**Arrays in Typescript**

***An array is a user-defined data type. An array is a homogenous collection of similar types of elements that have a contiguous memory location and which can store multiple values of different data types.***

***An array is a type of data structure that stores the elements of similar data type and consider it as an object too. We can store only a fixed set of elements and can’t expand its size, once its size is declared.***

***The array follows Index based storage i.e)the first element of an array is stored at index 0 or at index ‘i’ and the remaining elements are stored at the location ‘i+1’.***

***Features of an Array***

* ***Same data type of elements is stored in an array.***
* ***Array elements are always stored in contiguous memory locations.***
* ***Storage of 2-D array elements are rowed by row in a contiguous memory location.***
* ***The Starting element of address is represented by the array name.***
* ***The size of an array should be declared at the time of initialization.***
* ***The remaining elements of an array can be retrieved by using the starting index of an Array.***
* ***Typescript supports array just like that in JavaScript. There are two ways to declare an array in typescript:***

***1. Using square brackets.***

***let array\_name[:datatype] = [val1, val2, valn..]***

***Example:***

|  |
| --- |
| ***let fruits: string[] = ['Apple', 'Orange', 'Banana'];*** |

***2. Using a generic array type.  
TypeScript array can contain elements of different data types, as shown below.***

***let array\_name: Array = [val1, val2, valn..]***

***Example: Multi Type Array***

|  |
| --- |
| ***var values: (string | number)[] = ['Apple', 2, 'Orange', 3, 4, 'Banana'];***  ***// or***  ***var values: Array = ['Apple', 2, 'Orange', 3, 4, 'Banana'];*** |

***app.component.ts***

import { Component } from '@angular/core';

@Component({

  selector: 'app-root',

  templateUrl: './app.component.html',

  styleUrls: ['./app.component.css'],

})

export class AppComponent {

  title = 'Angular-App';

  //String array

  fruits: string[] = ['mango', 'apple', 'banana', 'Grapes', 'Orange'];

  //number array

  num: number[] = [10, 20, 30, 40, 50];

  active: boolean[] = [true, false, true, false, true];

  data: any[] = [10, 'raj', true];

  constructor() {

    console.log(`Fruits::${this.fruits}`);

    console.log(`Numbers::${this.num}`);

    console.log(`Active::${this.active}`);

    console.log(`Data::${this.data}`);

  }

}

***app.component.css***

body{

    background-color: lightcyan;

    height: 100%;

    width: 100%;

}

h1{

    text-align: center;

}

***app.component.html***

<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>app</title>

  </head>

  <body>

    <h1>Welcome to Angular</h1>

    <ul type="none" style="font-weight: bold;">

      <li>Fruits::{{fruits}}</li>

      <li>Numbers::{{num}}</li>

      <li>Active Status::{{active}}</li>

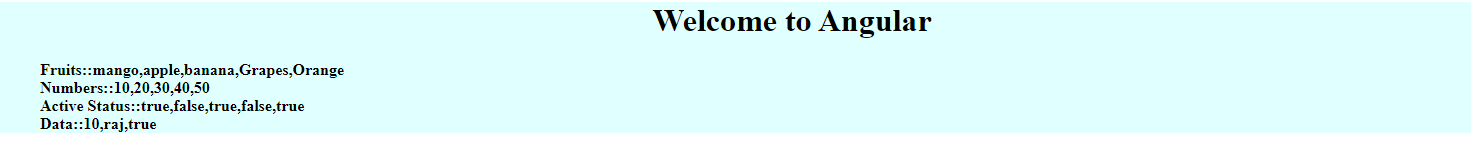
      <li>Data::{{data}}</li>

    </ul>

  </body>

</html>

***Browser output***

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