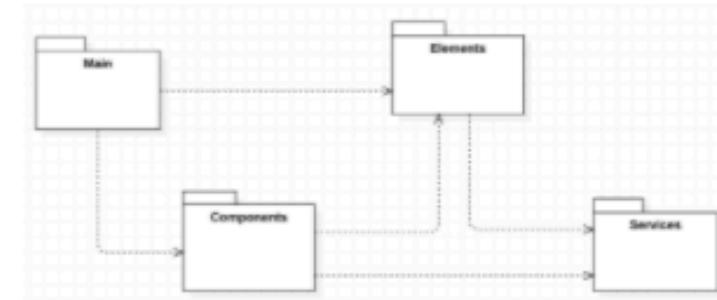
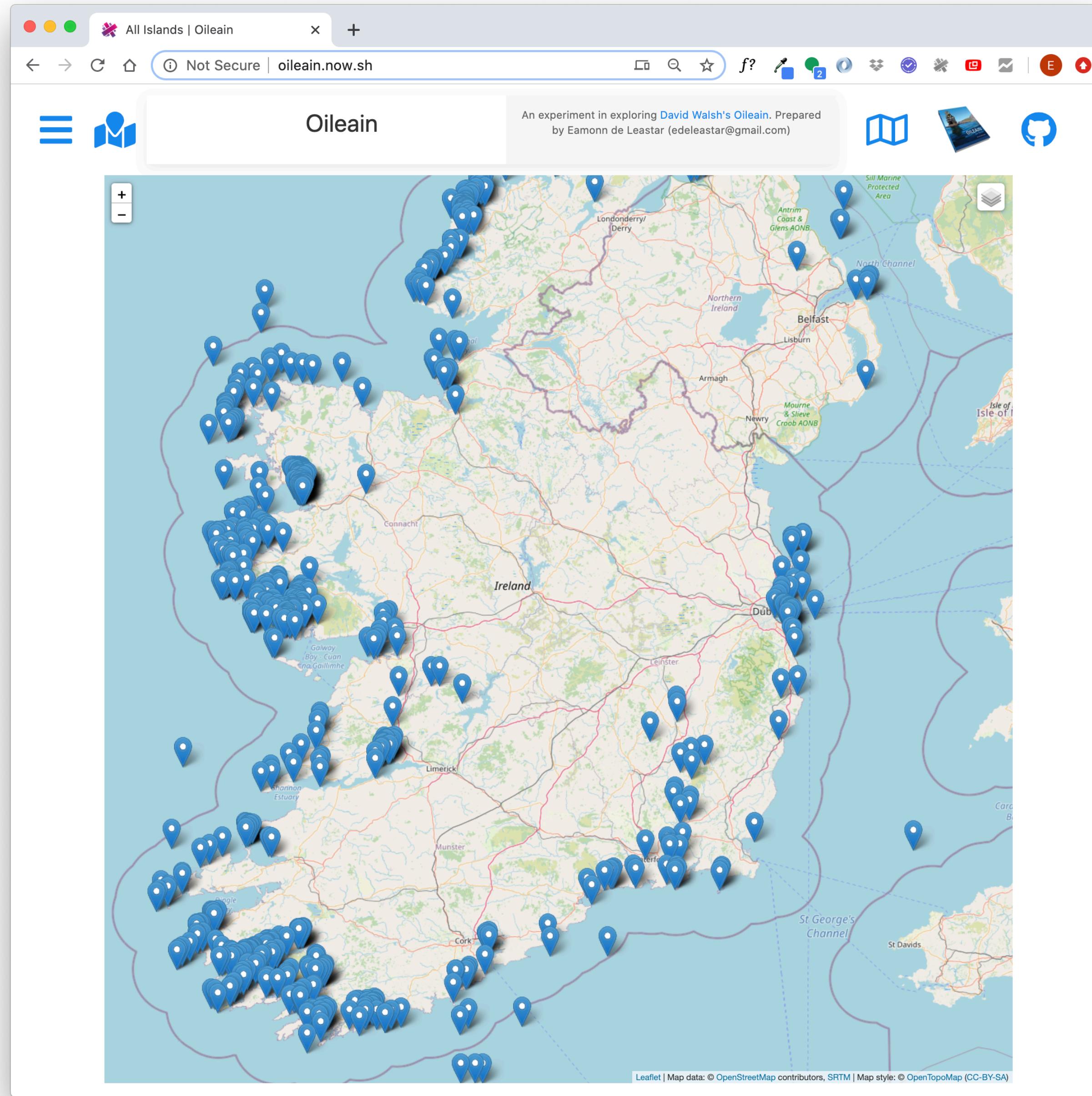


Oileain Aurelia Case Study

Aurelia Oileain



Architecture of the Oileain
Application



Navigator | Oileain

Not Secure | oilain.now.sh/navigator

Oileain

An experiment in exploring David Walsh's Oileain. Prepared by Eamonn de Leastar (edeleastar@gmail.com)

Great Saltee Island X952-974 Sheet 77 This is a beautiful island. Grazed and easily walked or camped on, this island is lovely and deservedly popular with Irish paddlers. The island is a famed bird-watching spot, and is often inhabited by birding visitors in season, mainly spring and autumn. Once inhabited by 20 people, the island became uninhabited relatively early by Irish island standards. There are monuments and references to Prince Michael of Saltee on the island. He bought the island in 1943, crowned himself Prince in 1972, and died in 1998. Renewed interest in the island by his extended family has resulted in some of the scrub being removed around the remains of the old rick yard and the corn stands are more clearly visible. Landing Land at X952-974 on the N side, E of the middle. The main landing area has recently been improved with a channel having been cleared through the boulder beach, which in June 2003 gave a welcome sandy strip even at the lower stages of the tide. There are steps above to a house in trees. This landing is sheltered in most conditions. Privacy Predictably, members of the family are almost certainly in residence in August, long weekends, or periods of settled good weather. The tradition of flying the Prince of Saltee flag from the flagpole above the landing when the family are in residence has been renewed. During such periods, day-trippers must arrive later than 1100 and vacate the island by 1630. Camping is not permitted. Circumnavigation Circumnavigation gives good fun in tidal races off the appropriate points, but beware that there is much eddying. There is excellent cliff scenery, and a particularly pretty channel just E of the S tip. Sea conditions at the southern tip become fearsome in strong winds or with wind against tide.

Leaflet | Tiles © Esri — Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, UPR-EGP, and the GIS User Community

GPS-compatible

Latitude	52.12079534
Longitude	-6.61081916

Oileain

An experiment in exploring [David Walsh's Oileain](#). Prepared by Eamonn de Leastar (edeleastar@gmail.com)



Ardillaun L630-473 Sheet 44 Ardillaun is a prominent drumlin-like island, more suited perhaps to Clew Bay, very visible all along the Clifden / Ballyconneely road, just off the coast. The clay cliffs all round are especially dangerous at the W/SW sides. Lazybeds. Land at a low grassy area on the E side. Here there is a low grassy area with its own small salt-lake. Sheep, all with long curly horns. The closest launching spot has almost no parking at all, down a boreen, at L633-471, where there is barely room for one car. Launch more reliably at any of the beautiful beaches where the Clifden / Ballyconneely road touches along Mannin Bay **1km S. Galway West Coast The Inner Islands**

GPS-compatible		Transverse Mercator	
Latitude	53.45814347	Eastings	462980.211
Longitude	-10.06329406	Northings	247300

Full Irish Grid		Irish Grid	
Eastings	63000	Sheet	L
Northings	247300	Eastings	630
		Northings	473

Oileain

An experiment in exploring [David Walsh's Oileain](#). Prepared by Eamonn de Leastar (edeleastar@gmail.com)



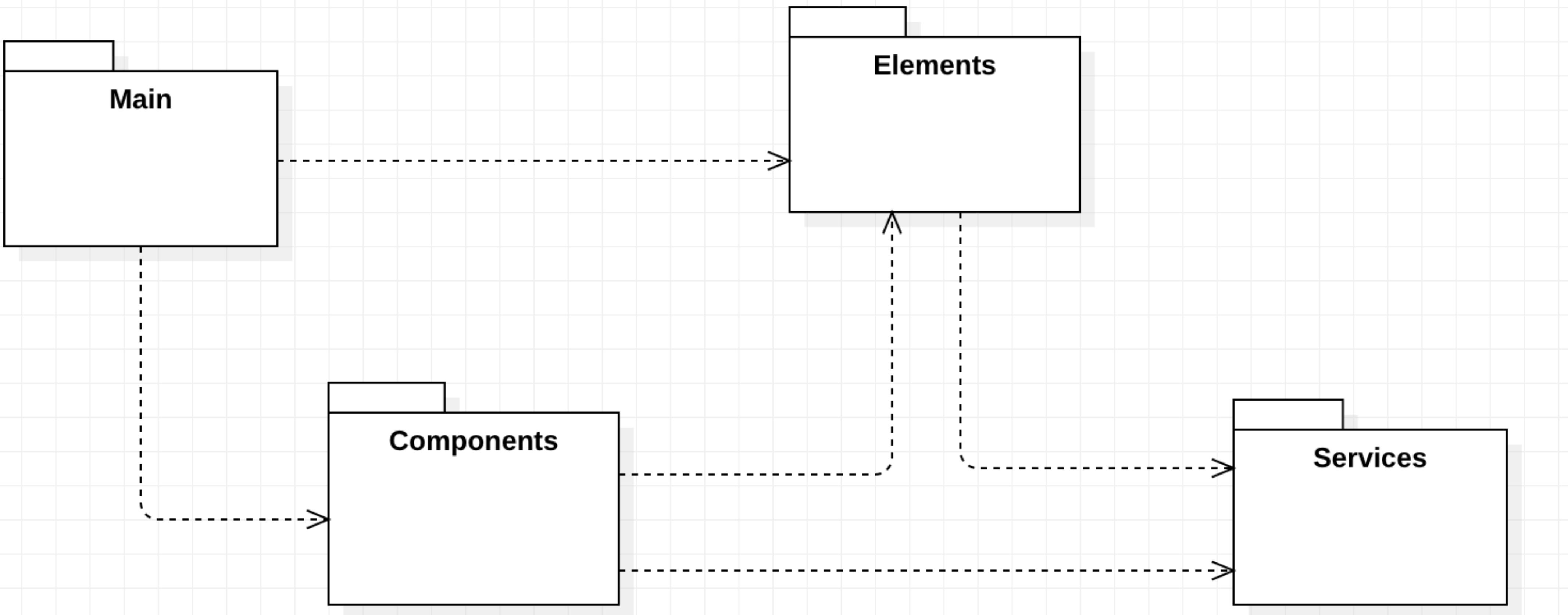
Scattery Island Q seems to have (**Cathach** in Irish, long and varied his associated with St founded the Christ Century. It was a took over for a recaptured by Br must have been pl first arrived, to find tower at ground I easily accessible island was inhab fertiliser was ever island is of ecolog grassland. The s island away from t rugged but has go at the lagoon area the north end. V Redshank were see 2012. 1 Hen Harri centre of the isla village on the north the cottages ha access is now de place. The lighth southern point. Th but access to the ceiling is now imp entry to the inside was first establishe cottage is in poor c of some repair wo 2012 the island managed with a s OPW staff quart cottages above the well managed and that guides the visi remains, round to what looks like a p the southern end o the lighthouse. I commercial succ rabbit and in 199 eared Owl. Tides T mainland and the than between the is southeast with the

- North East
- East Coast
- South Coast
- Mid West
- Carrig Island
- Foynes Island
- Inishmurry
- Inishtrubbrid
- Canon Island
- Inishloe
- Blackthorn Islands
- Doon Island
- Inishmacowney
- Illaunbeg or O'Donnell's Island
- Shore Island
- Feenish
- Deenish Island
- Deer Island
- Coney Island
- Inishdadroum
- Trummer
- Scattery Island**
- Hog Island
- Kilrush area to Carrigaholt
- Carrigaholt to Kilbaha
- after Galway HW</td> <td width="57">4kn</td> </tr> </tbody>
- </table> Kilbaha to Loop Head
- Loop Head to Bridges of Ross
- Bridges of Ross to Goleen Bay
- Goleen Bay to Kilkee
- Kilkee to Doonbeg
- Doonbeg to Spanish Point
- Mattle Island
- Mutton Island
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- Spanish Point to Liscannor
- The Cliffs of Moher
- Brananmore – An Branán Mór
- Crab Island
- Doolin to Ballyvaughan
- Illaunloo
- Ballyvaughan Harbour
- Poulnaclogh Bay
- Scanlan's Island
- Aughinish Island
- Deer Island
- Mulroney's Island
- Fiddaun Island
- Island Eddy
- Tawin Island
- Rabbit Island

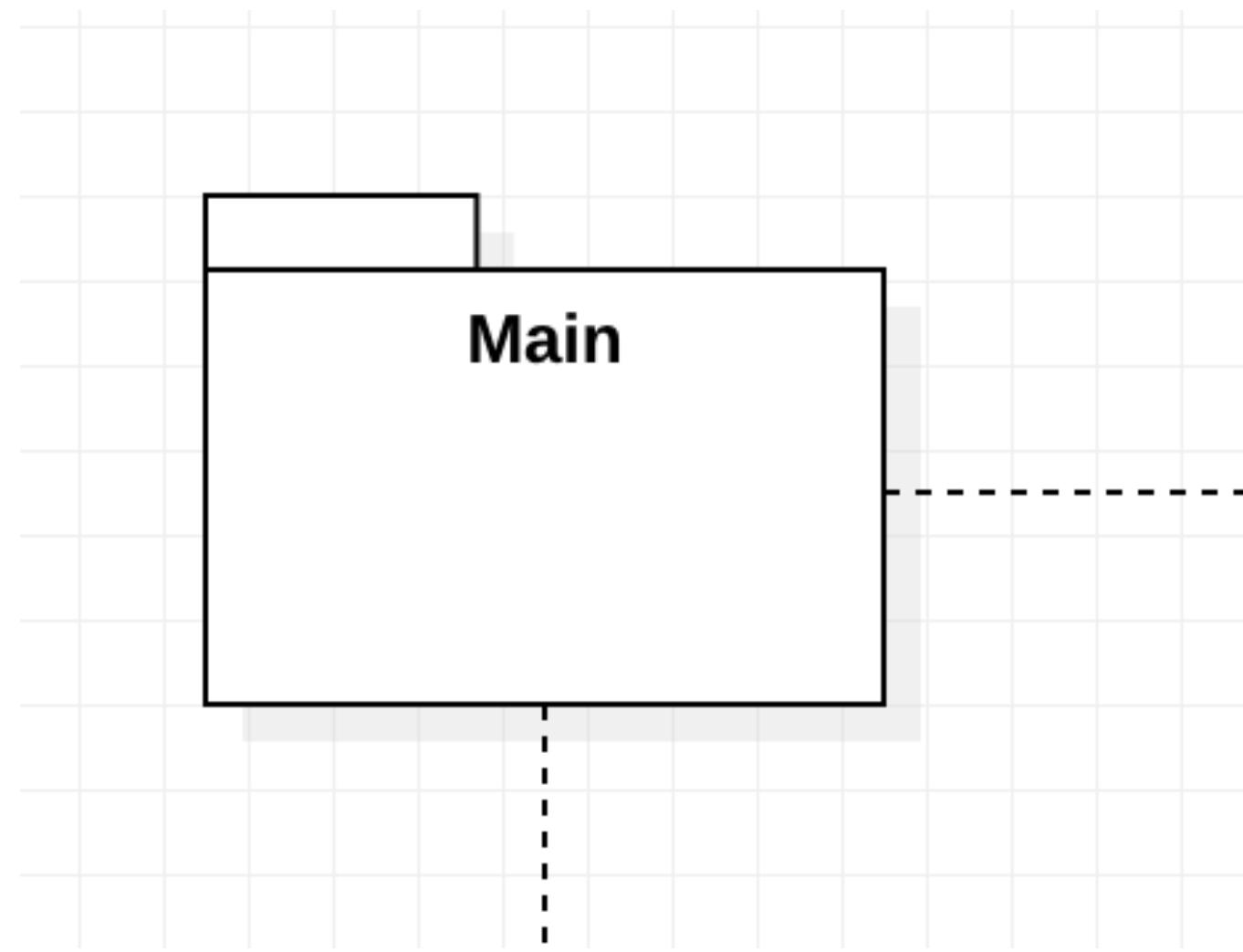
<https://oileain.now.sh/poi/Inishdadroum>

Aurelia Application Architecture

- 4 Subsystems

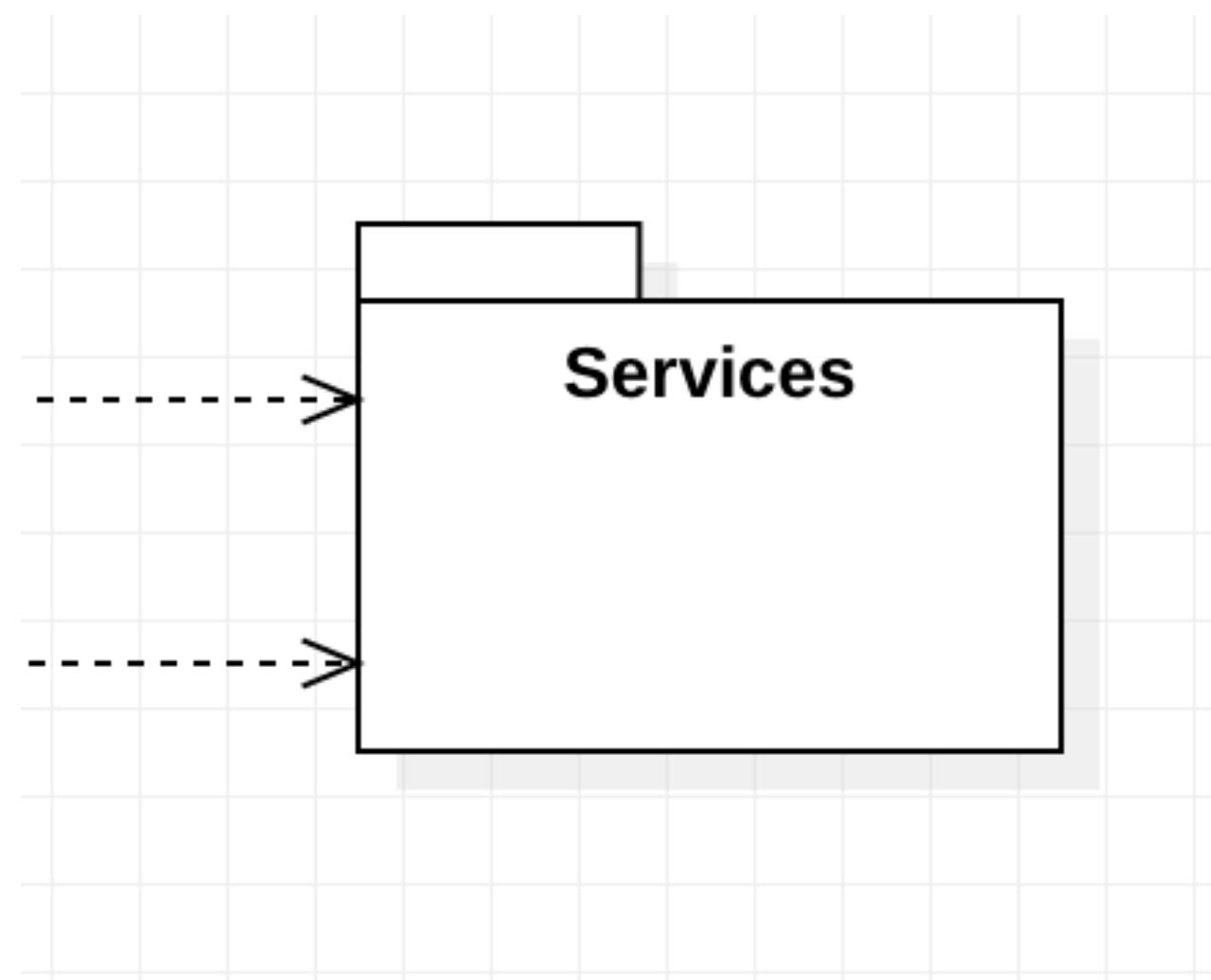


Main



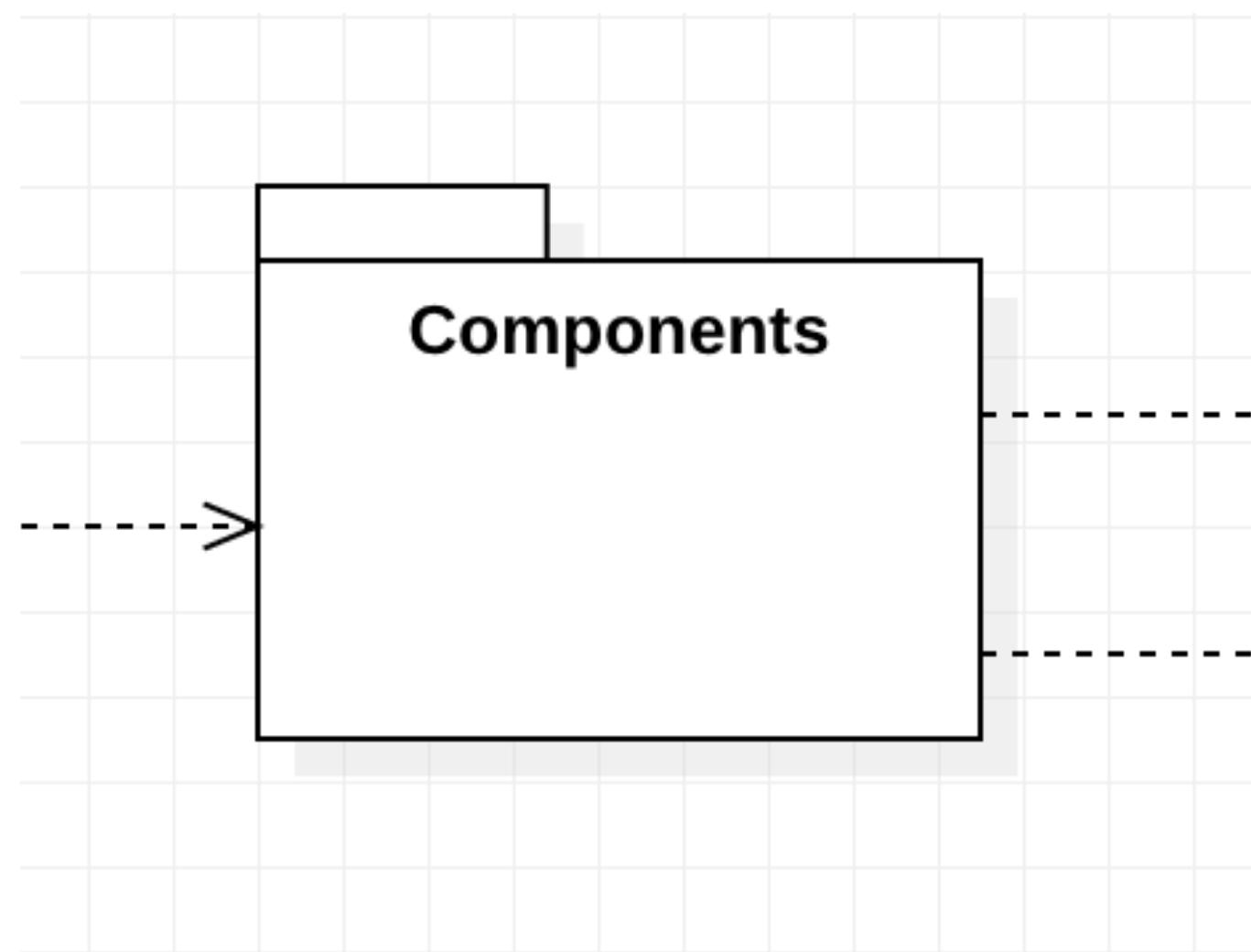
- Application Startup
- Plugin Initialisation
- Router configuration
- Landing Page Structure

Services



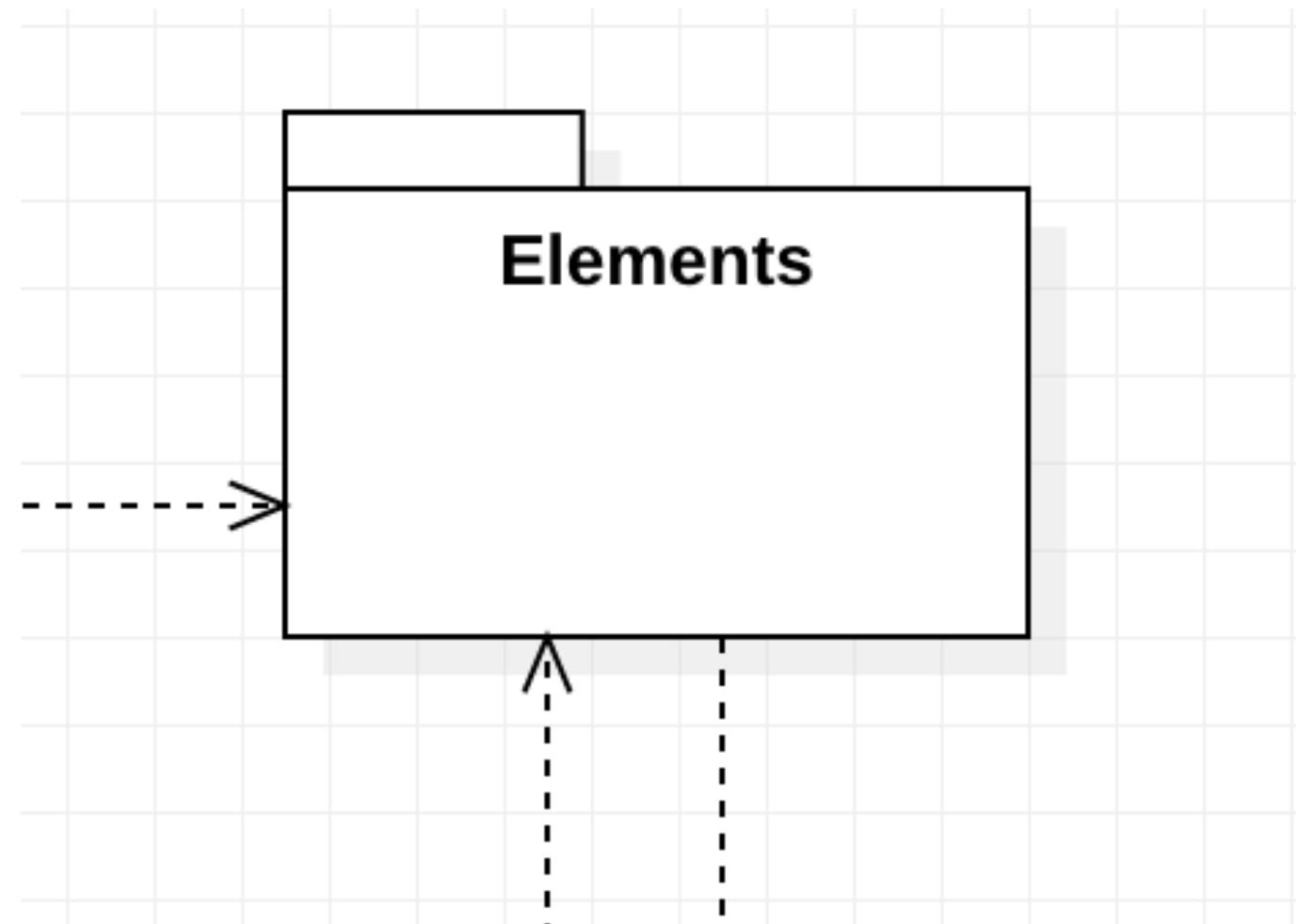
- Reusable Interfaces, Classes and Functions
- Encapsulate key information models core to the application
- Encapsulate external services
- Encapsulate internal plugins and components

Components



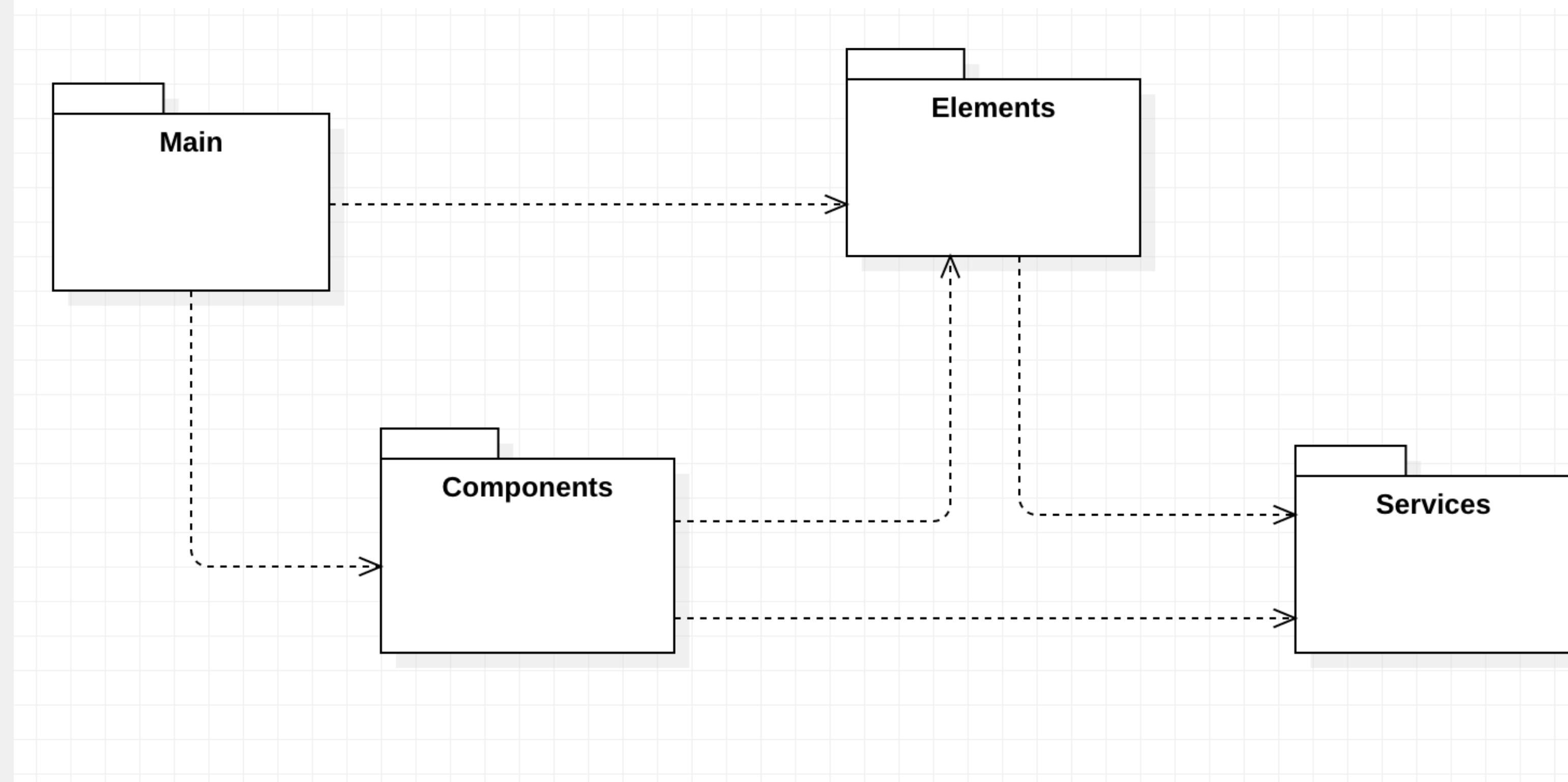
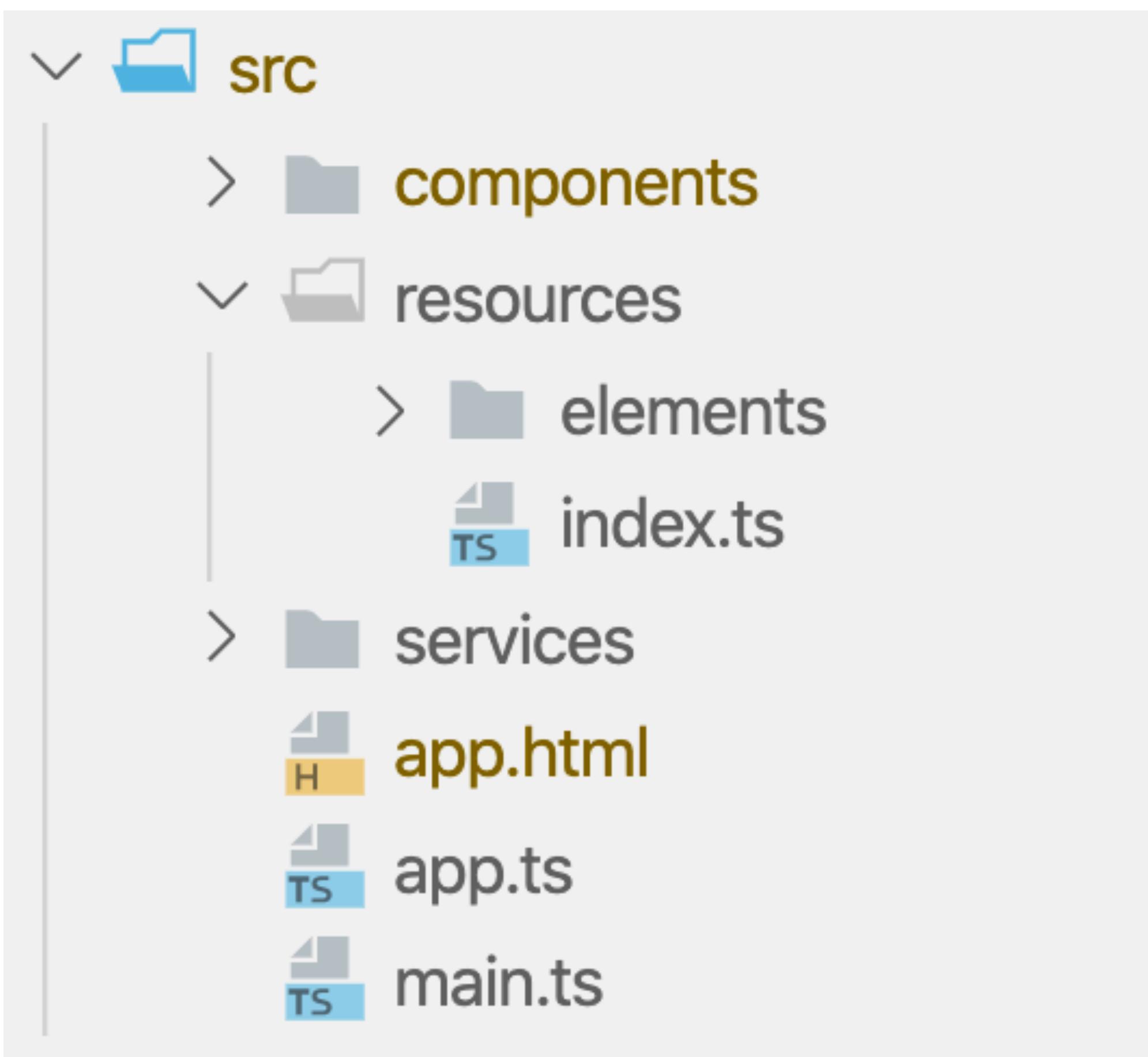
- Primary Application Views
- Set of View/ViewModel pairs
- Each pair a target for an application route

Elements



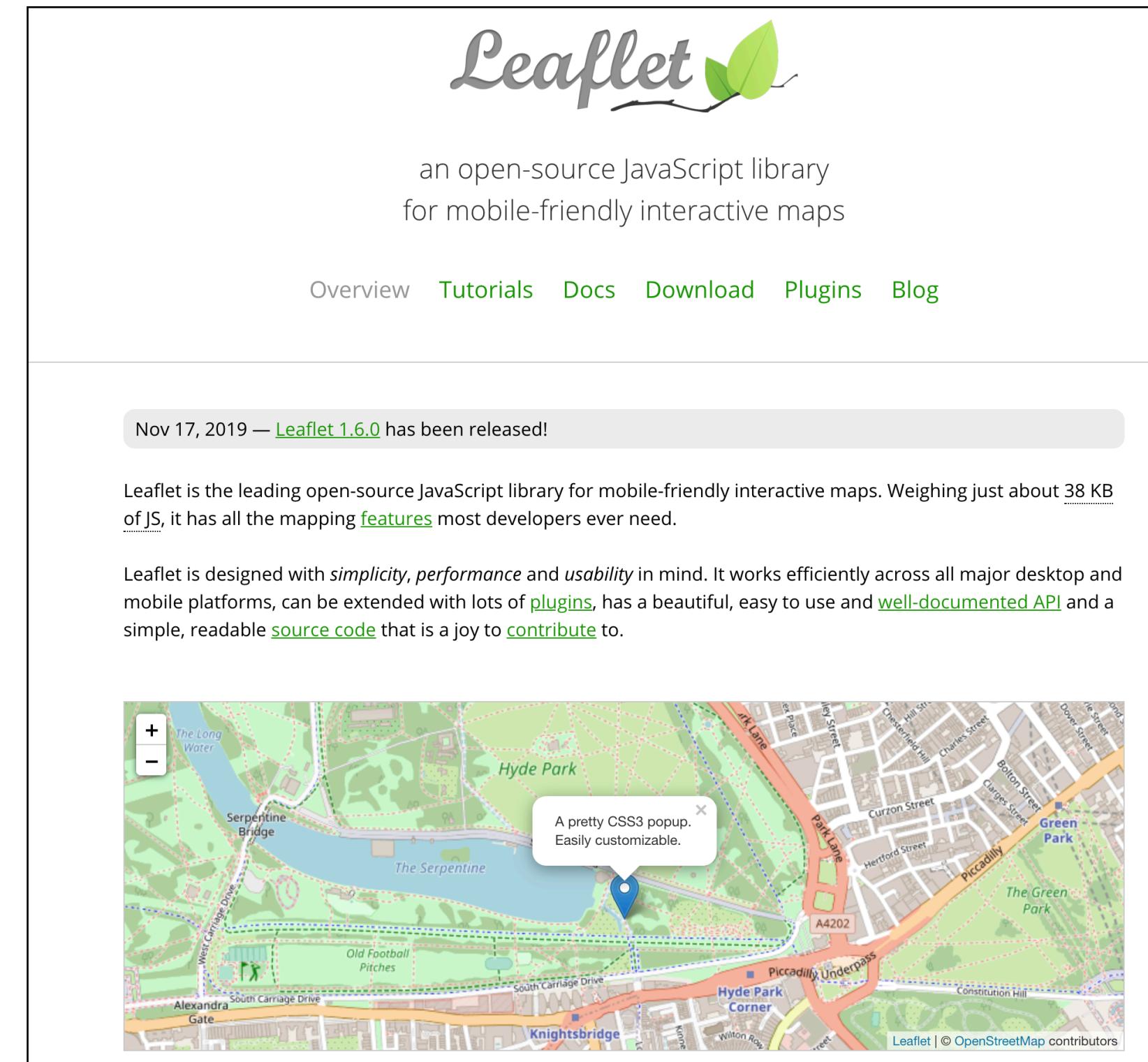
- Reusable Custom Elements
- May appear in multiple Components
- 2 types:
 - View/ViewModel pairs (like components)
 - View only elements

Aurelia Project Structure



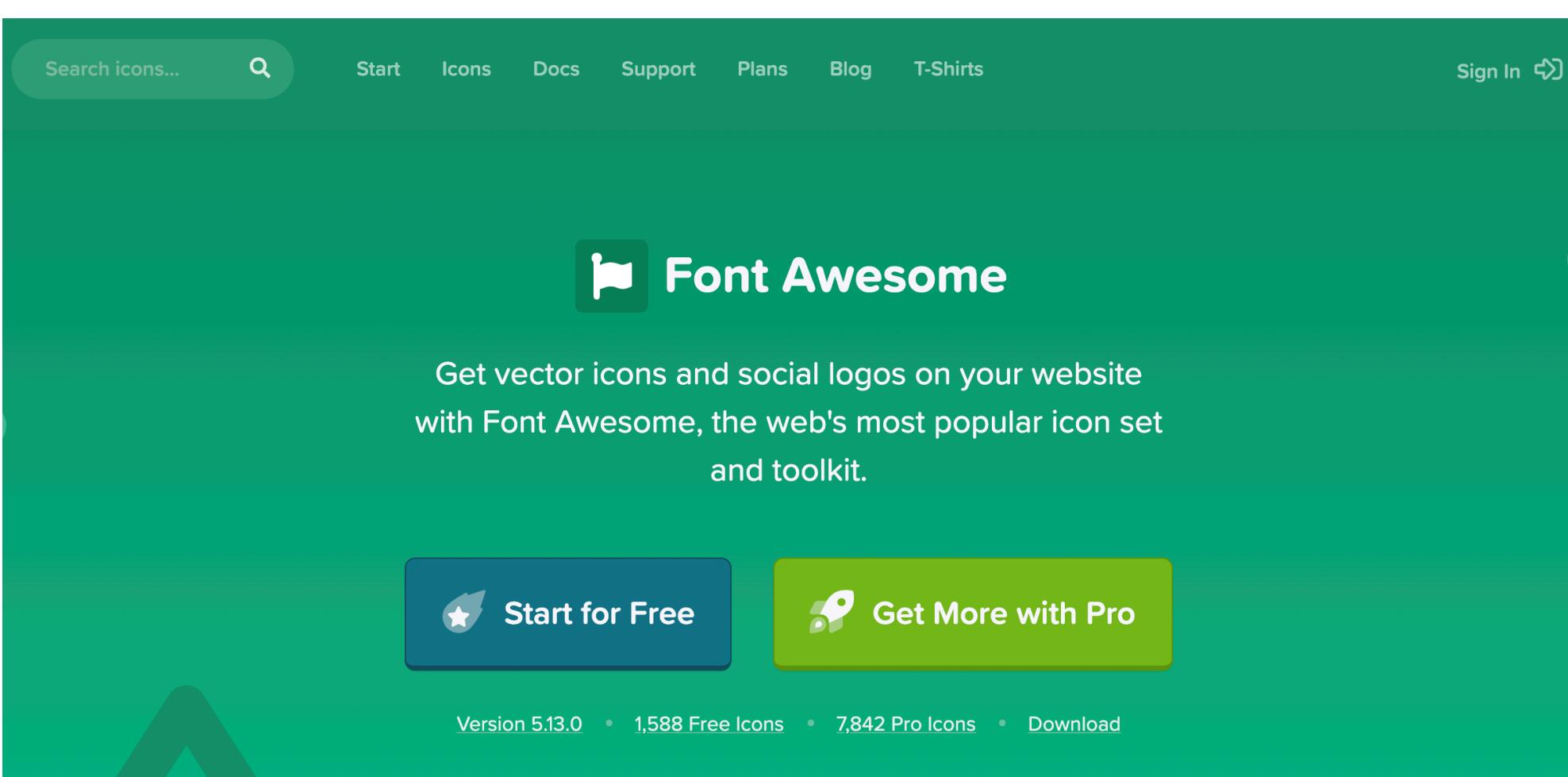
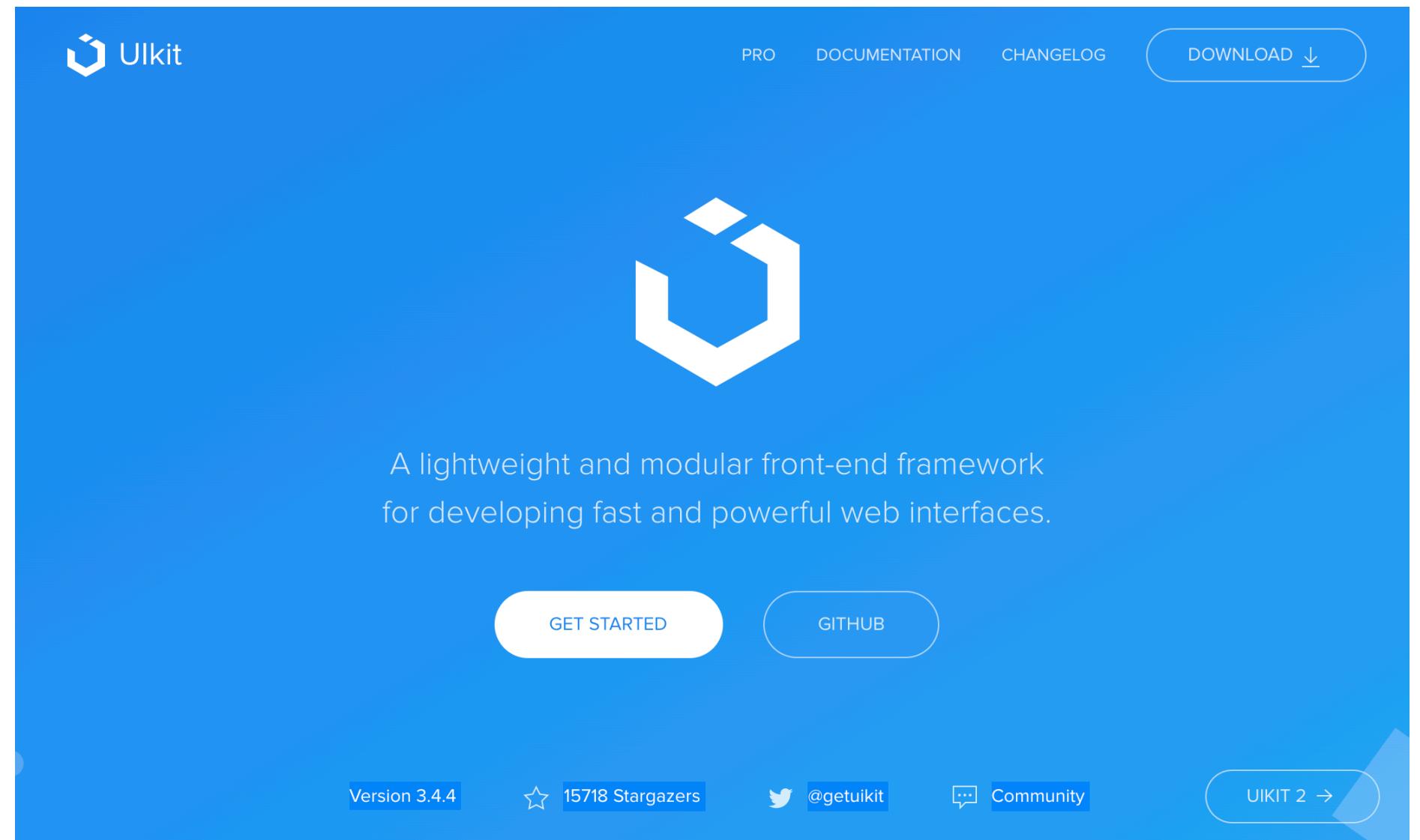
Oileain External Dependencies

- UIKit CSS Framework
- Leaflet
- Fontawesone Icon Set
- Aurelia Http Client



aurelia-fetch-client

As previously stated, the `aurelia-fetch-client` library aims to embrace and expose the new [Fetch API](#), while providing features important in web applications: default configuration of request parameters, interceptors and centralized request tracking. The main method, `HttpClient#fetch()`, has the same signature as `window.fetch()`. The difference is that our `HttpClient` will apply default configuration values, execute any registered interceptors and track the number of active requests.

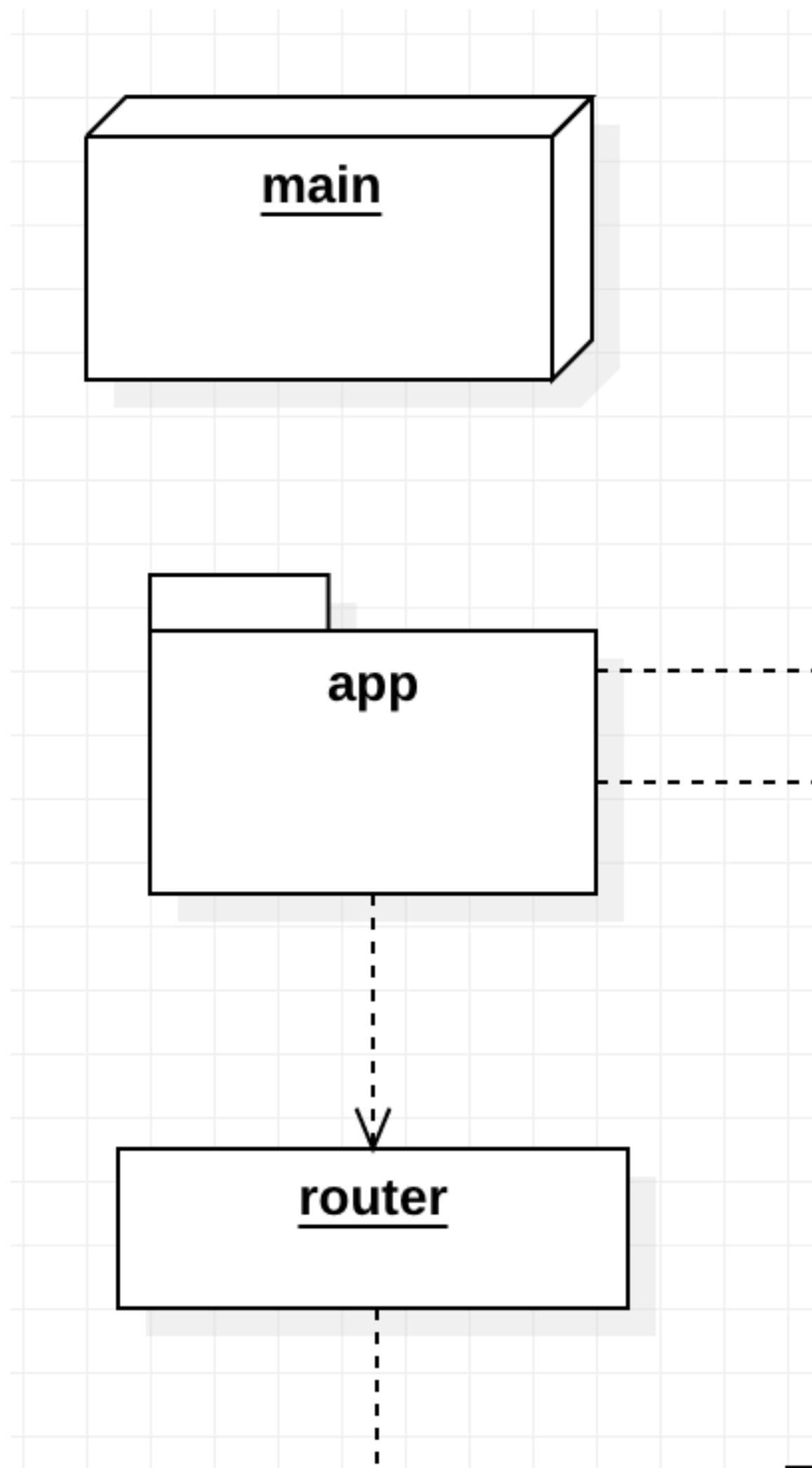


```
...
  "dependencies": {
    "@fortawesome/fontawesome-svg-core": "^1.2.28",
    "@fortawesome/free-brands-svg-icons": "^5.13.0",
    "@fortawesome/free-regular-svg-icons": "^5.13.0",
    "@fortawesome/free-solid-svg-icons": "^5.13.0",
    "aurelia-animator-css": "^1.0.4",
    "aurelia-bootstrapper": "^2.3.3",
    "aurelia-fetch-client": "^1.8.2",
    "aurelia-fontawesome": "^1.0.0-beta.1",
    "leaflet": "^1.6.0",
    "uikit": "^3.4.3"
  },
...
}
```

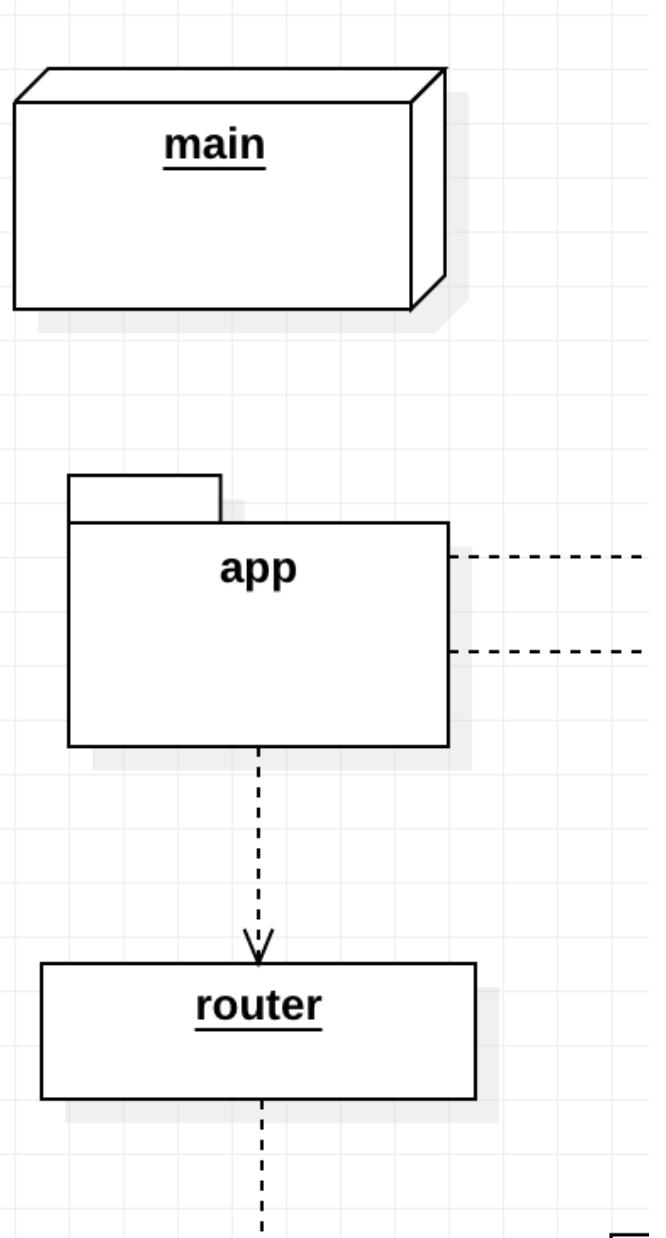
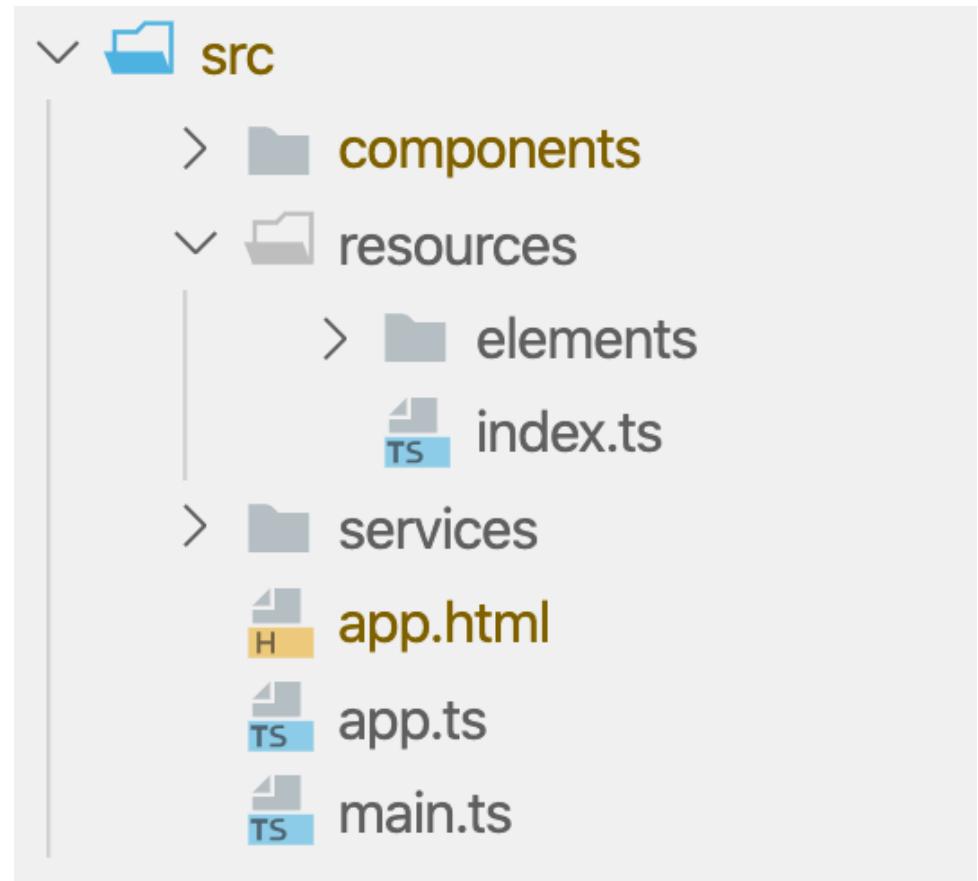
package.json

- Use Npm to install external components
- Aurelia/Webpack will extract these components and bundle into distribution

Main



- Application Startup
- Plugin Initialisation
- Router configuration
- Landing Page Structure



Include
UIKit CSS
Framework

→

```

import { Aurelia } from "aurelia-framework";
import * as environment from "../config/environment.json";
import { PLATFORM } from "aurelia-pal";

import "uikit/dist/css/uikit.css";
import "uikit/dist/js/uikit.js";

export function configure(aurelia: Aurelia) {
  aurelia.use
    .standardConfiguration()
    .plugin(PLATFORM.moduleName("aurelia-fontawesome"))
    .feature(PLATFORM.moduleName("resources/index"));

  aurelia.use.developmentLogging(environment.debug ? "debug" : "warn");

  if (environment.testing) {
    aurelia.use.plugin(PLATFORM.moduleName("aurelia-testing"));
  }

  aurelia.start().then(() => aurelia.setRoot(PLATFORM.moduleName("app")));
}
  
```

main.ts

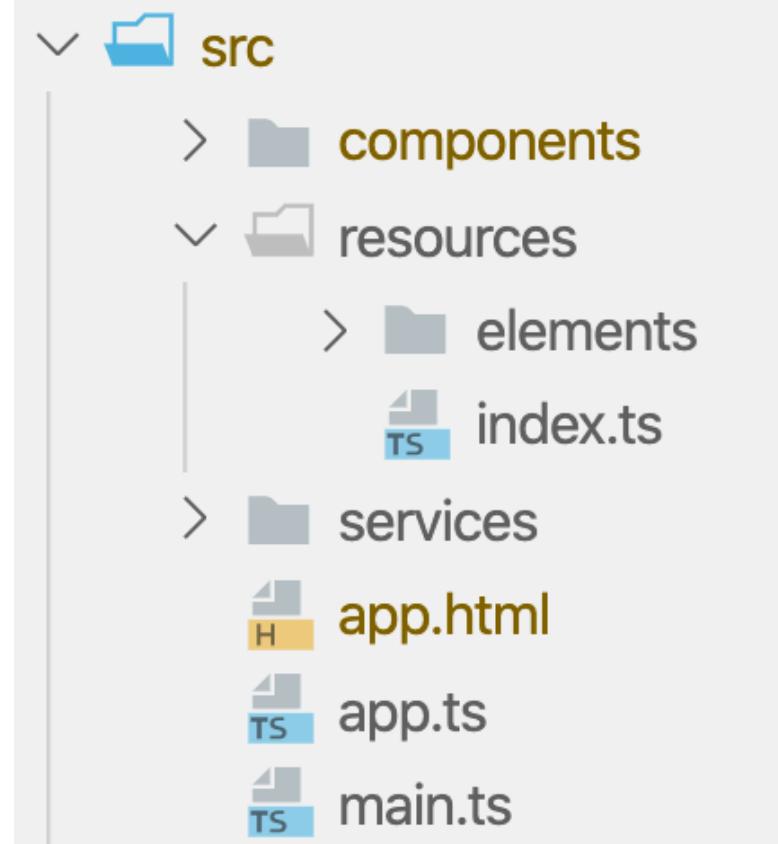
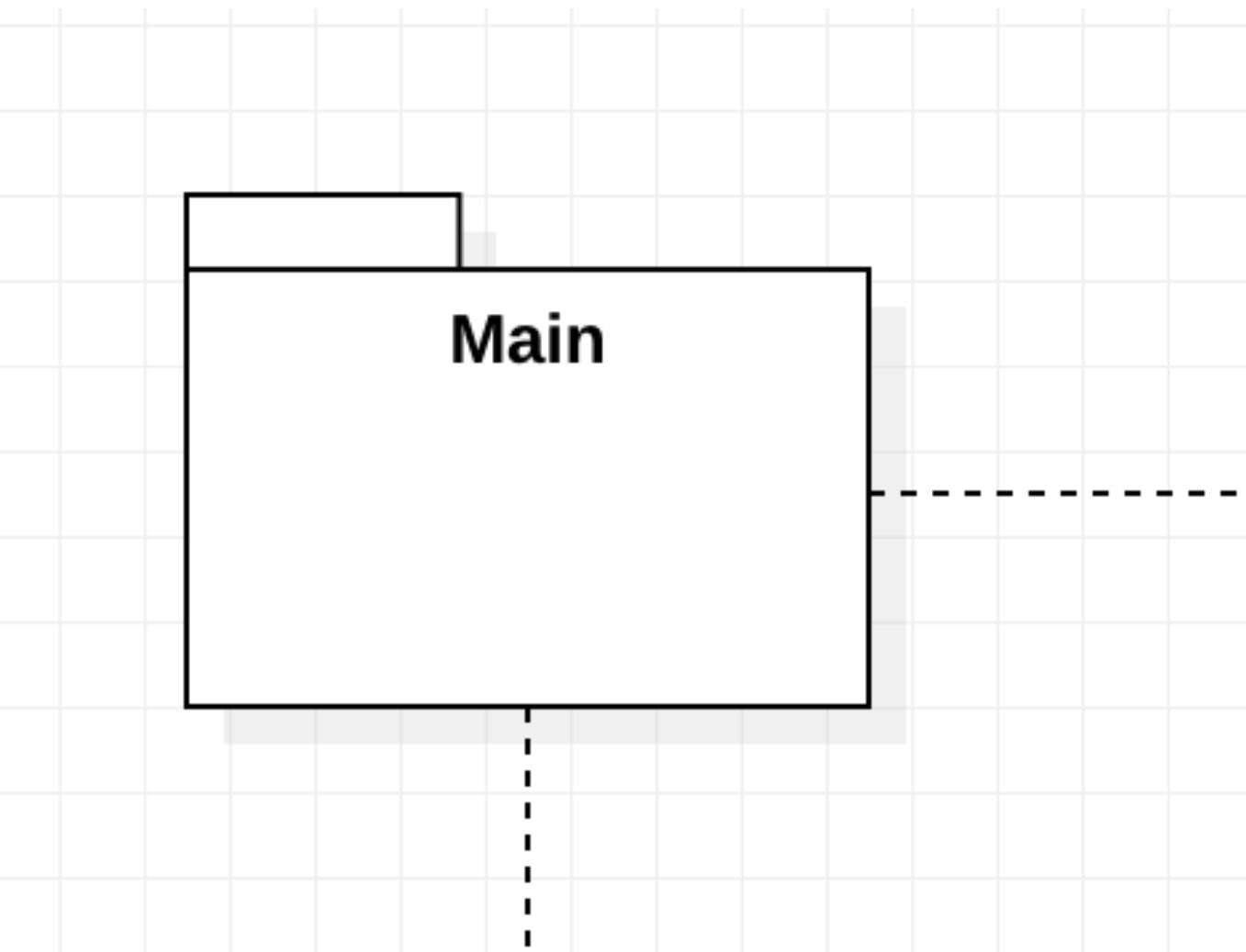
- Application Startup
- Plugin Initialisation

app.ts

```
import { PLATFORM } from "aurelia-pal";
import { Router, RouterConfiguration } from "aurelia-router";

export class App {
  title = "Oileain";
  constructor() {}

  configureRouter(config: RouterConfiguration, router: Router) {
    config.title = "Oileain";
    config.options.pushState = true;
    config.map([
      {
        route: [""],
        moduleId: PLATFORM.moduleName("./components/home"),
        title: "All Islands",
      },
      {
        route: "navigator",
        moduleId: PLATFORM.moduleName("./components/navigator"),
        name: "navigator",
        title: "Navigator",
      },
      {
        route: "poi/:id",
        moduleId: PLATFORM.moduleName("./components/poi-detail"),
        name: "pois",
        title: "Island",
      },
    ]);
  }
}
```



- Router configuration
- Landing Page Structure

app.html

```
<template>
  <require from=".//resources/elements/header"></require>
  <require from=".//resources/elements/coasts-sidebar"></require>
  <header title.one-way="title"></header>
  <coasts-sidebar></coasts-sidebar>
  <div class="uk-container">
    <router-view></router-view>
  </div>
</template>
```

app.ts

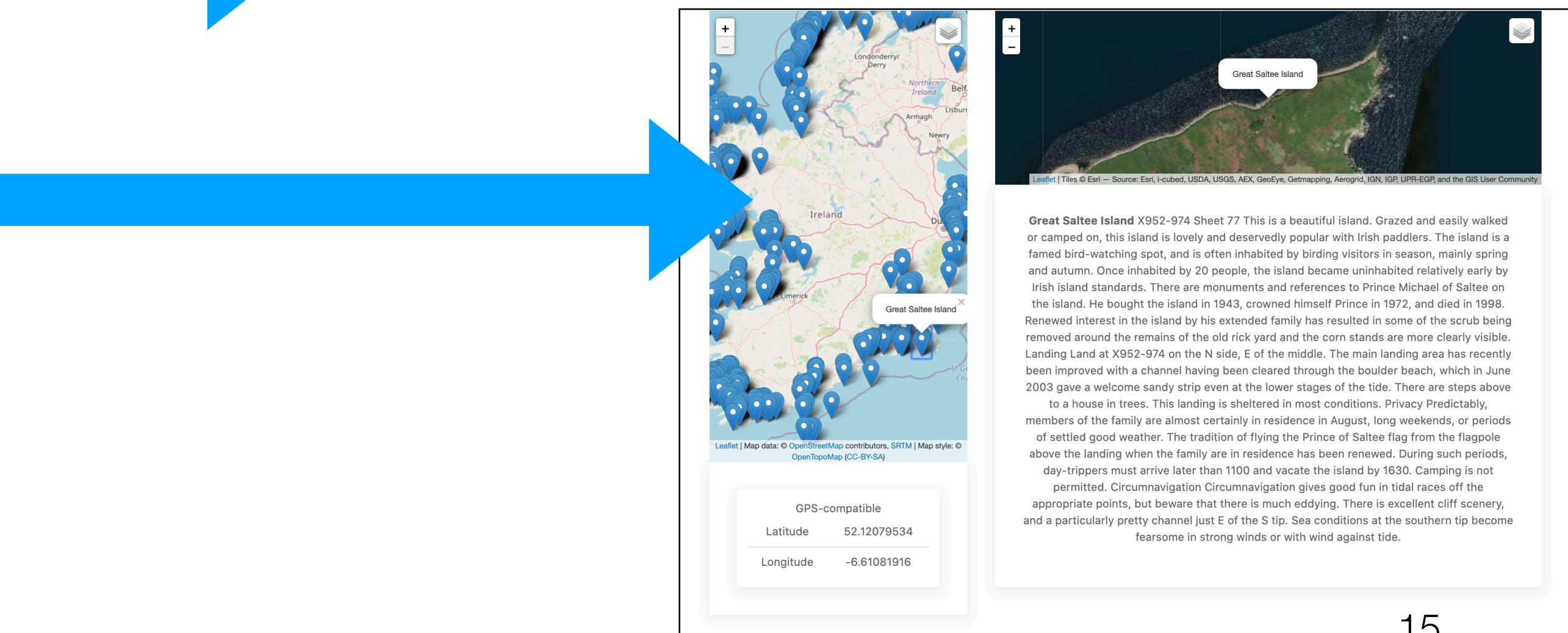
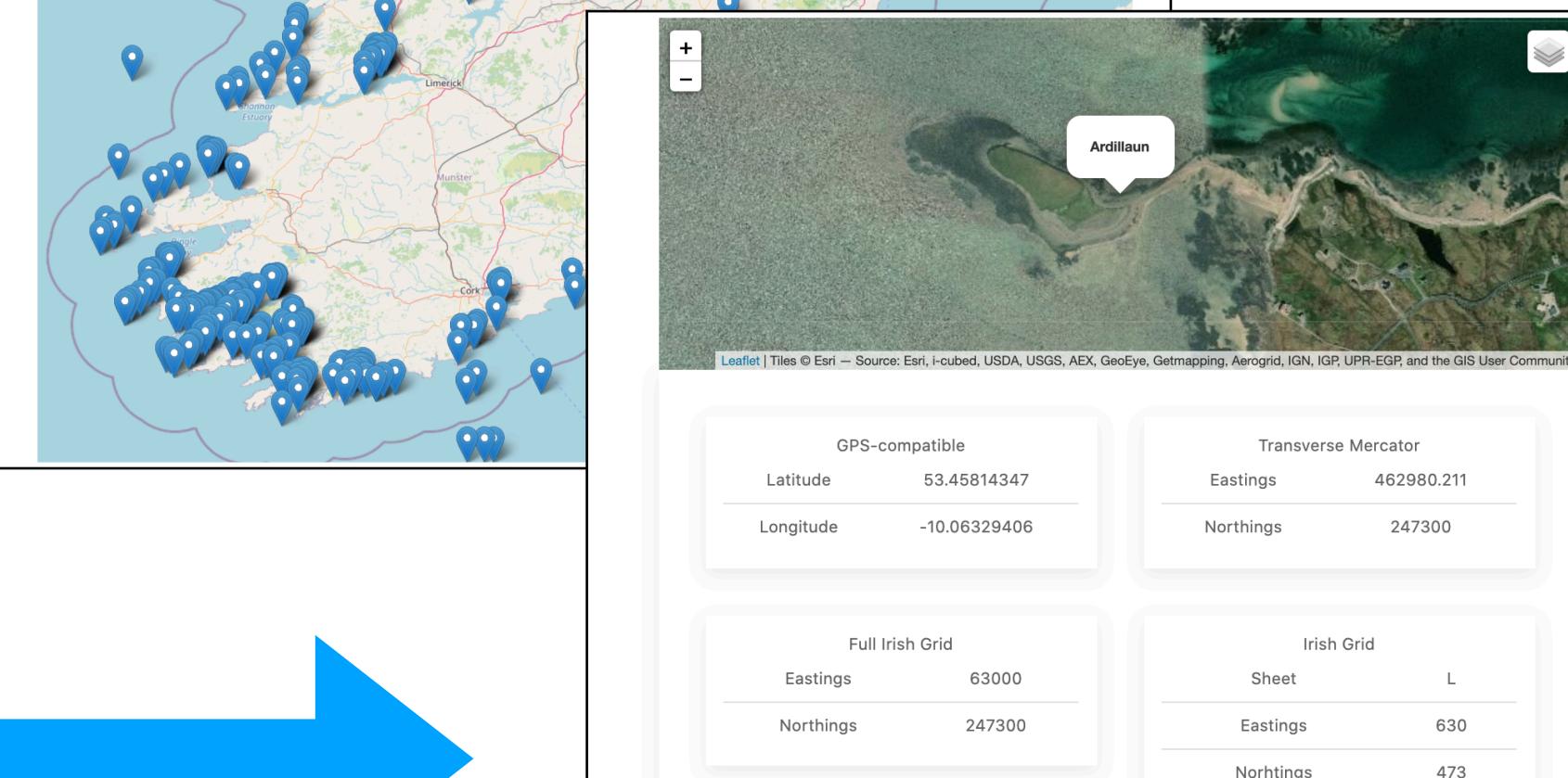
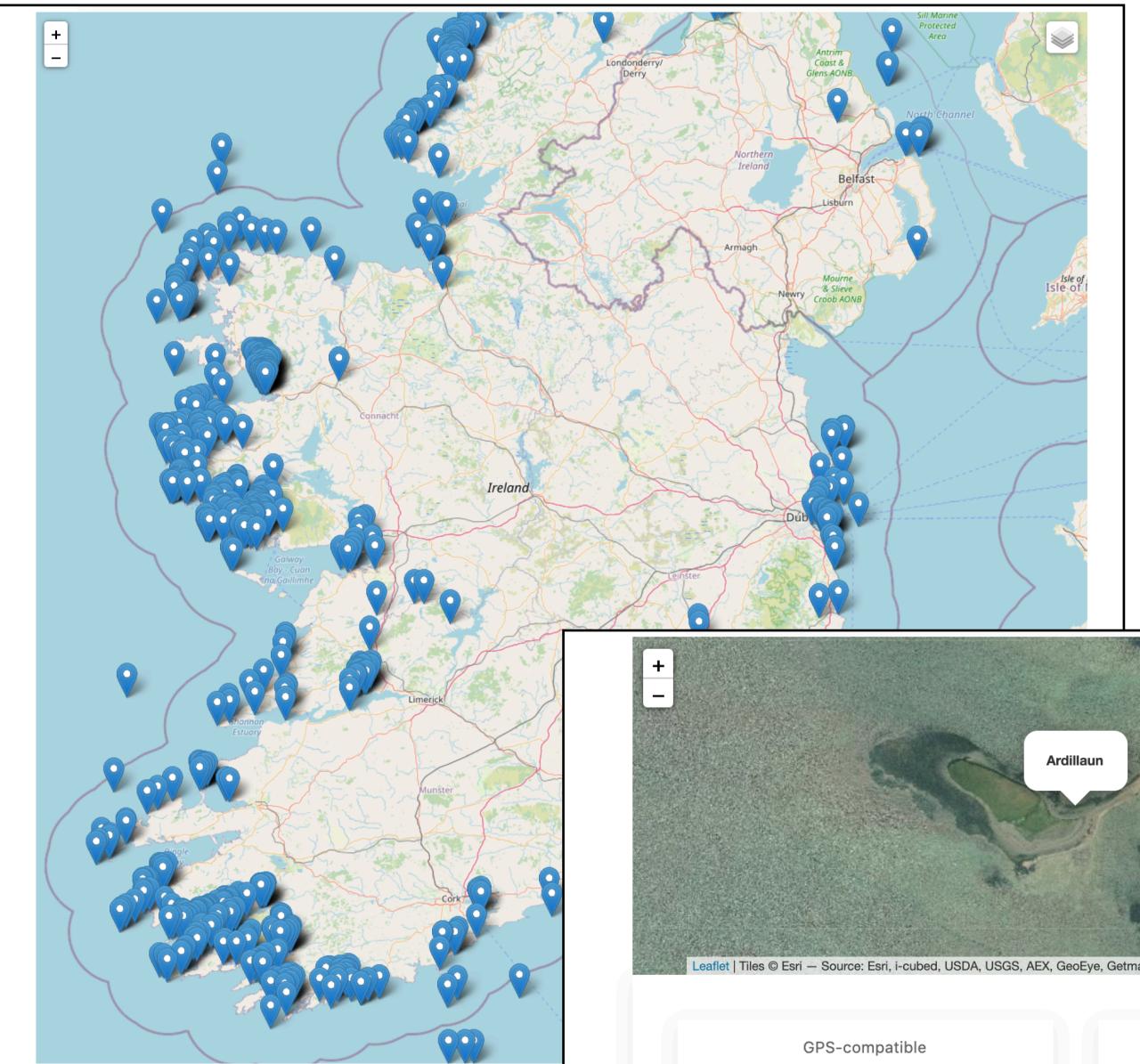
```

import { PLATFORM } from "aurelia-pal";
import { Router, RouterConfiguration } from "aurelia-router";

export class App {
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    configureRouter(config: RouterConfiguration, router: Router) {
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        config.map([
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                route: [""],
                moduleId: PLATFORM.moduleName("./components/home"),
                title: "All Islands",
            },
            {
                route: "navigator",
                moduleId: PLATFORM.moduleName("./components/navigator"),
                name: "navigator",
                title: "Navigator",
            },
            {
                route: "poi/:id",
                moduleId: PLATFORM.moduleName("./components/poi-detail"),
                name: "pois",
                title: "Island",
            },
        ]);
    }
}

```





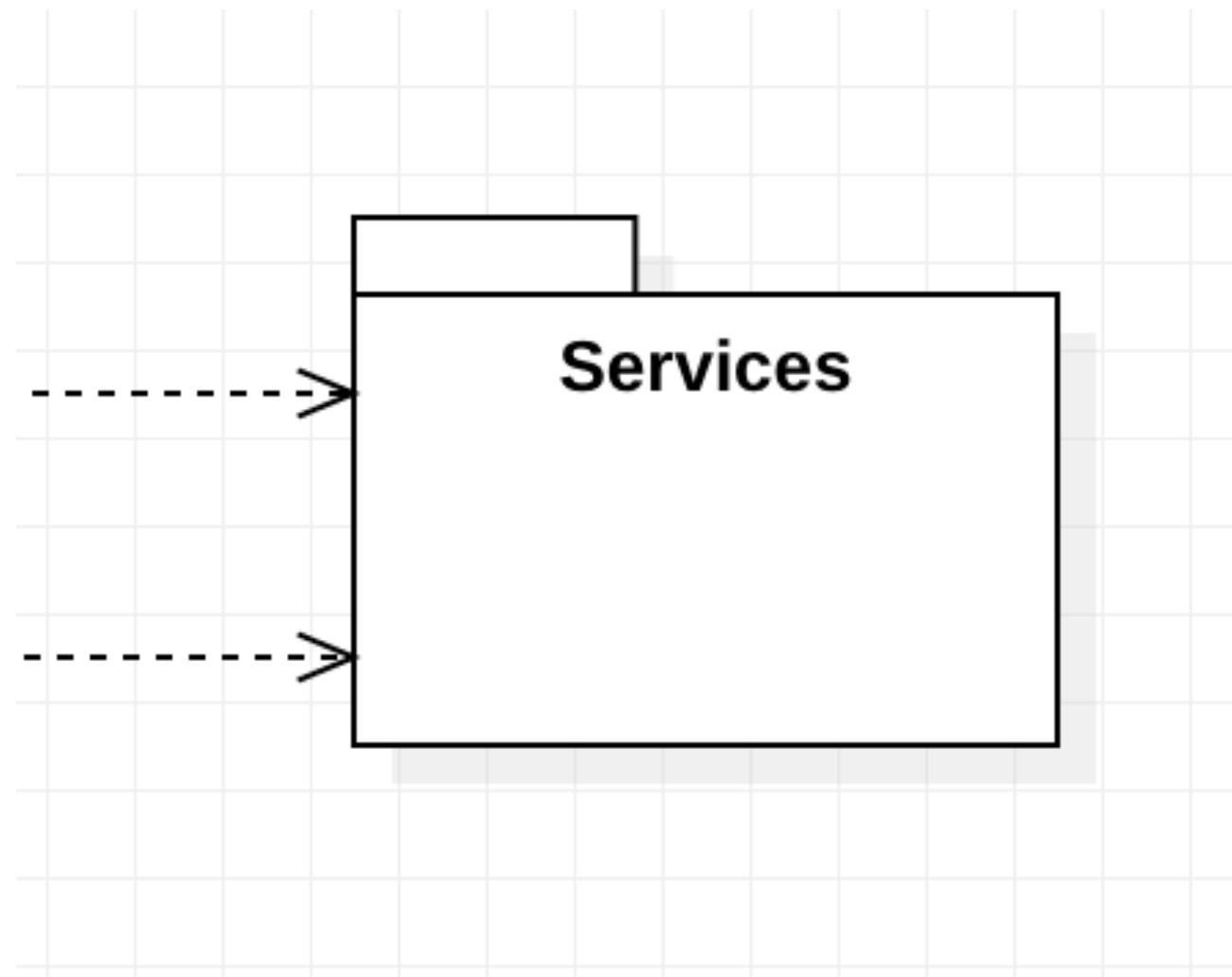
app.html

```
<template>
<require from="./resources/elements/header"></require>
<require from="./resources/elements/coasts-sidebar"></require>
<header title.one-way="title"></header>
<coasts-sidebar></coasts-sidebar>
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</div>
</template>
```

Great Saltee Island X952-974 Sheet 77 This is a beautiful island. Grazed and easily walked or camped on, this island is lovely and deservedly popular with Irish paddlers. The island is a famed bird-watching spot, and is often inhabited by bird visitors in season, mainly spring and autumn. Once inhabited by 20 people, the island became uninhabited relatively early by Irish island standards. There are monuments and references to Prince Michael of Saltee on the island. He bought the island in 1943, crowned himself Prince in 1972, and died in 1998. Renewed interest in the island by his extended family has resulted in some of the scrub being removed around the remains of the old rick yard and the corn stands are more clearly visible. Landing Land at X952-974 on the N side, E of the middle. The main landing area has recently been improved with a channel having been cleared through the boulder beach, which in June 2003 gave a welcome sandy strip even at the lower stages of the tide. There are steps above to a house in trees. This landing is sheltered in most conditions. Privately members of the family are almost certainly in residence in August, long weekends, or periods of settled good weather. The tradition of flying the Prince of Saltee flag from the flagpole above the landing when the family are in residence has been renewed. During such periods, day-trippers must arrive later than 1100 and vacate the island by 1630. Camping is not permitted. Circumnavigation Circumnavigation gives good fun in tidal races off the appropriate points, but beware that there is much eddying. There is excellent cliff scenery, and a particularly pretty channel just E of the S tip. Sea conditions at the southern tip become fearsome in strong winds or with wind against tide.

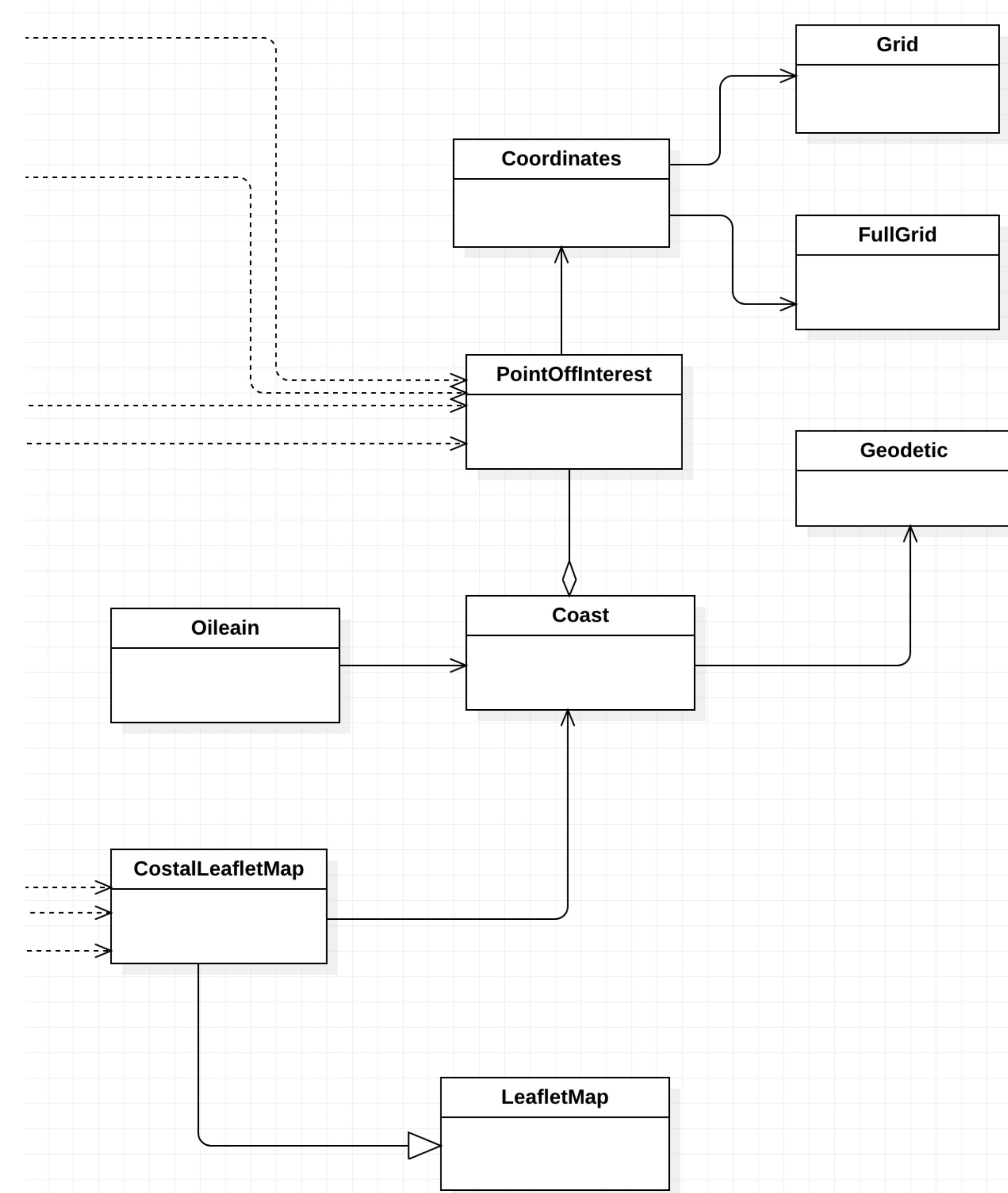
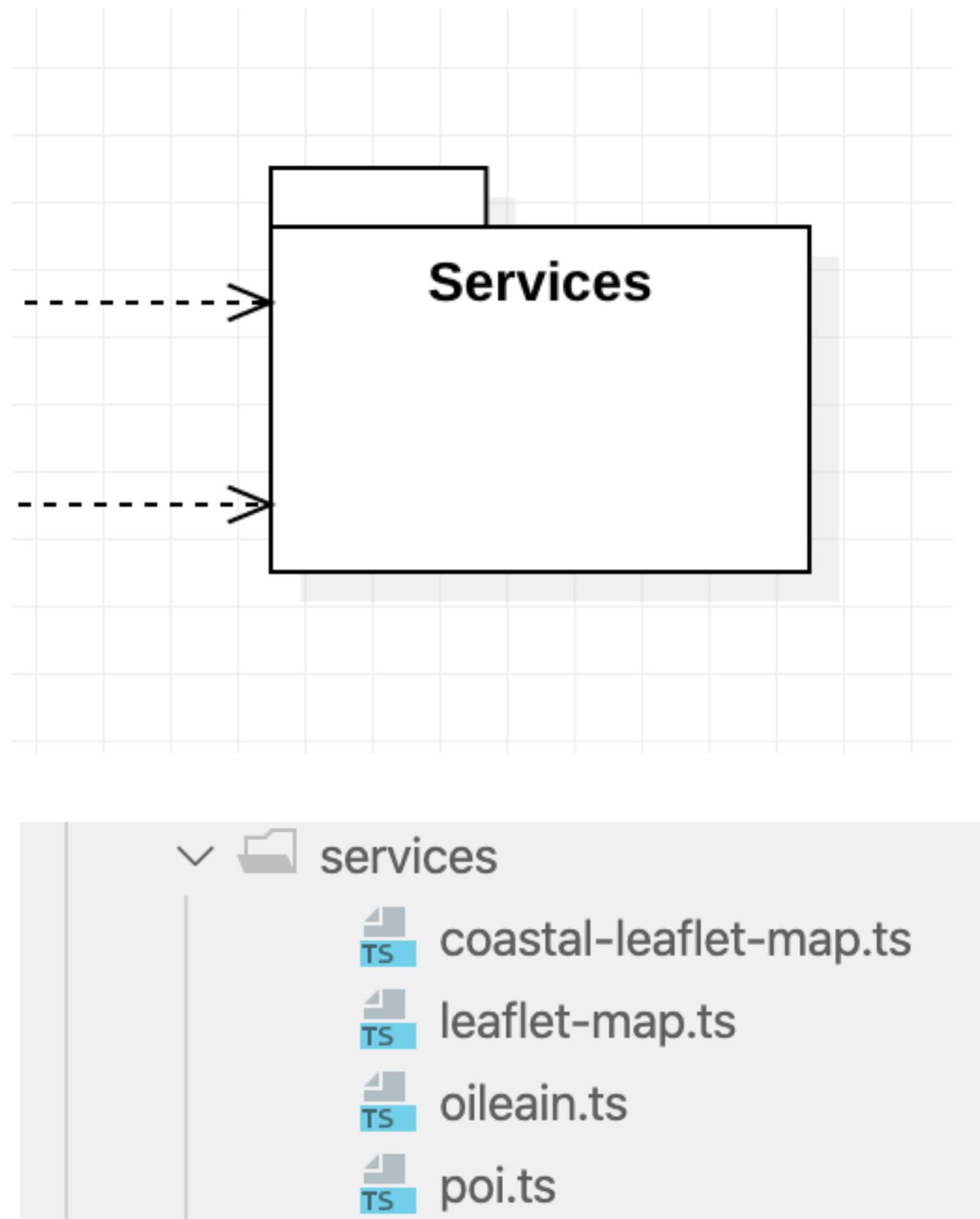
- North East
- East Coast
- South Coast
- Mid West
- Carrig Island
- Foynes Island
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- Inishloe
- Blackthorn Islands
- Doon Island
- Inishmacowney
- Illaunbeg or O'Donnell's Island
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- Doonbeg to Spanish Point
- Mattle Island
- Mutton Island
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- Spanish Point to Liscannor
- The Cliffs of Moher
- Brananmore – _An Branán Mór_
- Crab Island
- Doolin to Ballyvaughan
- Illaunloo
- Ballyvaughan Harbour
- Poulnaclogh Bay
- Scanlan's Island
- Aughinish Island
- Deer Island
- Mulroney's Island
- Fiddaun Island
- Island Eddy
- Tawin Island
- Rabbit Island

Services



- Reusable Interfaces, Classes and Functions
- Encapsulate key information models core to the application
- Encapsulate external services
- Encapsulate internal plugins and components

Services



services/poi.ts

```
export interface Geodetic {
    lat: number;
    long: number;
}

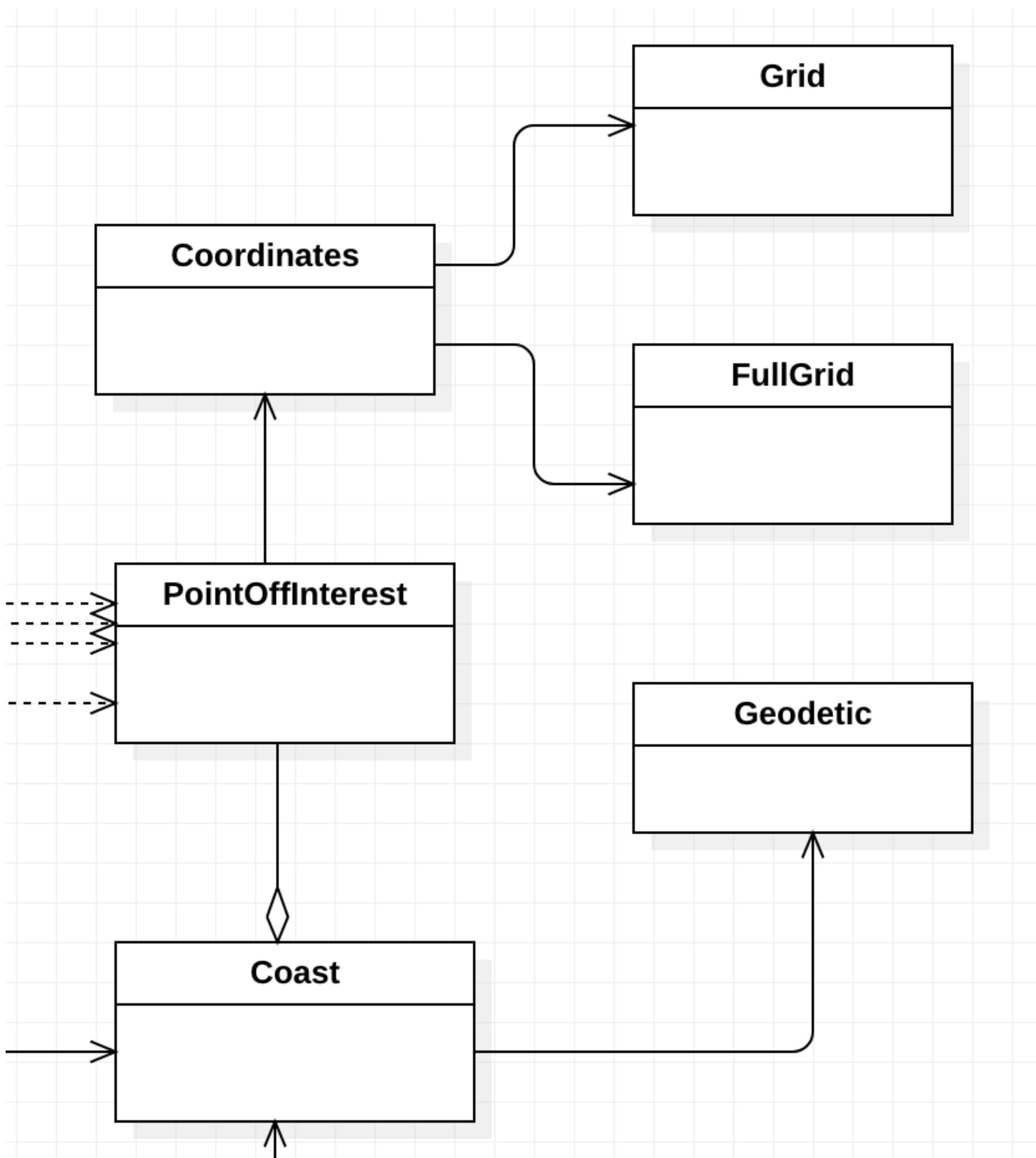
export interface Grid {
    sheet: string;
    eastings: number;
    northings: number;
}

export interface FullGrid {
    eastings: number;
    northings: number;
}

export interface Coordinates {
    irishGrid: Grid;
    fullIrishGrid: FullGrid;
    tmcGrid: FullGrid;
    geo: Geodetic;
}

export interface PointOfInterest {
    name: string;
    safeName: string;
    nameHtml: string;
    costalZone: string;
    coordinates: Coordinates;
    cursor: number;
    description: string;
    coast?: Coast;
}

export interface Coast {
    title: string;
    variable: string;
    identifier: string;
    geo: Geodetic;
    pois: Array<PointOfInterest>;
}
```



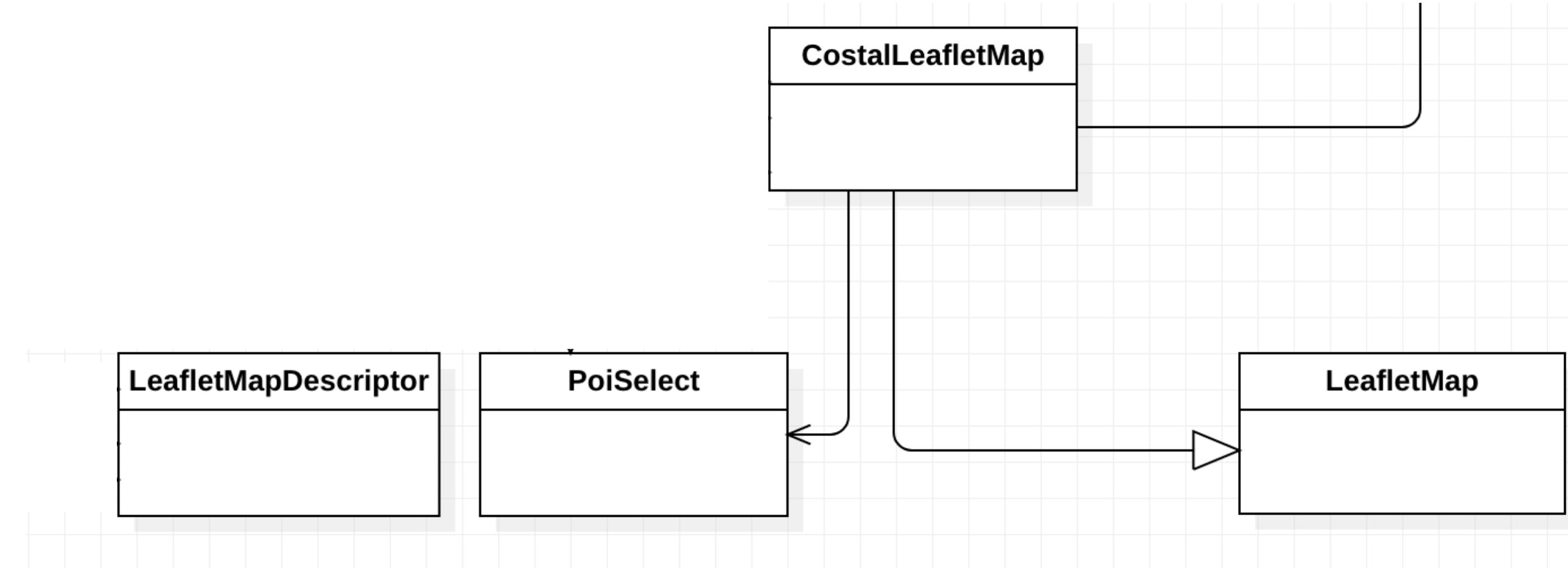
```

export interface LeafletMapDescriptor {
  id: string;
  height: number;
  location: Geodetic;
  zoom: number;
  minZoom: number;
  activeLayer: string;
}

export class LeafletMap {
  imap: Map;
  control: LayerControl;
  overlays: LayersObject = {};
  baseLayers = {
    ...
  };
  constructor(descriptor: LeafletMapDescriptor) {
    ...
  }
  addControl() {
    ...
  }
  addLayer(title: string, layer: Layer) {
    ...
  }
  moveTo(zoom: number, location: Geodetic) {
    ...
  }
  zoomTo(location: Geodetic) {
    ...
  }
  addPopup(layerTitle: string, content: string, location: Geodetic) {
    ...
  }
  invalidateSize() {
    ...
  }
}

```

services/LeafletMap.ts



services/CoastalLeafletMap.ts

```

export interface PoiSelect {
  onSelect(id: string): any;
}

export class CoastalLeafletMap extends LeafletMap {
  markerMap = new Map<Marker, PointOfInterest>();
  constructor(descriptor: LeafletMapDescriptor) {
  }
  populateCoast(coast: Coast, link: boolean = true, poiSelect: PoiSelect = null) {
    ...
  }
  populateCoasts(coasts: Array<Coast>, link: boolean = true, poiSelect: PoiSelect = null) {
    ...
  }
}

```

services/oileain.ts

```
@autoinject
export class Oileain {
  coasts: any[];
  islandMap = new Map<string, PointOfInterest>();
  coastMap = new Map<string, Coast>();

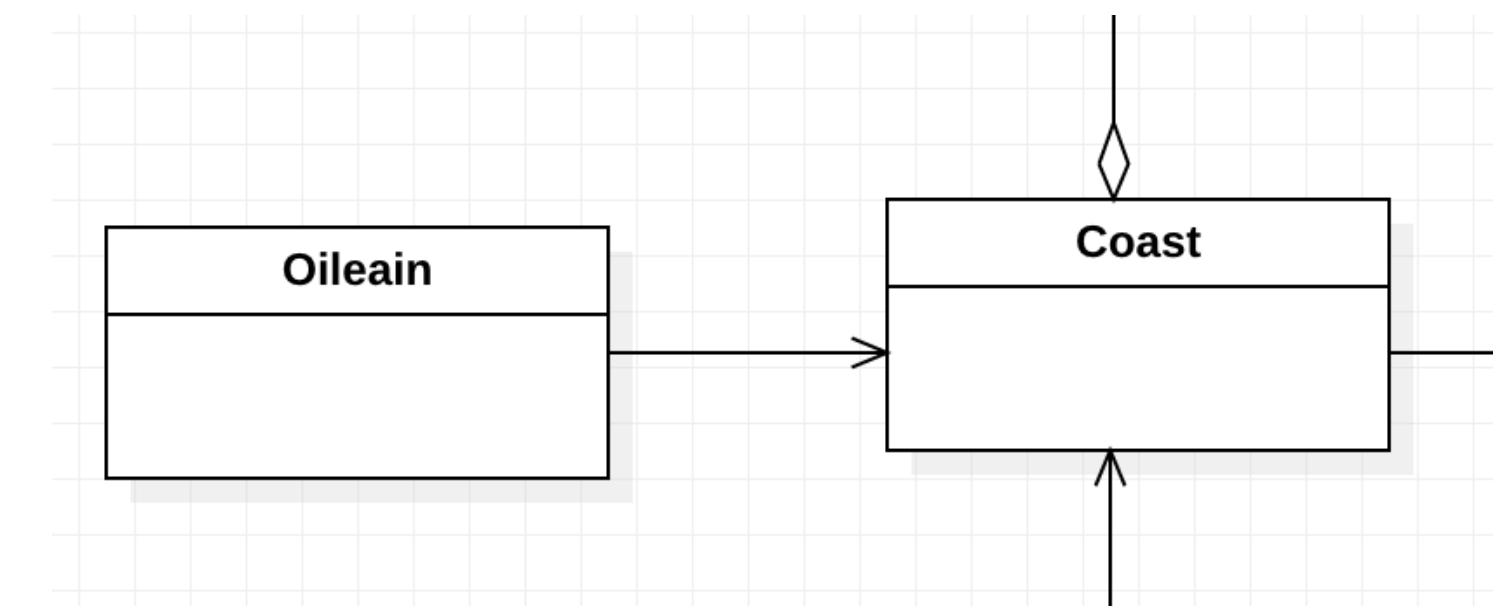
  constructor(private http: HttpClient) {}

  async getCoasts() {
    if (!this.coasts) {
      const response = await this.http.fetch("https://edeleastar.github.io/oileain-api/all-slim.json");
      this.coasts = await response.json();
      this.createIndexes();
    }
    return this.coasts;
  }

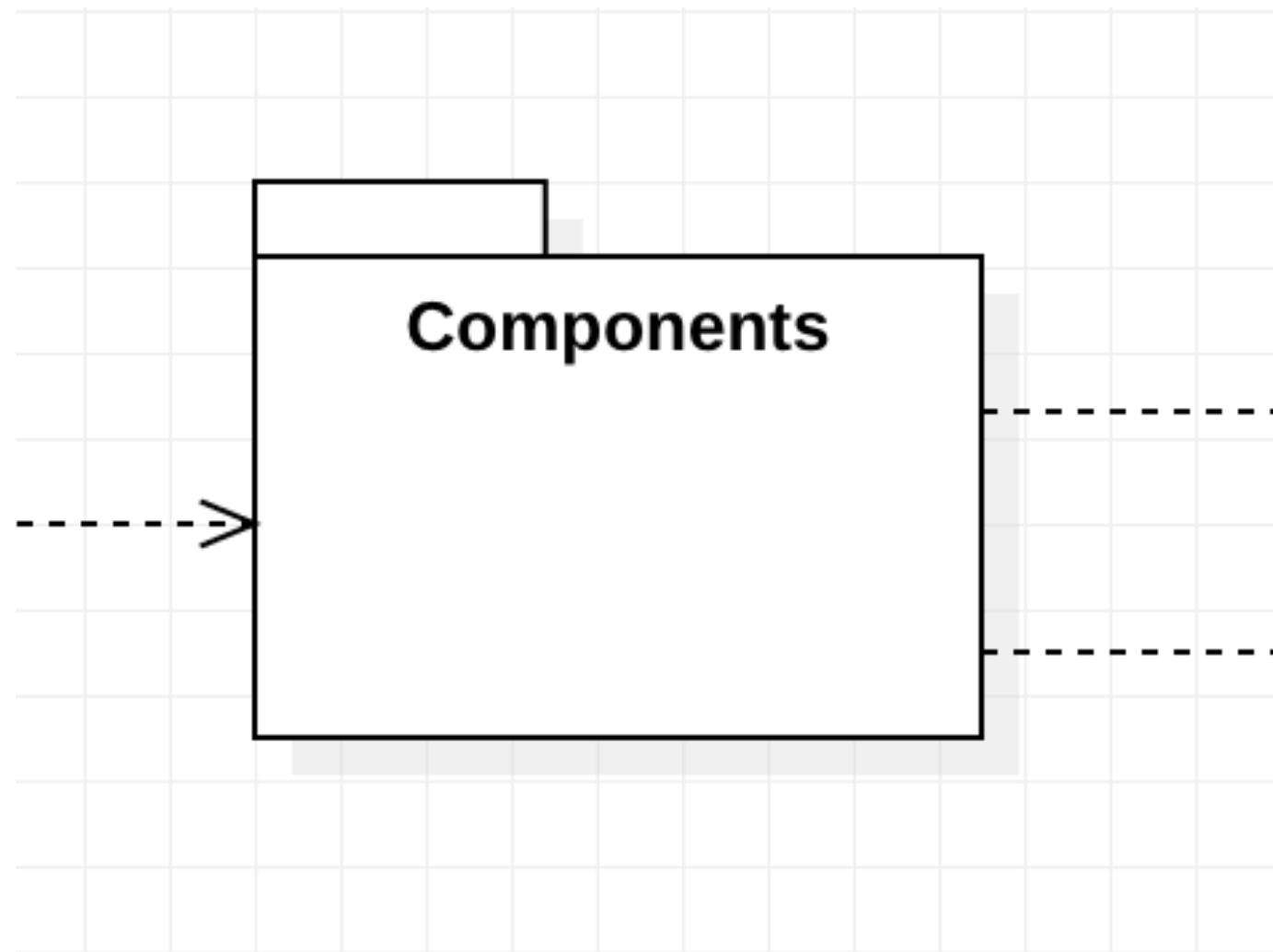
  async getIslandById(id: string) {
    return await this.getIsland(this.islandMap.get(id));
  }

  async getIsland(poi: PointOfInterest) {
    let cachedPoi = this.islandMap.get(poi.safeName);
    if (cachedPoi.description) {
      return cachedPoi;
    } else {
      const path = `https://edeleastar.github.io/oileain-api/${poi.coast.variable}/${poi.safeName}.json`;
      const response = await this.http.fetch(path);
      const island = await response.json();
      this.islandMap.set(poi.safeName, island);
      return island;
    }
  }

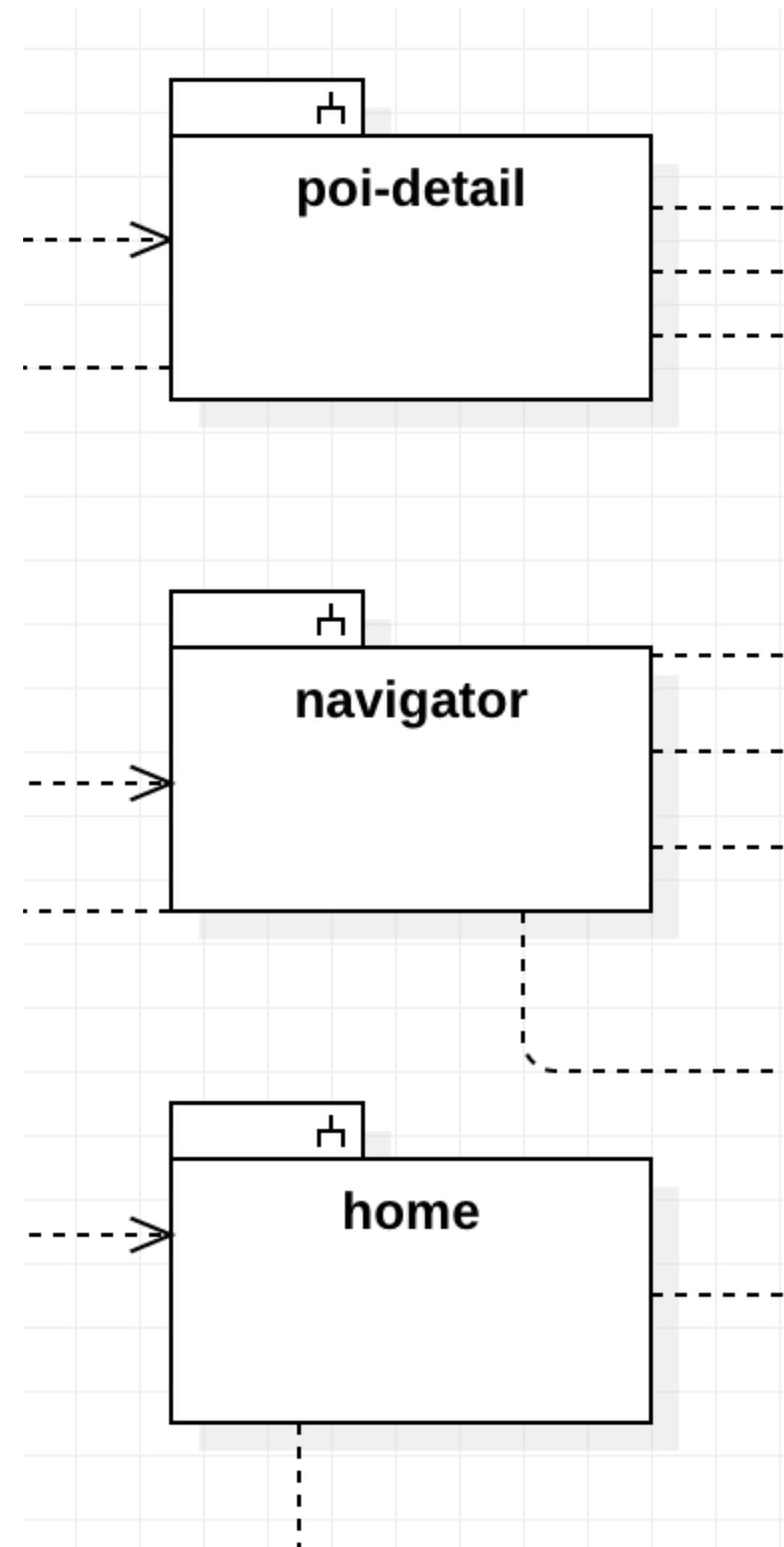
  createIndexes() {
    this.coasts.forEach((coast) => {
      this.coastMap.set(coast.variable, coast);
      coast.pois.forEach((poi) => {
        poi.coast = coast;
        this.islandMap.set(poi.safeName, poi);
      });
    });
  }
}
```

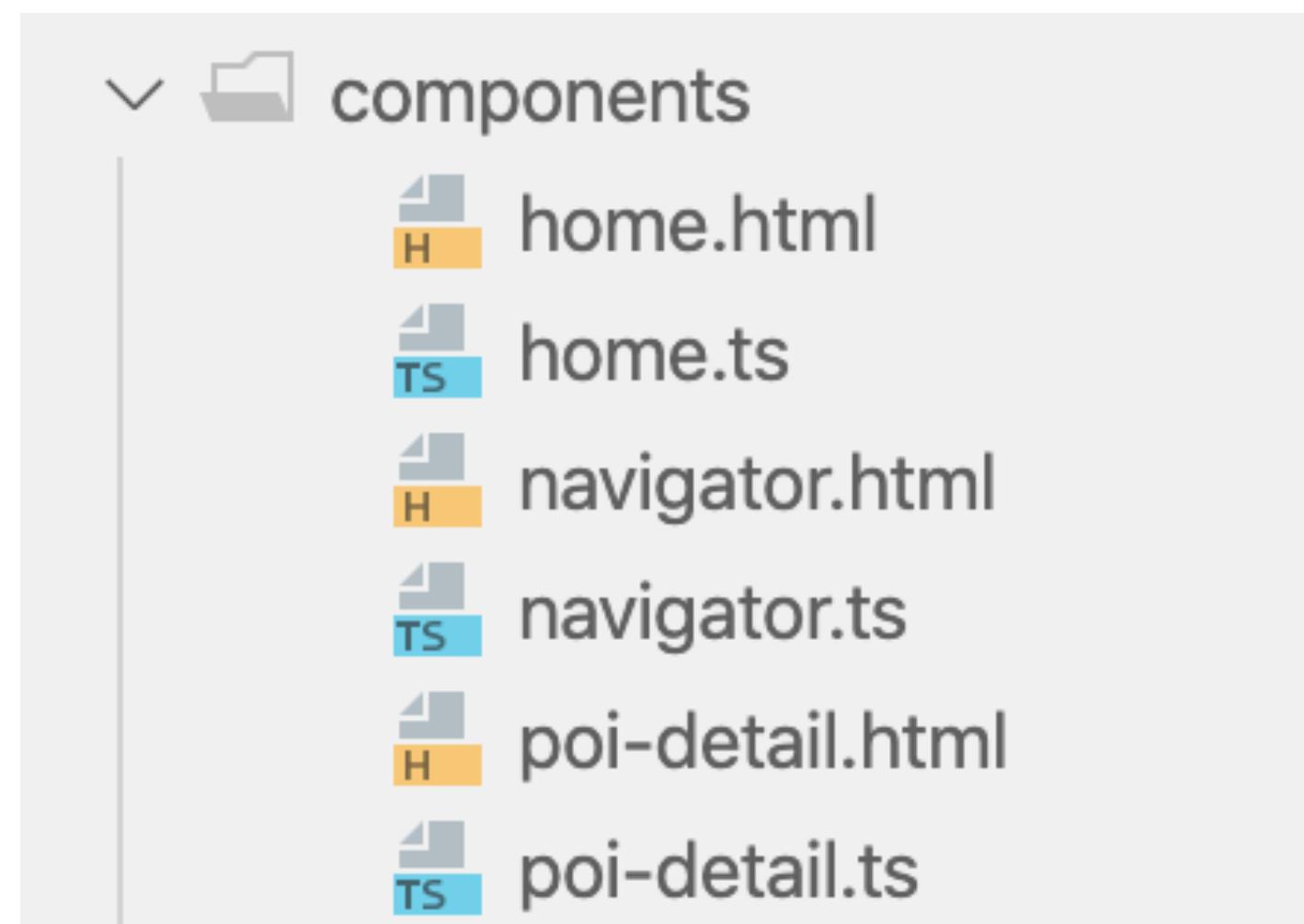
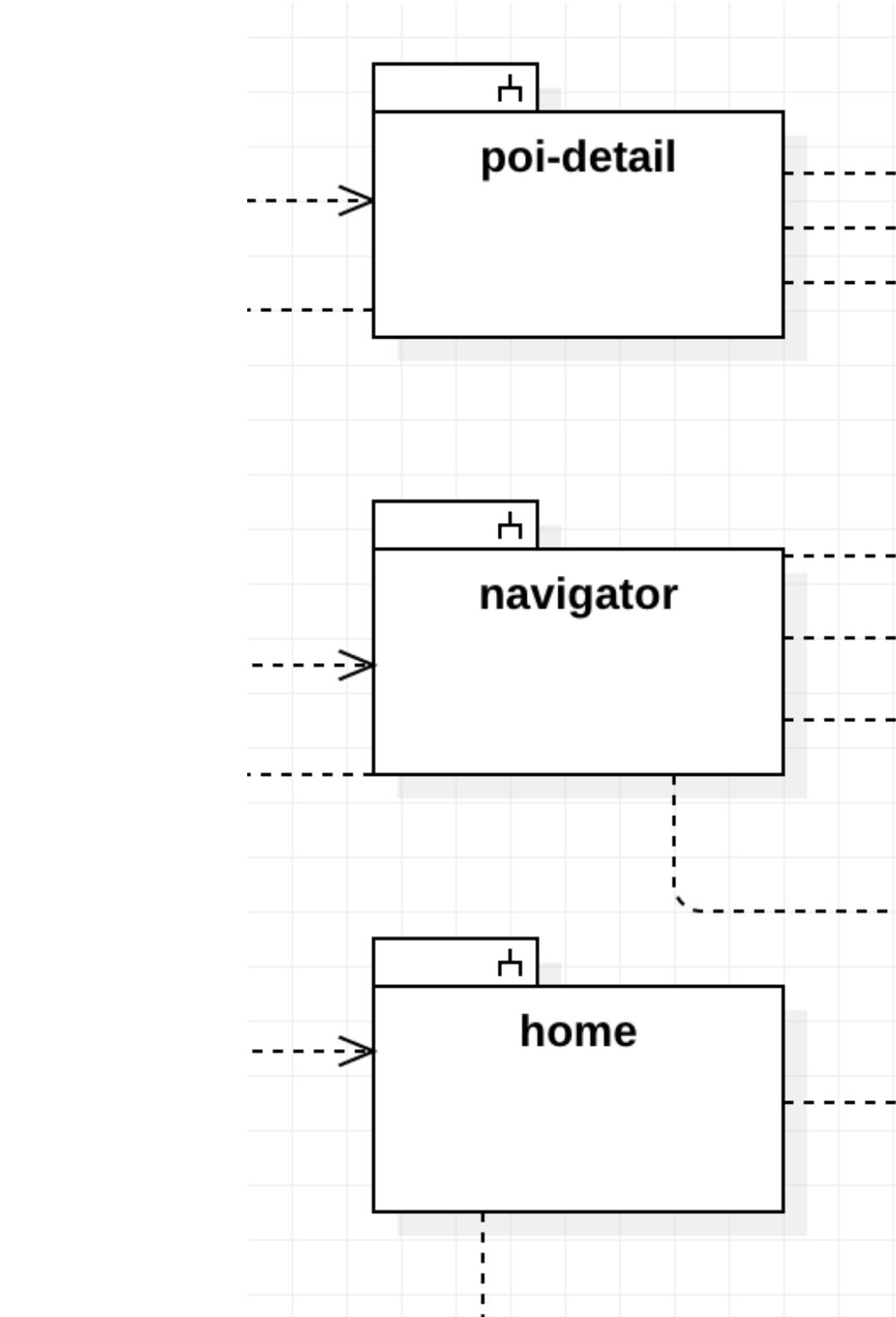


Components

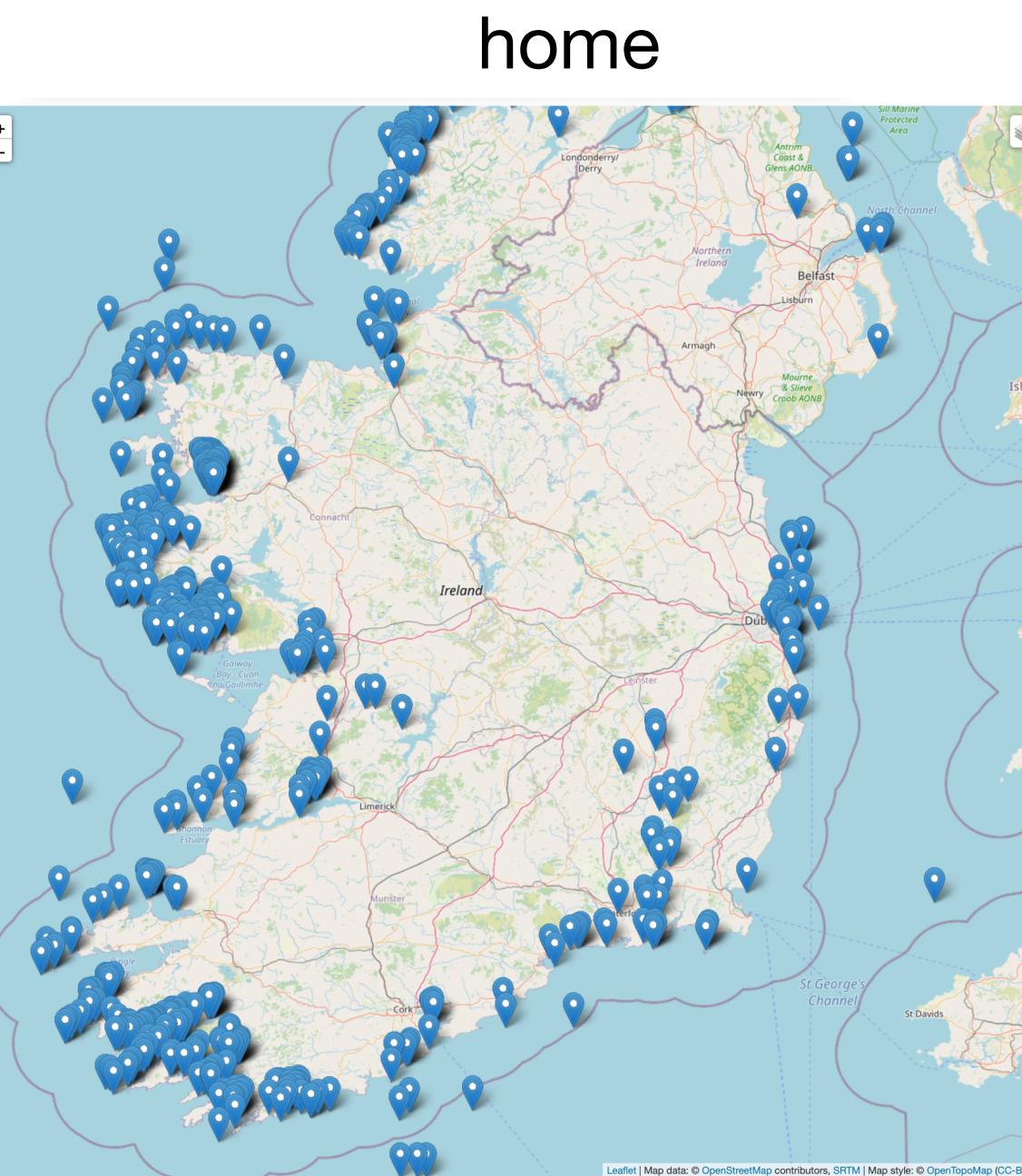


- Primary Application Views
- Set of View/ViewModel pairs
- Each pair a target for an application route

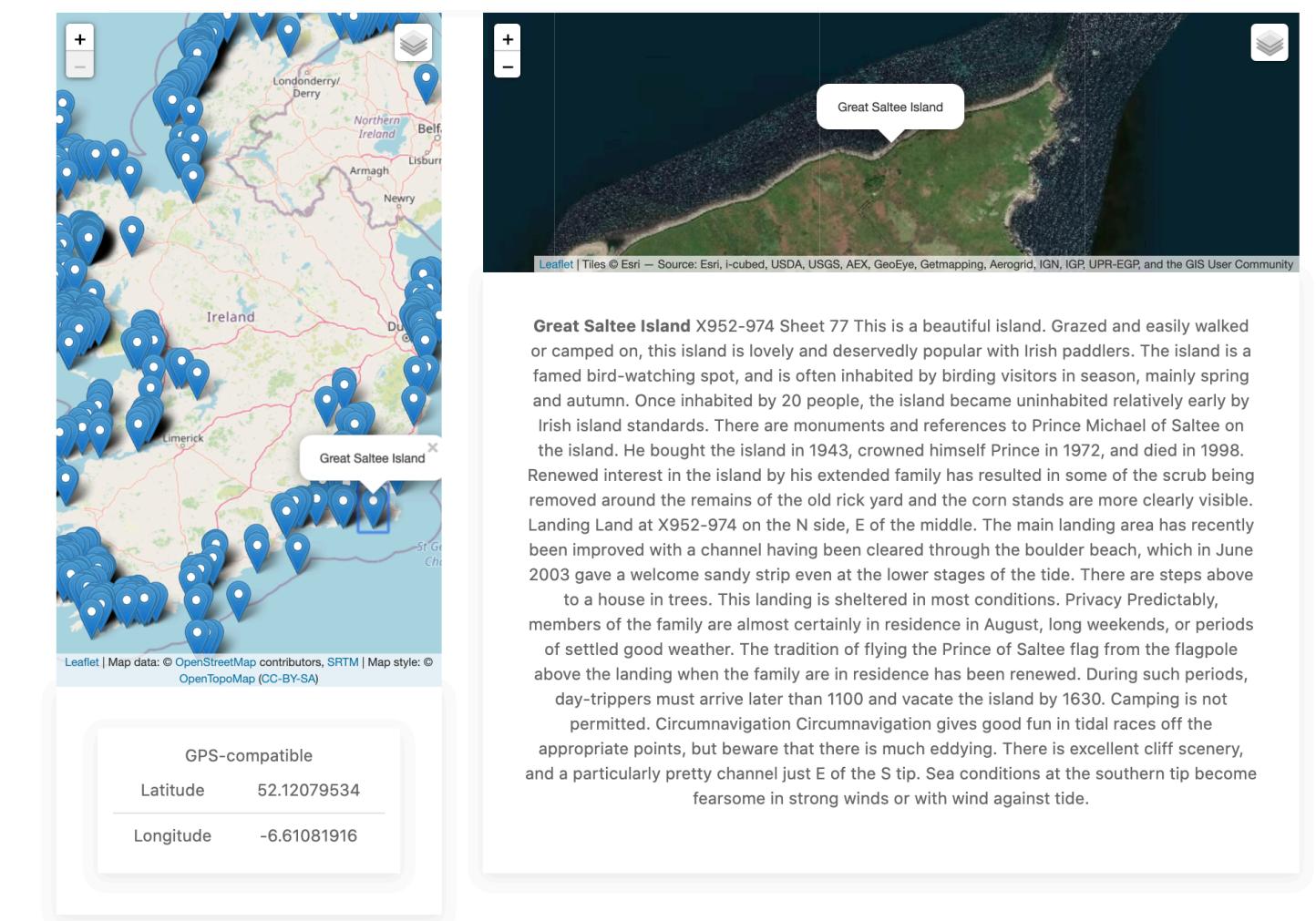




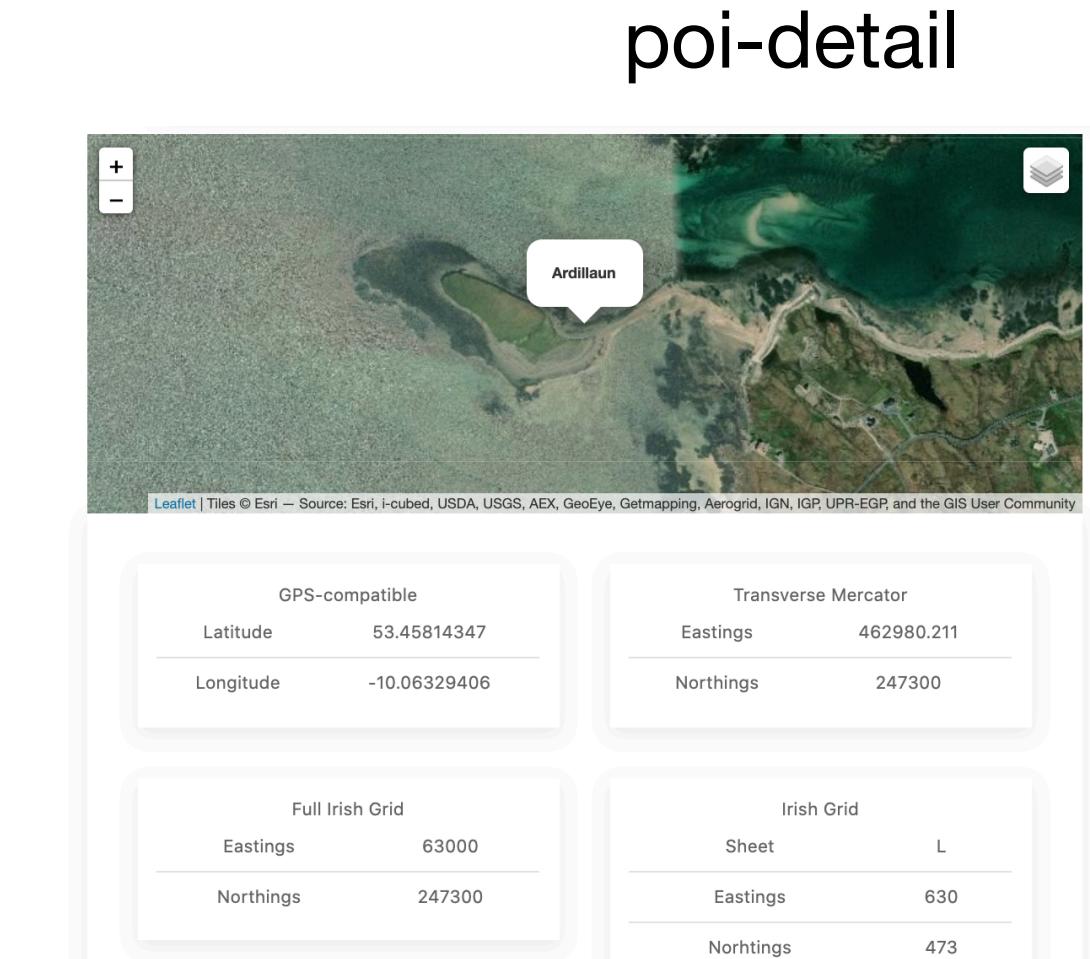
Components



home



navigator



poi-detail

Ardillaun L630-473 Sheet 44 Ardillaun is a prominent drumlin-like island, more suited perhaps to Clew Bay, very visible all along the Clifden / Ballyconneely road, just off the coast. The clay cliffs all round are especially dangerous at the W/SW sides. Lazybeds. Land at a low grassy area with its own small salt-lake. Sheep, all with long curly horns. The closest launching spot has almost no parking at all, down a boreen, at L633-471, where there is barely room for one car. Launch more reliably at any of the beautiful beaches where the Clifden / Ballyconneely road touches along Mannin Bay 1km S. Galway West Coast The Inner Islands

components/home

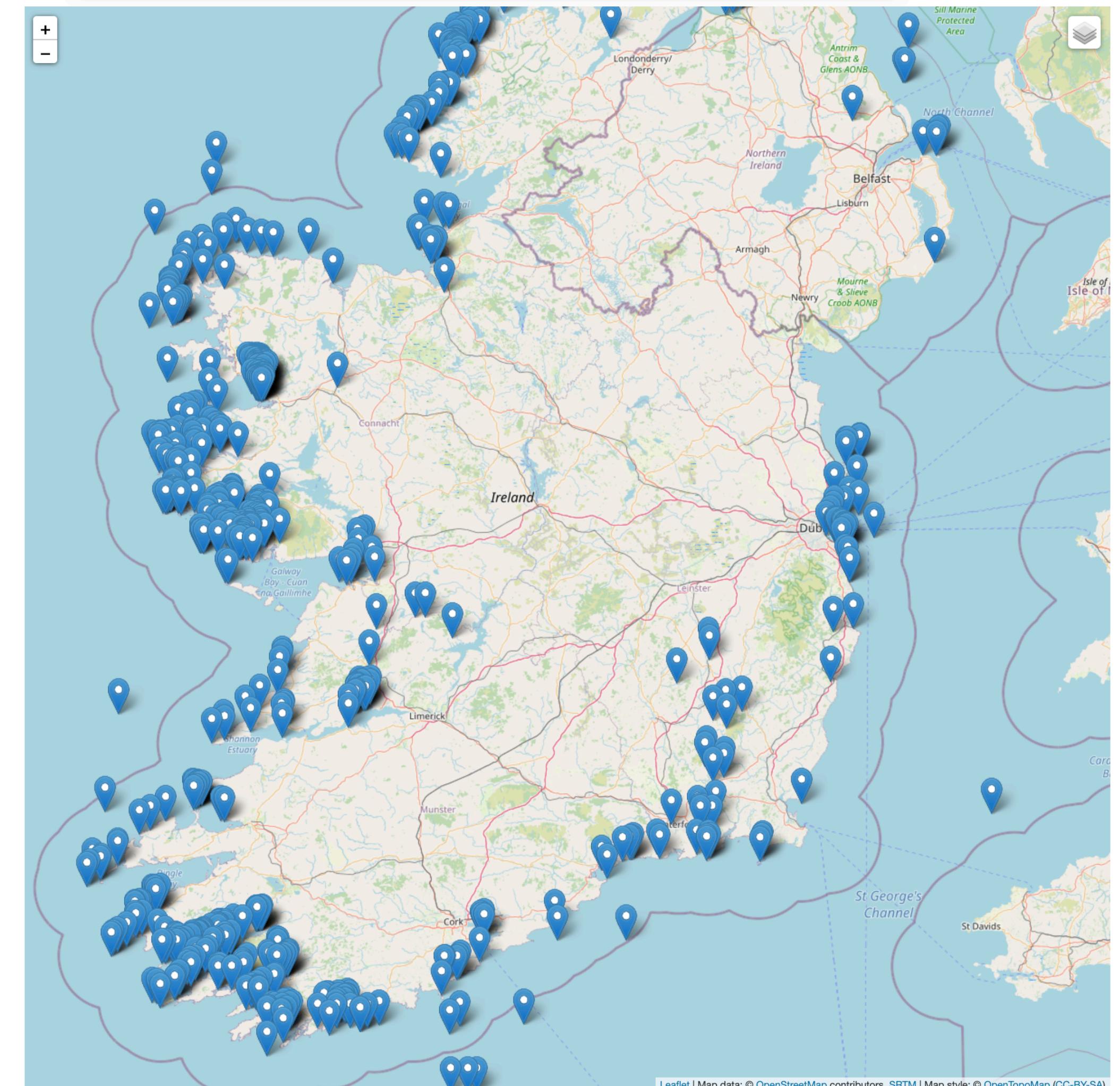
```
@autoinject
export class Home {
  mapDescriptor = {
    id: "home-map-id",
    height: 1200,
    location: { lat: 53.2734, long: -7.7783203 },
    zoom: 8,
    minZoom: 7,
    activeLayer: "",
  };

  map: CoastalLeafletMap;
  coasts: Array<Coast>;

  constructor(private oilain: Oilain) {}

  async activate(params: any) {
    this.coasts = await this.oilain.getCoasts();
  }

  attached() {
    this.map = new CoastalLeafletMap(this.mapDescriptor);
    if (this.coasts) {
      this.map.populateCoasts(this.coasts);
    }
  }
}
```



```
<template>
  <div id="${mapDescriptor.id}" class="uk-animation-scale-up" style="height:${mapDescriptor.height}px"></div>
</template>
```

components/navigator

```
@autoinject
export class Navigator implements PoiSelect {
  mainMapDescriptor = {
    id: "home-map-id",
    height: 650,
    location: { lat: 53.2734, long: -7.7783203 },
    zoom: 7,
    minZoom: 7,
    activeLayer: "",
  };

  islandMapDescriptor = {
    id: "island-map-id",
    height: 250,
    location: { lat: 53.2734, long: -7.7783203 },
    zoom: 8,
    minZoom: 7,
    activeLayer: "Satellite",
  };

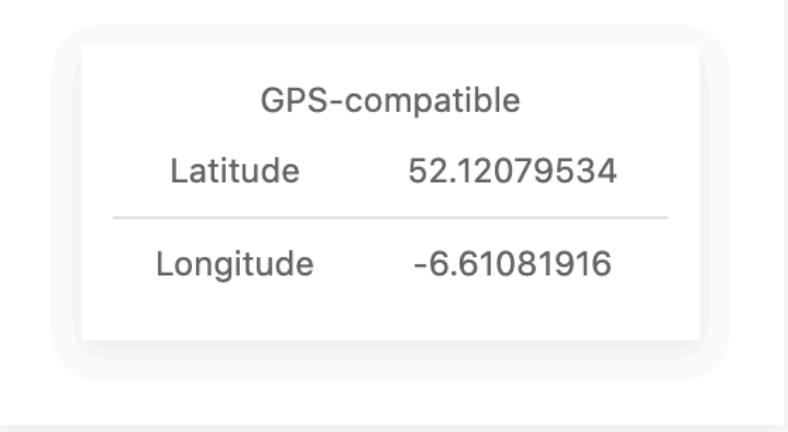
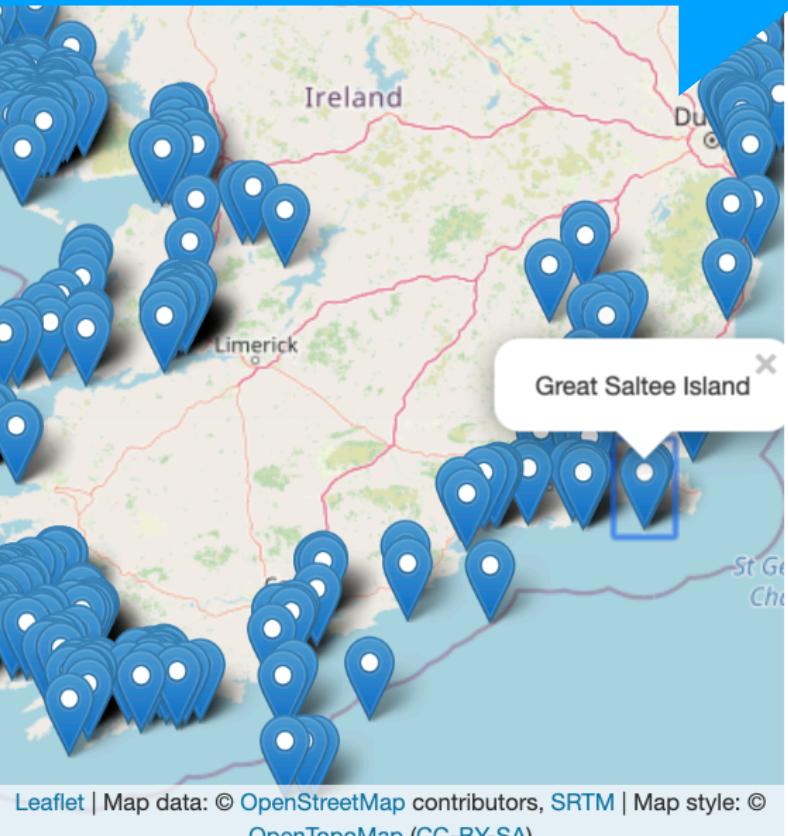
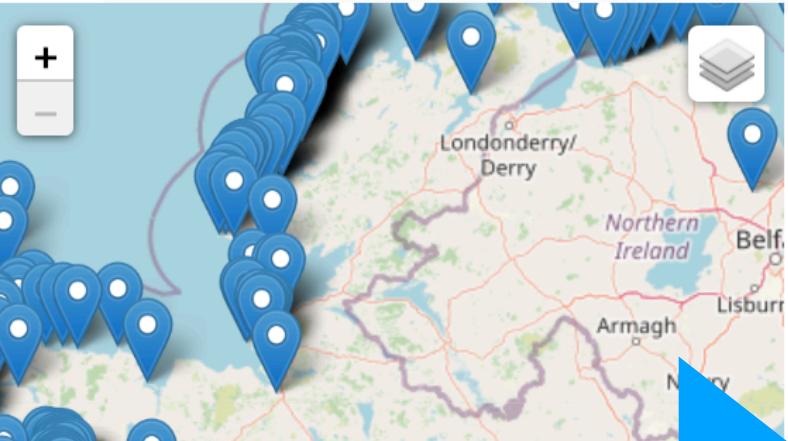
  mainMap: CoastalLeafletMap;
  islandMap: LeafletMap;
  coasts: Array<Coast>;
  poi: PointOfInterest;
  poiSelected = false;

  constructor(private oilain: Oilain) {}

  async activate(params) {
    this.coasts = await this.oilain.getCoasts();
  }

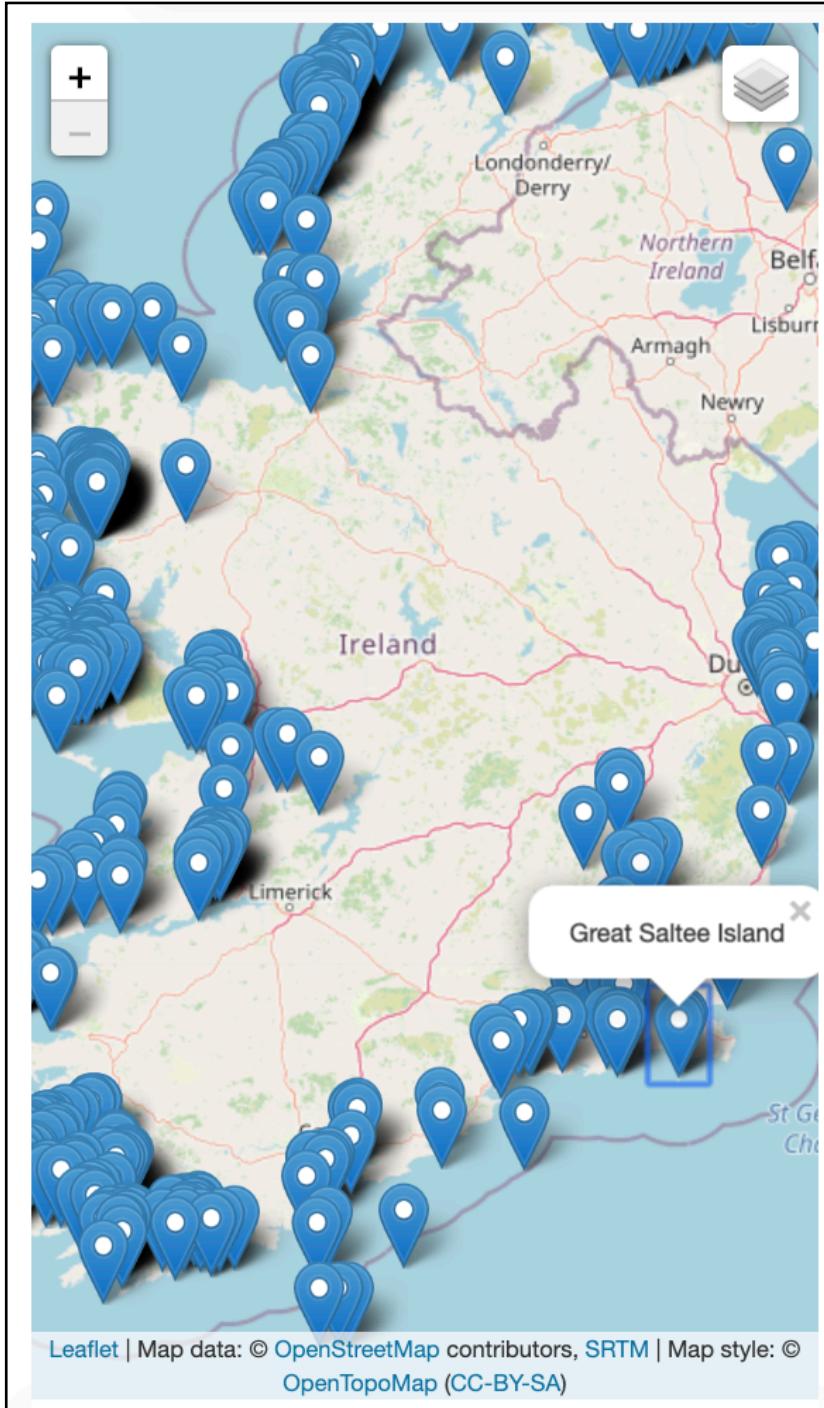
  attached() {
    this.mainMap = new CoastalLeafletMap(this.mainMapDescriptor);
    this.islandMap = new LeafletMap(this.islandMapDescriptor);
    this.mainMap.populateCoasts(this.coasts, false, this);
  }

  async onSelect(id: string) {
    this.poi = await this.oilain.getIslandById(id);
    if (this.islandMap) {
      this.islandMap.addPopup("Islands", this.poi.name, this.poi.coordinates.geo);
      this.islandMap.moveTo(15, this.poi.coordinates.geo);
      this.islandMap.invalidateSize();
      this.poiSelected = true;
    }
  }
}
```



Great Saltee Island X952-974 Sheet 77 This is a beautiful island. Grazed and easily walked or camped on, this island is lovely and deservedly popular with Irish paddlers. The island is a famed bird-watching spot, and is often inhabited by birding visitors in season, mainly spring and autumn. Once inhabited by 20 people, the island became uninhabited relatively early by Irish island standards. There are monuments and references to Prince Michael of Saltee on the island. He bought the island in 1943, crowned himself Prince in 1972, and died in 1998. Renewed interest in the island by his extended family has resulted in some of the scrub being removed around the remains of the old rick yard and the corn stands are more clearly visible. Landing Land at X952-974 on the N side, E of the middle. The main landing area has recently been improved with a channel having been cleared through the boulder beach, which in June 2003 gave a welcome sandy strip even at the lower stages of the tide. There are steps above to a house in trees. This landing is sheltered in most conditions. Privately Predictably, members of the family are almost certainly in residence in August, long weekends, or periods of settled good weather. The tradition of flying the Prince of Saltee flag from the flagpole above the landing when the family are in residence has been renewed. During such periods, day-trippers must arrive later than 1100 and vacate the island by 1630. Camping is not permitted. Circumnavigation Circumnavigation gives good fun in tidal races off the appropriate points, but beware that there is much eddying. There is excellent cliff scenery, and a particularly pretty channel just E of the S tip. Sea conditions at the southern tip become fearsome in strong winds or with wind against tide.

components/navigator



```
<template>
  <require from=".../resources/elements/poi-lat-lng.html"></require>
  <require from=".../resources/elements/poi-description.html"></require>

  <div class="uk-text-center" uk-grid>
    <div class="uk-width-1-3@m uk-animation-slide-left">
      <div id="${mainMapDescriptor.id}" style="height:${mainMapDescriptor.height}px"></div>
      <div if.bind="poiSelected">
        <div class="uk-card uk-card-default uk-card-body">
          <poi-lat-lng poi.one-way="poi"></poi-lat-lng>
        </div>
      </div>
    </div>
    <div class="uk-width-expand@m uk-animation-slide-right">
      <div id="${islandMapDescriptor.id}" style="height:${islandMapDescriptor.height}px"></div>
      <div if.bind="poiSelected">
        <div class="uk-card uk-card-default uk-card-body">
          <poi-description poi.one-way="poi"></poi-description>
        </div>
      </div>
      <div else>
        <div class="uk-card uk-card-default uk-card-body">
          <p> Select Island marker on map to view details...</p>
        </div>
      </div>
    </div>
  </div>
</template>
```

GPS-compatible	
Latitude	52.12079534
Longitude	-6.61081916

Great Saltee Island X952-974 Sheet 77 This is a beautiful island. Grazed and easily walked or camped on, this island is lovely and deservedly popular with Irish paddlers. The island is a famed bird-watching spot, and is often inhabited by birding visitors in season, mainly spring and autumn. Once inhabited by 20 people, the island became uninhabited relatively early by Irish island standards. There are monuments and references to Prince Michael of Saltee on the island. He bought the island in 1943, crowned himself Prince in 1972, and died in 1998. Renewed interest in the island by his extended family has resulted in some of the scrub being removed around the remains of the old rick yard and the corn stands are more clearly visible. Landing Land at X952-974 on the N side, E of the middle. The main landing area has recently been improved with a channel having been cleared through the boulder beach, which in June 2003 gave a welcome sandy strip even at the lower stages of the tide. There are steps above to a house in trees. This landing is sheltered in most conditions. Privately, members of the family are almost certainly in residence in August, long weekends, or periods of settled good weather. The tradition of flying the Prince of Saltee flag from the flagpole above the landing when the family are in residence has been renewed. During such periods, day-trippers must arrive later than 1100 and vacate the island by 1630. Camping is not permitted. Circumnavigation gives good fun in tidal races off the appropriate points, but beware that there is much eddying. There is excellent cliff scenery, and a particularly pretty channel just E of the S tip. Sea conditions at the southern tip become fearsome in strong winds or with wind against tide.



```

import { autoinject } from "aurelia-framework";
import { LeafletMap } from "../services/leaflet-map";
import { Oileain } from "../services/oileain";
import { PointOfInterest } from "services/poi";

@autoinject
export class PoiDetail {
    title = "Olieain POI View";

    mapDescriptor = {
        id: "poi-map-id",
        height: 300,
        location: { lat: 53.2734, long: -7.7783203 },
        zoom: 8,
        minZoom: 7,
        activeLayer: "Satellite",
    };
    map: LeafletMap;
    poi: PointOfInterest;

    constructor(private oileain: Oileain) {}

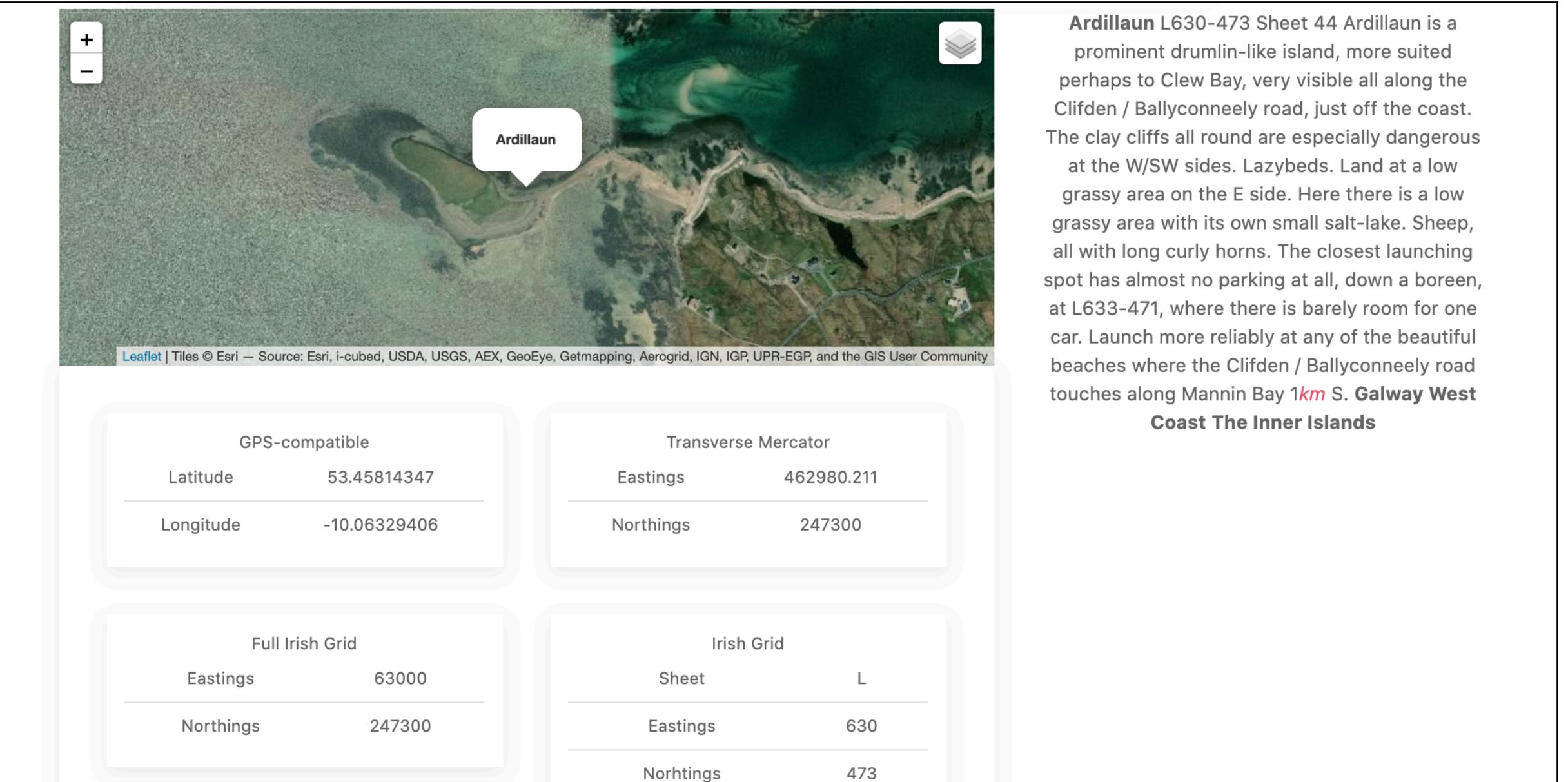
    renderPoi(poi) {
        this.poi = poi;
        this.title = poi.name;
        if (this.map) {
            this.map.addPopup("Islands", poi.nameHtml, poi.coordinates.geo);
            this.map.moveTo(15, poi.coordinates.geo);
            this.map.invalidateSize();
        }
    }

    async activate(params) {
        await this.oileain.getCoasts();
        const poi = await this.oileain.getIslandById(params.id);
        this.renderPoi(poi);
    }

    attached() {
        this.map = new LeafletMap(this.mapDescriptor);
        if (this.poi) {
            this.renderPoi(this.poi);
        }
    }
}

```

components/poi-detail



Ardillaun L630-473 Sheet 44 Ardillaun is a prominent drumlin-like island, more suited perhaps to Clew Bay, very visible all along the Clifden / Ballyconneely road, just off the coast. The clay cliffs all round are especially dangerous at the W/SW sides. Lazybeds. Land at a low grassy area on the E side. Here there is a low grassy area with its own small salt-lake. Sheep, all with long curly horns. The closest launching spot has almost no parking at all, down a boreen, at L633-471, where there is barely room for one car. Launch more reliably at any of the beautiful beaches where the Clifden / Ballyconneely road touches along Mannin Bay 1km S. Galway West Coast The Inner Islands

components/poi-detail



Leaflet | Tiles © Esri — Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, UPR-EGP, and the GIS User Community

```
<template>
<require from="../resources/elements/poi-coordinates.html"></require>
<require from="../resources/elements/poi-description.html"></require>

<div class="uk-text-center " uk-grid >
  <div class="uk-width-expand@m uk-animation-slide-left">
    <div id="${mapDescriptor.id}" style="height:${mapDescriptor.height}px"></div>
    <div class="uk-card uk-card-default uk-card-body">
      <poi-coordinates poi.one-way="poi"></poi-coordinates>
    </div>
  </div>
  <div class="uk-width-1-3@m uk-animation-slide-right">
    <poi-description poi.one-way="poi"></poi-description>
  </div>
</div>
</template>
```

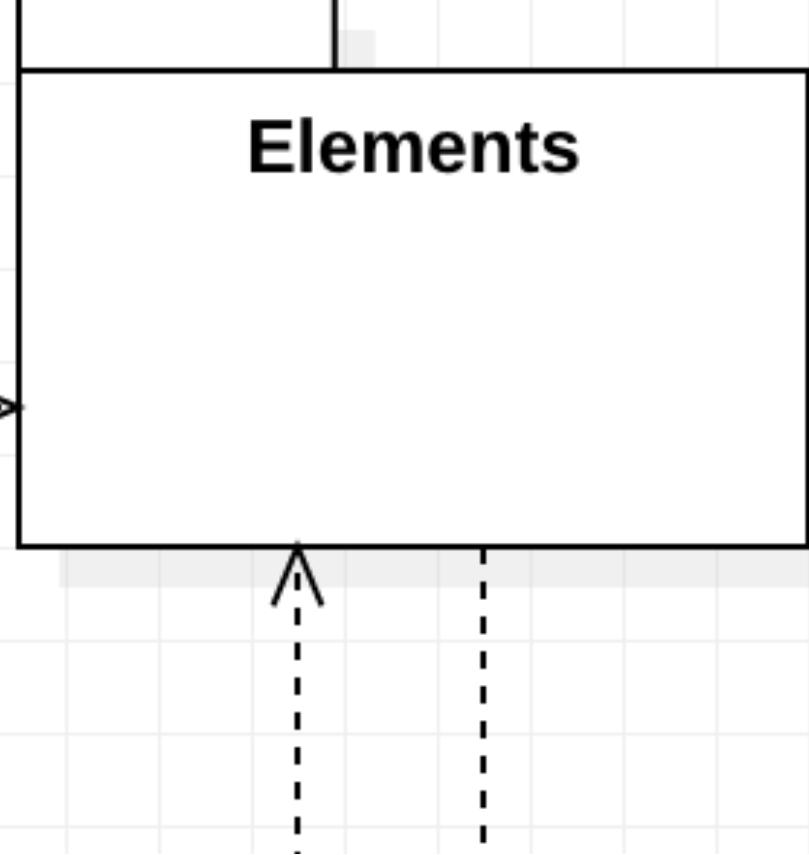
GPS-compatible		Transverse Mercator	
Latitude	53.45814347	Eastings	462980.211
Longitude	-10.06329406	Northings	247300
Full Irish Grid		Irish Grid	
Eastings	63000	Sheet	L
Northings	247300	Eastings	630
		Northings	473

Ardillaun L630-473 Sheet 44 Ardillaun is a prominent drumlin-like island, more suited perhaps to Clew Bay, very visible all along the Clifden / Ballyconneely road, just off the coast. The clay cliffs all round are especially dangerous at the W/SW sides. Lazybeds. Land at a low grassy area on the E side. Here there is a low grassy area with its own small salt-lake. Sheep, all with long curly horns. The closest launching spot has almost no parking at all, down a boreen, at L633-471, where there is barely room for one car. Launch more reliably at any of the beautiful beaches where the Clifden / Ballyconneely road touches along Mannin Bay 1km S. Galway West

Coast The Inner Islands

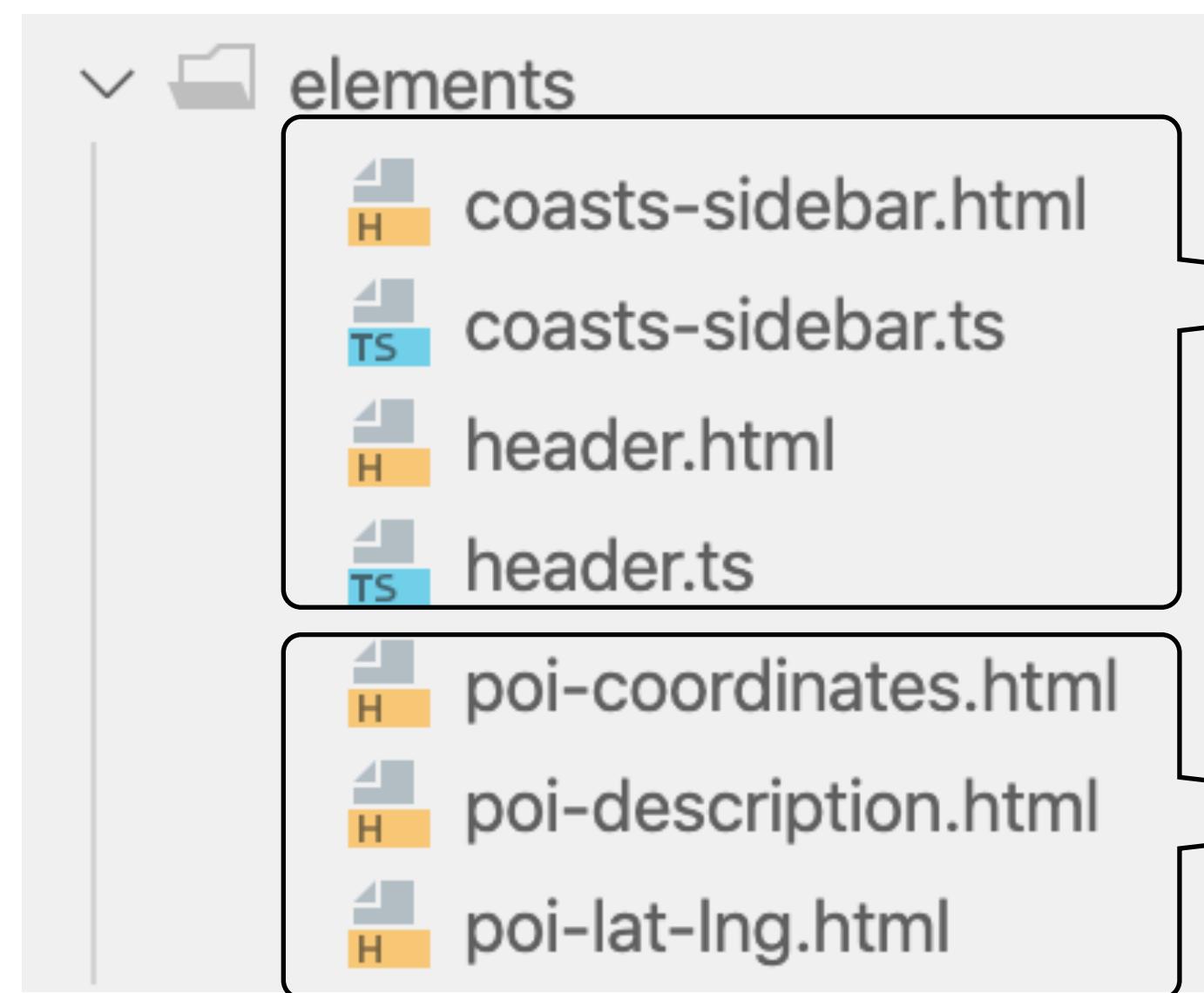
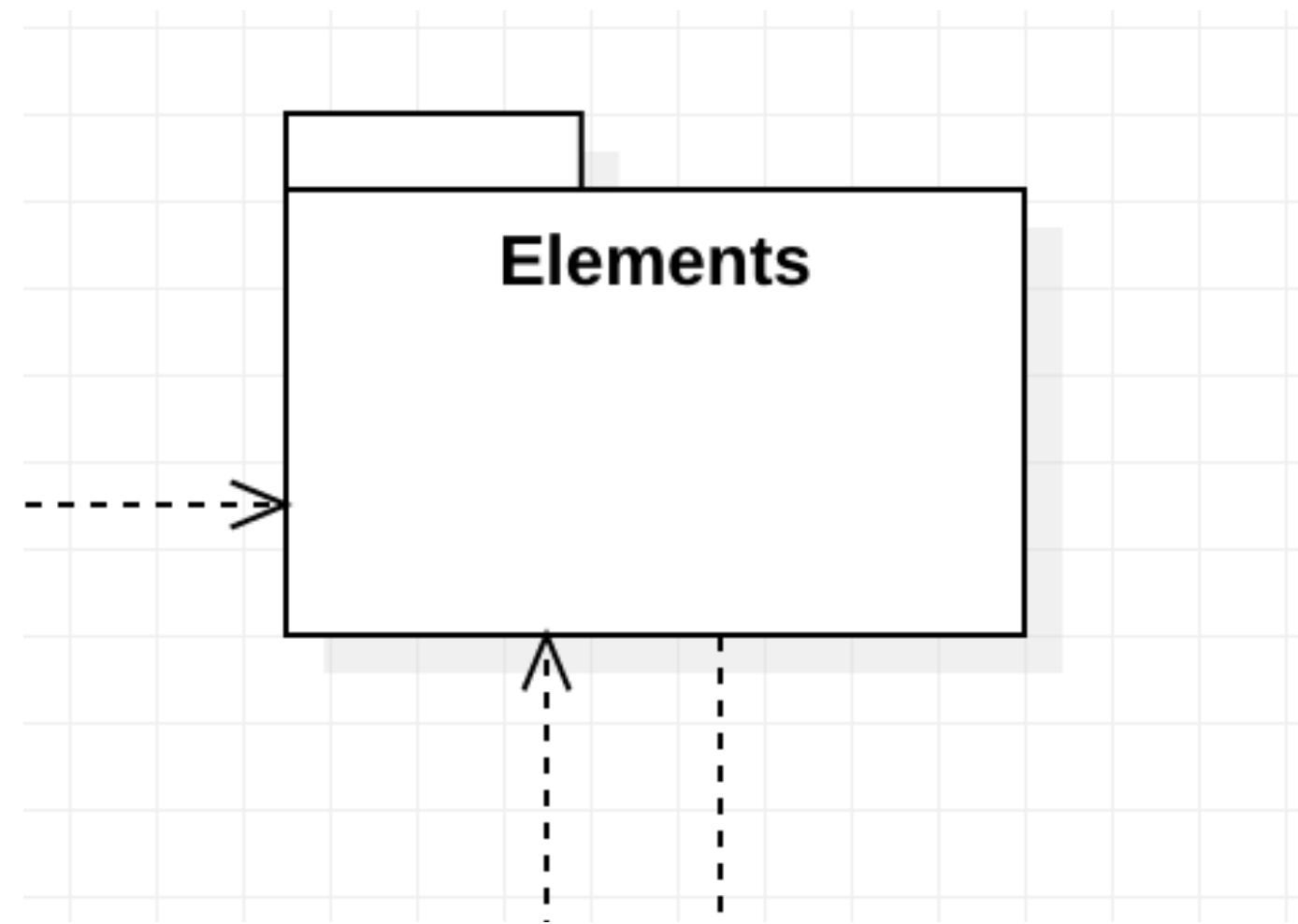
Elements

- Reusable Custom Elements



- May appear in multiple Components
- 2 types:
 - View/ViewModel pairs (like components)
 - View only elements

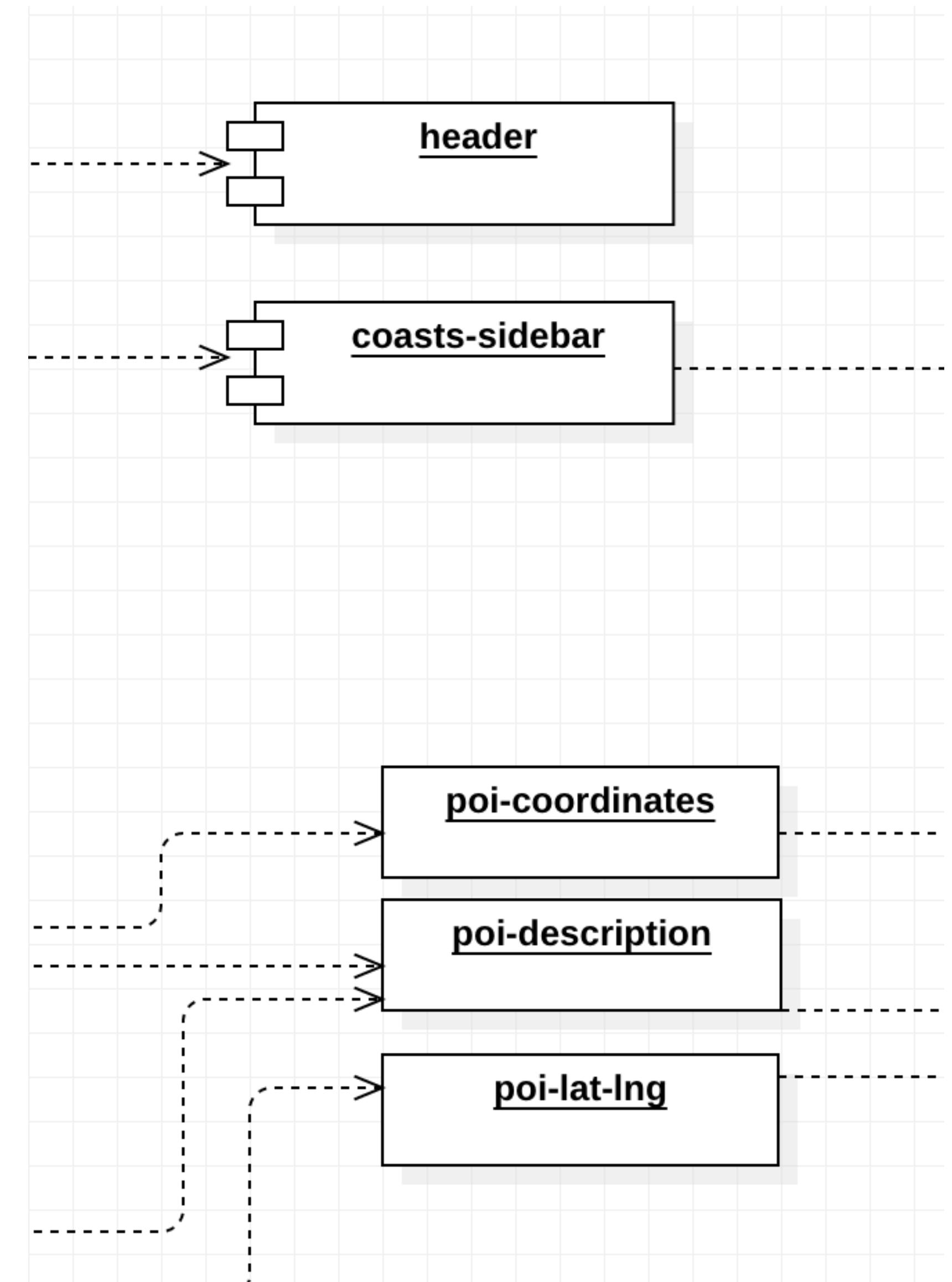
Elements



- 2 types:

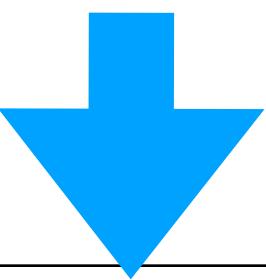
- View/ViewModel pairs (like components)

- View only elements



elements/poi-lat-long.html

As there is no ViewModel, need to define list
of 'bindable' objects

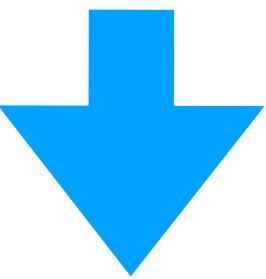


```
<template bindable="poi">
  <div class="uk-card uk-card-default uk-card-body uk-padding-small">
    <caption>GPS-compatible</caption>
    <table class="uk-table uk-table-divider uk-table-small">
      <tbody>
        <tr>
          <td>Latitude</td>
          <td>${poi.coordinates.geo.lat}</td>
        </tr>
        <tr>
          <td>Longitude</td>
          <td>${poi.coordinates.geo.long}</td>
        </tr>
      </tbody>
    </table>
  </div>
</div>
</template>
```

GPS-compatible	
Latitude	52.12079534
Longitude	-6.61081916

elements/poi-description.html

As there is no ViewModel, need to define list
of 'bindable' objects



```
<template bindable="poi">
  <div class="ui segment">
    <div class="description">
      <p innerhtml.bind="poi.description"> ${poi.description}</p>
    </div>
  </div>
</template>
```

Ardillaun L630-473 Sheet 44 Ardillaun is a prominent drumlin-like island, more suited perhaps to Clew Bay, very visible all along the Clifden / Ballyconneely road, just off the coast. The clay cliffs all round are especially dangerous at the W/SW sides. Lazybeds. Land at a low grassy area on the E side. Here there is a low grassy area with its own small salt-lake. Sheep, all with long curly horns. The closest launching spot has almost no parking at all, down a boreen, at L633-471, where there is barely room for one car. Launch more reliably at any of the beautiful beaches where the Clifden / Ballyconneely road touches along Mannin Bay **1km S. Galway West Coast The Inner Islands**

```
<template bindable="poi">
<div class="uk-text-center uk-text-small" uk-grid>
<div class="uk-width-expand@m">
<div class="uk-card uk-card-default uk-card-body uk-paddin
    <caption>GPS-compatible</caption>
    <table class="uk-table uk-table-divider uk-table-small">
        <tbody>
            <tr>
                <td>Latitude</td>
                <td>${poi.coordinates.geo.lat}</td>
            </tr>
            <tr>
                <td>Longitude</td>
                <td>${poi.coordinates.geo.long}</td>
            </tr>
        </tbody>
    </table>
</div>
</div>
<div class="uk-width-1-2@m">
<div class="uk-card uk-card-default uk-card-body uk-paddi
    <caption>Transverse Mercator</caption>
    <table class="uk-table uk-table-divider uk-table-small">
        <tbody>
            <tr>
                <td>Eastings</td>
                <td>${poi.coordinates.tmcGrid.eastings}</td>
            </tr>
            <tr>
                <td>Northings</td>
                <td>${poi.coordinates.fullIrishGrid.northings}</t
            </tr>
        </tbody>
    </table>
</div>
</div>
</div>
```

```
<div class="uk-text-center uk-text-small" uk-grid>
  <div class="uk-width-expand@m">
    <div class="uk-card uk-card-default uk-card-body uk-padding-small">
      <caption>Full Irish Grid</caption>
      <table class="uk-table uk-table-divider uk-table-small">
        <tbody>
          <tr>
            <td>Eastings</td>
            <td>${poi.coordinates.fullIrishGrid.eastings}</td>
          </tr>
          <tr>
            <td>Northings</td>
            <td>${poi.coordinates.fullIrishGrid.northings}</td>
          </tr>
        </tbody>
      </table>
    </div>
  </div> |
<div class="uk-width-1-2@m">
  <div class="uk-card uk-card-default uk-card-body uk-padding-small">
    <caption>Irish Grid</caption>
    <table class="uk-table uk-table-divider uk-table-small">
      <tbody>
        <tr>
          <td>Sheet</td>
          <td>${poi.coordinates.irishGrid.sheet}</td>
        </tr>
        <tr>
          <td>Eastings</td>
          <td>${poi.coordinates.irishGrid.eastings}</td>
        </tr>
        <tr>
          <td>Norhtings</td>
          <td>${poi.coordinates.irishGrid.northings}</td>
        </tr>
      </tbody>
    </table>
  </div>
</div>
</div>
</template>
```

elements/poi-coordinates.html

GPS-compatible		Transverse Mercator	
Latitude	53.45814347	Eastings	462980.211
Longitude	-10.06329406	Northings	247300
Full Irish Grid		Irish Grid	
Eastings	63000	Sheet	L
Northings	247300	Eastings	630
		Northings	473

elements/header



Oileain

An experiment in exploring [David Walsh's Oileain](#). Prepared
by Eamonn de Leastar (edeleastar@gmail.com)



```
import { bindable } from "aurelia-framework";
import { faGithub } from "@fortawesome/free-brands-svg-icons";
import { faBars, faMapMarked } from "@fortawesome/free-solid-svg-icons";
import { faMap } from "@fortawesome/free-regular-svg-icons";

export class Header {
    @bindable title: string;
    github = faGithub;
    map = faMapMarked;
    mapAlt = faMap;
    bars = faBars;
}
```

Import Fontawesome icons
and make available to view

```
<template>
<div class="uk-flex uk-flex-center uk-flex-middle uk-text-center uk-padding-small" uk-grid>
    <div class="uk-padding-small">
        <a href="#coasts-menu" uk-toggle title="Clickable list all Islands by Costal Region" pos="bottom" uk-tooltip>
            <font-awesome-icon icon.bind="bars" size="3x"></font-awesome-icon>
        </a>
    </div>
    <div class="uk-padding-small">
        <a href="/" title="Islands of Ireland" pos="bottom" uk-tooltip>
            <font-awesome-icon icon.bind="map" size="3x"></font-awesome-icon>
        </a>
    </div>
    <div class="uk-child-width-1-2@s uk-card uk-card-default uk-grid-collapse" uk-grid>
        <div>
            <div class="uk-tile uk-tile-default uk-padding-small">
                <h2> ${title} </h2>
            </div>
        </div>
        <div>
            <div class="uk-tile uk-tile-muted uk-padding-small">
                <p class="uk-text-small"> An experiment in exploring <a href="http://www.oileain.org/">David Walsh's Oileain</a>.
                Prepared by Eamonn de Leastar (edeleastar@gmail.com) </p>
            </div>
        </div>
        <a href="/navigator" title="Navigator View" pos="bottom" uk-tooltip>
            <font-awesome-icon icon.bind="mapAlt" size="3x"> </font-awesome-icon> <i>
        </a>
        <a href="http://www.oileain.org/" title="Oileain Book Site" pos="bottom" uk-tooltip>  </a>
        <a href="https://github.com/edeleastar/oileain-au" title="Project Source" pos="bottom" uk-tooltip>
            <font-awesome-icon icon.bind="github" size="3x"></font-awesome-icon>
        </a>
    </div>
</template>
```

elements/coasts-sidebar.ts

```
<template>
<require from="./resources/elements/header"></require>
<require from="./resources/elements/coasts-sidebar"></require>
<header title.one-way="title"></header>
<coasts-sidebar></coasts-sidebar>
<div class="uk-container">
  <router-view></router-view>
</div>
</template>
```

```
@autoinject
export class CoastsSidebar {
  coasts: Array<Coast>;
  constructor(private oilain: Oilain) {
    this.loadCoasts();
  }
  async loadCoasts() {
    this.coasts = await this.oilain.getCoasts();
  }
}
```

```
<template>
<div id="coasts-menu" uk-offcanvas="mode: reveal;" >
  <div class="uk-offcanvas-bar">
    <button class="uk-offcanvas-close" type="button" uk-close></button>
    <div repeat.for="coast of coasts">
      <ul class="uk-nav-default uk-nav-parent-icon" uk-nav>
        <li class="uk-parent">
          <a href="#">${coast.title}</a>
          <ul class="uk-nav-sub">
            <div repeat.for="poi of coast.pois">
              <li><a href="/poi/${poi.safeName}"> ${poi.name}</a></a></li>
            </div>
          </ul>
        </li>
      </ul>
    </div>
  </div>
</template>
```

- coasts-sidebar include in main page
- Each entry is a link, which will trigger the router to load the poi-description component

North East	<
East Coast	<
South Coast	<
Mid West	<
Carrig Island	x
Foynes Island	
Inishmurry	
Inishtubbrid	
Canon Island	
Inishloe	
Blackthorn Islands	
Doon Island	
Inishmacowney	
Illaunbeg or O'Donnell's Island	
Shore Island	
Feenish	
Deenish Island	
Deer Island	
Coney Island	
Inishdadroum	
Trummer	
Scattery Island	
Hog Island	
Kilrush area to Carrigaholt	
Carrigaholt to Kilba	
after Galway HW</td> <td width="57">4kn</td> </tr> </tbody>	
</table> Kilba to Loop Head	
Loop Head to Bridges of Ross	
Bridges of Ross to Goleen Bay	
Goleen Bay to Kilkee	
Kilkee to Doonbeg	
Doonbeg to Spanish Point	
Mattle Island	
Mutton Island	
Carrickaneelwar	
Spanish Point to Liscannor	
The Cliffs of Moher	
Branaunmore – _An Branán Mór_	
Crab Island	
Doolin to Ballyvaughan	
Illaunloo	
Ballyvaughan Harbour	
Poulnaclogh Bay	
Scanlan's Island	
Aughinish Island	
Deer Island	
Mulroney's Island	
Fiddaun Island	
Island Eddy	
Tawin Island	
Rabbit Island	

