SLADE

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# Design

## Architectural design

A picture containing diagram

Description automatically generated

## Case Search

Diagram

Description automatically generated

## QIK Search Flow Chart

Diagram

Description automatically generated

# Technologies

React

MongoDB

ASP .NET Core

# Installation Guide

|  |  |  |
| --- | --- | --- |
| **Software Required** | **Link** | **Version** |
| Node.js + NPM | <https://nodejs.org/en/download/> | 14.17.6 |
| Mongo DB | <https://docs.mongodb.com/manual/tutorial/install-mongodb-on-windows/> | 5.0 |
|  |  |  |
| **Library Required** | **Command** | **Version** |
| antd | npm i antd | 4.16.3 |
| axios | npm i axios | 0.21.1 |
| react-awesome-query-builder | npm i react-awesome-query-builder | 4.1.1 |
| react-table | npm i react-table | 7.7.0 |
| vis-data | npm i vis-data | 7.1.2 |
| vis-network | npm i vis-network | 9.0.5 |
| react-dropdown-now | npm I react-dropdown-now | 6.0.1 |
| react-router-dom | npm I react-router-dom | 5.2.0 |

# Backend Server Startup Steps

Clone from: <https://github.com/16sic013j/sitslade_qik.git> to the server.

On Command Prompt,

1. CD <directory path>/Backend
2. Dotnet run

# Frontend Server Startup Steps

Clone from: <https://github.com/16sic013j/sitslade_qik.git> to the server.

On Command Prompt,

1. CD <directory path>/Frontend
2. If it is the first time running,
   1. npm I && npm start
3. Else
   1. npm start

User Manual

QIK Features

1. Case Search
2. QIK Results
3. Knowledge Graph
4. QIK Repository

## Case Search

Graphical user interface, application

Description automatically generated

To search a case, click on the textbox with the word “search cases…”.

Type in your search parameter, click on the “Search” button.

Graphical user interface, application

Description automatically generated

Your result will be displayed in the table below the search bar.

Alternately you can narrow down your search to a specific field by clicking on the dropdown.

Graphical user interface, application

Description automatically generated

## QIK Results

Creation of a QIK record, click on the “+ NEW QUERY” button.

Graphical user interface, application

Description automatically generated

You will be navigated to this page.

Graphical user interface, application

Description automatically generated

Fill in the details.

\*Note: Every query must have a “Collection” element.

Graphical user interface, website

Description automatically generated

Click on “Submit” button

You will be navigated to the “QIK Repository” Page.

## Knowledge Graph

On “QIK Results” page.

Click on any row on the table, it will navigate you to the knowledge graph page.

Diagram

Description automatically generated

Upon clicking on any of the node, the information panel will display the information of the node.

Diagram

Description automatically generated

## QIK Repository

When you click on a QIK that is not created by you on the table, you will be navigated to the Query Builder page with the information loaded based on the QIK that was previously saved.

Graphical user interface

Description automatically generated

Proceed to update and click on the “Update” button.

The information will be saved, and you will be redirected to the “QIK Repository” page.

In the event of clicking on a QIK that does not belongs to you, you will be navigated to the Query Builder page with the information loaded based on the QIK that was previously saved.

Graphical user interface, website

Description automatically generated

Proceed to update and click on the “Submit” button.

The new QIK will be saved, and you will be redirected to the “QIK Results” page and you will be able to see it on your “QIK Results” page.

# Technical Issues

1. Query Builder has restrictions on customization for the tree generated by the user interface.

Graphical user interface, application

Description automatically generated

For example, the Query above from the Query Builder. Semantically it looks visually correct but however on the backend it has a value of

{

"Query": {

"$elemMatch": {

"Collection": "Chain of Custody",

"CaseID": "123"

}

}

}

Therefore, an additional step is required to interpret the data as

{

"Collection": "Chain of Custody",

"CaseID": "123"

}

In order for the API endpoint to process the query and return a knowledge graph result.

1. On click a Knowledge Graph’s node, the information will be displayed while the knowledge graph reloads once.

# Limitations

1. Currently not able to display a modal with the knowledge graph when clicking on the QIK Result’s row.

# Testing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | QB001 | Pre-Requisite | Navigate to "QIK Results" page |  |
| Test Case Description | To test on new query creation |  |  |  |
| Test Execution Steps: |  |  |  |  |
| From landing page, click on "+ NEW QUERY" button. | | | |  |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |
| 1 | Graphical user interface, text, application  Description automatically generated |  | A new QIK Repository object to be created with the Query Builder tree and title being "Test Title"and description being "Test Description" |  |
| 2 | Test Title |  |
| 3 | Test Description |  |
| 4 | Click on "Submit" button |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | QB002 | Pre-Requisite | Navigate to "QIK Results" page |  |
| Test Case Description | To test Query Builder's Cancel button |  |  |  |
| Test Execution Steps: |  |  |  |  |
| From landing page, click on "+ NEW QUERY" button. Click on "Cancel" button. | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on "Cancel" button |  | The page will be navigated back to "Qik Results" page |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case Description | To test Search functionality of the table |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Search and sort "Title" column | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | On the column "Title" key in "Title" |  | Table will be updated to show only "Test Title" row |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | QR002 | Pre-Requisite | Completed Test Case ID : QB001 |  |
| Test Case Description | To navigate to Knowledge Graph |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Click on the first record | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on the first record in the table |  | The page will be navigated to the "Knowledge Graph" page |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | QR003 | Pre-Requisite | Completed Test Case ID : QB001 |  |
| Test Case Description | To test Sort functionality of the table |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Search and sort "Title" column | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on the column "Title" |  | Table will be updated to show results in ascending order |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | KG001 | Pre-Requisite | Completed Test Case ID : QR002 |  |
| Test Case Description | To test loading of information panel |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Click on any of the Knowledge Graph node | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on any of the graph's node |  | The node that had been clicked, it's information will be displayed on the information panel |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | R001 | Pre-Requisite | Navigate to "QIK Repository" page |  |
| Test Case Description | To test updating of a record |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Click on a record that is created by you Change the Title and update it | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on a record that is created by you |  | The page will be navigated to the Query Builder page with the information loaded |  |  |
| 2 | Change the Title to be "Changed" |  |  |  |  |
| 3 | Click on the "Update" button |  | The page will be navigated back to the "QIK Repository" page with Title being updated |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | R002 | Pre-Requisite | Navigate to "QIK Repository" page |  |
| Test Case Description | To test saving a record from another officer |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Click on a record that is not created by you Modify it Save it | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on a record that is not created by you |  | The page will be navigated to the Query Builder page with the information loaded |  |  |
| 2 | Change the Title to be "Modified" |  |  |  |  |
| 3 | Click on the "Submit" button |  | The page will be navigated back to the "QIK Repository" page with a new modified record added to it |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | CS001 | Pre-Requisite | Have existing cases in Mongo DB and Navigated to "Case Search" page |  |
| Test Case Description | To test the Search functionality |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Search for an existing Case | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on the "search cases…" |  |  |  |  |
| 2 | Type "SPF03" |  |  |  |  |
| 3 | Click on "Search" button |  | Table will reload and display case(s) that is related to "SPF03" |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | CS002 | Pre-Requisite | Have existing cases in Mongo DB and Navigated to "Case Search" page |  |
| Test Case Description | To test the Search functionality |  |  |  |
| Test Execution Steps: |  |  |  |  |
| Search for an existing Case | | | | |
|  |
| S/N | Step | Dependencies Step(s) | Expected Output | Actual Output |  |
| 1 | Click on the "search cases…" |  |  |  |  |
| 2 | Click on the dropdown and choose "Case ID" |  |  |  |  |
| 3 | Type "SPF03" |  |  |  |  |
| 4 | Click on "Search" button |  | Table will reload and display case(s) that is related to "SPF03" |  |  |