

## 8) Create a HTML page with Google Map?

Creating an HTML page with an embedded Google Map involves using the Google Maps JavaScript API. Below is a simple example of an HTML page that embeds a Google Map centered on a specific location.

First, you need to obtain a Google Maps API key by following these steps:

1. Go to the [Google Cloud Console](https://console.cloud.google.com/).
2. Create a new project or select an existing project.
3. Navigate to the "APIs & Services" section.
4. Enable the "Maps JavaScript API".
5. Create credentials to get your API key.

Once you have your API key, you can use it in your HTML file as shown below:

```
```html
<!DOCTYPE html>
<html>
<head>
  <title>Google Map Example</title>
  <style>
    /* Set the size of the div element that contains the map */
    #map {
      height: 100%;
    }
    /* The height of the HTML and body elements needs to be set to 100% */
    html, body {
      height: 100%;
      margin: 0;
```

```
        padding: 0;
    }
</style>
</head>
<body>
    <div id="map"></div>
    <script>
        // Initialize and add the map
        function initMap() {
            // The location to center the map (e.g., New York City)
            const location = { lat: 40.7128, lng: -74.0060 };
            // The map, centered at the specified location
            const map = new google.maps.Map(document.getElementById("map"), {
                zoom: 10,
                center: location,
            });
            // The marker, positioned at the specified location
            const marker = new google.maps.Marker({
                position: location,
                map: map,
            });
        }
    </script>
    <!-- Load the Google Maps JavaScript API with your API key -->
    <script async defer
src="https://maps.googleapis.com/maps/api/js?key=YOUR_API_KEY&callback=initMap
"></script>
</body>
</html>
```

...

Replace ``YOUR_API_KEY`` with the actual API key you obtained from the Google Cloud Console.

### Explanation:

1. **HTML Structure**:

- The ``head`` section contains the page title and a ``style`` block to set the height of the map container.
- The ``body`` section includes a ``div`` element with an ID of ``map`` which will contain the map.

2. **CSS**:

- The ``#map`` element is styled to take up 100% of the height of its container.
- Both ``html`` and ``body`` elements are set to 100% height to ensure the map fills the viewport.

3. **JavaScript**:

- A function ``initMap`` initializes the map. It creates a map centered at a specific location (New York City in this example) and adds a marker at that location.
- The Google Maps JavaScript API script is loaded asynchronously with the callback set to ``initMap`` to ensure the map initializes correctly once the API is loaded.

Save this code in an HTML file and open it in a web browser to see the map.