



# 9724. Mermaid Cheat Sheet

Mermaid

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Cheat Sheet for Mermaid.

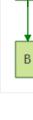
## 1. Flowcharts

A flowchart is a type of diagram that represents an algorithm, workflow or process. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem.

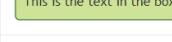
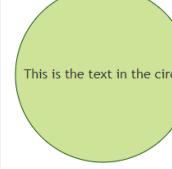
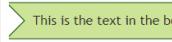
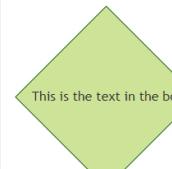
### 1.1 Graph

Possible directions are:

- **TB** - top bottom
- **BT** - bottom top
- **RL** - right left
- **LR** - left right
- **TD** - same as TB

Direction	Diagram	Definition
TB		graph TB; A-->B;
BT		graph BT; A-->B;
RL		graph RL; A-->B;
LR		graph LR; A-->B;
TD		graph TD; A-->B;

### 1.2 Nodes & shapes

Feature	Diagram	Definition
Node(Default)		graph LR; id;
Node with Text		graph LR; idi[This is the text in the box]
Node with Round Edges		graph LR; idi((This is the text in the box))
Node in Circle Form		graph LR; idi((This is the text in the circle))
Node in Asymmetric Shape		graph LR; idi>This is the text in the box
Node in Rhombus Form		graph LR; idi{This is the text in the box}

### 1.3 Links Between Nodes

Feature	Diagram	Definition
Link with Arrow Head		graph LR; A-->B
Open Link		graph LR; A---B
Text on Links(1)		graph LR; A-->B; A---> This is the text B
Text on Links(2)		graph LR; A--> This is the text B
Link with Arrow Head and Text(1)		graph LR; A--> text B
Link with Arrow Head and Text(2)		graph LR; A--> text -->B
Dotted Link		graph LR; A...>B
Dotted Link with Text		graph LR; A...> text B
Thick Link		graph LR; A ==> B
Thick link with text		graph LR; A ==> text B

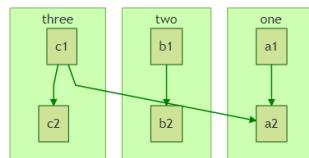
## 1.4 Subgraphs

Syntax:

```
1 | subgraph title
2 |   graph definition
3 | end
```

Example:

```
1 | graph TD
2 |   c1-->a2
3 |   subgraph one
4 |     a1-->a2
5 |   end
6 |   subgraph two
7 |     b1-->b2
8 |   end
9 |   subgraph three
10 |    c1-->c2
11 | end
```



## 2. Sequence Diagrams

A Sequence diagram is an interaction diagram that shows how processes operate with one another and in what order.

### 2.1 Participants

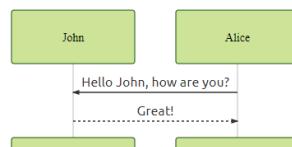
The participants or actors are rendered in order of appearance in the diagram source text.

```
1 | sequenceDiagram
2 |   participant Alice
3 |   participant John
4 |   Alice->>John: Hello John, how are you?
5 |   John-->>Alice: Great!
```



You can specify the actor's order of appearance to show the participants in a different order.

```
1 | sequenceDiagram
2 |   participant John
3 |   participant Alice
4 |   Alice->>John: Hello John, how are you?
5 |   John-->>Alice: Great!
```



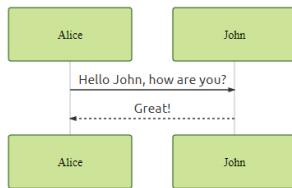


The participants can be defined implicitly without specifying them with the `participant` keyword.

```

1 sequenceDiagram
2 Alice->>John: Hello John, how are you?
3 John-->>Alice: Great!

```



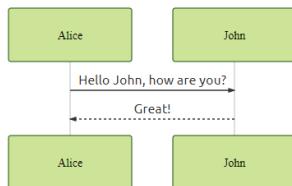
## 2.2 Aliases

The participant can have a convenient identifier and a descriptive label.

```

1 sequenceDiagram
2 participant A as Alice
3 participant J as John
4 A->>J: Hello John, how are you?
5 J-->>A: Great!

```



## 2.3 Messages

Messages can be of two displayed either solid or with a dotted line.

[Actor][Arrow][Actor]:Message text

There are six types of arrows currently supported:

Arrow Type	Description
->	Solid line without arrow
-->	Dotted line without arrow
->>	Solid line with arrowhead
-->>	Dotted line with arrowhead
->x	Solid line with a cross at the end (async)
-->x	Dotted line with a cross at the end (async)

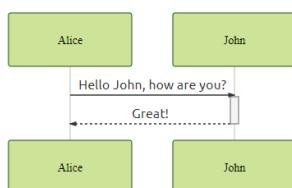
## 2.4 Activations

Activate and deactivate an actor.

```

1 sequenceDiagram
2 Alice->>John: Hello John, how are you?
3 activate John
4 John-->>Alice: Great!
5 deactivate John

```

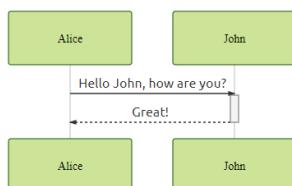


Shortcut notation by appending `+/-` suffix to the message arrow.

```

1 sequenceDiagram
2 Alice->>+John: Hello John, how are you?
3 John-->>-Alice: Great!

```



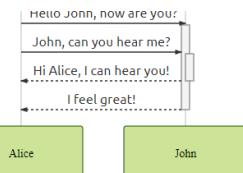
Activations can be stacked for same actor:

```

1 sequenceDiagram
2 Alice->>+John: Hello John, how are you?
3 Alice->>+John: John, can you hear me?
4 John-->>-Alice: Hi Alice, I can hear you!
5 John-->>-Alice: I feel great!

```





## 2.5 Notes

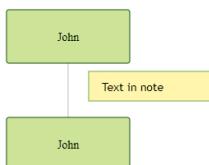
Add notes to a sequence diagram by the notation `Note`.

`Note [ right of | left of | over ] [Actor]: Text in note content`

### 1) Right Side

```

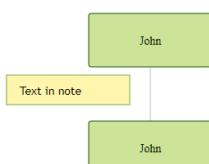
sequenceDiagram
    participant John
    Note right of John: Text in note
  
```



### 2) Left Side

```

sequenceDiagram
    participant John
    Note left of John: Text in note
  
```



### 3) Over

```

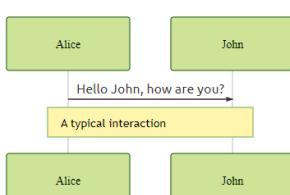
sequenceDiagram
    participant John
    Note over John: Text in note
  
```



### 4) Create notes spanning two participants

```

sequenceDiagram
    participant Alice
    participant John
    Note over Alice, John: A typical interaction
  
```



## 2.6 Loops

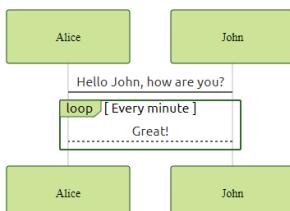
Express loops in a sequence diagram by the notation `loop`.

```

loop Loop text
... statements ...
end
  
```

```

sequenceDiagram
    participant Alice
    participant John
    Alice->>John: Hello John, how are you?
    loop Every minute
        John-->>Alice: Great!
    end
  
```



## 2.7 Alt

Express alternative paths in a sequence diagram by the notation `alt`.

```

alt Describing text
... statements ...
  
```

```

3 else
4 ... statements ...
5 end

```

Or, if there is sequence that is optional (if without else).

```

1 opt Describing text
2 ... statements ...
3 end

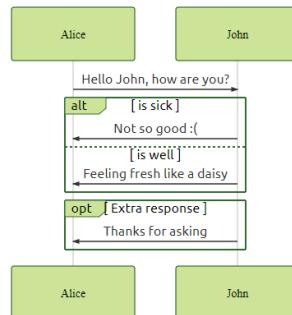
```

Example:

```

1 sequenceDiagram
2 Alice->>John: Hello John, how are you?
3 alt [is sick]
4     John->>Alice: Not so good :(
5 else is well
6     John->>Alice: Feeling fresh like a daisy
7 end
8 opt Extra response
9     John->>Alice: Thanks for asking
10 end

```



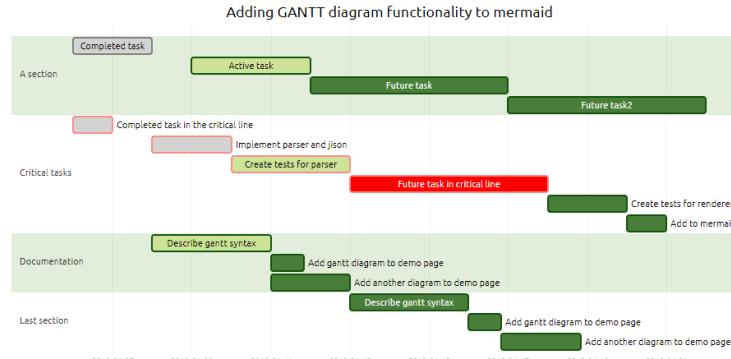
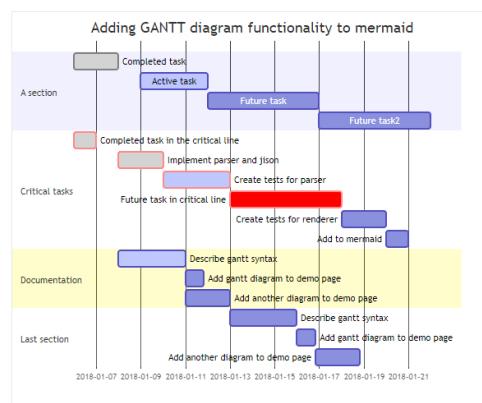
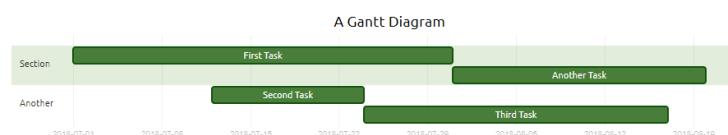
### 3. Gant Diagrams

A Gantt chart is a type of bar chart, first developed by Karol Adamiecki in 1896, and independently by Henry Gantt in the 1910s, that illustrates a project schedule. Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project.

```

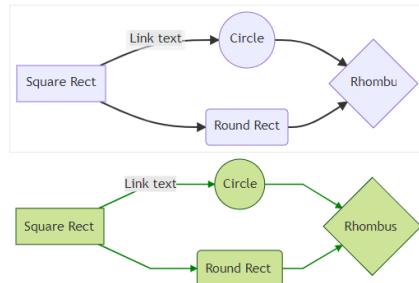
1 gantt
2     title A Gantt Diagram
3     dateFormat YYYY-MM-DD
4     section Section
5         First Task      :a1, 2018-07-01, 30d
6         Another Task   :after a1, 20d
7     section Another
8         Second Task    :2018-07-12, 12d
9         Third Task     :24d

```

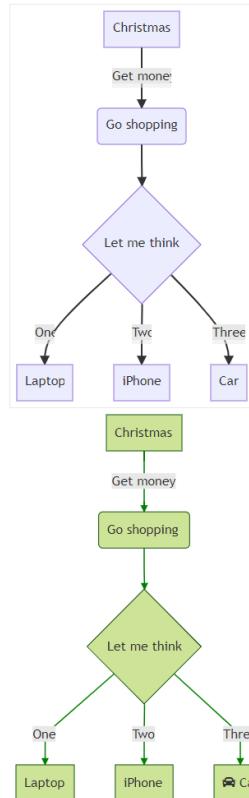


### 4. Demos

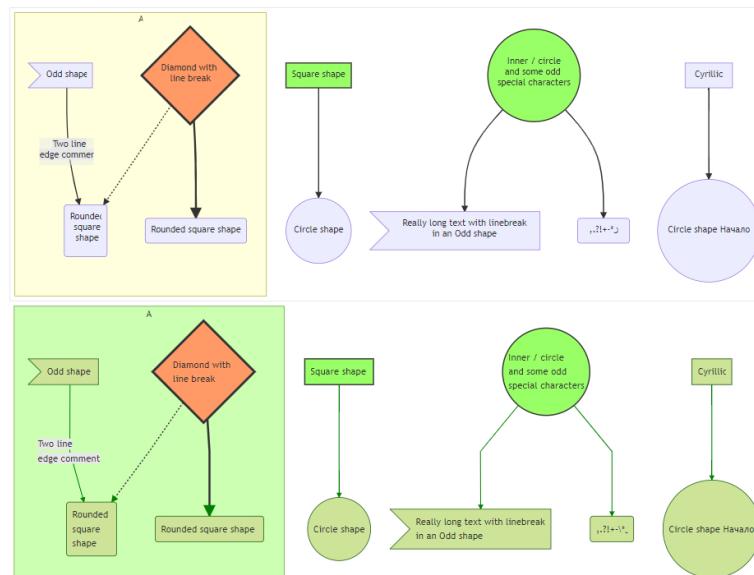
#### 4.1 Basic Flowchart



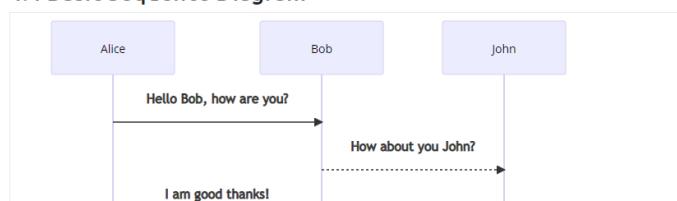
#### 4.2 Flowchart with Decision

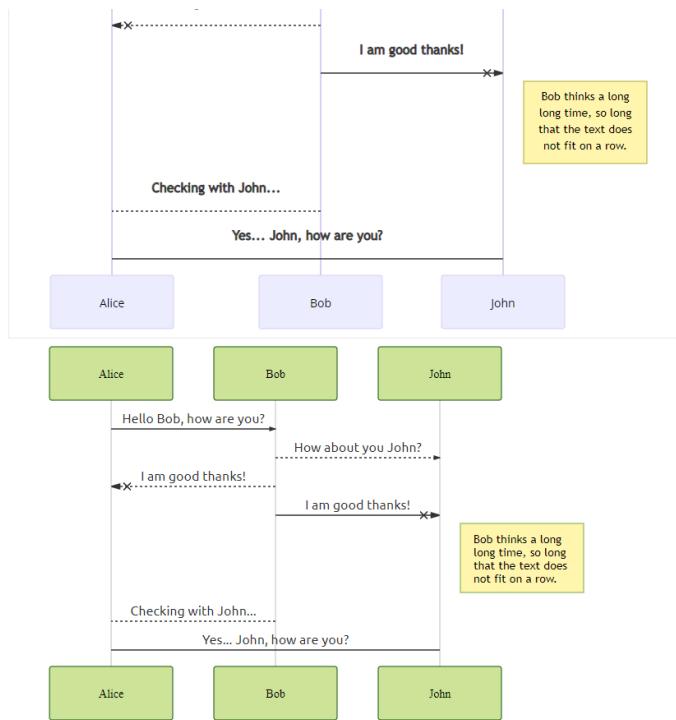


#### 4.3 Larger Flowchart with Some Styling

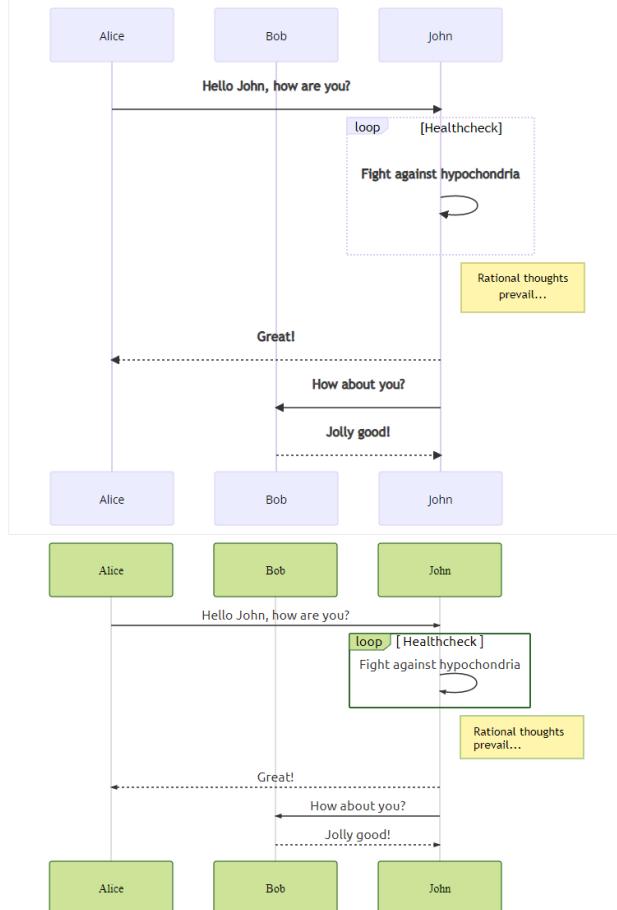


#### 4.4 Basic Sequence Diagram





#### 4.5 Message to Self in Loop



#### 5. References

- Mermaid Flowcharts - Basic Syntax
- Mermaid Sequence diagrams
- Mermaid Gant diagrams

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^ | v • Reply • Share >

 Harvski Ollabe • a month ago  
Where's mermaid here?  
^ | v • Reply • Share

 Daniel R. Przybyski → Harvski Ollabe • 25 days ago  
That's actually a good question!  
What's being left out is that all of the code blocks here that go into Github or a suitable markdown editor need to be encased in:  
```mermaid  
...  
```mermaid  
graph TB;  
A-->B;  
...  
^ | v • Reply • Share

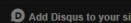
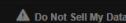
 BjarneB • 2 months ago  
Great work!  
Do you know how to tweak the user journey?  
1. I would like to swap the sad/happy smileys with a different (fixed symbol)  
2. How to rescale the y axis? In the default graph the horizontal arrow crosses at y = approx 8.3, so the scores needs to be scaled (rescaled) between 0 and 8 for the plot to look nice.  
^ | v • Reply • Share

 Dennis G Daniels • 2 months ago  
Should add click functionality as well  
graph LR;  
A-->B;  
click B "http://www.github.com"  
^ | v • Reply • Share

 Moe → Dennis G Daniels • 2 months ago  
Thanks for sharing, Dennis!  
^ | v • Reply • Share

 YoMama • 2 months ago  
So how did you set the colors in your subgraphs?  
^ | v • Reply • Share

 Moe → YoMama • 2 months ago  
If you look at \*\*4.3 Larger Flowchart with Some Styling\*\*, observe the last few lines. Here are the lines I'm referring to:  
...  
classDef green fill:#996,stroke:#333,stroke-width:2px  
classDef orange fill:#996,stroke:#333,stroke-width:4px  
class sq.e green  
class di orange  
...  
^ | v • Reply • Share

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