



# JavaScript (Part 2)

## APIs, DOM, Events



Dr. Omar Hammad





# interface

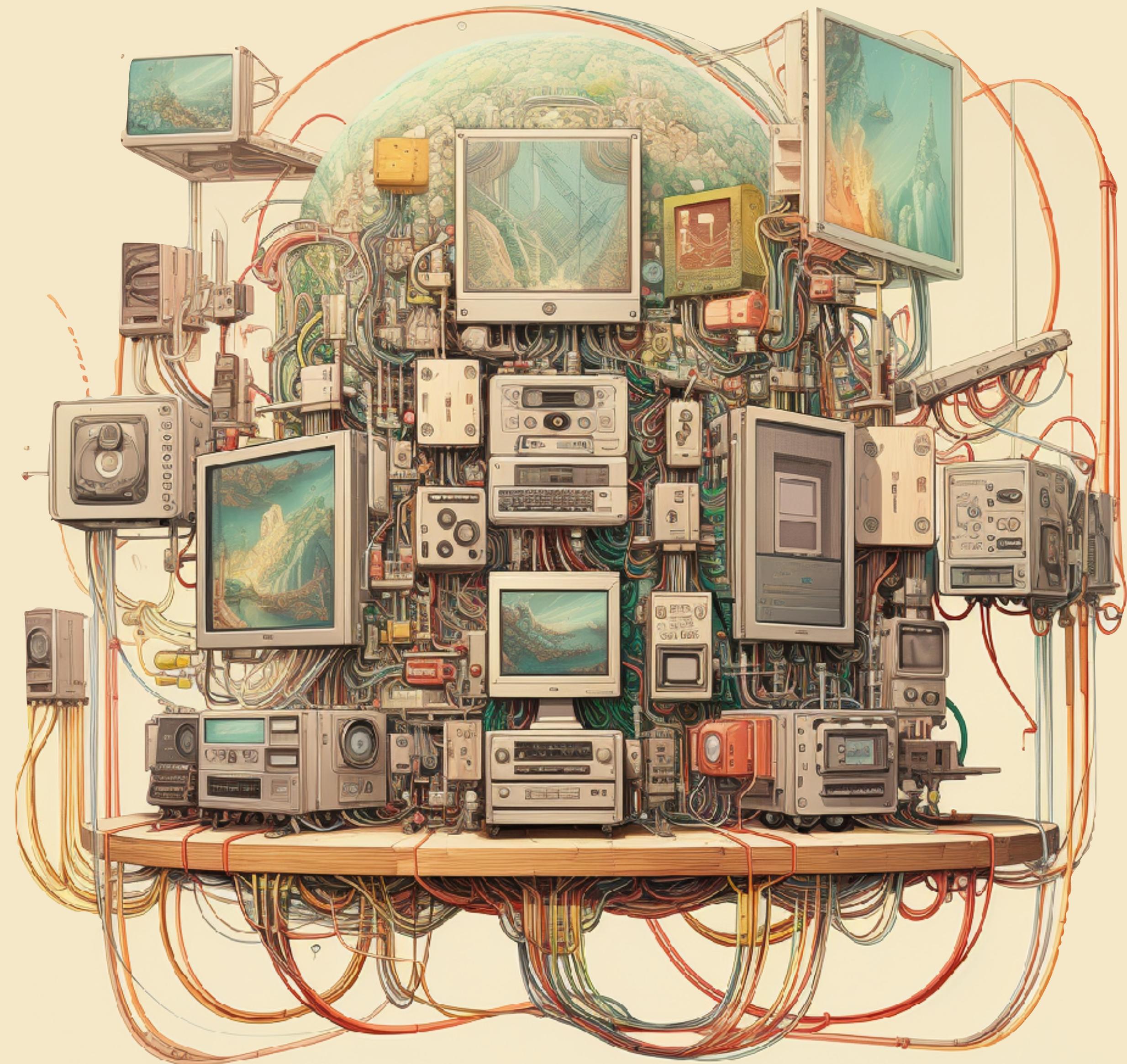
/'ɪntəfeɪs/

*noun*

1. a point where two systems, subjects, organizations, etc. meet and interact.  
"the interface between accountancy and the law"
2. **COMPUTING**  
a device or program enabling a user to communicate with a computer.  
"a graphical user interface"

*verb*

1. interact with (another system, person, etc.).  
"you will interface with counterparts from sister companies"
2. **COMPUTING**  
connect with (another computer or piece of equipment) by an interface.  
"the hotel's computer system can interface automatically with the booking system"



# APIs

Application Programming Interfaces

## Browser APIs

DOM

Fetch

Canvas

Geolocation

Web Storage

## 3rd Party APIs

Twitter

Youtube

Google Maps

OpenWeather

ELM



# Explore APIs

1. Pair with one person
2. Each open one of the links below
3. Start exploring APIs
4. Think of how would these benefit your website
5. Share with your friend

[MDN > Refs > Web APIs](#)

[github.com/public-apis](https://github.com/public-apis)



# Lets Explore Some APIs

 **APILayer**

The fastest way to integrate APIs into any product

Explore, discover and consume public APIs as simpler programmable building blocks all on one platform for a 10x developer experience.

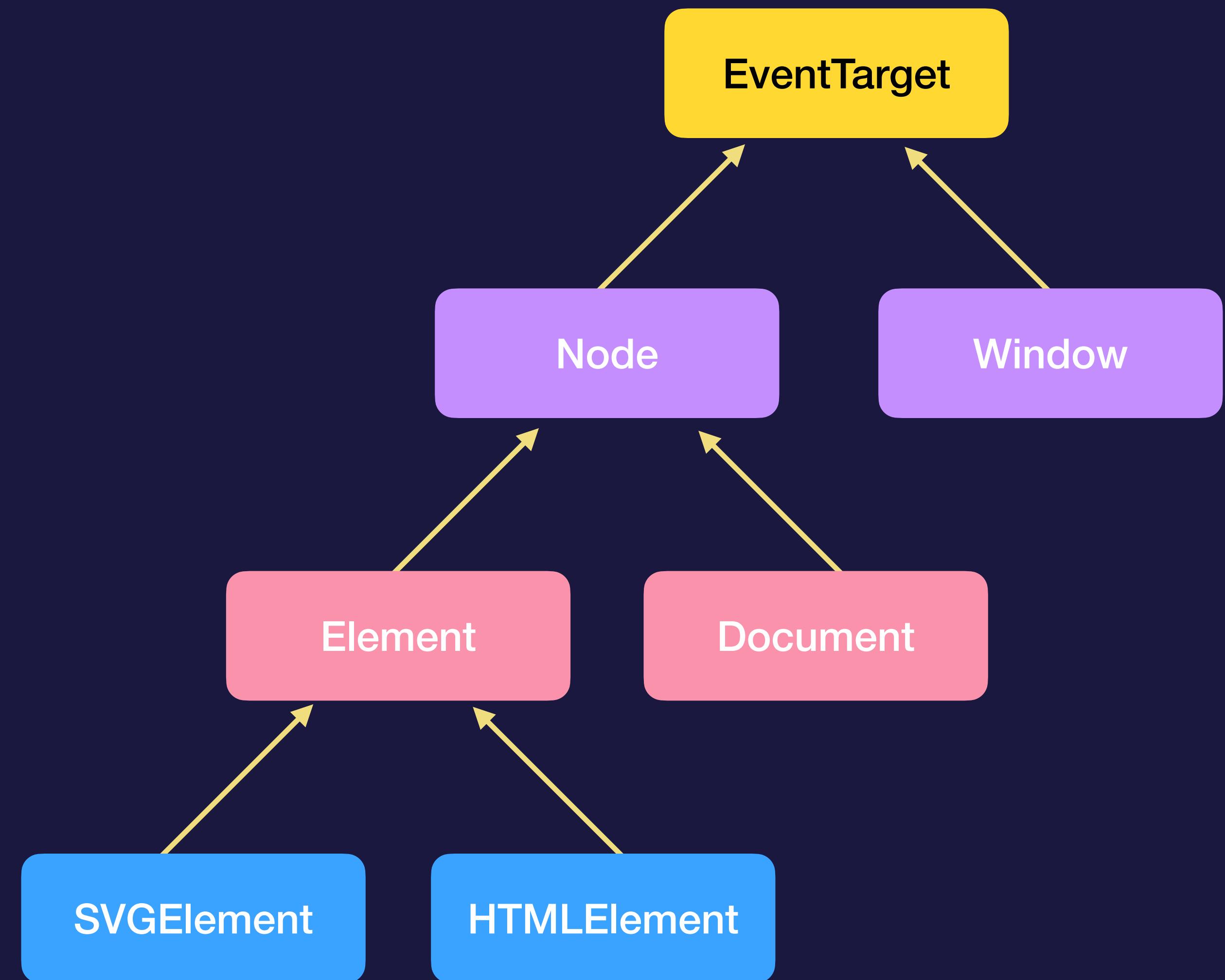
---

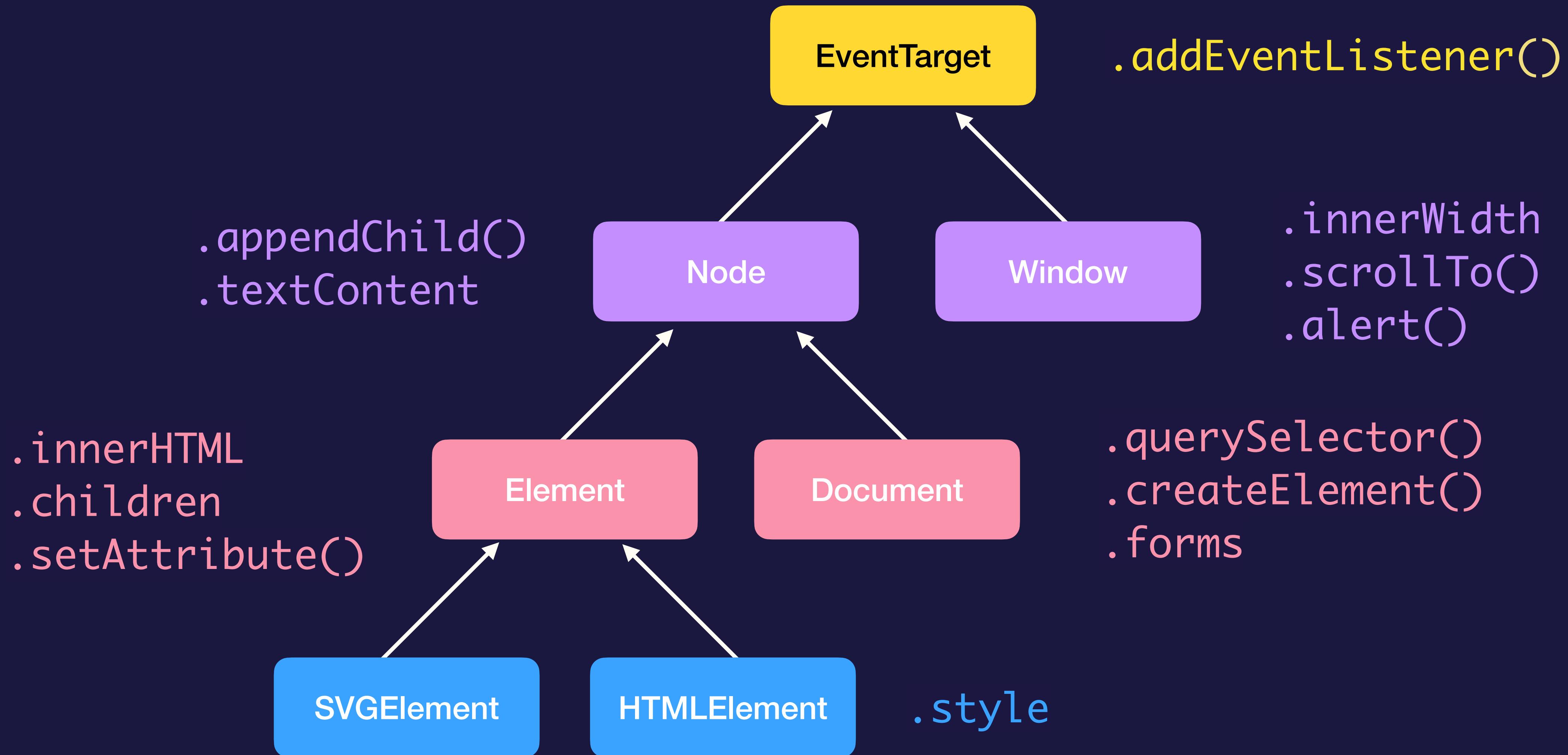
[Index ↗](#)

- [Animals](#)
- [Anime](#)
- [Anti-Malware](#)
- [Art & Design](#)
- [Authentication & Authorization](#)
- [Blockchain](#)
- [Books](#)
- [Business](#)
- [Calendar](#)
- [Cloud Storage & File Sharing](#)
- [Continuous Integration](#)
- [Cryptocurrency](#)
- [Currency Exchange](#)
- [Data Validation](#)

# DOM Common Objects

Window, Navigator, Document, Element, Attr, ..







# Explore DOM

1. Choose one of the following objects: Window, Navigator, Document, Element
2. Go to MDN reference and explore it

[MDN > \[Object Name\]](#)



Demo

# Lets Build our page with JS

```
{
  src:"https://picsum.photos/seed/2/320/200",
  date:new Date("2023-10-02:00:00.000Z"), // YYYY-MM-DDTHH:mm:ss.sssZ is the ISO
  title:"How to design a usable landing page",
  brief:"This article provides valuable insights and tips on creating an engaging",
  link:"",
  tags:["Design","Coding","HTML"]
},
{
  src:"https://picsum.photos/seed/3/320/200",
  date:new Date("2023-10-05:00:00.000Z"),
  title:"The Art of Color Theory in Web Design",
  brief:"Learn how understanding color theory can significantly impact the visual",
  link:"",
  tags:["Design","Web Development","Color Theory"]
},
{
  src:"https://picsum.photos/seed/4/320/200",
  date:new Date("2023-10-10:00:00.000Z"),
  title:"Optimizing Website Performance for Speed",
  brief:"Explore techniques and strategies to enhance your website's performance",
  link:"",
  tags:["Web Development","Performance Optimization"]
},
{
  src:"https://picsum.photos/seed/5/320/200",
  date:new Date("2023-10-15:00:00.000Z"),
  title:"Creating Engaging User Interfaces: Best Practices",
  brief:"Delve into the principles and best practices of designing captivating us",
  link:"",
  tags:["Design","User Interface","UI/UX"]
},
{
  src:"https://picsum.photos/seed/6/320/200",
  date:new Date("2023-10-20:00:00.000Z"),
  title:"Mastering Responsive Web Design",
  brief:"Uncover the essential techniques and tools needed to design websites tha",
  link:"",
  tags:["Design","Web Development","Responsive Design"]
}
```

**Click Me**

```
.addEventListener("click", (e)=>{ . . })
```

A blue circle with a white outline and a white letter 'e' inside it, centered at the top of the slide.A white rectangular button with a thin green border. The text 'Click Me' is centered inside the button in a black, sans-serif font.

Click Me



```
.addEventListener("click", (e)=>{ . . })
```



## Props

- .target
- .type
- .timestamp

## Methods

- .preventDefault()
- .stopPropagation()
- .composedPath()

# Subtype of Event

AnimationEvent, ClipboardEvent, KeyboardEvent,  
MouseEvent, TimeEvent, InputEvent, ..

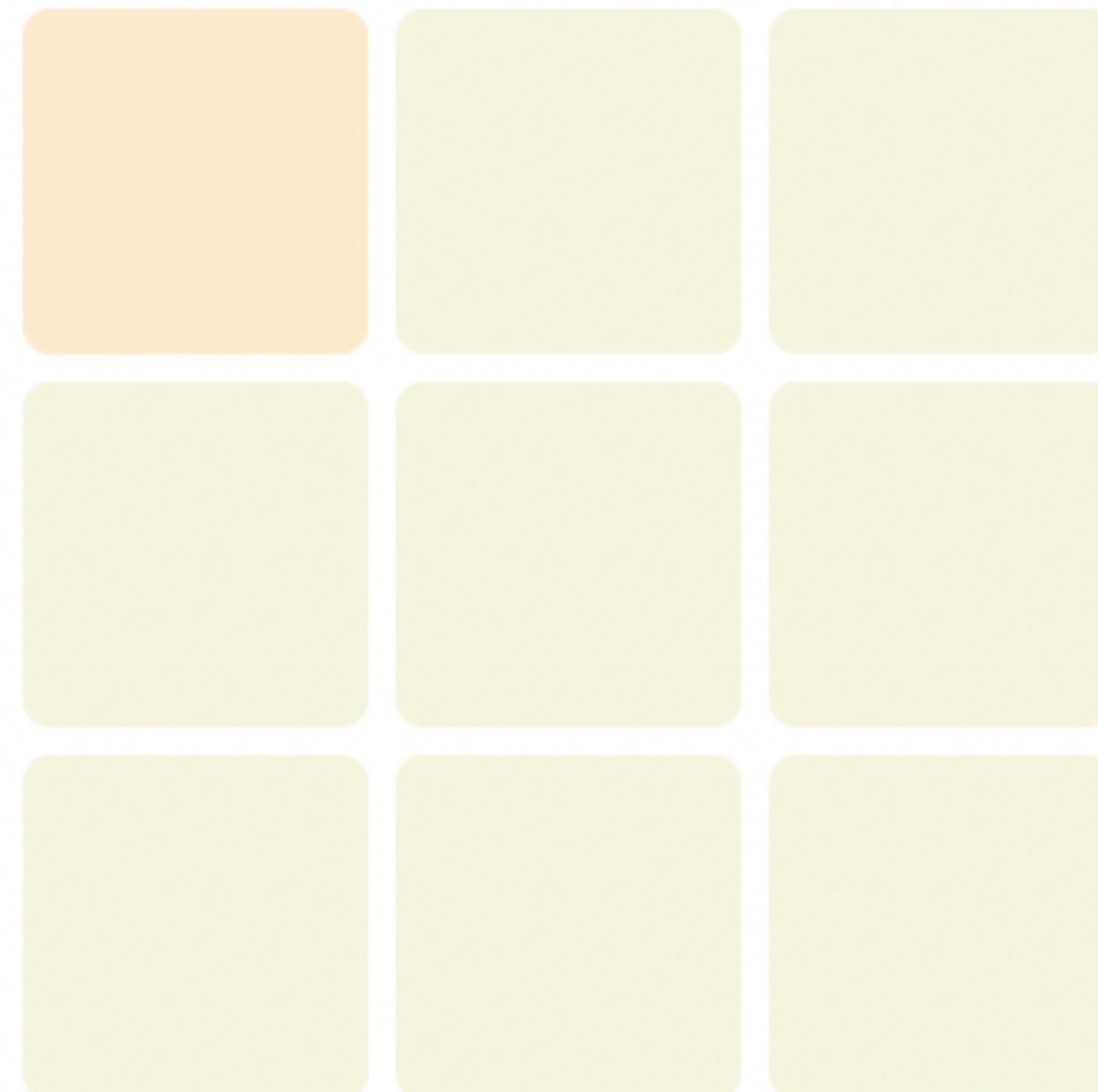


Demo

Lets  
Make the  
game  
played  
with KB

**Now it's is X turn**

Use **Space** to select & **Arrows** to move



# Explore Events



1. Go to MDN > Events
2. Explore the events overall
3. Select one of the categories and dig deeper in it
4. Share it with the class

**MDN > [Object Name]**