

ISD Topics

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System Development Methodology

1. Logical-to-Physical design
2. Revision control
 - a. Centralized
 - b. Distributed
 - c. Git and Github
3. Testing
 - a. Unit testing
 - b. E2E testing
 - c. Manual and automated
4. Agile Development Process
 - a. Scum.Edu
 - i. Daily Scrum/Standup
 - ii. Iterations
 - iii. Design review
 - b. Roles
 - i. Product owner
 - ii. Scrum Master
 - c. Scheduling and estimation
 - i. Trello

Web Application Architecture

1. Historical perspective
2. Current practices

Model

1. Creating a database
 - a. SQL DDL
2. CRUD: Create—Read—Update—Delete
 - a. SQL DML
3. Accessing database from host language

4. DB abstraction layer
5. Transactions

View

1. UI Design
 - a. CRAP: Contrast—Repetition—Alignment—Proximity
2. Technologies
 - a. HTML5
 - b. CSS3
 - c. Frameworks
3. Techniques
 - a. Templating
 - b. Web forms
 - c. Form validation
 - d. Web-based queries
 - e. Web-based updates

Controller

1. Stateful vs. Stateless
 - a. Cookies
 - b. Sessions
2. Techniques
 - a. Web forms
 - b. Response and Redirect
 - c. Form validation
 - d. Web-based queries
 - e. Web-based updates