

# Project #1

You are going to create a single page web application. It only needs to work on “evergreen” browsers. Choose one of these frame works.

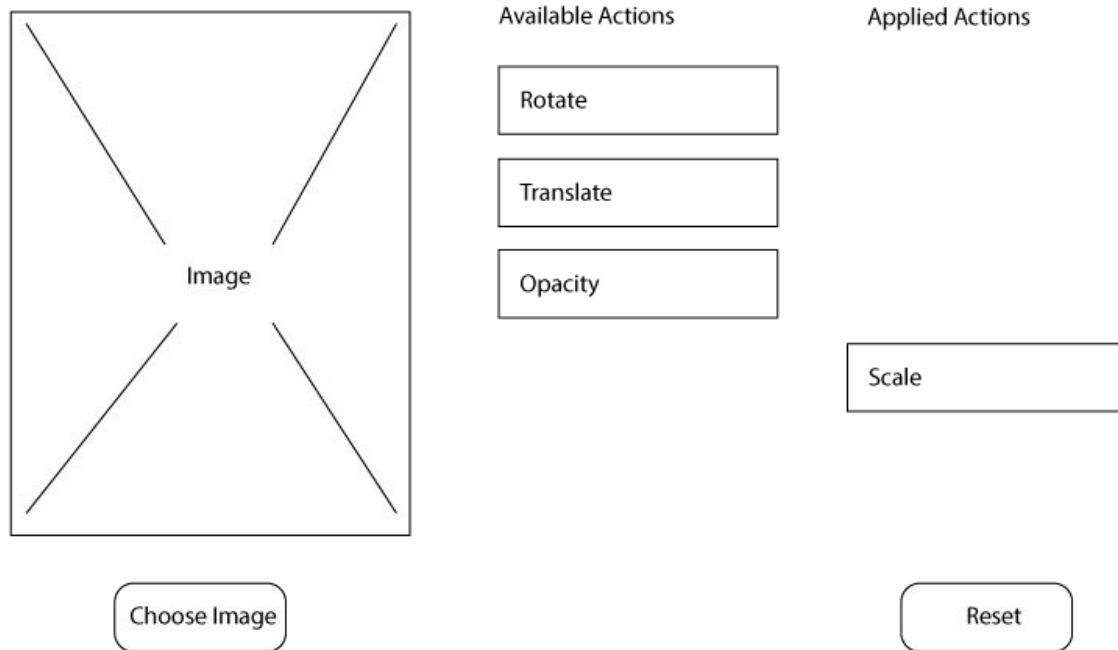
- React (<https://facebook.github.io/react/>)
- Polymer (<https://www.polymer-project.org/1.0/>)
- Angular 2.0 (<https://angular.io/>)
- Meteor (<https://www.meteor.com/>) <- *this is actually a platform!*

You don't need to worry about persisting data in a database (unless you want to).

The web app should have

- a file input that lets a choose a image from their local box
- an HTML element that displays that image
- a list of of Available Actions that can be applied to that image
  - rotate 45 degrees
  - translate x by -40px
  - scale to 0.5
  - opacity to 0.5
- feel free to make the Actions more fun if you want.
- a list of the Actions that are applied to the image
- the user should be able to apply an Action which moves it from the Available list to the Applied list and modifies the image.
- the user should be able to un-apply an Action which moves it back to the Available list and removes the action from the image.
- a reset button that resets everything back to the start

Here's a quick wireframe for you to work with.



Zip up the entire project and send it to us with some quick instructions to get it running.

## Project #2

You are going to create a middleware function for Koa.js to get some geo-location and weather services. To do this you will need

- NodeJS 4.x or higher (<https://nodejs.org/en/>)
- KoaJS (<http://koajs.com/>)

The middleware should do this

- get the IP address of the request
- call an external API to geo-locate that IP address using a free service (like <http://ip-api.com/>)
- store the geo-location data in the request (ex. `this.lat = /* latitude */`; `this.lon = /* longitude */`)
- call an external API to get weather data for that geo-location (like <http://openweathermap.org/api>)

- store the weather data in the request (ex. `this.temp = /* temperature */;`  
`this.weatherCode = /* weather code */;`)
- call the next middleware.

Zip up the entire project and send it to us with some quick instructions to get it running.