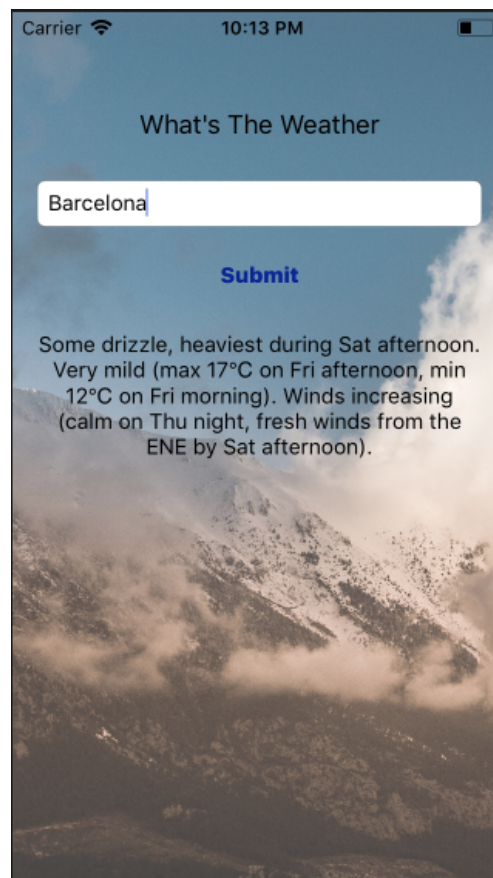
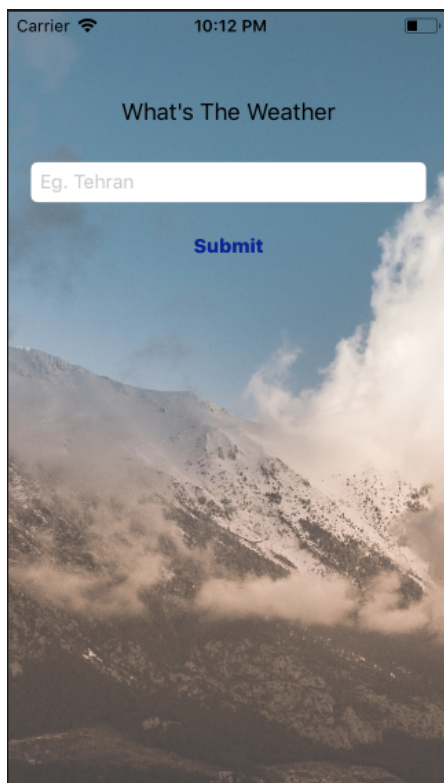


Innotech
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Swift Document

Weather App

Today we gonna make an app that gives us the weather of any city we want by getting data from website.



For awesome background pictures I usually use: <https://unsplash.com>

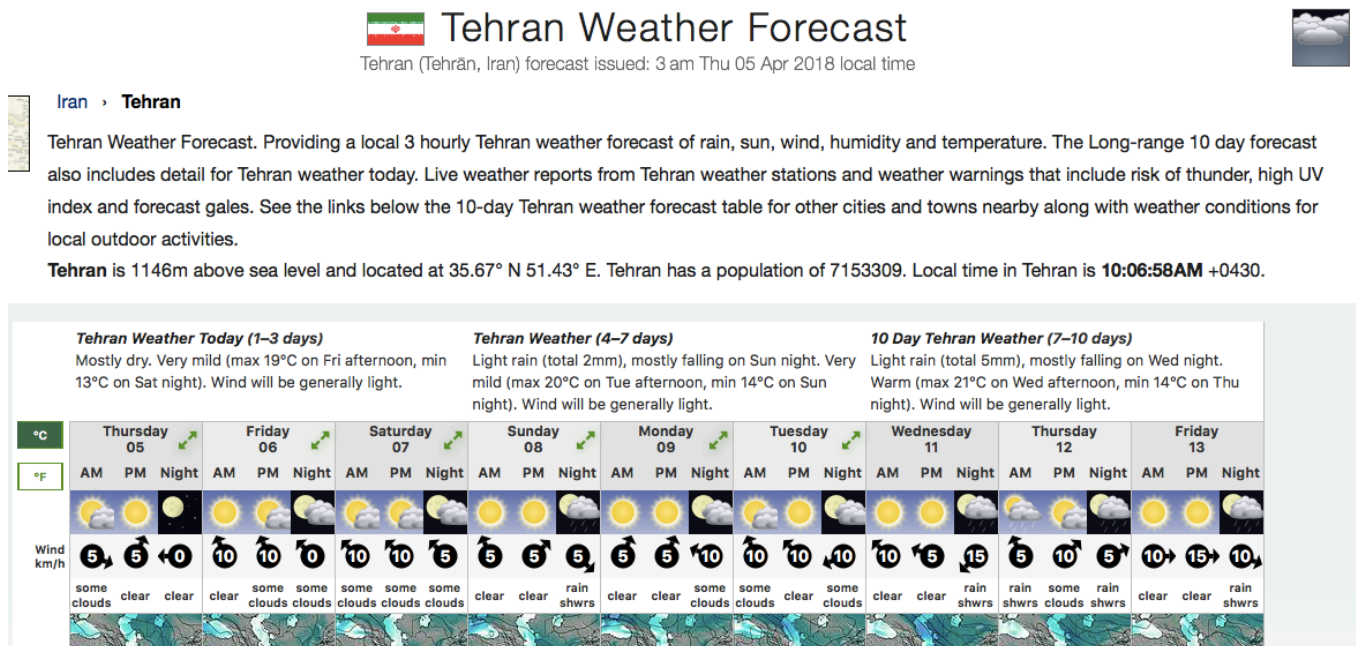
if you are finished with graphics lets go to work.(I didn't explain much about graphics in these documents you can use other sources. thats not too hard)

then we need to work with those two labels and the submit button while pressed, so like previous apps make a connection with your ViewController.

```
@IBOutlet weak var cityName: UITextField!
@IBOutlet weak var messageLabel: UILabel!

@IBAction func toSubmit(_ sender: Any) {
```

now we need some explanation about how we want to get our weather. The trick is about that in this link "<https://www.weather-forecast.com>" after you set your location for example in this link we have Tehran's weather: <https://www.weather-forecast.com/locations/Tehran/forecasts/latest> . After analyzing the HTML format of that page we can find it.



To get the HTML file there must be a window to exchange data and to make this window there must be a session which made with URL load request. I made the URL load request:

```
let url = URL(string: "https://www.weather-forecast.com/locations/"+cityName.text!+"/forecasts/latest")
let request = URLRequest(url: url!)
```

and session:

```
let task = URLSession.shared.dataTask(with: request){
    data , request , error in
    if error != nil {
        print(error as Any)
    }else{
```

this function has a closure which it's inputs are the data that we get, error, and request; so we have our HTML code in data. Here is the continuation of code but before Have to mention that theres a global variable in this class called message that we want to make it the text of the label later.

```
}else{
    if let unwrappedData = data{
        let dataString = NSString(data: unwrappedData, encoding: String.Encoding.utf8.rawValue)
        var stringSeparator = "<span class=\"b-forecast__table-description-title\">"
        if let dataComponent = dataString?.components(separatedBy: stringSeparator){
            if dataComponent.count > 1 {
                stringSeparator = "<span class=\"phrase\">"
                var tempString : NSString? = dataComponent[1] as NSString
                if let newDataComponent = tempString?.components(separatedBy: stringSeparator){
                    stringSeparator = "</span>"
                    tempString = newDataComponent[1] as NSString
                    if let newNewDataComponent = tempString?.components(separatedBy: stringSeparator){
                        self.message = newNewDataComponent[0].replacingOccurrences(of: "&deg;C", with: "'(')
                    }
                }
            }
        }
    }
}
```

Don't panic :D the code above is too easy just some if-let statements for handling errors makes it look difficult. As I take a look at the HTML source file of that page I wondered how can I access the line that I want in the code; there is two of the "" in code and if you make the code into arrays by separating with the help of this line we will be more closer in the second object of array. Then we can make an other array on our second object by separation with "" and go on. Notice that to dismiss the quotations use \ .

In the last line of this code I changed the sign of centigrade from HTML to the type that I want because in HTML to show centigrade we use "°C"

* use of self is necessary because we are inside the closure and the message in outside.

Now to assign the value of message variable to label if you add it after the previous code in the closure then we get this error: UILabel.text must be used from main thread only
so to fix this problem we have to use it from the main thread:

```
DispatchQueue.main.sync(execute: {  
    self.messageLabel.text = self.message  
})  
  
}  
task.resume()  
}
```

task.resume is to make or resume the task.