Assignment 1.3

1. Performed a Get call to query the weather condition from new York. During the time of query, the observation time was around 12:56pm with sunny weather with air quality and wind speed condition. It also gave an estimate of when the sun and moon will rise and set.

GET https://api.weatherstack.com/current?access\_key=a1e8fe700ade2d73aacb7517f239b8cd&query=new york

{

"request": {

"type": "City",

"query": "New York, United States of America",

"language": "en",

"unit": "m"

},

"location": {

"name": "New York",

"country": "United States of America",

"region": "New York",

"lat": "40.714",

"lon": "-74.006",

"timezone\_id": "America/New\_York",

"localtime": "2025-03-25 08:56",

"localtime\_epoch": 1742892960,

"utc\_offset": "-4.0"

},

"current": {

"observation\_time": "12:56 PM",

"temperature": 8,

"weather\_code": 113,

"weather\_icons": [

"https://cdn.worldweatheronline.com/images/wsymbols01\_png\_64/wsymbol\_0001\_sunny.png"

],

"weather\_descriptions": [

"Sunny"

],

"astro": {

"sunrise": "06:51 AM",

"sunset": "07:14 PM",

"moonrise": "04:58 AM",

"moonset": "02:46 PM",

"moon\_phase": "Waning Crescent",

"moon\_illumination": 25

},

"air\_quality": {

"co": "355.2",

"no2": "13.875",

"o3": "87",

"so2": "7.955",

"pm2\_5": "9.435",

"pm10": "9.99",

"us-epa-index": "1",

"gb-defra-index": "1"

},

"wind\_speed": 16,

"wind\_degree": 261,

"wind\_dir": "W",

"pressure": 1013,

"precip": 0,

"humidity": 45,

"cloudcover": 0,

"feelslike": 6,

"uv\_index": 0,

"visibility": 16,

"is\_day": "yes"

}

}

GET https://api.weatherstack.com/current?access\_key=a1e8fe700ade2d73aacb7517f239b8cd&query=singapore

{

"request": {

"type": "City",

"query": "Singapore, Singapore",

"language": "en",

"unit": "m"

},

"location": {

"name": "Singapore",

"country": "Singapore",

"region": "",

"lat": "1.293",

"lon": "103.856",

"timezone\_id": "Asia/Singapore",

"localtime": "2025-03-25 21:07",

"localtime\_epoch": 1742936820,

"utc\_offset": "8.0"

},

"current": {

"observation\_time": "01:07 PM",

"temperature": 26,

"weather\_code": 116,

"weather\_icons": [

"https://cdn.worldweatheronline.com/images/wsymbols01\_png\_64/wsymbol\_0004\_black\_low\_cloud.png"

],

"weather\_descriptions": [

"Partly cloudy"

],

"astro": {

"sunrise": "07:07 AM",

"sunset": "07:14 PM",

"moonrise": "03:19 AM",

"moonset": "03:41 PM",

"moon\_phase": "Waning Crescent",

"moon\_illumination": 25

},

"air\_quality": {

"co": "625.3",

"no2": "36.26",

"o3": "102",

"so2": "15.54",

"pm2\_5": "54.02",

"pm10": "76.22",

"us-epa-index": "3",

"gb-defra-index": "3"

},

"wind\_speed": 14,

"wind\_degree": 32,

"wind\_dir": "NNE",

"pressure": 1007,

"precip": 0,

"humidity": 94,

"cloudcover": 75,

"feelslike": 29,

"uv\_index": 0,

"visibility": 8,

"is\_day": "no"

}

}

GEThttps://api.weatherstack.com/current?access\_key=a1e8fe700ade2d73aacb7517f239b8cd&query=Shenzhen

{

"request": {

"type": "City",

"query": "Shenzhen, China",

"language": "en",

"unit": "m"

},

"location": {

"name": "Shenzhen",

"country": "China",

"region": "Guangdong",

"lat": "22.533",

"lon": "114.133",

"timezone\_id": "Asia/Hong\_Kong",

"localtime": "2025-03-25 21:12",

"localtime\_epoch": 1742937120,

"utc\_offset": "8.0"

},

"current": {

"observation\_time": "01:12 PM",

"temperature": 23,

"weather\_code": 113,

"weather\_icons": [

"https://cdn.worldweatheronline.com/images/wsymbols01\_png\_64/wsymbol\_0008\_clear\_sky\_night.png"

],

"weather\_descriptions": [

"Clear"

],

"astro": {

"sunrise": "06:23 AM",

"sunset": "06:36 PM",

"moonrise": "03:19 AM",

"moonset": "02:20 PM",

"moon\_phase": "Waning Crescent",

"moon\_illumination": 25

},

"air\_quality": {

"co": "656.75",

"no2": "90.28",

"o3": "119",

"so2": "115.255",

"pm2\_5": "62.715",

"pm10": "71.41",

"us-epa-index": "3",

"gb-defra-index": "3"

},

"wind\_speed": 10,

"wind\_degree": 174,

"wind\_dir": "S",

"pressure": 1007,

"precip": 0,

"humidity": 69,

"cloudcover": 0,

"feelslike": 25,

"uv\_index": 0,

"visibility": 10,

"is\_day": "no"

}

}

1. The main difference between HTTP and HTTPS is security as HTTPS encrypts data transmitted between client and server using TLS/SSL which contains SSL/TLS certificates issued by trusted certificate authorities to verify that the website is legitimate. HTTPS also ensure data sent and received is not altered /corrupted during transmission while HTTP is vulnerable to man in the middle attacks where they will modify the data being transmitted.