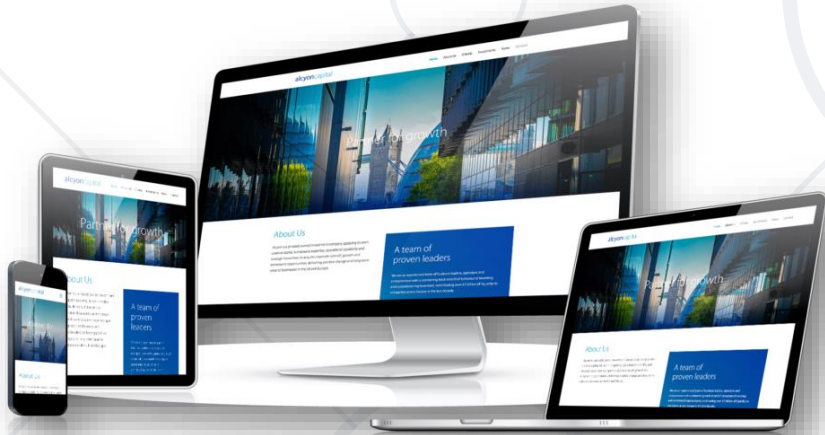


Responsive Web Design



SoftUni Team
Technical Trainers



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Software University

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#html-css

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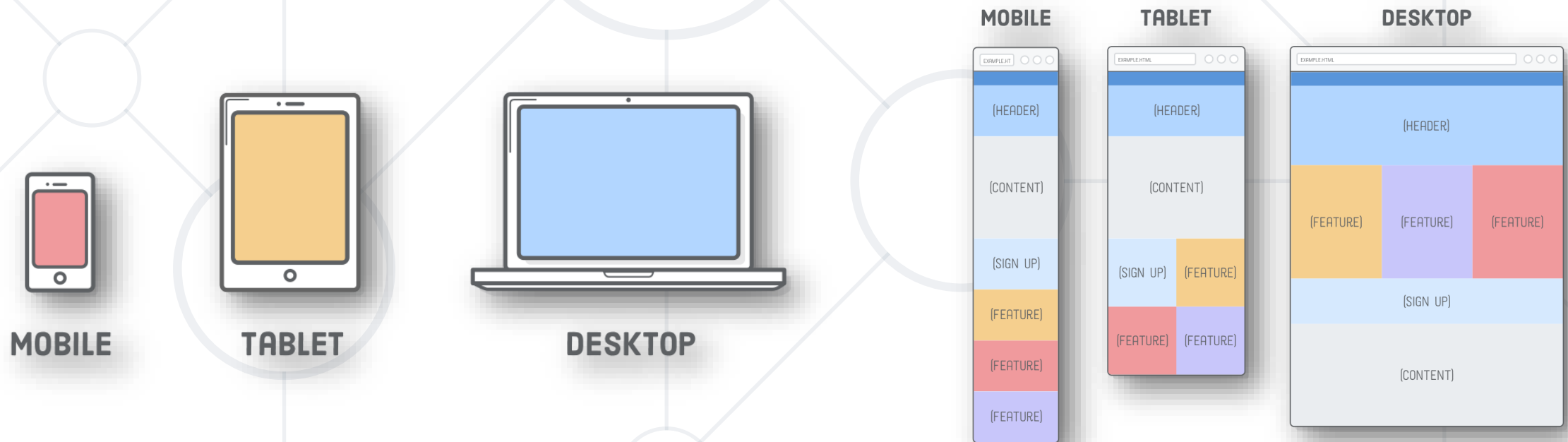




Responsive Web Design

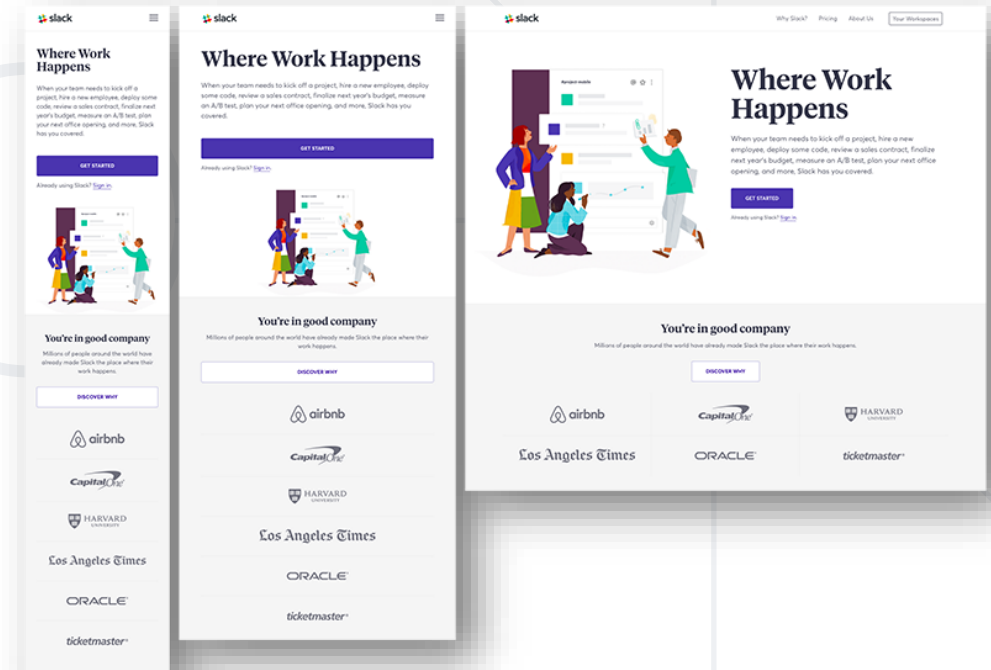
What is **Responsive Web Design**?

- It is an approach to make web pages render well on all screen sizes and resolutions while ensuring good usability.
- It is the way to design for **a multi-device web**



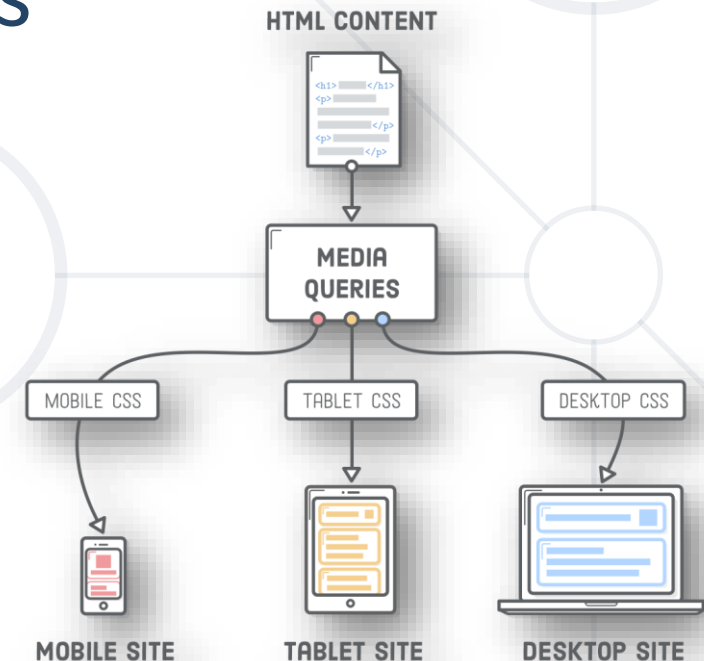
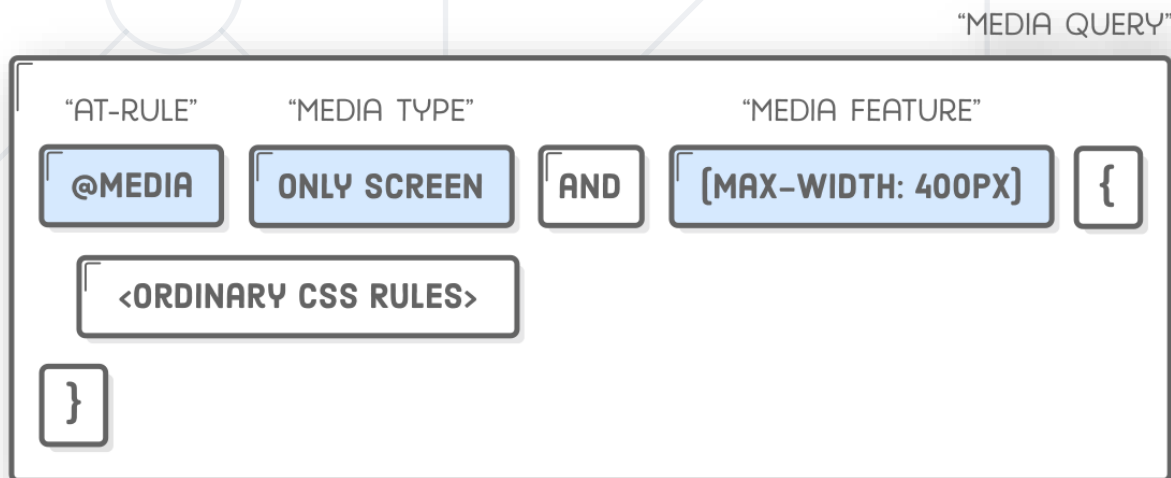
What is **Responsive Web Design**?

- **Ethan Marcotte** wrote an introductory article about the approach, **Responsive Web Design**, for A List Apart
- **https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS_layout/Responsive_Design**



Responsive Web Design – How?

- **Media Queries** - Allow us to run a **series of tests** (e.g., whether the user's screen is greater than a certain width, or a certain resolution) and **apply CSS** selectively to style the page appropriately for the user's needs



- **In HTML**

- Media Queries can be applied to various elements:
 - In the **link element's** media attribute, they define the media to which a linked resource (typically CSS) should be applied
 - In the **source element's** media attribute, they define the media to which that source should be applied (This is only valid inside picture elements.)
 - In the **style element's** media attribute, they define the media to which the style should be applied.

■ Media Types

- Media types describe the general category of a given device
- Although, websites are commonly **designed with screens in mind**, you may want to create styles that target special devices such as printers or audio-based screen readers

```
@media print { ... }  
@media screen, print { ... }
```

- **@import**
 - The **@import** CSS at-rule is used to import style rules from other style sheets
 - These rules must precede all other types of rules, except **@charset rules**
 - As it is not a nested statement, **@import** cannot be used inside conditional group at-rules

```
@import url('styles.css') screen;
```

- **Media Features**

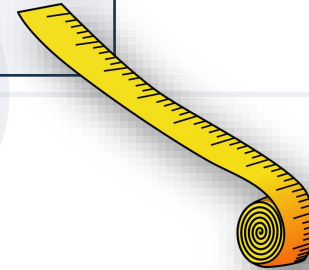
- Media features describe a specific characteristic of the **user agent, output device, or environment**:

```
@media screen and (min-width: 600px) {  
  ...  
}
```



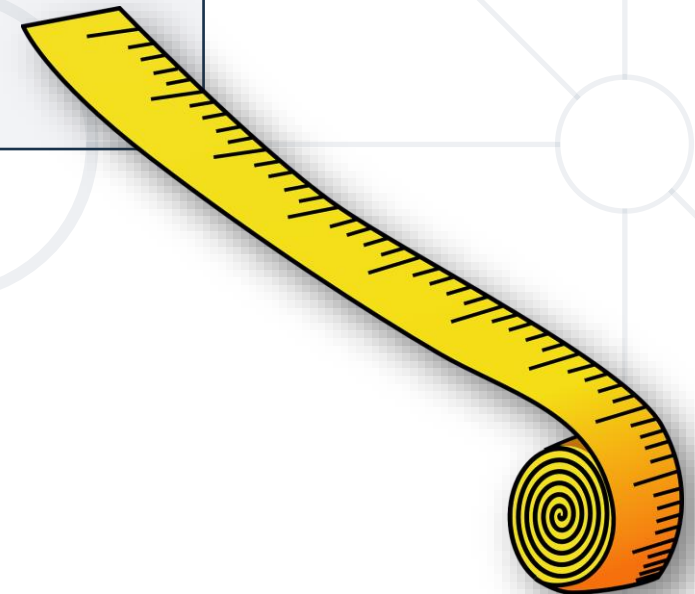
- Media Features – **min-width**
 - Specifies a **minimal width** for the viewport in order to apply the rules included

```
@media screen and (min-width: 600px) {  
    ...  
}
```



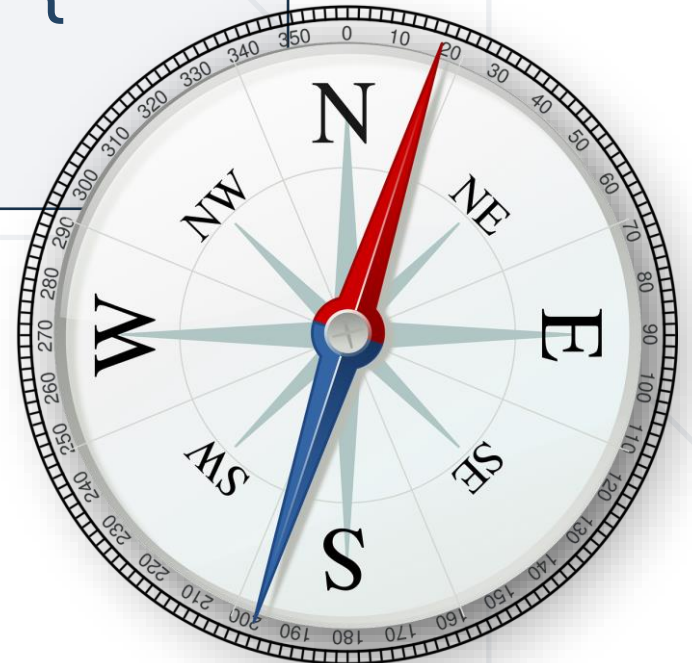
- Media Features – **max-width**
 - Specifies a **maximum width** for the viewport up to which it will apply the rules included

```
@media screen and (max-width: 600px) {  
  ...  
}
```



- Media Features – **orientation**
 - Specifies a **device orientation** for which it will apply the rules included

```
@media screen and (orientation: landscape) {  
  ...  
}
```



- Media Features – **hover**
 - Checks for a **device ability** for which it will apply the rules included

```
@media screen and (hover: hover) {  
  ...  
}
```



- Media Features – **pointer**
 - Checks for a **device ability** for which it will apply the rules included

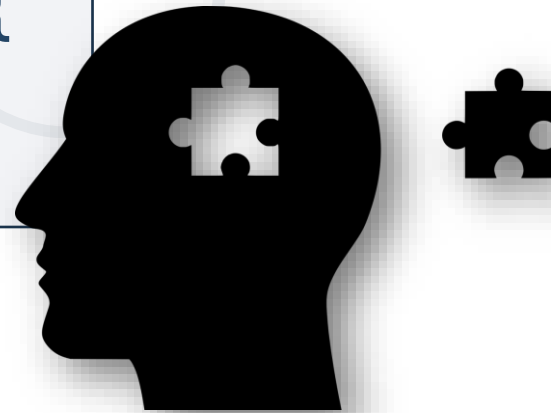
```
@media screen and (pointer: fine) {  
  ...  
}
```



- **Logical operators**

- The logical operators only can be used to **compose a complex** media query
- You can also **combine multiple** media queries into a single rule by separating them with commas

```
@media screen and (pointer: fine) {  
  ...  
}
```



- Logical operators – **and**
 - The and operator is used for combining multiple media features together into a single media query, requiring each chained feature to return true in order for the query to be true
 - It is also used for **joining media features** with media types

```
@media screen and (pointer: fine) {  
  ...  
}
```

- Logical operators – **not**
 - The not operator is used to **negate a media query**, returning true if the query would otherwise return false
 - If present in a comma-separated list of queries, it will **only negate the specific query** to which it is applied
 - If you use the not operator, you must also **specify a media type**

```
@media screen not (pointer: fine) {  
  ...  
}
```

- Logical operators – **only**
 - The **only** operator is used to **apply a style** only if an entire query matches and is useful for preventing older browsers from applying selected styles
 - If you use the **only** operator, you must also **specify a media type**

```
@media only screen and (pointer: fine) {  
    ...  
}
```

- Logical operators – , (comma)
 - Commas are used to **combine multiple media queries** into a single rule
 - Each query in a comma-separated list is **treated separately** from the others
 - Thus, if any of the queries in a list is true, the entire media statement returns true. In other words, lists behave like a logical or operator

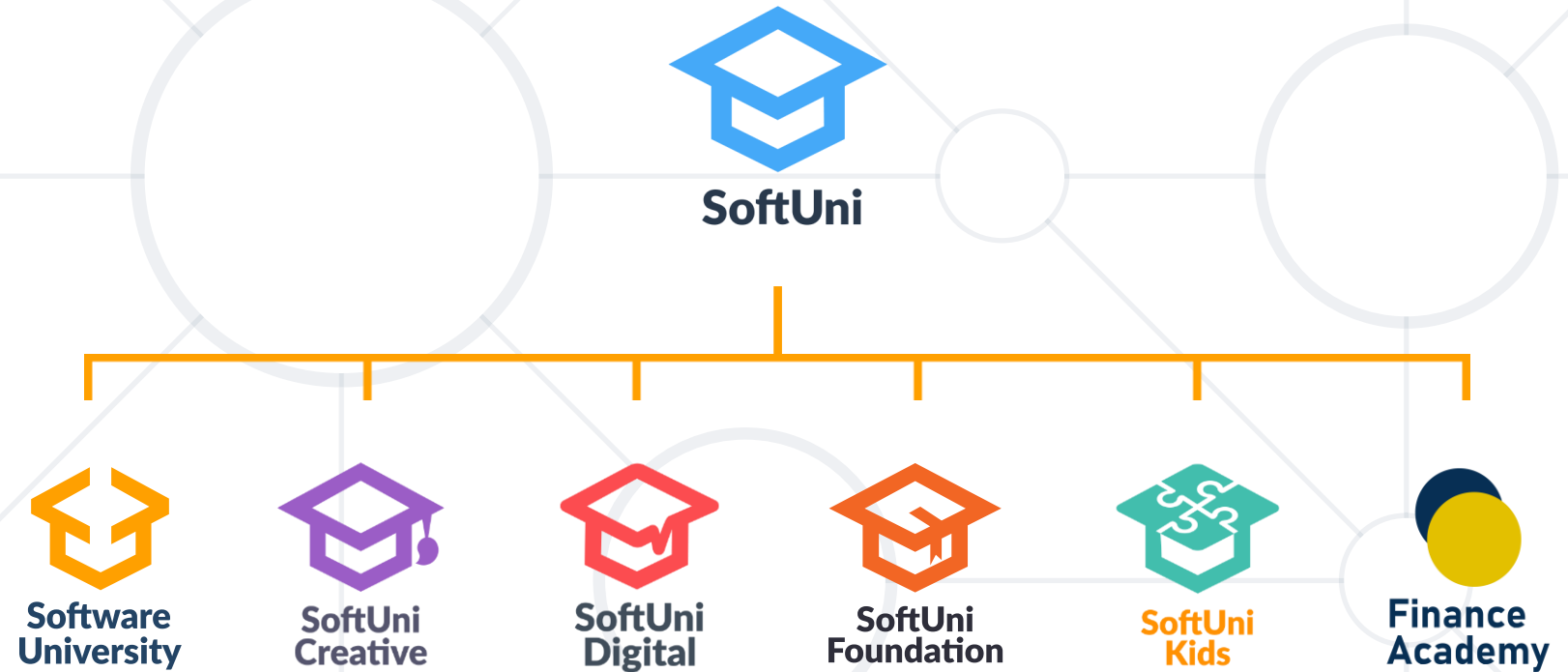
```
@media (min-height: 680px), only screen and (orientation: portrait) {  
    ...  
}
```

- https://developer.mozilla.org/en-US/docs/Web/CSS/Media_Queries
- <https://developer.mozilla.org/en-US/docs/Web/CSS/@import>
- [https://developer.mozilla.org/en-US/docs/Web/CSS/Media_Queries/Testing media queries](https://developer.mozilla.org/en-US/docs/Web/CSS/Media_Queries/Testing_media_queries)
- [https://developer.mozilla.org/en-US/docs/Web/CSS/Media_Queries/Using media queries#Media features](https://developer.mozilla.org/en-US/docs/Web/CSS/Media_Queries/Using_media_queries#Media_features)
- <https://caniuse.com/#feat=css-mediaqueries>
- <https://css-tricks.com/snippets/css/media-queries-for-standard-devices/>
- <https://responsivedesign.is/articles/why-you-dont-need-device-specific-breakpoints/>
- <https://davidwalsh.name/animate-media-queries>
- <https://mediaqueri.es/>
- <https://responsivedesign.is/>

- What is Responsive web design?
- Why is it important?
- What is Mobile First and why use it?
- Media Queries



Questions?



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