Use Cases

SDCTools Service

1. Get *SDCForm* for a *DiagnosticProcedureID*.

   <mark>Backend: API endpoint to serve SDCForm from the database</mark>

2. Validate data entered in to a question field.

   <mark>Backend: Entire form response validated upon submission</mark>

   https://trello.com/c/nLNndQRq/14-validate-sdcformresponse

   <mark>Frontend: Clients validates data entered into a field of a form (integer/decimal/string/required)</mark>

   https://trello.com/c/s0X7M3Vo/54-client-side-validation-of-form-answers

3. Create new SDCFormIterator, positioned at first node in form
4. Get SDCFormNode at current position of SDCFormIterator
5. Query if SDCFormIterator has a next node
6. Position SDCFormIterator to next node
7. Get questions of current node/section
8. Get enabled state of node
9. Get control node of a node
10. Get list of dependent nodes of a given node (none if not control node)

    <mark>Frontend: Client-side service that provides iterator object with above functionality</mark>

    https://trello.com/c/HYqgARLz/16-iterative-data-from-backend-to-tree-like-react-components

    https://trello.com/c/r7nt02Ac/28-tree-iterator-builder-for-front-end-form-generation

11. Enter working answer for a node and propagate dependencies

    <mark>Backend: API endpoint to accept answers for a given SDCFormResponse</mark>

    https://trello.com/c/QTNPijod/13-submit-sdcformresponse

Frontend: Submit answer to the backend. Maintain dependencies in the state and propagate enabled/disable state on choice answer

https://trello.com/c/cSYiLtIc/38-fill-answers-and-submit-responses

Actor Form Manager (administrator of forms)

1. Upload SDCForm XML to system and associate it with a *DiagnosticProcedureID*.

   Backend: API endpoint to accept form submission with xmlData and diagnosticProcedureID. Maintain forms with versions.

   https://trello.com/c/SRaaVwIR/15-parse-xmldata-submitted-through-frontend-form

   https://trello.com/c/z3J2dlIT/12-form-versioning

   Frontend: Create UI dialog to input diagnosticProcedureID and upload form from file system

   https://trello.com/c/h1d4VafT/51-new-form-submission-ui

2. Delete form

   Backend: API endpoint to "deactivate" a form

   Frontend: May not implement

3. Modify form

   Same behaviour as submit new form supported by form versioning

Actor Form Filler (Radiologist)

1. Search for form by diagnostic procedure eg: Cat Scan (CT) of lung.

   Backend: API endpoint to retrieve list of SDCForms in database

   Frontend: Select from a list of forms retrieved from the database

   https://trello.com/c/wotJtjeM/37-form-selection-page

Frontend: Search input field to filter list

https://trello.com/c/kLa1WVPT/55-filter-form-selection-by-search-input

2. Start new SCDFormResponse for patientID, diagnosticProcedureID, by formFillerID

   Backend: API endpoint to create new SDCFormResponse

   Frontend: Call to backend to create new response upon selecting a form

   https://trello.com/c/d9WLb6II/56-start-new-sdcformresponse

3. Fetch the form

   Backend: API endpoint to retrieve an SDCForm by diagnosticProcedureID

   Frontend: Call to backend to retrieve form upon starting form edit page

4. Render the form (HTML or React|Angular webapp etc.)

   Frontend: Use SDCForm and iterator to generate react form

   https://trello.com/c/r7nt02Ac

   https://trello.com/c/neDLHWK8

5. Answer question in form, automatically saving the form

   Frontend: Communicate with SDCTools to submit answer to backend

   https://trello.com/c/cSYiLtIc/38-fill-answers-and-submit-responses

6. ~~Delete form response.~~

   Not implementing

7. Edit form response.

   Frontend: List existing form responses for formFillerID to select from. Enter form page with existing SDCFormResponse.

   https://trello.com/c/KKVZvBSI/53-existing-response-selection-page

   Frontend: Populate form fields with answers for current SDCFormResponse

https://trello.com/c/it8W9C4p/57-populate-form-page-with-existing-sdcformresponse

8. Obtain persistent link to saved SDCFormResponse.

   Backend: API endpoint to submit finished form and generate SDCPersistentLink

   https://trello.com/c/QTNPijod/13-submit-sdcformresponse

   Frontend: Submit button calls backend then displays retrieved link

   https://trello.com/c/5D9tGiea/58-submit-form-to-generate-sdcpersistentlink

9. ~~Send (email) external reference to form response to receiver.~~

   Not implementing

Actor Form Receiver

1. View external reference to saved structured clinical note

   Backend: API endpoint to retrieve rendered SDCPersistentLink of completed SDCFormResponse

   https://trello.com/c/qkSmxxni/18-render-sdcformresponse-as-persistentformresponse

2. Query response answers:
   a. Search for
      i. Number of patients with LungRADS Category 4A
      ii. List of SDCFormResponses in which the various questions have been answered in specific ways.
      iii. List of SDCFormResponses for LungRADS Category 4A for female patients older than 65.
      iv. Number of patients who had an Adrenal tumor > 1g
      v. Number of patients who have tumor extension into the Kidney

   Backend: Elastic Search Integration to query SDCAnswers in database, API endpoint to query database

   https://trello.com/c/p4eReC1t/39-elastic-search-integration

   Backend: Generate dummy data for querying

https://trello.com/c/p9AjAj0M/46-dummy-data-generation

Frontend: Query page

https://trello.com/c/0c64pl4T/41-query-page

Technical

1. Auto-deploy on a successful pull request following a successful test suite run
2. Run automated tests on all PRs
3. ~~End to end testing;~~
    Only doing front end component testing