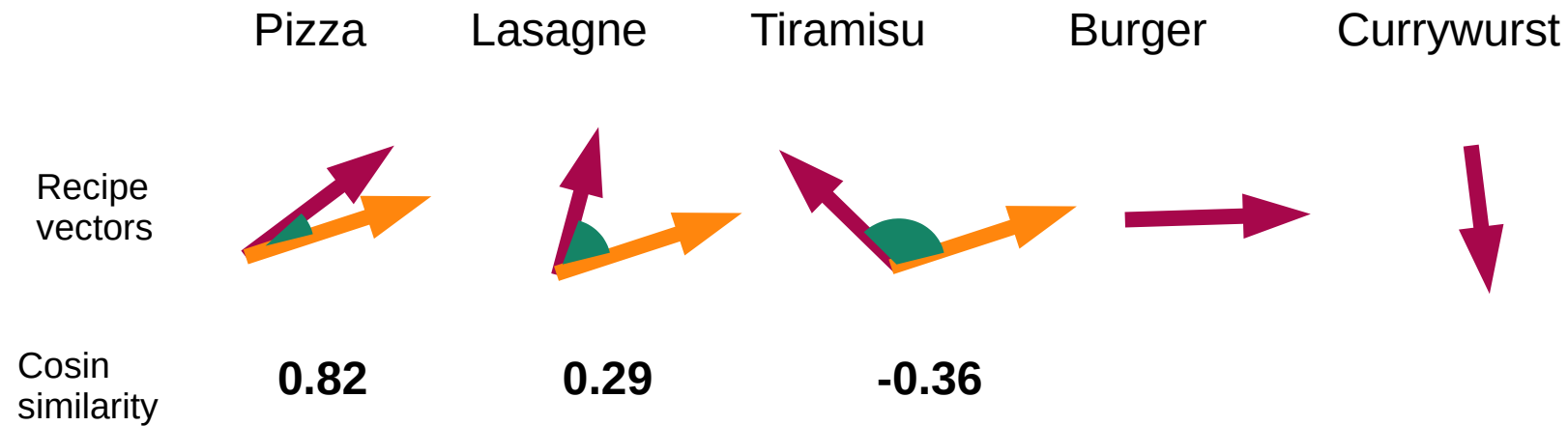
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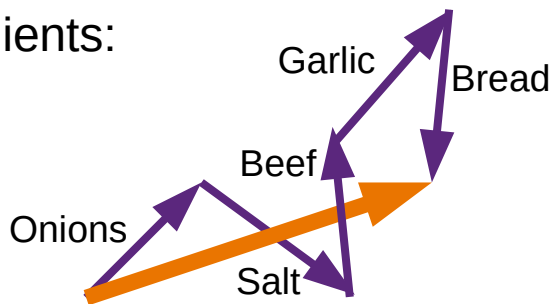


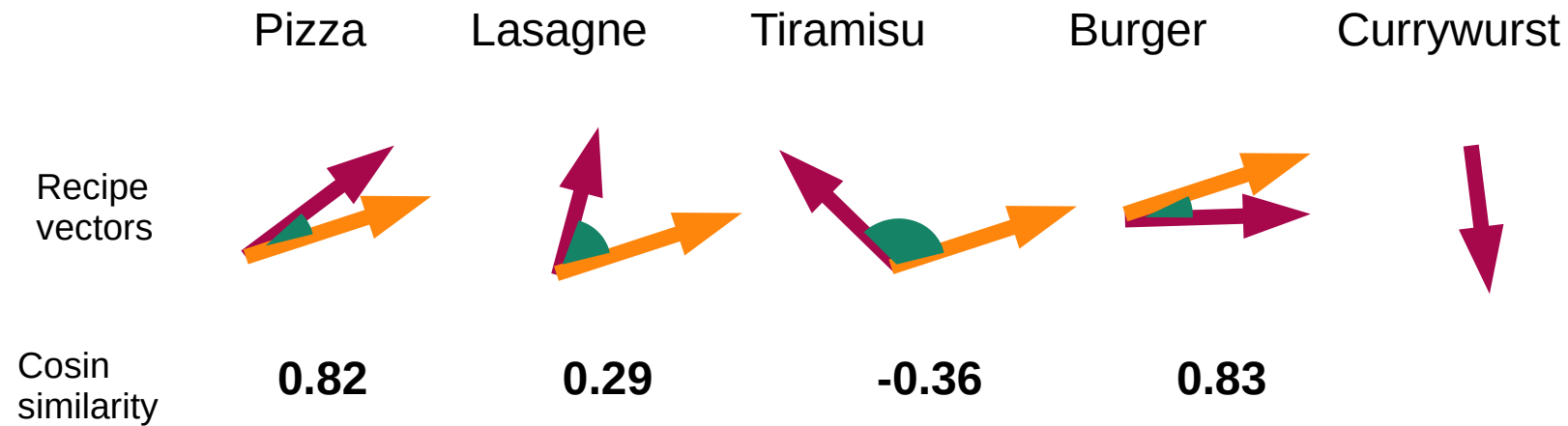
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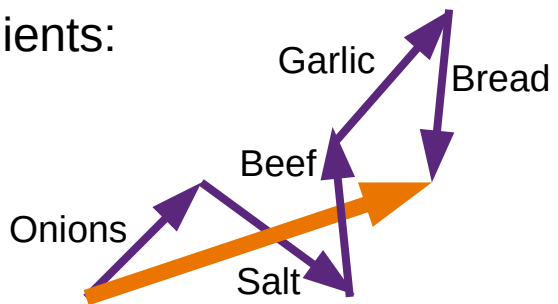


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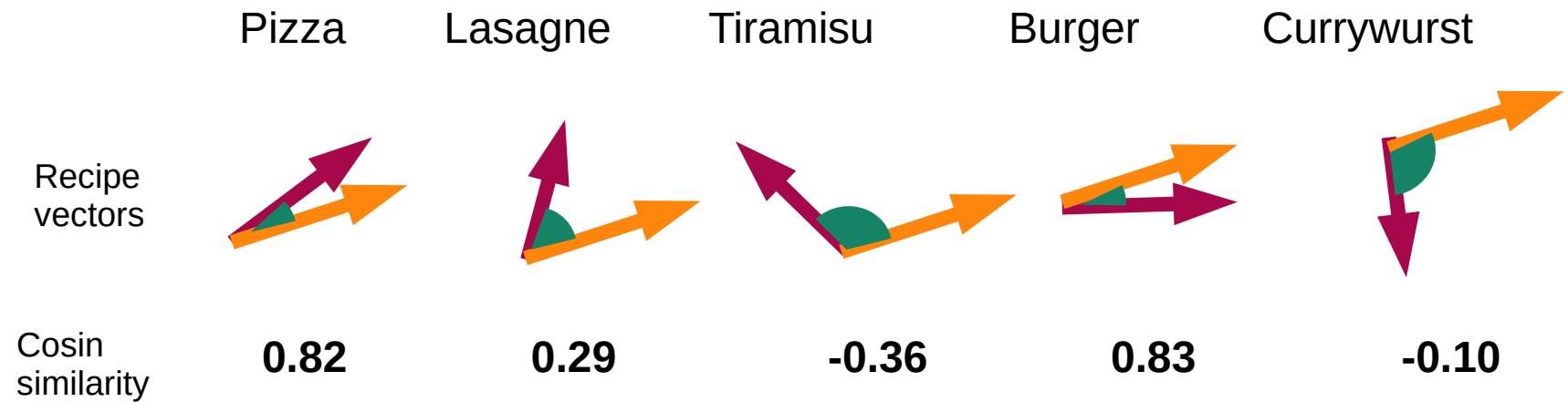




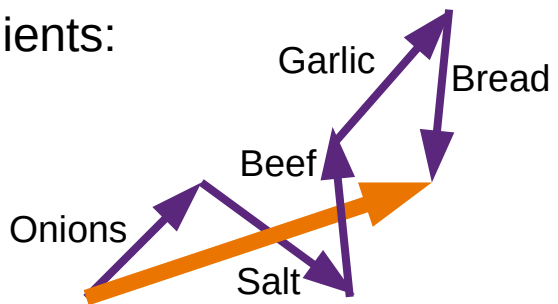
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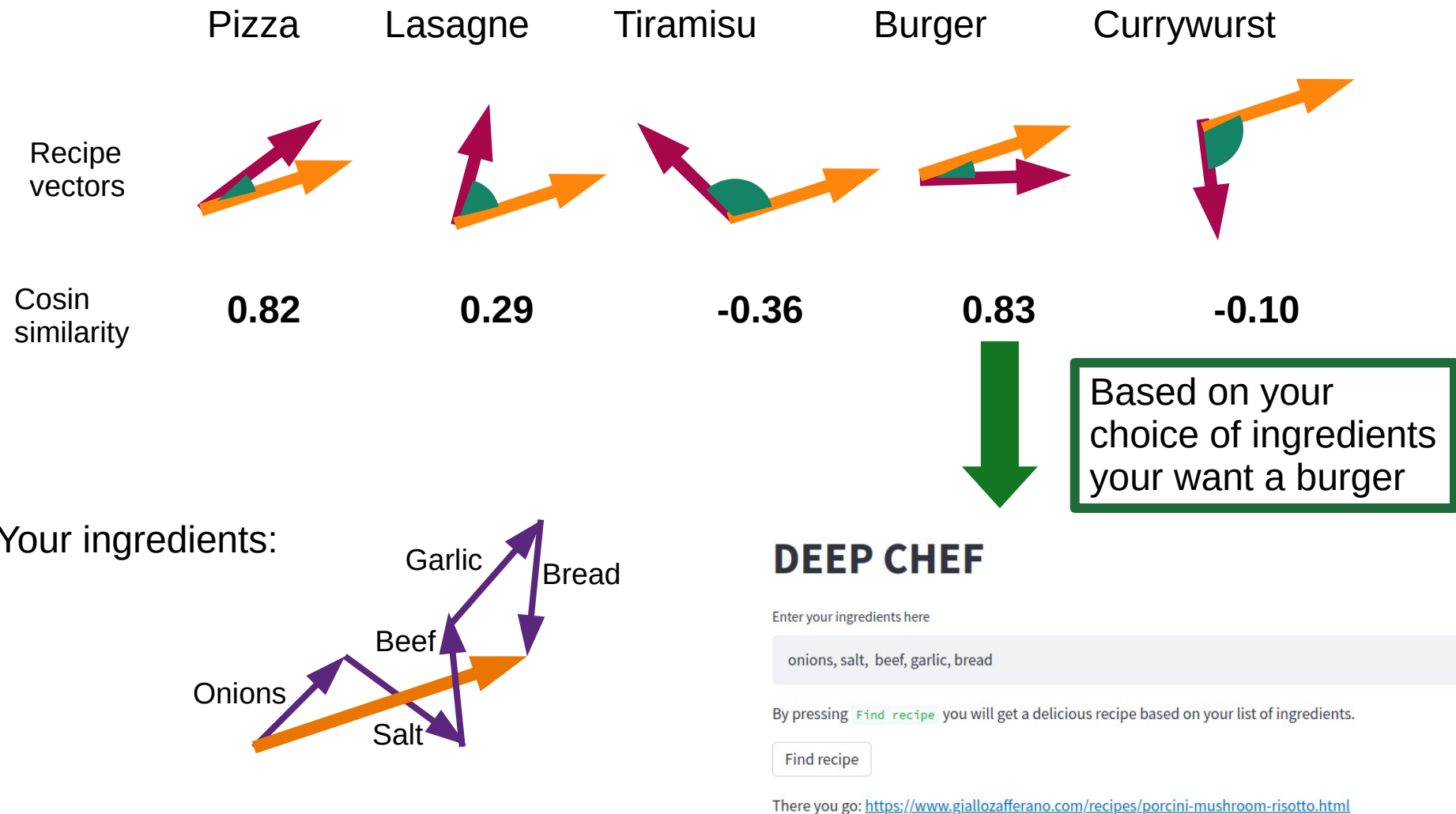




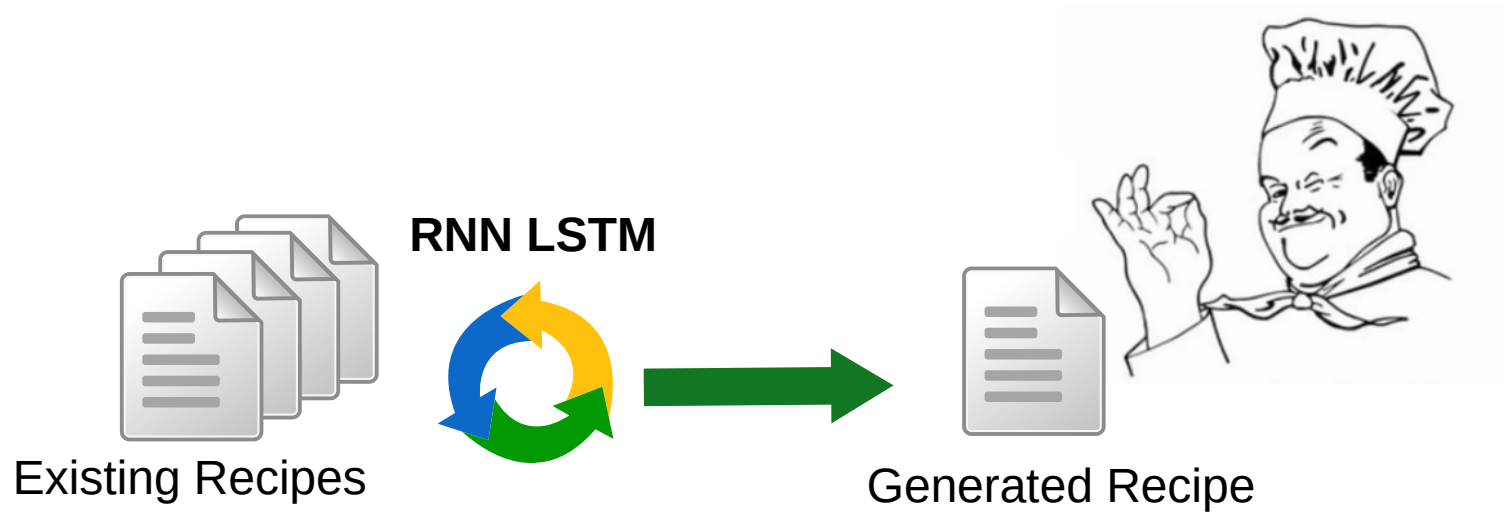


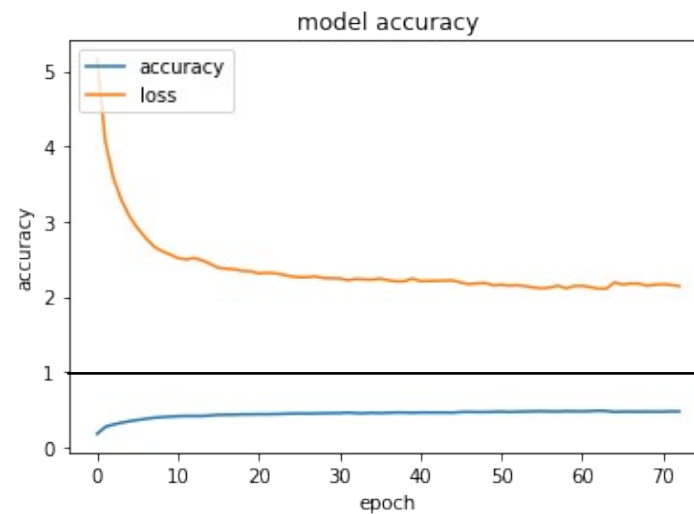
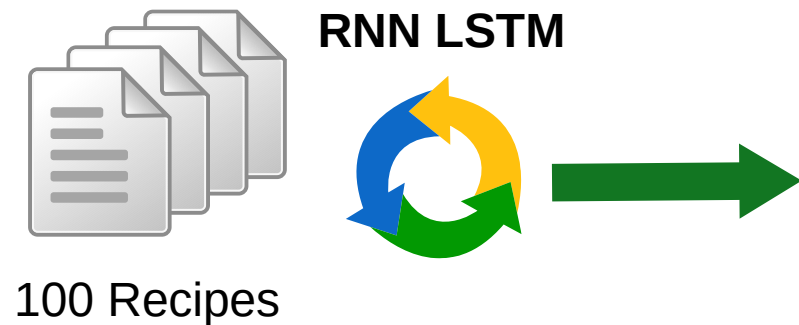
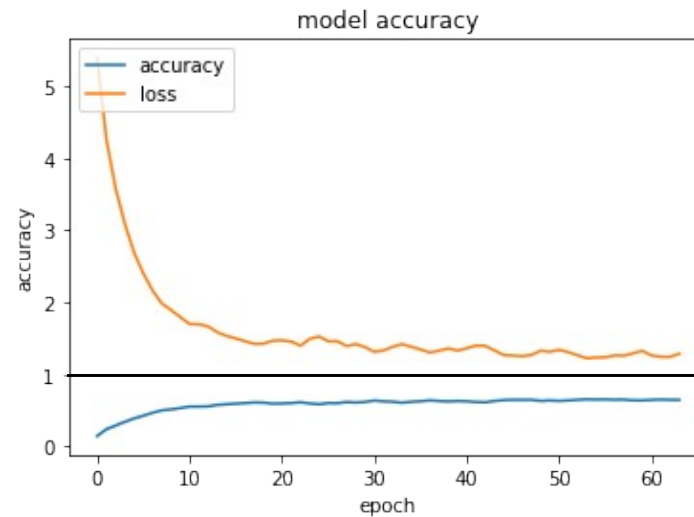
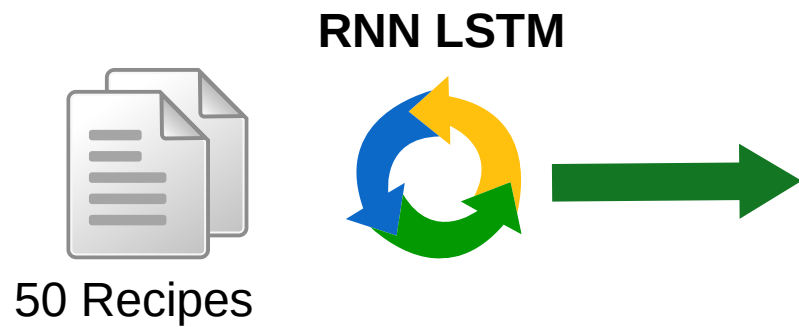
Your ingredients:





# Generate unique recipes with help of a Recurrent Neural Net (RNN)





## Instruction texts:

1. To make a burger you need this ...  
1. To make a burger you need this ...  
1. To make a burger you need this ...  
1. To make a burger you need this ...  
2. Then do that ...  
2. Then do that ...  
2. Then do that ...  
2. Then do that ...  
3. It's very important not to ...  
3. It's very important not to ...  
3. It's very important not to ...  
3. It's very important not to ...  
4. ...  
4. ...  
4. ...  
4. ...  
Buon appetito!  
Buon appetito!  
Buon appetito!  
Buon appetito!

RNN LSTM



Text written by the neural net trained on the text of all **first** instruction steps

RNN LSTM



Text written by the neural net trained on the text of all **second** instruction steps

RNN LSTM



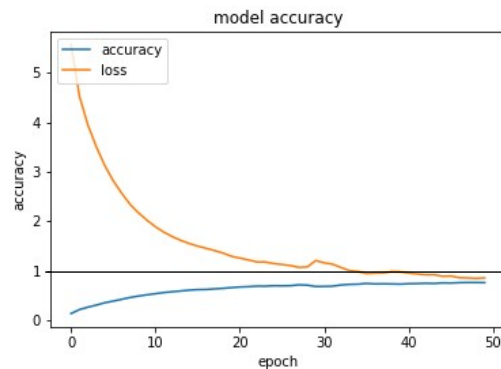
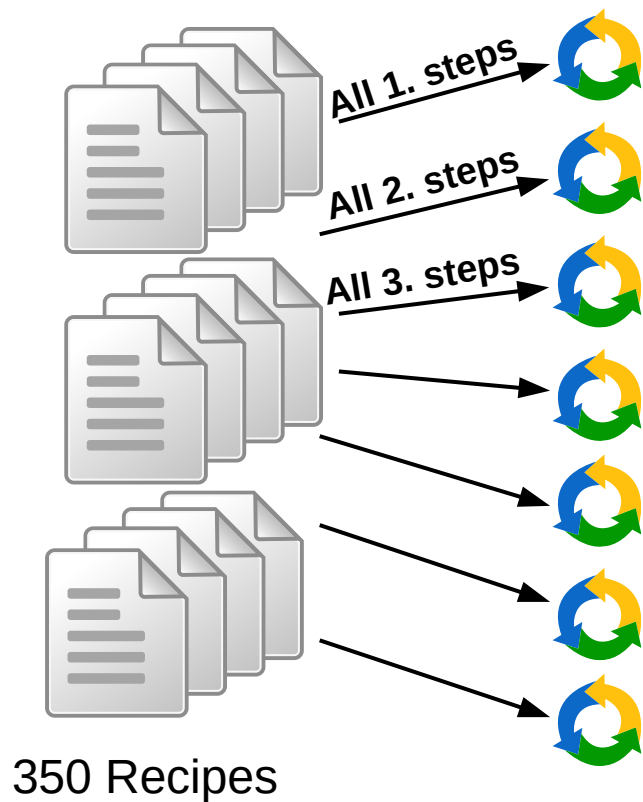
Text written by the neural net trained on the text of all **third** instruction steps

RNN LSTM

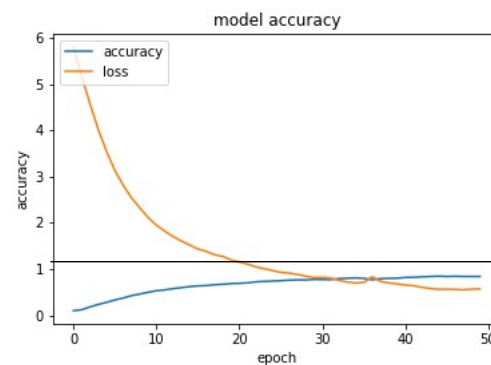


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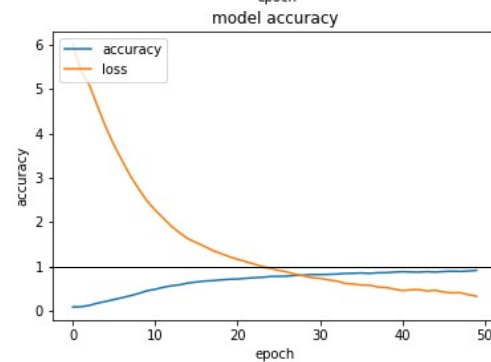
## RNN LSTM



1. Steps

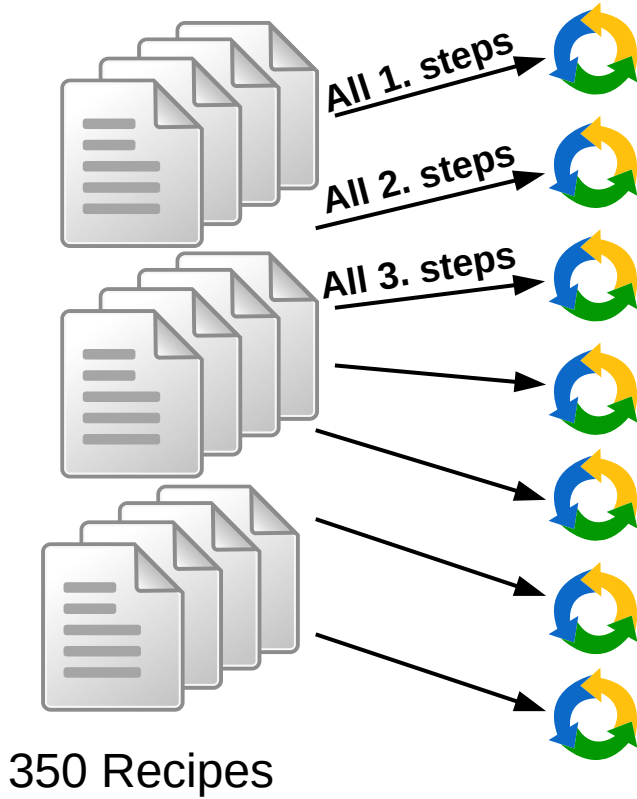


2. Steps



20. Steps

## RNN LSTM



## DEEP CHEF

Enter your ingredients here

onions, salt, beef, garlic, bread

By pressing **Find recipe** you will get a delicious recipe based on your list of ingredients.

Find recipe

Press **Generate unique recipe** and let the computer decide how you should cook.

Generate unique recipe

```
0 :  
  "to make the onions pie first onions the onions place them in a large pot and  
  cover with plenty of cold water put the onions with "  
1 : "add water at room temperature then separate the sugar "  
2 : "cut the camone onions in half using a "  
3 :  
  "place a film from forming on being frothy on medium mixture onions to thicken  
  the onions starting "  
4 : "and place a weight on "  
5 :  
  "the bubbles you see appearing are from the starch contained in the prongs "  
6 : "meanwhile melt the onions in a bowl and add the ricotta and grated "  
7 : "or by hand if desired and then add salt when the mixture when "  
8 :  
  "in the meantime take the smoked scamorza onions into rounds aiming to obtain 8  
  onions each measuring "  
9 :  
  "when the almond crunch has cooled down place it on a chopping board and cut a  
  slice that is 0 8 "  
10 :
```

# Thanks SPICED!

Special thanks to:

```
>>> from random_forest_fennel import Marija as thx # and the entire Data Science team
```

```
>>> thx.Maxim( ) # Ahmed
>>> thx.Brunno( ) # Dina
>>> thx.Philo( ) # Kristian
>>> thx.Max( ) # Sara
>>> thx.Pavel( ) # Carlos
>>> thx.Margit( ) # Anastasia
>>> thx.Gee( ) # Sam
>>> thx.Attila( ) # Ugur
>>> thx.Jia( )
>>> thx.Basil( )
```