



**LOVE YOUR HEALTH  
&  
CURE YOUR SYMPTOM**



# Knowledge base table



<https://bit.ly/2wxUYFp>

# Project's Report



<https://bit.ly/2yO0hRD>



# PURPOSES

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1. To define the vitamins that the fruits and vegetables have.
2. To define which vitamins help to treat which symptoms.
3. To define which symptoms occur at which organs.
4. To define which fruits and vegetables contain the same vitamins.
5. To make everyone know which vegetables or fruits cure which symptoms and help to restore which organ.
6. To help everyone to easily categorize which one is fruit and which one is vegetable.



# QUESTIONS

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1. Which vitamins do these vegetables and fruits have?
2. Which vitamins can make the symptoms get better?
3. Which organ does the symptom occur?
4. Which fruits and vegetables can help to cure the symptoms?
5. Which fruits and vegetables can maintain and repair organs?
6. Which vitamins can help to restore the organ?
7. Which one is a fruit?
8. Which one is a vegetable?
9. Do vegetables and fruits contain the same vitamin type?



# BASE PREDICATE

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- $\text{fruit}(x)$  means  $x$  is a fruit.
- $\text{vegetable}(x)$  means  $x$  is a vegetable.
- $\text{contain\_vit}(x, y)$  means vegetable or fruit  $x$ , vitamin  $y$ .
- $\text{vit\_cure\_symtom}(x, y)$  means vitamin  $x$  is suitable to cure symptom  $y$ .
- $\text{symptom\_in\_organ}(x, y)$  means symptom  $x$  occurs at organ  $y$ .



# BASE PREDICATE

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- `vet_restore_symtom(x, y)` means vegetable or fruit x is suitable to eat if you have symptom y.
- `vet_restore_Organ(x, y)` means vegetable or fruit x can help to restore organ y.
- `vit_cure_organ(x, y)` means vitamin x is suitable to cure organ y.
- `same_vit(x, y)` means vegetable or fruit x and vegetable or fruit y have the same vitamin.
- `same_type(x, y)` means x has the same type as y. That means x and y are fruits or x and y are vegetables.



## FACTS

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- List of fruit(<fruit>)
- List of vegetable(<vegetable>)
- contain\_vit(<fruit> or <vegetable> ,<vitamin>)
- vit\_cure\_symtom(<vitamin>, <symptom>)
- symptom\_in\_organ(<symptom>, <organ>)



# RULES

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- $\text{vet\_restore\_symtom}(x, y) \leftrightarrow \text{vit\_cure\_symtom}(z, y) \wedge \text{contain\_vit}(x, z)$
- $\text{vet\_restore\_organ}(x, y) \leftrightarrow \text{vet\_restore\_symtom}(x, z) \wedge \text{symptom\_in\_organ}(z, y)$
- $\text{vit\_cure\_organ}(x, y) \leftrightarrow \text{vit\_cure\_symtom}(x, z) \wedge \text{symptom\_in\_organ}(z, y)$
- $\text{same\_vit}(x, y) \leftrightarrow \exists z[\text{contain\_vit}(x, z) \wedge \text{contain\_vit}(y, z)]$
- $\text{same\_type}(x, y) \leftrightarrow [\text{fruit}(x) \wedge \text{fruit}(y)] \vee [\text{vegetable}(x) \wedge \text{vegetable}(y)]$



# Test Vegetable and Vitamin



## Test Facts

```
?- vegetable(cucumber).  
true.
```

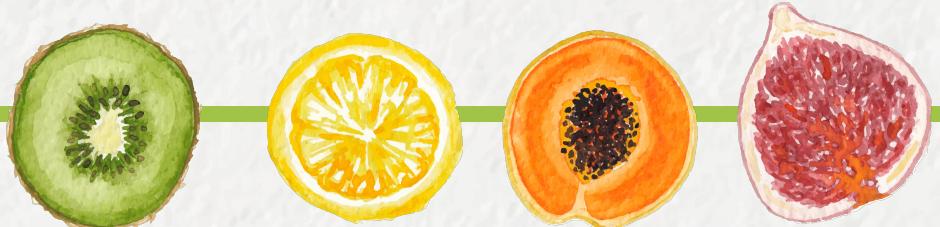
```
?- vegetable(cabbage).  
true.
```

```
?- contain_vit(cucumber,c).  
true.
```

```
?- contain_vit(cabbage,c).  
false.
```



# Test Fruit and Vitamin



Fruit	Contain Vitamin
Kiwi	B6 C
Lemon	C

## Test Facts

```
?- fruit(kiwi).  
true.
```

```
?- fruit(lemon).  
true.
```

```
?- contain_vit(kiwi,c).  
true.
```

```
?- contain_vit(lemon,k).  
false.
```



# TEST RULES 1

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```
?- vet_restore_symptom(broccoli,dry_skin).  
true .
```

```
?- vet_restore_symptom(green_beans,dry_skin).  
true.
```

```
?- vet_restore_symptom(green_beans,muscle_pain).  
false.
```



## TEST RULES 2

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```
?- vet_restore_organ(eggplant,skin).  
true .
```



```
?- vet_restore_organ(onion,body).  
false.
```

```
?- vet_restore_organ(asparagus,eye).  
true .
```



## TEST RULES 3

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```
?- vit_cure_organ(c,skin).  
true .
```

```
?- vit_cure_organ(b9,brain).  
false.
```

```
?- vit_cure_organ(b1,heart).  
true .
```



## TEST RULES 4

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?- **same\_vit(cucumber,corn).**  
**true.**

?- **same\_vit(spinach,apple).**  
**true.**

?- **same\_vit(shiitake,lemon).**  
**false.**



## TEST RULES 5

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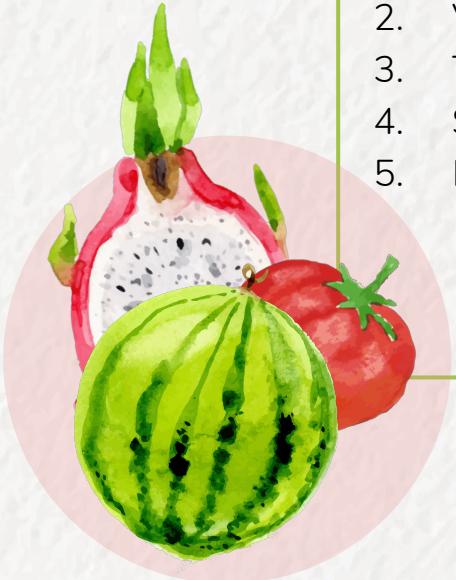


```
?- same_type(cauliflower,carrots).  
true.
```

```
?- same_type(tomatoes,cherries).  
false.
```

```
?- same_type(kiwi,kiwi).  
true .
```





# MEMBERS



- |    |           |                 |               |
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## URLS

- <https://www.lenntech.com/fruit-vegetable-vitamin-content.htm>
- <https://www.pmfias.com/vitamins-minerals-deficiency-diseases-food-sources-of-vitamins-minerals/>
- <https://www.healthline.com/health/folate-deficiency#symptoms>
- <https://www.mayoclinic.org/diseases-conditions/vitamin-deficiency-anemia/symptoms-causes/syc-20355025>

# THANKS!

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Does anyone have any questions?

Feel free to ask.

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