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# ASSIGNMENT: FUNDAMENTALS OF MOBILE & PERVASIVE COMPUTING

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Assigned by: Dr. Kamran Taj



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# ● “CONTEXT-AWARE SYSTEM”

## *Brief Intro of Assignment:*

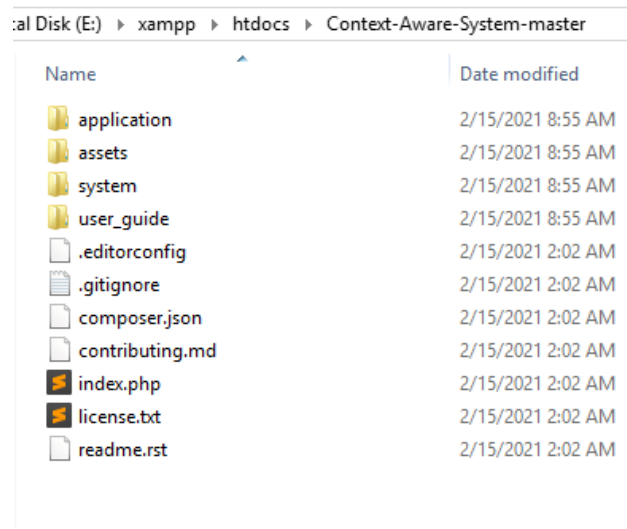
“I have designed Context-Aware system as a web service which uses mainly all 4 **CONTEXT**, namely:

1. Profile
2. Location
3. Weather
4. Time

The primary language I have used for this web service is **PHP** and its framework. I have used CSS and Bootstrap for styling. JavaScript is also used for controlling the dynamic behavior of Event Handlers. I have used the following API's/Functions for this **Context-Aware System**:

- Instagram User Profile API
- Google map Location API
- Open Weather API
- Time function of JavaScript

## *My Web Service Directory Structure:*



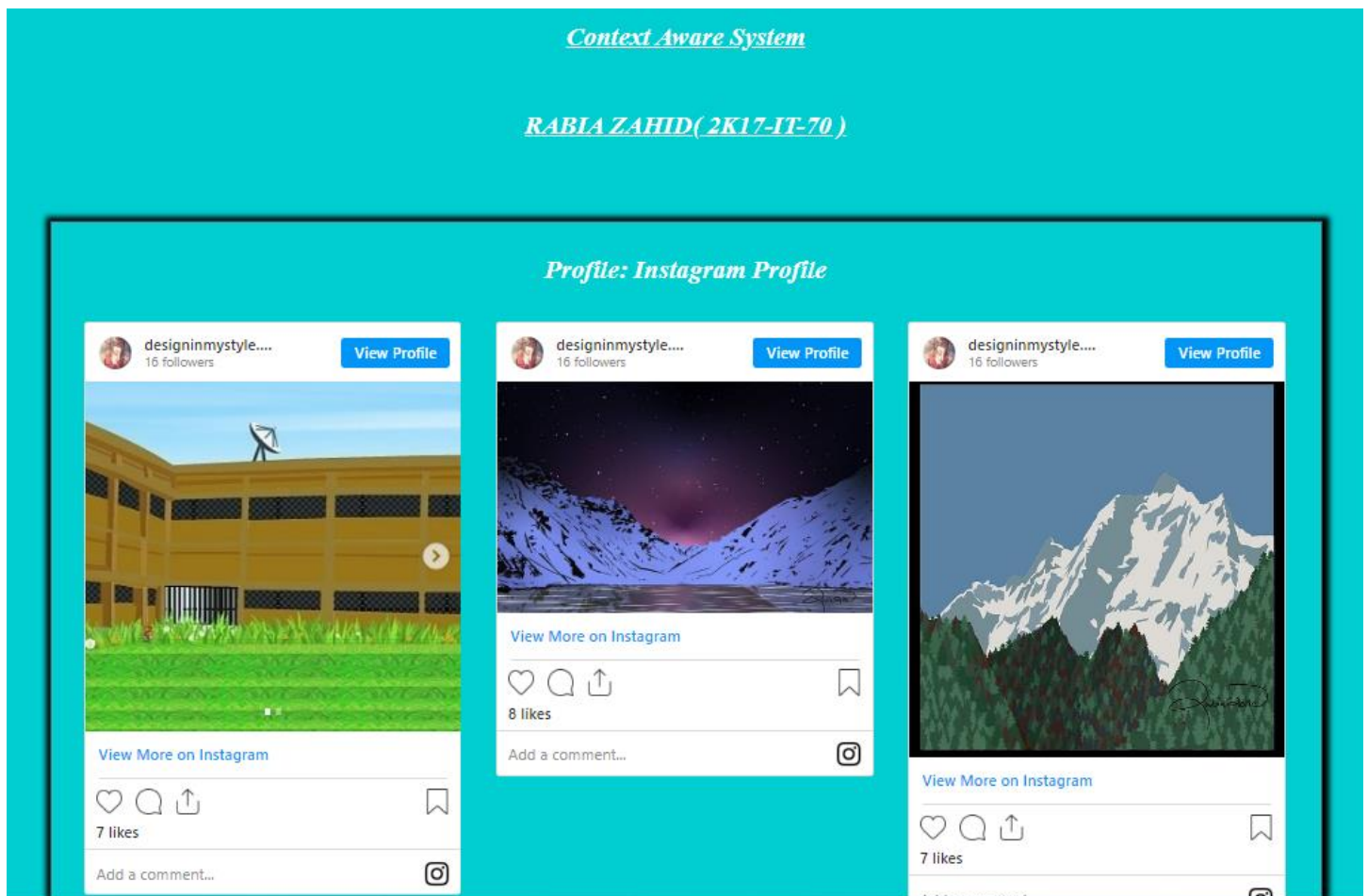
Name	Date modified
application	2/15/2021 8:55 AM
assets	2/15/2021 8:55 AM
system	2/15/2021 8:55 AM
user_guide	2/15/2021 8:55 AM
.editorconfig	2/15/2021 2:02 AM
.gitignore	2/15/2021 2:02 AM
composer.json	2/15/2021 2:02 AM
contributing.md	2/15/2021 2:02 AM
index.php	2/15/2021 2:02 AM
license.txt	2/15/2021 2:02 AM
readme.rst	2/15/2021 2:02 AM

## 1. Using Instagram User Profile API

I have created user token via Instagram Developers Option and then given my profile link in the relatable attributes so that they display user profile and post.

```
<div class="row no-gutters border brdr notranslate">
  <div class="col-sm-12 col-md-12 col-lg-12 text-center">
    <h3 class="heading "><b>Profile: Instagram Profile</b></h3>
    <div class="col-sm-4 col-lg-4 col-md-4">
      <blockquote class="instagram-media" data-instgrm-permalink="https://www.instagram.com/p/
CCeAsbYJGBE/?utm_source=ig_web_copy_link" data-instgrm-version="13" style=" background:#FFF; border:0;
border-radius:3px; box-shadow:0 0 1px 0 rgba(0,0,0,0.5),0 1px 10px 0 rgba(0,0,0,0.15); margin: 1px;
max-width:540px; min-width:326px; padding:0; width:99.375%; width:-webkit-calc(100% - 2px); width:calc(100%
- 2px);"><div style="padding:16px;"> <a href="https://www.instagram.com/p/CLPH6vKBjC/?utm_source=ig_embed&
amp;utm_campaign=loading" style=" background:#FFFFFF; line-height:0; padding:0 0; text-align:center;
```

### Output:



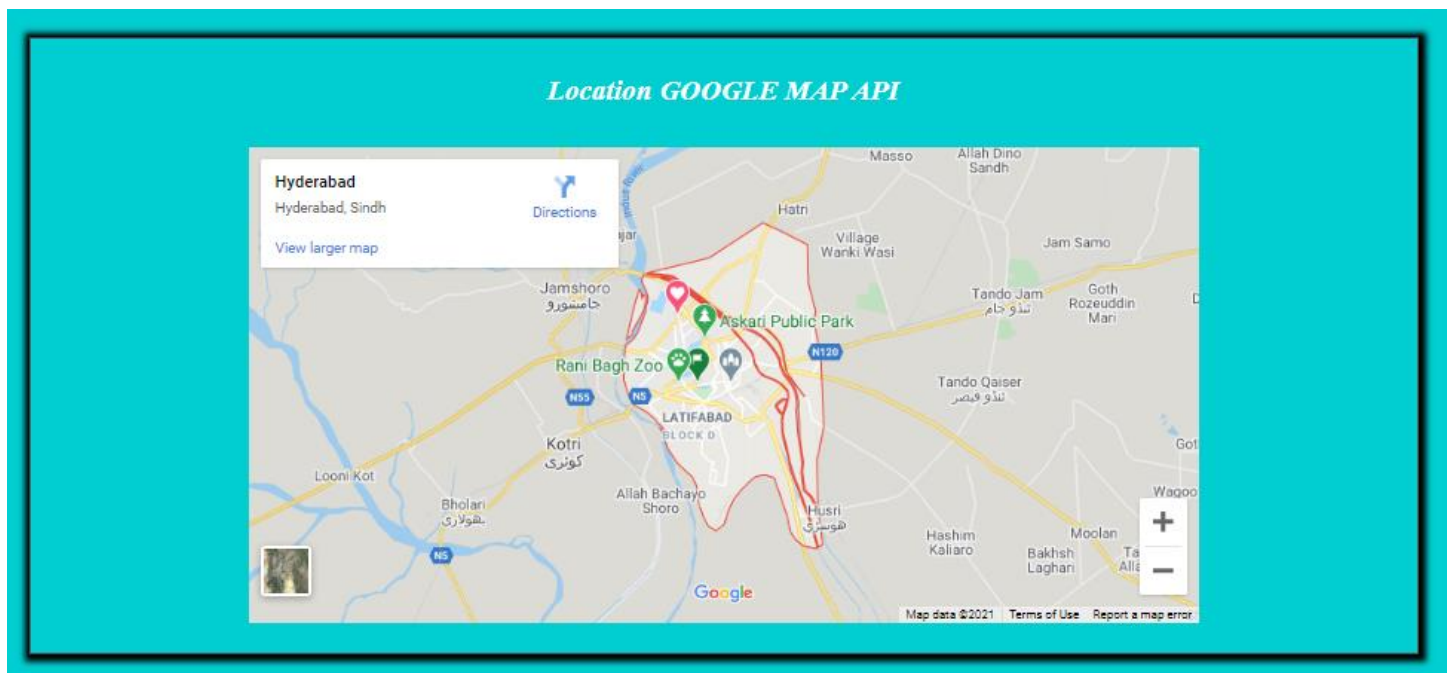
## 2. Using Google map Location API:

I have used most commonly displayed MAP's API for showing the selected location which I have given while accessing my **APIKEY** using Map's **Developer Options**. Here, I have show location of Hyderabad.

```
<br> <br>
<div class="row no-gutters border brdr space">
  <div class="col-sm-12 col-md-12 col-lg-12 text-center">
    <h3 class="notranslate heading "><b>Location GOOGLE MAP API</b></h3>

    <div><iframe src="https://www.google.com/maps/embed?pb=!1m14!1m8!1m3!1d115348.31208699707!2d68.2968658!3d!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x394c70f6d444f3c3:3A0xc00bbc183d41e285!2sHyderabad%2C%20Sindh!5e0!3m2v1613222955093!5m2!1sen!2s" width="800" height="400" frameborder="0" style="border:0;" allowfullscreen="" aria-hidden="false" tabindex="0"></iframe></div>
  </div>
</div> <br> <br>
```

### Output:

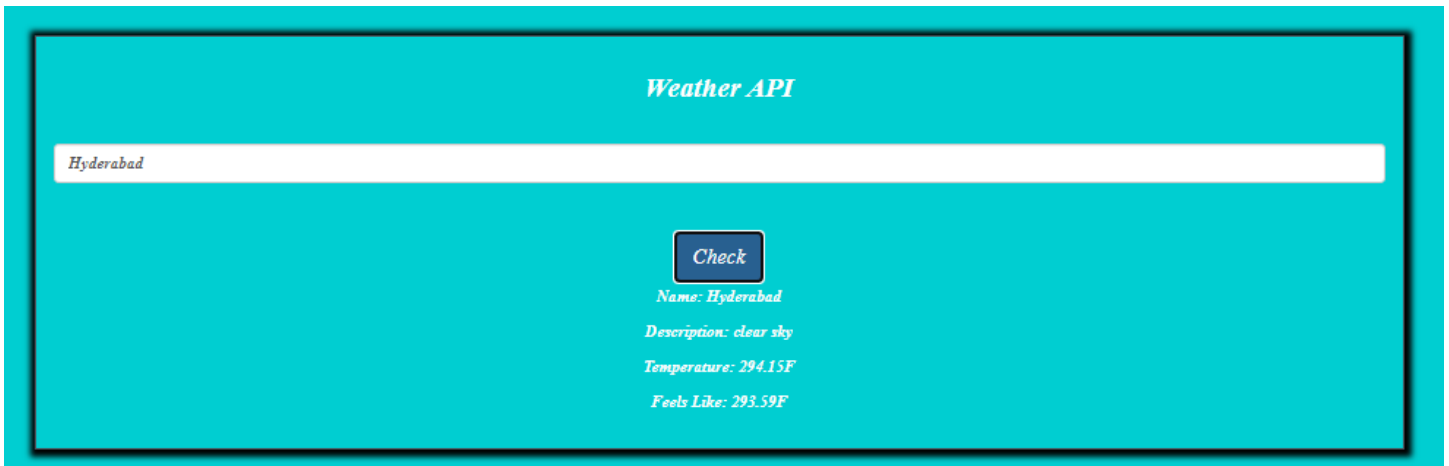


### 3. Using Weather API:

I have implemented weather API of OPEN WEATHER web service. Whenever I passes any location in the following input box, an event is generated calling the desired function for showing current weather conditions.

```
<div class="row no-gutters notranslate brdr">
  <div class="col-sm-12 col-md-12 col-lg-12 text-center ">
    <h3 class="heading "><b>Weather API</b></h3>
    <input type="text" class="form-control" id="cityName" placeholder="Enter city for Weather Forecast ">
    <br><br>
    <input type="button" value="Check" id="button" onclick="btnn()" class="btn btn-primary btn-lg">
    <br>
    <div class="display_weather">
      <p class="city"></p>
      <p class="desc"></p>
      <p class="temp"></p>
      <p class="feels"></p>
    </div>
  </div>
  <div class="col-sm-12 col-md-12 col-lg-12 text-center">
    <br>
```

### Output:



The screenshot displays a web application titled "Weather API" with a light blue background. At the top, the title "Weather API" is centered in a light blue font. Below the title is a white input field containing the text "Hyderabad". Underneath the input field is a blue button with the text "Check" in white. Below the button, the following information is displayed in a light blue font: "Name: Hyderabad", "Description: clear sky", "Temperature: 294.15F", and "Feels Like: 293.59F".

#### 4. Using Time Function:

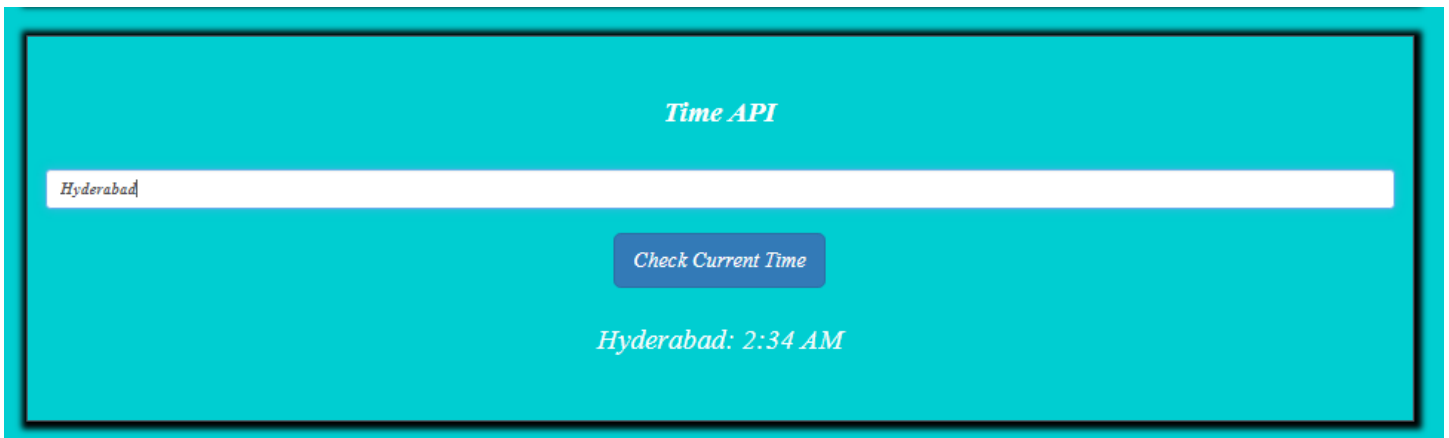
I have used JavaScript **getCityDate()** to display user's Current time and to utilize it as follows:

```
<!-- Time -->
<div class="row no-gutters border brdr space">
  <div class="col-sm-12 col-md-12 col-lg-12 text-center">
    <br>

  </div>
  <div class="col-sm-12 col-md-12 col-lg-12 text-center notranslate">
    <h3 class="heading "><b>Time API</b></h3>
    <!-- <span>Search Only Asian City Time</span> -->
    <input type="text" class="form-control" id="cityTime" placeholder="Enter city "> <br>
    <input type="button" value="Check Current Time" onclick="getCityTime()" class="btn btn-primary btn-lg">
    <h3 class="heading ">Hyderabad: 2:34 AM</h3>

  </div>
</div>
</div>
```

#### Output:

The screenshot shows a web application interface with a light blue background. At the top, the text "Time API" is displayed in a dark blue, italicized font. Below this, there is a white text input field containing the word "Hyderabad". Underneath the input field is a dark blue button with the text "Check Current Time" in white. At the bottom of the interface, the text "Hyderabad: 2:34 AM" is displayed in a dark blue, italicized font.