In CSS, combinators are used to define the relationship between selectors. They help in selecting elements based on their relationship in the document hierarchy. There are four main types of combinators in CSS: descendant combinator, child combinator, adjacent sibling combinator, and general sibling combinator.

1. Descendant Combinator (space)

The descendant combinator is represented by a space between two selectors. It means that the second element can be any descendant (children, grandchildren, etc.) of the first element.

Example:

```
<div class="container">
  <p>This is a paragraph.</p>
  <div class="inner">
    <p>This is another paragraph.</p>
  </div>
</div>
```

CSS:

```
.container p {
  color: blue; /* This will select both <p> elements */
}
```

2. Child Combinator (>)

The child combinator is represented by the greater-than sign (>). It selects elements that are direct children of a specified element.

Example:

```
<ul class="list">
  <li class="item">Item 1</li>
  <li class="item">Item 2
    <ul>
      <li>Sub-item 2.1</li>
    </ul>
  </li>
  <li class="item">Item 3</li>
```

```
</ul>
```

CSS:

```
.list > li {
   color: green; /* This will select only the direct <li> children of <ul> */
}
```

3. Adjacent Sibling Combinator (+)

The adjacent sibling combinator is represented by the plus sign (+). It selects an element that is directly adjacent to a specified element, meaning it comes immediately after it in the HTML.

Example:

```
<h1>Headline</h1>
<p>This is a paragraph immediately after the headline.</p>
<p>This is another paragraph.</p>
```

CSS:

```
h1 + p {
   font-weight: bold; /* This will select the first <p> that follows the <h1> */
}
```

4. General Sibling Combinator (~)

The general sibling combinator is represented by a tilde (~). It selects all siblings that follow a specified element, regardless of whether they are directly adjacent or not.

Example:

```
<h2>Section</h2>
<p>First paragraph.</p>
<p>Second paragraph.</p>
<p>Third paragraph.</p>
```

CSS:

```
h2 ~ p {
   color: red; /* This will select all <p> elements that follow the <h2> */}
```