To Test Works:

https://blog.ionicframework.com/pull-to-refresh-directive/

<https://codepen.io/-kaik-/pen/mPJopo/>

//dynamic-adding-new-input-field

<**ion-item** \*ngFor="let att of anArray; let idx = index">  
 <**ion-label** color="primary">{{att.label}}{{idx+1}}</**ion-label**>  
 <**ion-input** type="text" text-right [(ngModel)]="anArray[idx].value"></**ion-input**>  
 </**ion-item**>  
 <**button** ion-button (click)="Add()">Add More</**button**>  
 <**button** ion-button full (click)="goTo()" >let's go</**button**>  
  
<**ion-card** \*ngIf="data">  
 <**ion-item** \*ngFor="let att of anArray;">  
 <**div** class="card-title">{{att.value}}</**div**>  
 </**ion-item**>  
</**ion-card**>

**Componen File**

public anArray:any=[];  
  
 **constructor**(public navCtrl: NavController){ }  
 goTo(){  
 console.log('this.anArray',**this**.anArray);  
 **this**.data=true;  
 }  
 Add(){  
 **this**.anArray.push({'value':''});  
 }

$query = "select \* from (SELECT name,latitude,longitude,round((((acos(sin((".$latitude."\*pi()/180)) \* sin((`latitude`\*pi()/180))+cos((".$latitude."\*pi()/180)) \* cos((`latitude`\*pi()/180)) \* cos(((".$longitude."- `longitude`)\*pi()/180))))\*180/pi())\*60\*1.1515\*1.609344),1) as distance FROM location) as temp order by distance";

<https://stackoverflow.com/questions/26258697/alert-when-two-users-friends-are-near-to-each-other-android-proximity>

<https://www.joshmorony.com/adding-background-geolocation-to-an-ionic-2-application/>

<https://coursetro.com/posts/code/39/How-to-Make-an-Ionic-2-App>

<https://ionicacademy.com/ionic-caching-service/>

<https://stackoverflow.com/questions/46192280/detect-if-the-device-is-iphone-x>

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*//

# Callbacks vs Promises vs RxJs Observables vs async/ await

/////////////\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

# **[How to auto update data on ionic page with out refreshing the page](https://forum.ionicframework.com/t/how-to-auto-update-data-on-ionic-page-with-out-refreshing-the-page/88843)**

**import** { Http } **from** '@angular/http';  
**import** { Component } **from** '@angular/core';  
**import** { Observable } **from** 'rxjs/Observable';  
**import** 'rxjs/add/observable/interval';  
**import** 'rxjs/add/operator/mergeMapTo';  
**import** 'rxjs/add/operator/map';  
  
@Component({  
 selector: 'page-weather',  
 template: `  
 <ion-content>  
 <**h2**>{{(data | async)?.city}}</**h2**>  
 <p \*ngIf="(data | async)">{{(data | **async**)?.degree}}°C</p>  
 </ion-content>  
 `  
})  
**export** **class** **WeatherPage** {  
 data: any;  
 constructor(private http: Http) {  
 **this**.getWeather();  
 }  
  
 private getWeather() {  
 **this**.data = Observable  
 .interval(10000)  
 .mergeMapTo(**this**.fetchWeatherData())  
 .map(res => res.json());  
 }  
  
 private fetchWeatherData() {  
 **return** **this**.http.get('http://myUrl.com/api/weather');  
 }  
  
}

///////////\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

this.http.get(url)

.timeout(1000)  
 .map(...)  
 .subcribe((success) => {...}, (err) => { // Deal here with timeout error. });

////\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*