```
            markerArray[i].setMap(mapNull);
            markerArray[i] = null;
      }

      markerArray = new Marker[0];
}

//used to load the google map from the google servers
@Override
public void addGoogleMap(Node mapNode) {
      try {
            this.mapNode = mapNode;
            googleMap = GoogleMap.create(this.mapNode, mapOptions);
      } catch (Exception e) {
            GWT.log("failed to create Map");
      }
}

public ZikoMapImpl() {
```

```
        initialiseMapOptions();


}
//this initializes the initial map that is drawn
private void initialiseMapOptions() {
        try {
                location = LatLng.create(latitude, longitude);
                mapOptions = MapOptions.create();
                mapOptions.setZoom(zoom);
                mapOptions.setCenter(location);
                mapOptions.setMapTypeId(MapTypeId.ROADMAP);
        } catch (Exception e) {
                GWT.log("failed to create map options");
        }
}


//this is used choosing a location for a news item
@Override
public void enableShareMarker() {
        shareMarker = Marker.create();
        shareMarker.setPosition(LatLng.create(-15.4, 28.3));
```

```
shareMarker.setMap(googleMap);

googleMap.addMouseMoveListener(new MouseMoveHandler() {

	@Override
	public void handle(MouseEvent event) {
		LatLng mouseLocation = event.getLatLng();
		// shareTArea.setText(mouseLocation
		// .toUrlValue(10.000000001));

		shareMarker.setPosition(mouseLocation);

	}
});

googleMap.addRightClickListenerOnce(new RightClickHandler() {

	@Override
	public void handle(MouseEvent event) {
		googleMap.clearMouseMoveListeners();
```

```
            }
      });

}

//this is used for getting the direction location
@Override
public void enableDirectionsMarker() {
      directionsMarker = Marker.create();
      directionsMarker.setPosition(LatLng.create(-15.4, 28.3));
      directionsMarker.setMap(googleMap);

      googleMap.addMouseMoveListener(new MouseMoveHandler() {
            LatLng mouseLocation;

            @Override
            public void handle(MouseEvent event) {
                  mouseLocation = event.getLatLng();
                  directionsMarker.setPosition(mouseLocation);

            }
```

```
        });

        googleMap.addRightClickListenerOnce(new RightClickHandler() {

                @Override
                public void handle(MouseEvent event) {
                        googleMap.clearMouseMoveListeners();
                }
        });

}

@Override
public LatLng getShareLocation() {
        if (shareMarker == null) {
                return null;
        }

        return shareMarker.getPosition();
}
```

```
@Override
public LatLng getDirectionsLocation() {
	if (directionsMarker == null) {
		return null;
	}
	return directionsMarker.getPosition();
}

@Override
public void disableShareMarker() {
	googleMap.clearMouseMoveListeners();

	googleMap.clearRightClickListeners();
	GoogleMap mapnull = null;
	shareMarker.setMap(mapnull);
	shareMarker = null;
}

@Override
public void disableDirectionsMarker() {
	googleMap.clearMouseMoveListeners();
```

```
        googleMap.clearRightClickListeners();
        GoogleMap mapnull = null;
        if (directionsMarker != null) {
            directionsMarker.setMap(mapnull);
        }
        directionsMarker = null;
    }
    @Override
    public void getDirections(LatLng origin , LatLng destination) {

        DirectionsService directionsService = DirectionsService.create();
        directionsDisplay = DirectionsRenderer.create();
        directionsDisplay.setMap(googleMap);
        DirectionsRequest request = DirectionsRequest.create();
        request.setOrigin(origin);
        request.setDestination(destination);
        request.setTravelMode(TravelMode.DRIVING);
        directionsService.route(request, new DirectionsService.Callback()
{
```

```
                @Override
                public void handle(DirectionsResult a, DirectionsStatus b)
{
                      if (b == DirectionsStatus.OK) {
                            directionsDisplay.setDirections(a);
                      } else {
                            Window.alert(b.getValue());
                      }
                }
          });

      }

// this is used to add the news markers on the map
      @Override
      public void addNews(NewsGWTX[] result) {
            nxInfoWindows = new NXInfoWindow[result.length];
            infoWindowArray = new InfoWindow[result.length];
            markerArray = new Marker[result.length];

            for (int i = 0; i < result.length; i++) {
```

```
                LatLng newsLocation = LatLng.create(result[i].latitude,
                        result[i].longitude);

                InfoWindowOptions iWOptions = InfoWindowOptions.create();
                iWOptions.setContent(i + " " + result[i].text);

                InfoWindowUI infoWindowUI = new
InfoWindowUIImpl(result[i]);

                nxInfoWindows[i] = NXInfoWindow.create((long) i);
                infoWindowUI.setNxInfoWindow(nxInfoWindows[i]);
                nxInfoWindows[i].setContent(infoWindowUI.getWidget());
                nxInfoWindows[i].setPosition(newsLocation);

                infoWindowArray[i] = InfoWindow.create(iWOptions);

                MarkerOptions mOptions = MarkerOptions.create();
                mOptions.setPosition(newsLocation);
                mOptions.setMap(googleMap);
                mOptions.setTitle(i + "");
```

```
                markerArray[i] = Marker.create(mOptions);

                markerArray[i].addClickListener(new ZikoCHandler(i,
nxInfoWindows,
                        markerArray));

        }

    }

    private void addNewsPlain(NewsGWTX[] result) {
        GWT.log("AllNewsCB " + result[0].text);

        infoWindowArray = new InfoWindow[result.length];
        markerArray = new Marker[result.length];

        for (int i = 0; i < result.length; i++) {
            LatLng newsLocation = LatLng.create(result[i].latitude,
                    result[i].longitude);

            InfoWindowOptions iWOptions = InfoWindowOptions.create();
```

```
                iWOptions.setContent(i + " " + result[i].text);

                infoWindowArray[i] = InfoWindow.create(iWOptions);

                MarkerOptions mOptions = MarkerOptions.create();
                mOptions.setPosition(newsLocation);
                mOptions.setMap(googleMap);
                mOptions.setTitle(i + "");

                markerArray[i] = Marker.create(mOptions);

                markerArray[i].addClickListener(new ZikoCHandler(i,
nxInfoWindows,
                        markerArray));

            }

        }

        //creates the info window once it is clicked
        class ZikoCHandler implements Marker.ClickHandler {
```

```
        int id;
        InfoWindow[] infoWindows;
        private Marker[] markers;
        NXInfoWindow[] nxInfoWindows;

        public ZikoCHandler(int i, InfoWindow[] infoWindows, Marker[]
markers) {

            id = i;
            this.infoWindows = infoWindows;
            this.markers = markers;

        }

        public ZikoCHandler(int i, NXInfoWindow[] nxInfoWindows,
                Marker[] markers) {

            id = i;
            this.nxInfoWindows = nxInfoWindows;
            this.markers = markers;
```

```
            }


            public void handle(MouseEvent event) {

                  nxInfoWindows[id].open(googleMap, markers[id]);

            }

      }


}
```

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