Week 10 Readings

The Constraint Validation API

Works within the following form element DOM:
- HTMLButtonElement
- HTMLFieldSet Element
- HTMLInputElement
- HTMLOutputElement
- HTMLSelectElement
- HTMLTextAreaElement

Constraint Validation API's properties:
- validationMessage: returns a read-only message detailing the error. Will return empty if element is not supported or element input is valid (String).
- Validity:
  a. patternMismatch: input does not match the regex expressions defined (Boolean).
  b. tooLong: exceeds the set max limit of characters (Boolean).
  c. tooShort: too few characters, not enough for the minimum amount set.
  d. rangeOverflow: if input is over the set limits, returns true, else false if iinput <= the set limits (Boolean).
  e. rangeUnderflow: if input is under the set limits, returns true, else false if input >= the set limits (Boolean).
  f. typeMismatch: returns true if input is does not contain required characters (mainly for url and email inputs, Boolean).
  g. valid: returns true if input is valid, false if invalid (Boolean).
  h. valueMissing: returns true if there is no input, but a required attribute is on element tag, false otherwise (Boolean).
- willValidate: returns true is element will be checked for validation on form submission, else false (Boolean).

Constraint Validation API's methods:

- checkValidity(): returns true if element passes all validation checks, else false returning an invalid event on element (Boolean).
- reportValidity(): returns true if children nodes satisfy validation constraints, else returns false and an invalid event is triggered on each child node (Boolean)
- setCustomerValidity(message): a custom message is taken in as a parameter and returns the custom message to the user if the validation fails and takes the place of the error report.