

API Based Weather Application with Angular

This step-by-step guide will teach you how to create a API Based Weather Application using Angular, Shows Live Temperature of the City

[Home](#) / [Tutorial Details](#)

Tutorial Steps

- ➞ Step 1 – Create Angular App
- ➞ Step 2 – Project Setup
- ➞ Step 3 – Create Home Component
- ➞ Step 4 – Create Service for Weather API
- ➞ Step 5 – Add CSS

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Have a Question?

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Weather App

Search Weather

Enter city name



Step 1 – Create Angular App

Run the following command to create a new Angular project:

```
ng new weather-app --no-standalone --routing --ssr=false
```

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Run the following command to install jquery, popperjs, and bootstrap :

```
cd weather-app
```

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```
npm install jquery --save
```

```
npm install @popperjs/core --save
```

```
npm install ngx-bootstrap bootstrap@latest
```

```
ng add ngx-bootstrap
```

Run the following command to install Angular Ant Design:

```
ng add ng-zorro-antd
```

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Your Application Folder Structure will be like:

```
src
├── app
│   ├── home
│   │   ├── home.component.html
│   │   ├── home.component.css
│   │   └── home.component.ts
│   ├── service
│   │   └── weather-api.service.ts
│   ├── app.component.html
│   ├── app.component.ts
│   ├── app.module.ts
│   └── app-routing.module.ts
├── index.html
└── style.css
```

Step 2 – Project Setup

Copy and Paste following code "script" section of "angular.json" file:

```
"/node_modules/jquery/dist/jquery.min.js",
```

```
"/node_modules/bootstrap/dist/js/bootstrap.bundle.min.js"
```

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Step 3 – Create Home Component for Dashboard

Search Weather

Dhaka



Weather in Dhaka

Dhaka, Bangladesh

Temperature: 19.5°C

Condition: Clear

Humidity: 64%

Wind Speed: 9.4 km/h



Create Home Component for Dashboard with the following command:

```
ng generate component --skip-tests=true home
```

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You will get:

home.component.html

home.component.css

home.component.ts

Copy and Paste the following code to home.component.html:

```

<div class="container mt-5">
  <h2 class="text-center mb-4">Search Weather</h2>
  <div class="search-container">
    <form (submit)="searchCity()" class="search-form">
      <input
        type="text"
        [(ngModel)]="cityName"
        name="city"
        class="search-input"
        placeholder="Enter city name"
      />
      <button type="submit" class="search-btn">
        <span nz-icon nzType="search"></span>
      </button>
    </form>
  </div>

  <div class="container text-center mt-5" *ngIf="weatherData">
    <h2>Weather in {{ weatherData.location.name }}</h2>
    <div class="card">
      <div class="card-body">
        <h4 class="card-title">{{ weatherData.location.name }}, {{
weatherData.location.country }}</h4>
        <strong>Temperature:</strong> {{ weatherData.current.temp_c }}°C<br />
        <strong>Condition:</strong> {{ weatherData.current.condition.text }}<br />
        <strong>Humidity:</strong> {{ weatherData.current.humidity }}%<br />
        <strong>Wind Speed:</strong> {{ weatherData.current.wind_kph }} km/h
        <img
          [src]="weatherData.current.condition.icon"
          alt="weather icon"
          class="img-fluid"
        />
      </div>
    </div>
  </div>
</div>

```

Copy and Paste the following code to home.component.ts :

```
import {Component, OnInit} from '@angular/core';
import {ActivatedRoute, Router} from '@angular/router';
import {WeatherApiService} from "../service/weather-api.service";

@Component({
  selector: 'app-home',
  templateUrl: './home.component.html',
  styleUrls: ['./home.component.css'],
})
export class HomeComponent implements OnInit {
  cityName = "";
  weatherData: any;

  constructor(private router: Router,
               private route: ActivatedRoute,
               private weatherApi: WeatherApiService) {}

  searchCity() {
    if (this.cityName) {
      this.router.navigate(['/'], {
        queryParams: { city: this.cityName },
      });
    }
  }

  ngOnInit() {
    this.route.queryParams.subscribe((params) => {
      this.cityName = params['city'];
      this.getWeatherData(this.cityName);
    });
  }

  getWeatherData(city: string) {
    this.weatherApi.getWeather(city).subscribe((data) => {
      this.weatherData = data;
    });
  }
}
```

Copy and Paste the following code to "app.component.html" for Navigation Menu:

```
<nav class="navbar navbar-expand-lg sticky-top bg-white">
  <div class="container">
    <a class="navbar-brand" href="#">Weather App</a>
  </div>
</nav>
```

Copy

Copy and Paste the following code to "app-routing.module.ts" at "import" section:

```
import { HomeComponent } from "../home/home.component";
```

Copy

Copy and Paste the following code to app-routing.module.ts "const routes: Routes" section:

```
{ path: "", component: HomeComponent },
```

Copy

Add following code to "app.component.html" for Routing to Dashboard:

```
<router-outlet></router-outlet>
```

Copy

Step 4 – Create Service for Weather API

Run following Command to create weather-api service:

```
ng generate service service/weather-api --skip-tests
```

Copy

You will get "weather-api.service.ts" file in model directory:

Copy and Paste the following code to weather-api.service.ts:

```
import { Injectable } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { Observable } from 'rxjs';

@Injectable({
  providedIn: 'root',
})
export class WeatherApiService {
  private apiKey = 'Your_API_Key';
  private baseUrl = 'https://api.weatherapi.com/v1/current.json';

  constructor(private http: HttpClient) {}

  getWeather(city: string): Observable {
    const url = `${this.baseUrl}?key=${this.apiKey}&q=${city}`;
    return this.http.get(url);
  }
}
```

Follow these 3 steps to get your API key:

Sign Up and Get API Key

1. Go to <https://www.weatherapi.com/>.
2. Sign up for a free account.
3. Get your API key from the dashboard.

Step 5 – Add CSS

Copy and Paste the following CSS code to style.css:

```
/* Responsive container */
.container {
  max-width: 600px;
  padding: 15px;
  margin: auto;
}

/* Weather card responsiveness */
.card {
  margin: 20px auto;
  max-width: 400px;
  padding: 20px;
  border: 1px solid #ddd;
  border-radius: 10px;
  box-shadow: 25px 25px 49px #dedede,
    -25px -25px 49px #ffffff;
}

.card-body img {
  max-width: 50px;
  margin-bottom: 10px;
}

.card-text {
  font-size: 14px;
}

/* Responsive Navbar */
@media screen and (max-width: 768px) {
  .navbar a, .navbar-brand {
    display: block;
    text-align: center;
    width: 100%;
  }

  .card {
    max-width: 90%;
  }

  .card-text {
    font-size: 12px;
  }
}

/* Center and style the search container */
.search-container {
  display: flex;
  justify-content: center;
```

```
        align-items: center;
    }

    /* Form styling */
    .search-form {
        display: flex;
        width: 100%;
        max-width: 400px;
        position: relative;
    }

    /* Input styling */
    .search-input {
        width: 100%;
        padding: 15px 20px;
        font-size: 16px;
        border: 2px solid #dcdcdc;
        border-radius: 50px;
        outline: none;
        transition: all 0.3s ease-in-out;
        box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
        padding-right: 60px;
    }

    /*Button styling*/
    .search-btn {
        position: absolute;
        right: 10px;
        top: 50%;
        transform: translateY(-50%);
        background-color: #fff;
        color: black;
        border: none;
        border-radius: 50%;
        padding: 10px 14px;
        font-size: 18px;
        cursor: pointer;
        display: flex;
        align-items: center;
        justify-content: center;
    }

    /* Responsive Design */
    @media screen and (max-width: 768px) {
        .search-input {
            font-size: 14px;
            padding: 12px 16px;
```

```
}

.search-btn {
  padding: 8px 12px;
  font-size: 16px;
}
}

.navbar {
  box-shadow: 6px 6px 12px #c5c5c5, -6px -6px 12px #ffffff;
}

.navbar-brand {
  font-size: 1.5rem;
  font-weight: bold;
  /*text-indent: 209px;*/
}

.nav-link {
  font-size: 1rem;
  margin: 0 5px;
}

.nav-link.active {
  font-weight: bold;
  text-decoration: underline;
}
```



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