Api Overview

- follows a simpler version of repository pattern
- follows SOLID principles
- developed in .NET 5
- swagger for api visualization
- Newtonsoft.Json for serialization
- cors policy to allow requests coming from only the SPA(localhost:4200)
- controllers use ControllerRoute custom attribute to setup a generic api path
- logger to log runtime information in console

SPA overview

- developed in angular v13.3.x
- uses 3rd party library "angular-resizable-element@5.0.0" to extract the resizability feature
- environment files contains backend service endpoints
- implements a HttpInterceptor for api response error handling and loading screen
- service classes to communicate with backend and between components
- service class as a runtime data storage
- dedicated model files
- all subscriptions are unsubscribed on component destroy to prevent memory leak
- helper class for static calculations
- single responsibility component segregation
- constants file to store app constants
- strictly typed variables

How it works

- on initialization app-svg-editor calls backend service for svg dimension information. Then sets up the data subscribers.
- After the svg dimension is provided by api it is stored in the store variable.
- app-svg-editor and app-svg-editor-information are subscribed to svg dimension observer. when it is updated both component render respective data accordingly
- app-svg-editor has an app-spinner component. depending on the store variable it load the ui to prevent user for frequent changes
- in app-svg-editor component draggable area emits an event on resize end. some action are performed on resize end
    - update the dimension with new data.
    - check for cross axis drag(ex: left line was dragged over the right line) and make corrections.
    - check for out of bounce drag from draggable area and make corrections
    - call the backend service to patch the updated dimension
    - update the store variable