

Input Validation

Table of Contents

- Defined
- Impact
- Client Side vs. Server Side
- Syntactic and Semantic Validation
- Validation Techniques
- Allowlist vs Denylist
- Examples

Defined

- Checksum
- Protect against SQL injection, XSS
- Data Integrity
- Syntactic vs. Semantic
- Allowlisting

Impact

- Block Malicious script
- Data Accuracy
- Application Reliability
- Enable Secure User Experience
- Aids Regulatory Compliance

Client Side vs. Server Side

- Feedback to User
- Server load
- Response Time
- Complex Validation from server side,

Syntactic and Semantic Validation

- Structural Correctness
- Data Types/Patterns
- Applies Length/Range Checks
- Early Input Filtering
- Enforces Business Rules/Context

Validation Techniques

- Data Type
- Range
- Pattern vs. Custom
- Presence

Allowlist vs Denylist

- Trusted Model/Reactive
- Scope Size/Management
- Zero Day Threats
- False Positives
- Least Privilege

Questions?

Useful Links

https://developer.mozilla.org/en-US/docs/Learn/Forms/Form_validation

https://www.w3schools.com/js/js_validation.asp

<https://www.freecodecamp.org/news/form-validation-in-javascript/>

<https://adaobiosakwe.medium.com/form-validation-and-error-handling-on-the-frontend-f97a4ece270b>

<https://medium.com/@erica13chai/error-handling-in-forms-2eb0c9e14b94>

Input Validation

Presentation - Form that is the most creative (Voted by class - gets 5 Extra Points)

Create a form for users to input data about their profile.

Form includes the following data points Full Name, Phone Number, Favorite Number, Favorite four legged mammal, Address (2 Points for having all fields)

On each of these fields you should validate for Data Type (2 Points)

Favorite Number is Validated by a range (1 Point)

Phone number is validated by restricting the format of data input (1 Point)

All Fields should use a presence input validation (1 Point)

Thoroughly explain how you created these validations to limit invalid data (6 Points)

Form should return error when data doesn't conform to validation techniques (2 Points)

Additional forms of Validation Included (2 extra Points for each unique form of validation)

Raise your hand if you have a question at any time