🌊 CSS Float and Clear — Notes

1. What is Float?

- float is a CSS property that lets an element "float" to the **left** or **right** of its container, allowing **text and inline elements** to **wrap around** it.
- Inspired by **print layout** (like how text wraps around images in newspapers).

Syntax:

```
selector {
  float: left | right | none;
}
```

Example:

```
img {
  float: left;
}
```

➞ This will move the image to the left and make surrounding text wrap around it.

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2. Default Behavior Without Float

- Elements like <img> and <p> are **block-level**, so they take the **full width** of the container.
- That means text normally sits *below* an image, not beside it.

Using float pulls the image out of that normal "document flow," letting text slide beside it.

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3. Values of Float

- left → element floats to the left; text wraps on the right.
- right → element floats to the right; text wraps on the left.
- none → disables floating.
- inherit → inherits the float behavior from its parent element.

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4. Effect of Float on Layout

- Floated elements are **taken out of the normal flow**.
- This means other block elements will **wrap around** them unless something tells them *not to* (and that's where clear comes in).

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5. The Clear Property

Used to **stop elements from wrapping** around floated elements.

Syntax:

```
selector {
  clear: left | right | both | none;
}
```

Example:

```
footer {
  clear: both;
}
```

➞ The footer ignores floating elements and sits *below* them.

Meaning of Values:

- left → element won't wrap around elements floated to the left.
- right → ignores right floats.
- both → ignores both left and right floats.
- none → default; doesn't care about floats.

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6. Common Layout Example

```
<div class="cat-block"> ... </div>
<div class="dog-block"> ... </div>
<footer>Copyright ©</footer>
.cat-block {
  float: left;
}

.dog-block {
  float: right;
}

footer {
  clear: both;
```

}

✅ **Result:**

- Cat block on the left
- Dog block on the right
- Footer sits below both

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7. Limitations of Float

- Floats were used in early web design for **page layouts**, but that's **outdated** now.
- They can cause:
    - Unpredictable alignment
    - Collapsing parent containers
    - Overlapping or wrapping issues

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8. Modern Alternatives

Don't torture yourself with floats for layout. Use:

- **Flexbox** — easy one-dimensional layouts
- **Grid** — advanced two-dimensional layouts
- **Bootstrap** — pre-built responsive design system

Use **float** *only* when you want **text wrapping around images**, not for main layout structures.

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9. Summary

Concept	Description	Example
float: left;	Moves element left; text wraps on right	img { float: left; }
float: right;	Moves element right; text wraps on left	img { float: right; }
clear: left;	Element ignores left floats	footer { clear: left; }
clear: right;	Element ignores right floats	footer { clear: right; }
clear: both;	Ignores both left & right floats	footer { clear: both; }

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10. Key Takeaways

- float = wrap text around elements.

- clear = stop wrapping where needed.
- Floats remove elements from normal flow.
- Avoid using float for modern layouts — use **Flexbox** or **Grid**.
- Best use: aligning images with text like articles, blogs, or news layouts.