



Frontend Web Development User Interaction Model

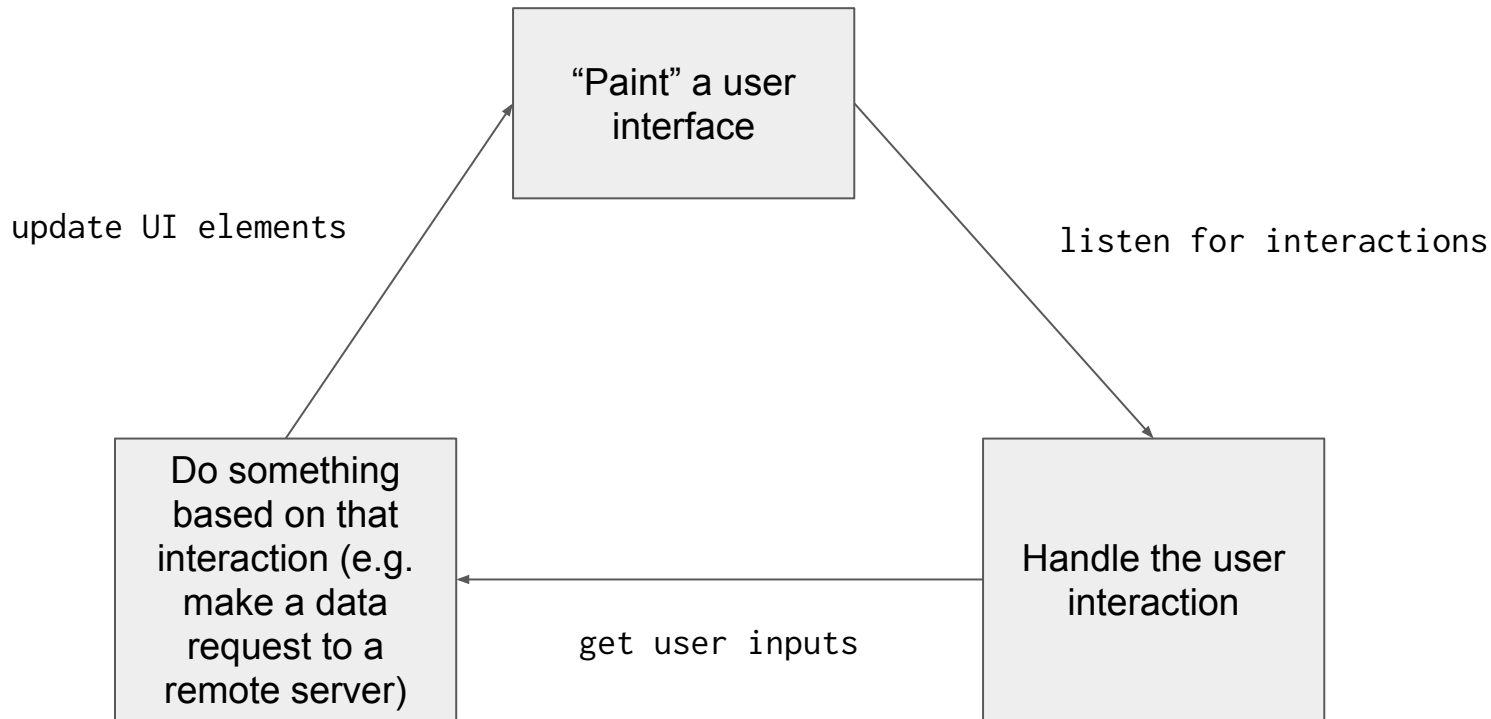
Web Development
Supplemental



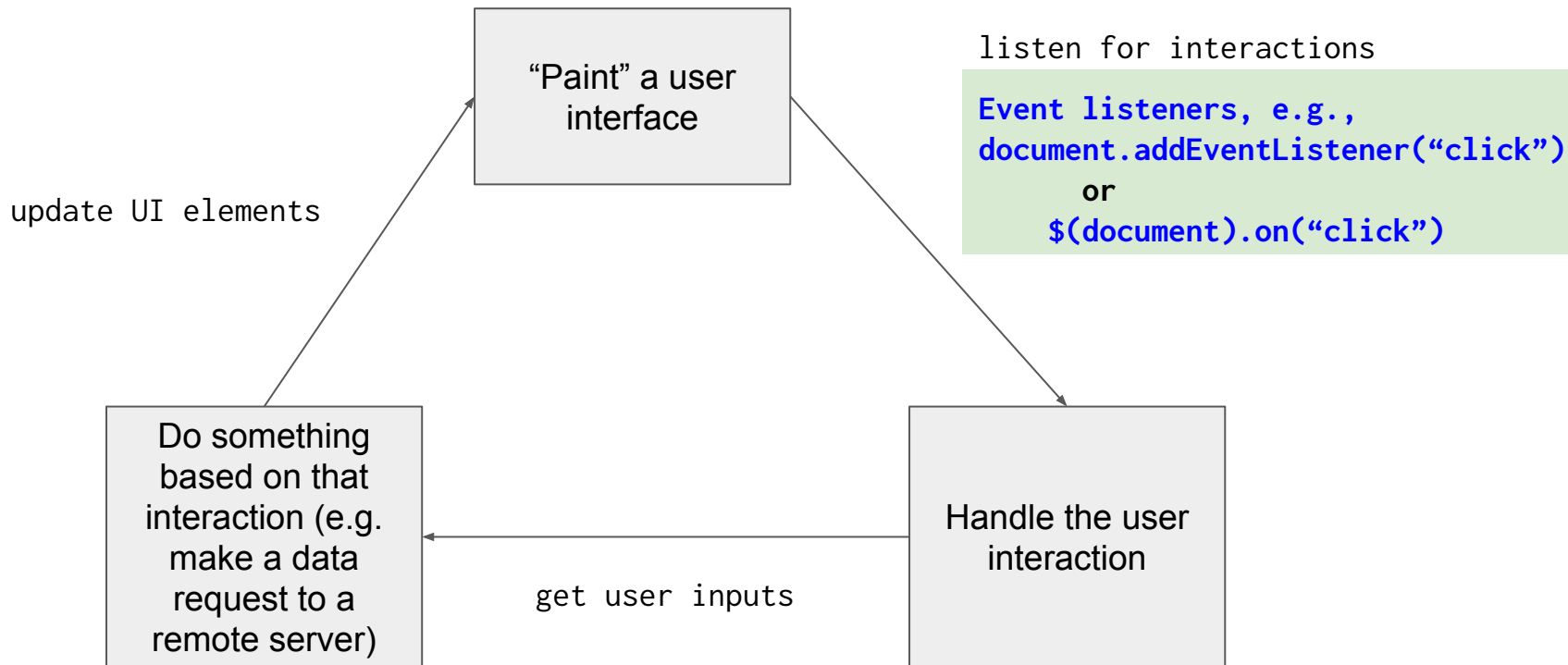


The front end displays the user interface, listens for user interaction events, and updates the display based on that interaction

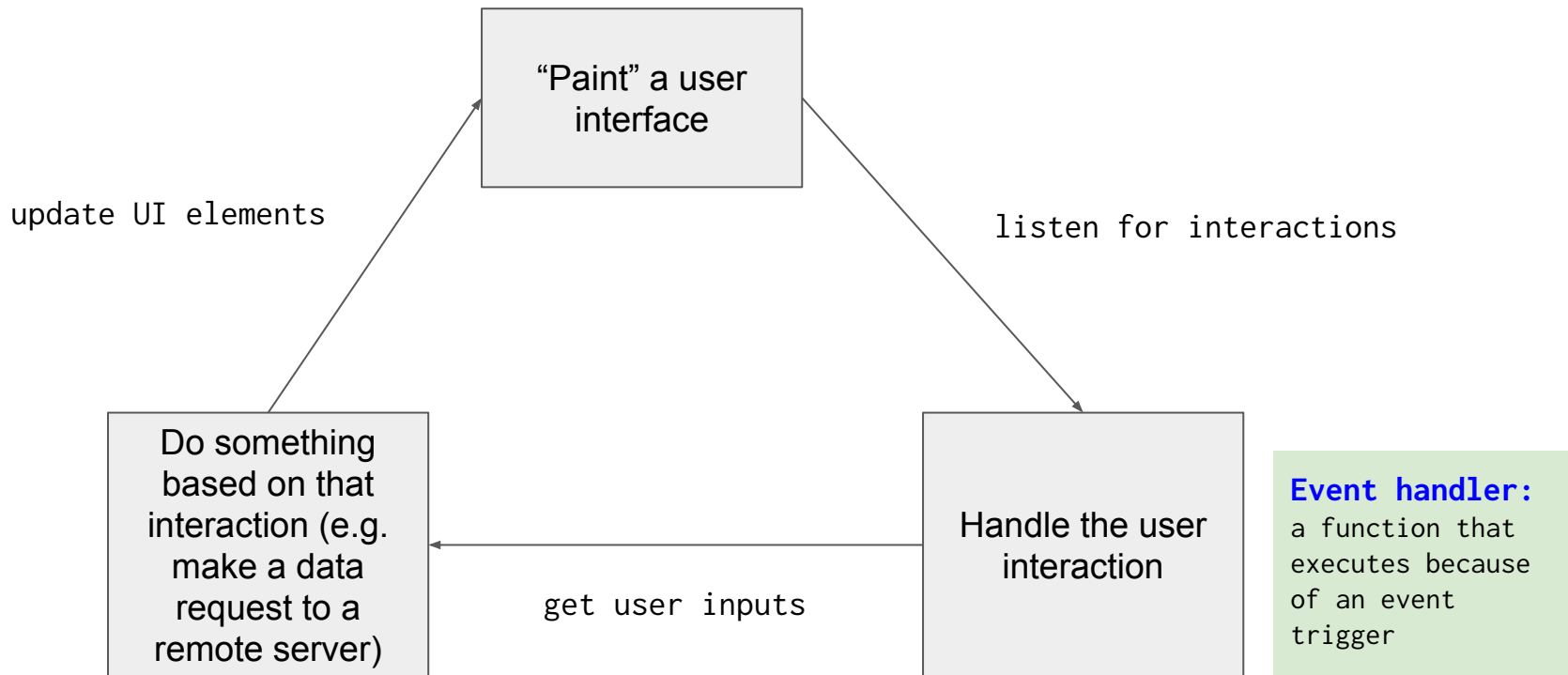
It is like a cycle



User Interaction: wait for something to happen



User Interaction: handle that event



Event Handler

Plain Javascript

```
document.addEventListener("click", function(event){  
    console.log("The event was triggered!");  
});
```

Event Handler



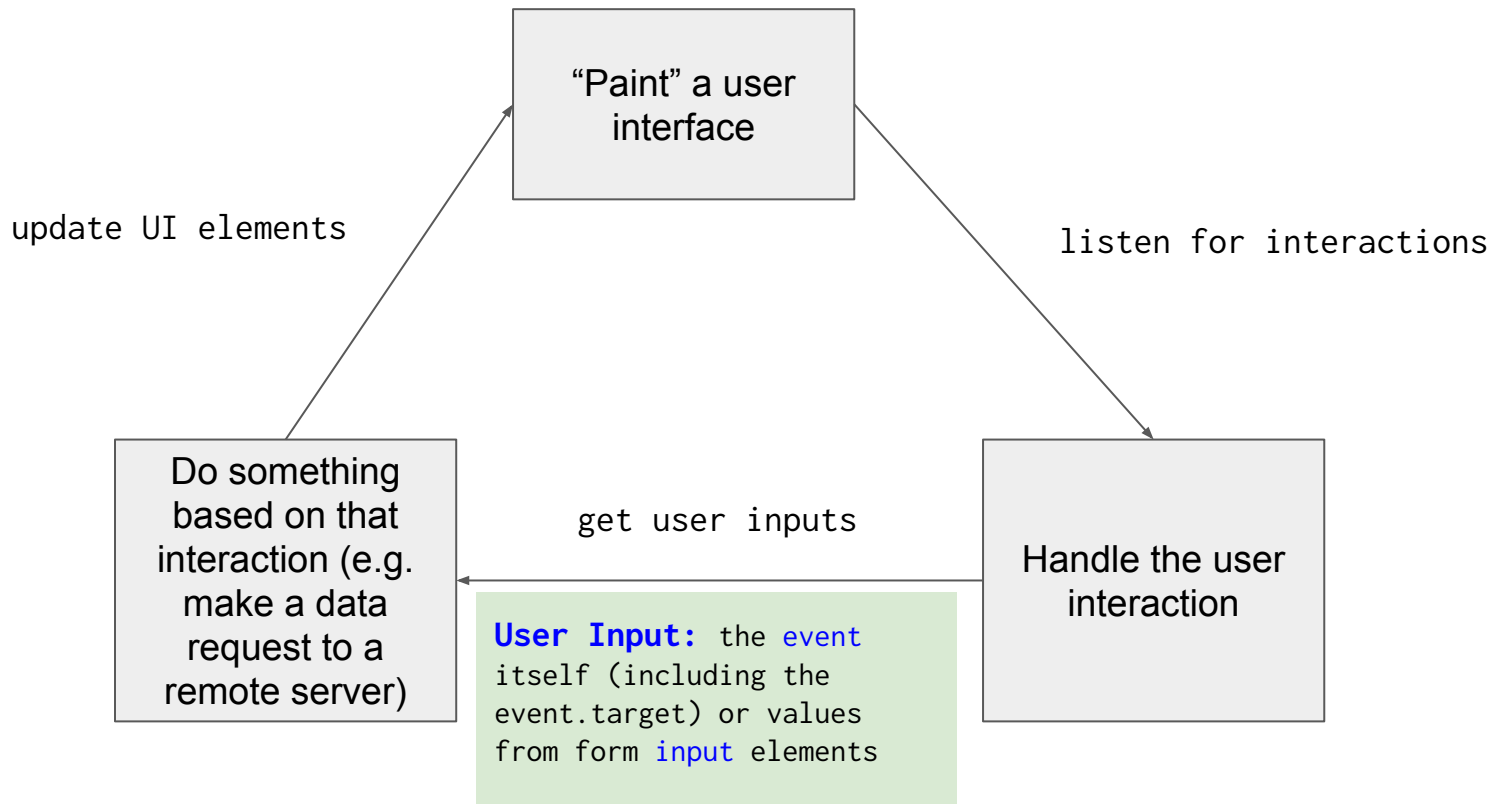
jQuery

```
$(document).on("click", function(){  
    console.log("The event was triggered!");  
});
```

Event Handler



User Interaction: what did the user intend to do?



User Input: using the event target

Plain Javascript

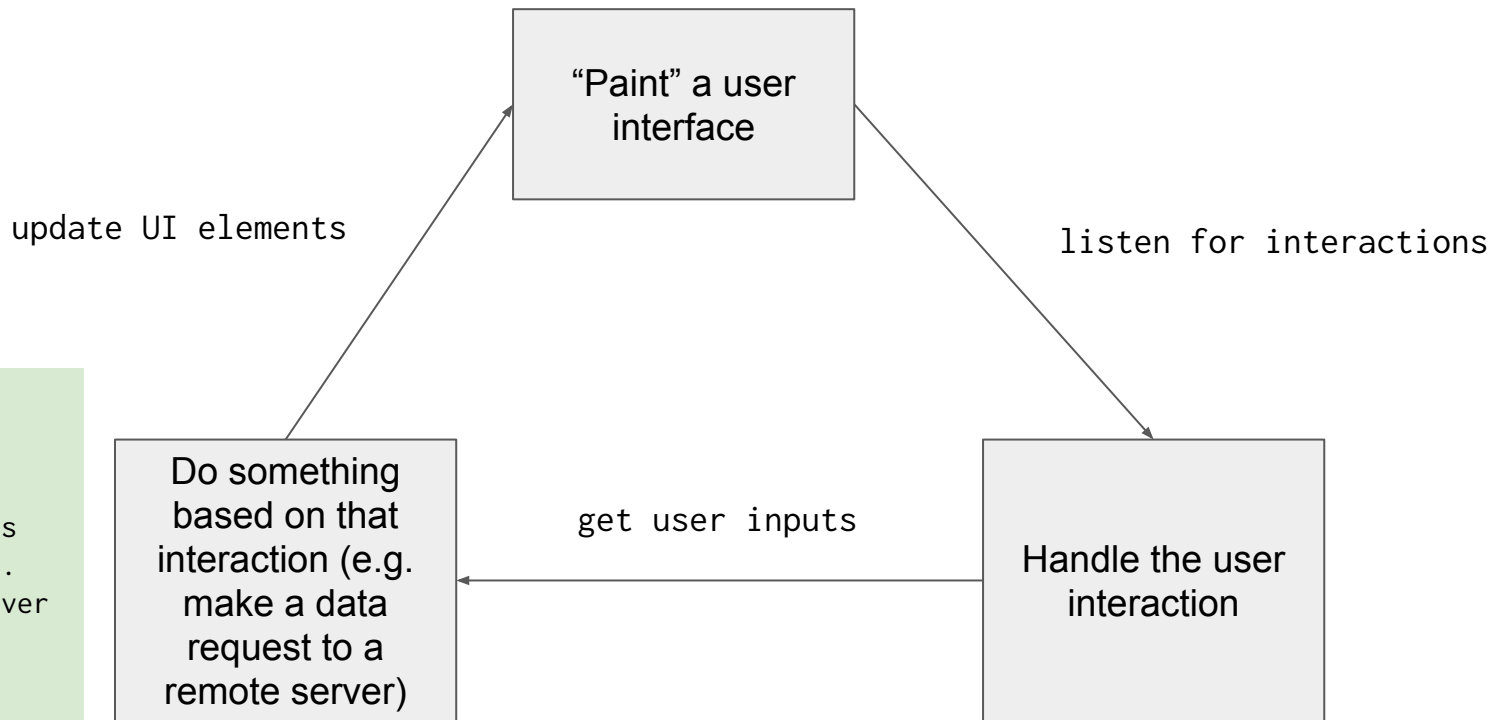
```
document.addEventListener("click", function(event){  
    var itemId = event.target.getAttribute("data-itemId");  
});
```

Data
attributes

jQuery

```
$(document).on("click", function(){  
    var itemId = $(this).attr("data-itemId");  
});
```


User Interaction: do some work



Perform task:

usually involves updating the app's **state**: the variables that represent data. Local or from a server (i.e., make an **ajax** call)

Do a task: an AJAX request

jQuery

```
var itemName = "";  
$(document).on("click", function(){  
    var itemId =$(this).attr("data-itemId");  
    $.ajax("https://myapi.com/api/getItem?id=" + itemId,  
        function(response){  
            console.log("Got a response!", response);  
            itemName = response.data.itemName;  
        }  
    );  
});
```

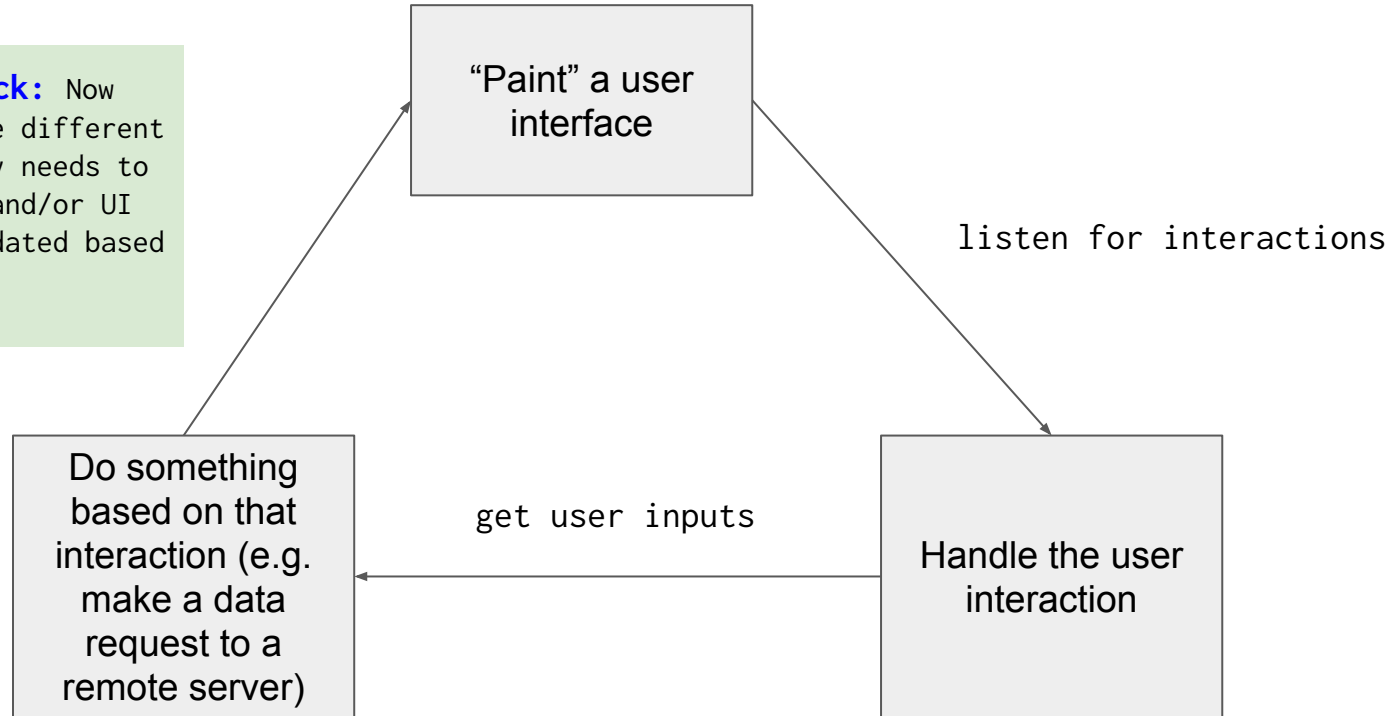
AJAX call



User Interaction: communicate back to the user

update UI elements

Provide user feedback: Now that our variables have different values, the UI probably needs to reflect that. Content and/or UI elements need to be updated based on the task result.



Provide user feedback: update the UI:

jQuery

```
var itemName = "";
var itemNameEl = $("#item1 .name");
$(document).on("click", function(){
    var itemId =$(this).attr("data-itemId");
    $.ajax("https://myapi.com/api/getItem?id=" + itemId,
        function(response){
            itemName = response.data.itemName;
            itemNameEl.text(itemName);
        }
    );
});
```

AJAX call

