

Largest cities app

Create an Angular application that displays the top 10 largest cities on earth in a nice grid. Use Angular CLI and Angular Material. Use ngrx to manage state and apply the concept of dumb and smart components. Read all the way to the end before you start.

Data

Cities have these properties:

Property name	Type	Remarks
CityName	string	Name of the city
CityImage	string	URL of image of the city
Nation	string	Name of the country where the city is
NationFlag	string	URL of image of the country
Population	number	The number of people living in the city
Description	string	A short description of the city

Create a static array that contains the top 10 largest cities of the world. All properties of these cities can be found here: https://en.wikipedia.org/wiki/List_of_cities_proper_by_population. Just copy the data by hand. For the descriptions just use this text: *“Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat”*.

City card component

Create a component that takes a city as its input. The result should be similar to this:

<https://material.angular.io/components/card/examples>.

- Use the nation flag as mat-card-avatar
- Use the city name as mat-card-title
- Use the nation name as mat-card-subtitle
- Use the city image as mat-card-image (input image may have different sizes, make sure it fits nicely)
- Use the description as the mat-card-content
- Add a “Nuke” button which will remove 5 million from the cities current population when you click on it. This should be disabled when the population is less than 5 million.
- Add a “Grow” button which will add 1 million to the cities current population when you click on it.

- Display the population next to the buttons. This should be updated when the “Nuke” and “Grow” buttons are used.

City grid component

Create a component that takes an array of cities as its input. Display a city card component for each city in a grid. Show 1 card per row on XS screens, 5 cards per row on XL screens and an appropriate number for intermediate screen sizes.

When the app starts the city grid component should be shown on the initial screen.

Bonus

Add a slider on top of the grid which will filter the grid by population.

- Min value: 0
- Max value: 50 million
- Step size: 1 million
- Initial value: 0

The grid should only display cities which have a population that is equal to or higher than the slider's value.

Good luck

Please take 2 hours to finish as much as you can. The goal is not to deliver a perfectly finished application, but we would just like to see what you're capable of accomplishing within the time given. Afterwards we can discuss your work and you will get the opportunity to finish or optimize if you like.

We will test the app by running *npm install* and *npm serve*.