**Documentation of Image Annotation**

Image Annotation works by uploading an image from the user’s device and then user draws the desired shape to bound the specific part of the image and adds the annotated name of the bounded region.

We have a landing page of the product that has Login and Signup form linked to it. When any button is pressed, the page is redirected to the form page. When a user enters valid credentials, it is then redirected to the Image Annotation Page. On that page, user can annotate an uploaded Image and can download the *JSON* file of annotated image.

**Functionalities Added:**

* Landing Page Added (Modification to be done)
* Login/Signup form added
* Image uploaded
* Sidebar component added
* Rectangle could be drawn
* Circle could be drawn (bug)
* Annotation box added
* Log out button on Image Annotation Page

**Bugs to be fixed:**

* Landing Page is to be optimised for optimal functioning on mobile devices.
* Refresh is required(sometimes) when user enters the credentials and then redirected to Image annotation page on successful authentication.
* Circle is not drawn properly
* Sometimes Image gets out of the canvas on smaller devices.
* Only rectangle’s annotated name and coordinates are sent in JSON file, coordinates of circles and annotated name of circle are yet to be sent in JSON file.

**Files/Folders:**

* SideBar Component: Having navigation buttons for Image Annotation linked to Main.js file.

1. Image Uploading
2. Rectangle button: for drawing Rectangle
3. Circle Button: for drawing Circle
4. Polygon Button: for drawing Polygon
5. Line Button: for drawing Line

* Rectangle Component: Having 3 files, one main file “DrawRect.js” which draws rectangle and imports 2 other files “Rectangle.js” for drawing rectangle and other file “RectTransformer.js” for resizing the rectangle when clicked on it. It has a array containing the details of the rectangle drawn.

Array formed consists of:

*x, y coordinates* when mouse key is pressed

*height, width* of rectangle

*stroke* of the rectangle

*annotation name* of the rectangle

* Circle Component: Having 3 files, one main file “DrawCircle.js” which imports 2 other files “Circle.js” for drawing Circle and other file “CircleTransformer.js” for resizing the circle when clicked on it. It has a array containing the details of the circle drawn.

Array formed consists of:

*x, y coordinates* when mouse key is pressed (it is the centre of the circle)

*height, width* of circle

*stroke* of the circle

*radius* of the circle

* Json File: Last button is for downloading the json file. The array consisting of the annotated name and coordinates, is sent to the node server (hosted on Heroku) where array is converted to the downloadable json file and sent to the client.

**Functionalities to be added(**tentative):

* Polygon Annotation
* Line Annotation
* Zoom In / Zoom Out