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Video Player using Angular JS

Exp No.7 **Date:22-03-21**

Objective:

- To Write an Angular program for video player**.**

Requirements:

- **Front End Requirements:**
  1. Web Browser HTML support
  2. HTML
  3. CSS
  4. Angular

- **Text Editor/IDE**

Theory:

- **Html** stands for hypertext markup language is a standard markup language for creating web pages. It Describes the structure of web page.
- **CSS** (cascading style sheets) is used to format the layout of a webpage.
- **AngularJS** is JavaScript framework (structural framework) for dynamic web applications.
- It is a Single Page Application (SPA) projects.
- It is Open source.
- It supports the Model View Controller (MVC).
- A Model View Controller pattern is made up of the following three parts:
  - Model - It is the lowest level of the pattern responsible for maintaining data.
  - View - It is responsible for displaying all or a portion of the data to the user.
  - Controller - It is a software Code that controls the interactions between the Model and View**.**
- AngularJS has built-in directives such as ngBind, ngModel, etc.
  - ng-app - This directive defines and links an AngularJS application to HTML.
  - ng-model - This directive binds the values of AngularJS application data to HTML input controls.
  - ng-bind - This directive binds the AngularJS application data to HTML tags.
- Video content concepts are growing faster as an important tool for enhancing inbound marketing tactics. Along with other inbound marketing tools like, blogs, search engine optimization (SEO) and social media, an engaging video is also leaving significant mark in increasing a website's web presence along with brand awareness.
- Videogular is a framework to develop video apps built on top of Angular.

- Videogular is different from other video because is a wrapper over the HTML5 video tag, so you just can add whatever you want. This provides a very powerful, but simple to use solution, for everybody.
- The main features of Videogular are:
  - No support for Flash: Which makes the code faster and easier to maintain.
  - Web Components: No need to write JavaScript to create your own player. You can write HTML and CSS code.
  - Extensible: You can create your own plugins via an intermediate API.
  - Themes: Write plain CSS to create your own theme. No more JSON objects or configfiles.
  - Reactive: Videogular's API is built on top of rxjs/Observables so you can listen to changes on the media player reactively.
  - Multicam: Videogular is conceived as a framework to develop video apps. For that reason we have support for advanced features like having multiple media files inside a video player and control all of them individually or at the same time. For example, four videos synchronized at the same time, each of them is a recorded camera in a motorbike race.
  - Play ANYTHING: With Videogular you can play literally anything. Thanks to the API you can create your own components to play maps, timers, slides, etc. and still use the same controls.
  - Easy to contribute: Because it is based on Angular, a very popular framework, its easy for other people to start contributing by creating plugins or fixing bugs.

Procedure

1. Install bower package manager using npm
   npm install -g bower;
2. Install the videogular library using the bower package manager:
   bower install videogular;
3. Create a new container to enclose the video player control.
4. Import the videogular library into the website, including AngularJS and Angular-Sanitize Frameworks, and create the video player by inserting the <videogular> control, followed by the required plugins if any.
5. Add the AngularJS code (module, controller) to enable the functionality of the video player.
6. Verify the output in the web browser by opening video.html.

Implementation:

video.html

```
<html>
<head>
   <link rel="stylesheet" href="video.css">
   <script src="./bower_components/angular/angular.min.js"></script>
   <script src="./bower_components/angular-sanitize/angular-
sanitize.min.js"></script>
   <script src="./bower_components/videogular/videogular.js"></script>
   <script src="./bower_components/videogular-controls/vg-controls.js"></script>
   <script src="./bower_components/videogular-overlay-play/vg-overlay-
```

```
play.js"></script>
   <script src="./bower_components/videogular-poster/vg-poster.js"></script>
   <script src="./bower_components/videogular-buffering/vg-
buffering.js"></script>

   <script src="./bower_components/angular/angular.min.js"></script>
   <script src="./bower_components/angular-sanitize/angular-
sanitize.min.js"></script>
   <script src="./bower_components/videogular/videogular.js"></script>
   <script src="./bower_components/videogular-controls/vg-controls.js"></script>
   <script src="./bower_components/videogular-overlay-play/vg-overlay-
play.js"></script>
   <script src="./bower_components/videogular-poster/vg-poster.js"></script>
 </head>
   <body bgcolor="#c1a1d3">
   <h1 style="font-family:Lucida Handwriting;"><center>Gujarat Virtual
Tour</center></h1>
   <script>
     angular.module('myApp',
            [
                  "ngSanitize",
                  "com.2fdevs.videogular",
                  "com.2fdevs.videogular.plugins.controls",
                  "com.2fdevs.videogular.plugins.overlayplay",
                  "com.2fdevs.videogular.plugins.poster"
            ]
      )
      .controller('HomeCtrl',
            ["$sce", function ($sce) {
                  this.config = {
                        sources: [
        {src:"gujaratvideo.mp4",type:"video/mp4"},
                              {src:
$sce.trustAsResourceUrl("http://static.videogular.com/assets/videos/videogular.mp
4"), type: "video/mp4"},
                              {src:
$sce.trustAsResourceUrl("http://static.videogular.com/assets/videos/videogular.web
m"), type: "video/webm"},
                              {src:
$sce.trustAsResourceUrl("http://static.videogular.com/assets/videos/videogular.ogg
"), type: "video/ogg"}
                        ],
                        theme: "bower_components/videogular-themes-
default/videogular.css"
                  };
 }]);

   </script>
   <div ng-app="myApp">
```

```
        <div ng-controller="HomeCtrl as controller">
                <videogular vg-theme="controller.config.theme">
                        <vg-media vg-src="controller.config.sources"
                                vg-tracks="controller.config.tracks">
                        </vg-media>

                        <vg-controls>
                                <vg-play-pause-button></vg-play-pause-button>
                                <vg-time-display>{{ currentTime | date:'mm:ss' }}</vg-time-
display>
                                <vg-scrub-bar>
                                        <vg-scrub-bar-current-time></vg-scrub-bar-current-
time>
                                </vg-scrub-bar>
                                <vg-time-display>{{ timeLeft | date:'mm:ss' }}</vg-time-
display>
                                <vg-volume>
                                        <vg-mute-button></vg-mute-button>
                                        <vg-volume-bar></vg-volume-bar>
                                </vg-volume>
                                <vg-fullscreen-button></vg-fullscreen-button>
                        </vg-controls>

                        <vg-overlay-play></vg-overlay-play>
                        <vg-poster vg-url='controller.config.plugins.poster'></vg-poster>
                </videogular>
        </div>
</div>

  </body>
</html>
```

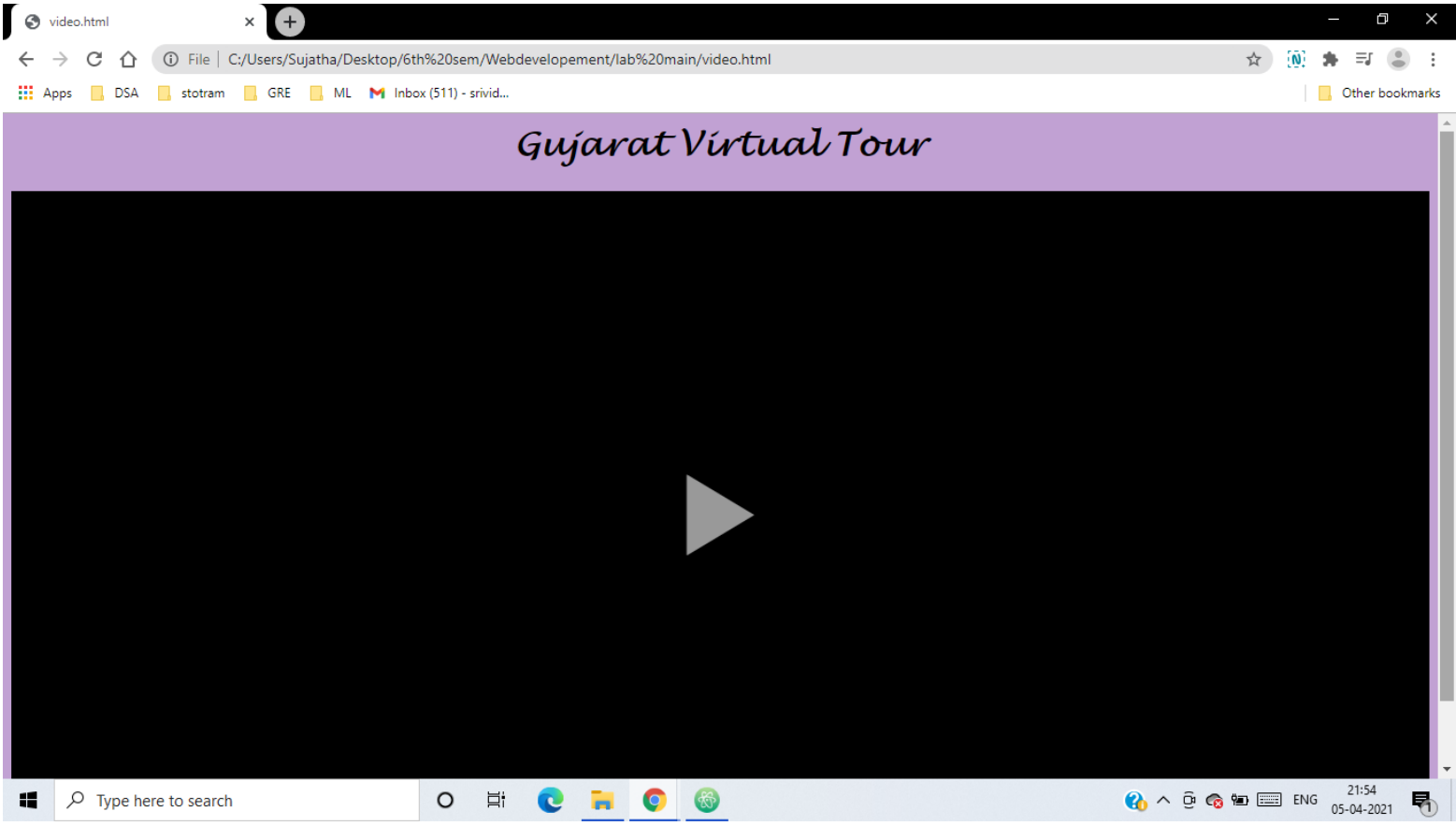
video.css

```
.videogular-container {
        width: 100%;
        height: 320px;
        margin: auto;
        overflow: hidden;
}

@media (min-width: 1200px) {
        .videogular-container {
                width: 1170px;
                height: 658.125px;
        }
}

@media (min-width: 992px) and (max-width: 1199px) {
```

```
        .videogular-container {
                width: 940px;
                height: 528.75px;
        }
}

@media (min-width: 768px) and (max-width: 991px) {
        .videogular-container {
                width: 728px;
                height: 409.5px;
        }
}
```

Output:

video.html: This web page contains the angular js video player



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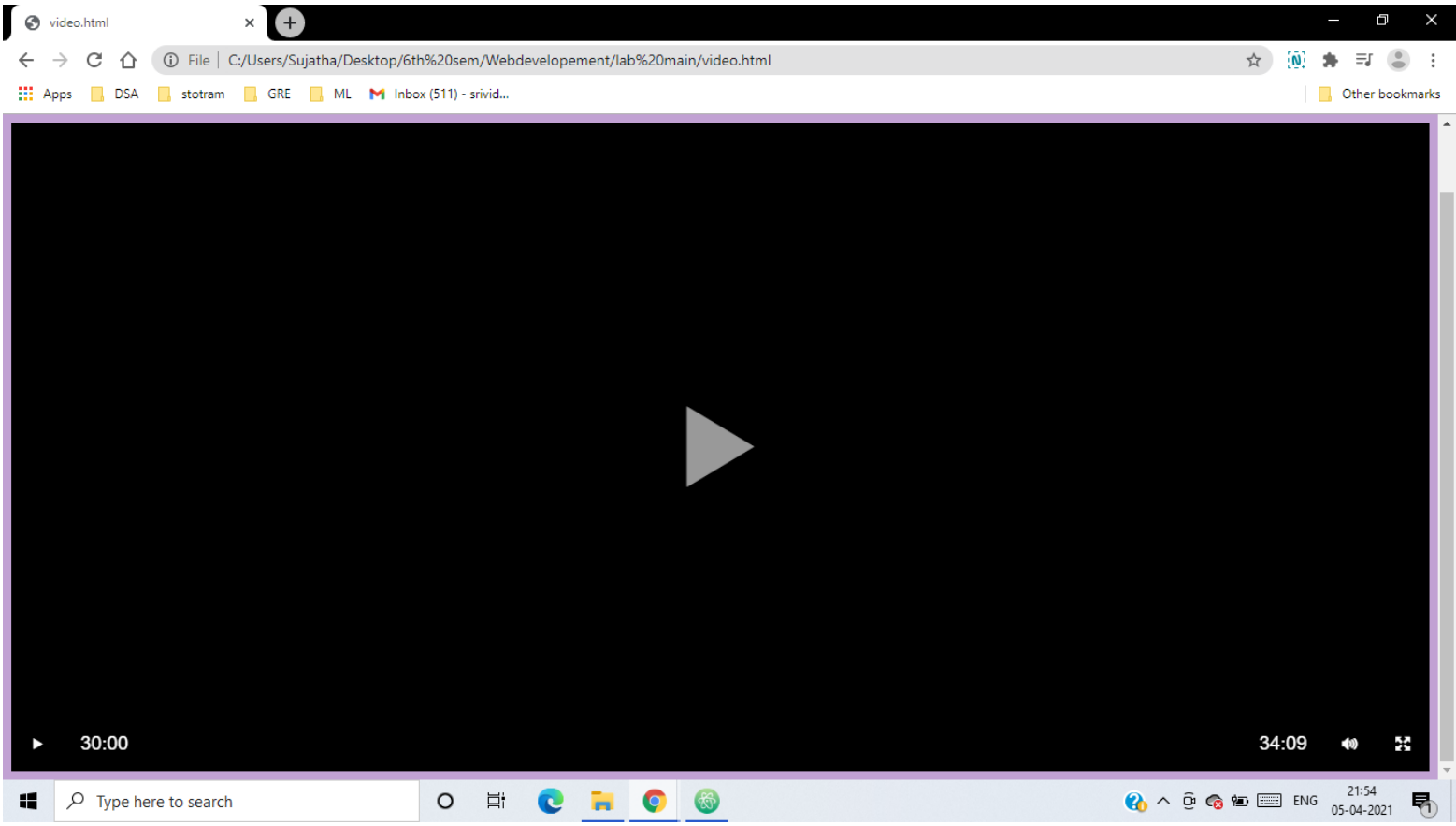
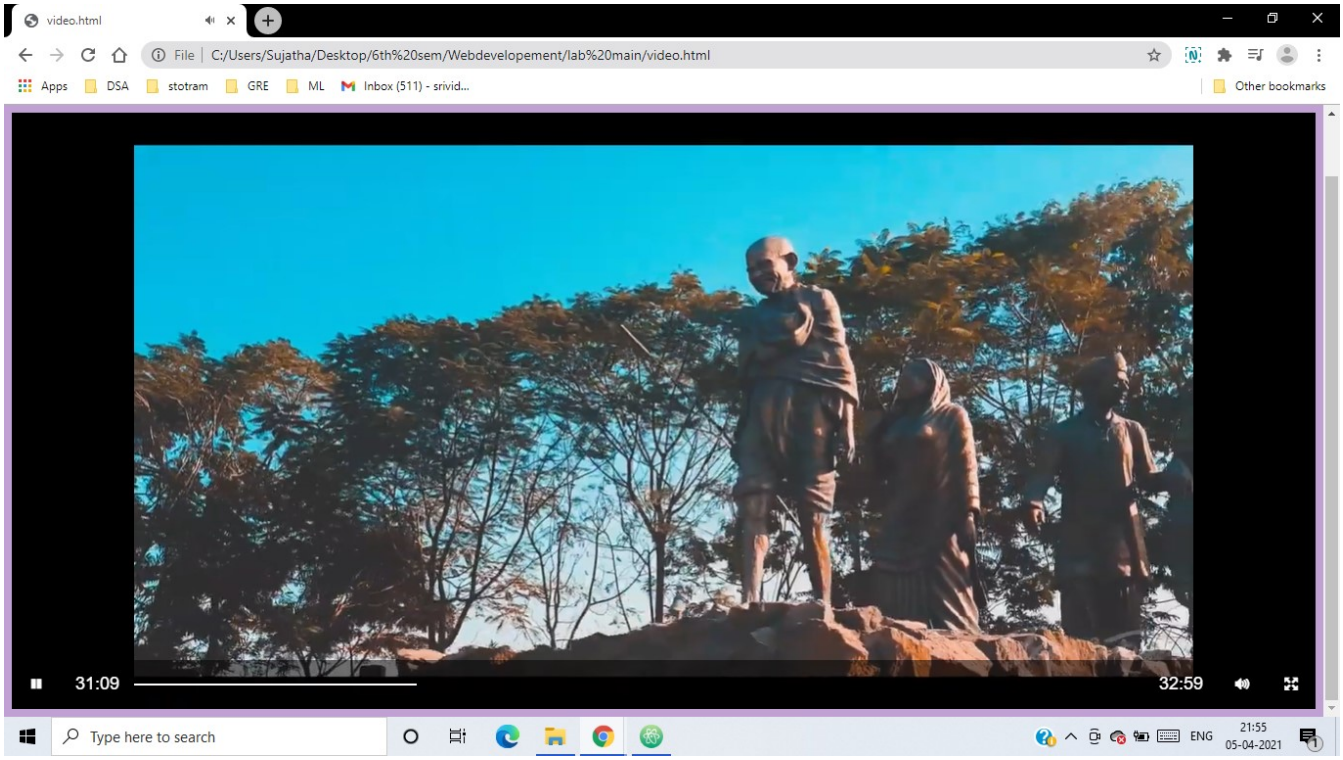
Video visuals:



Video visuals:



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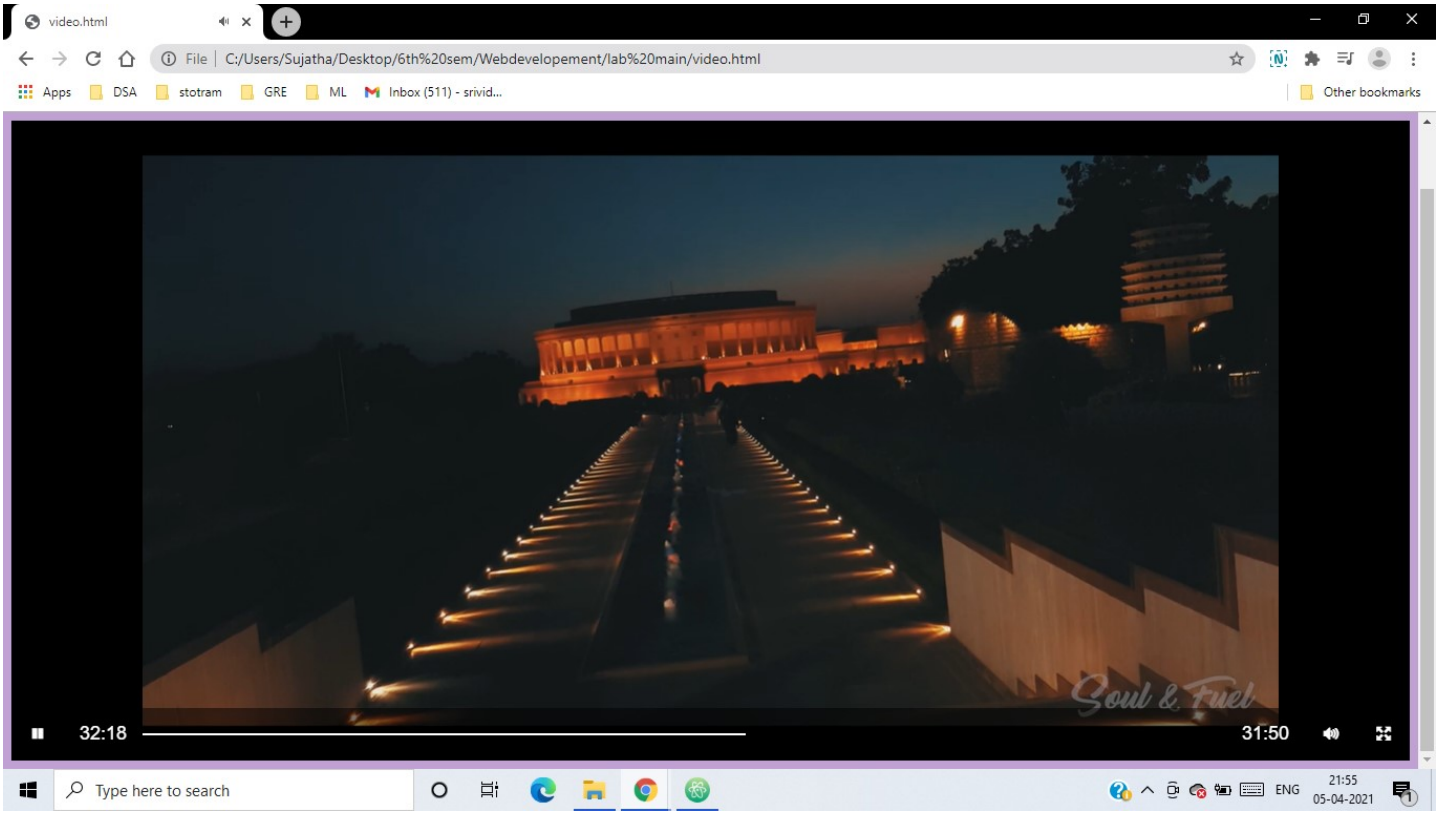
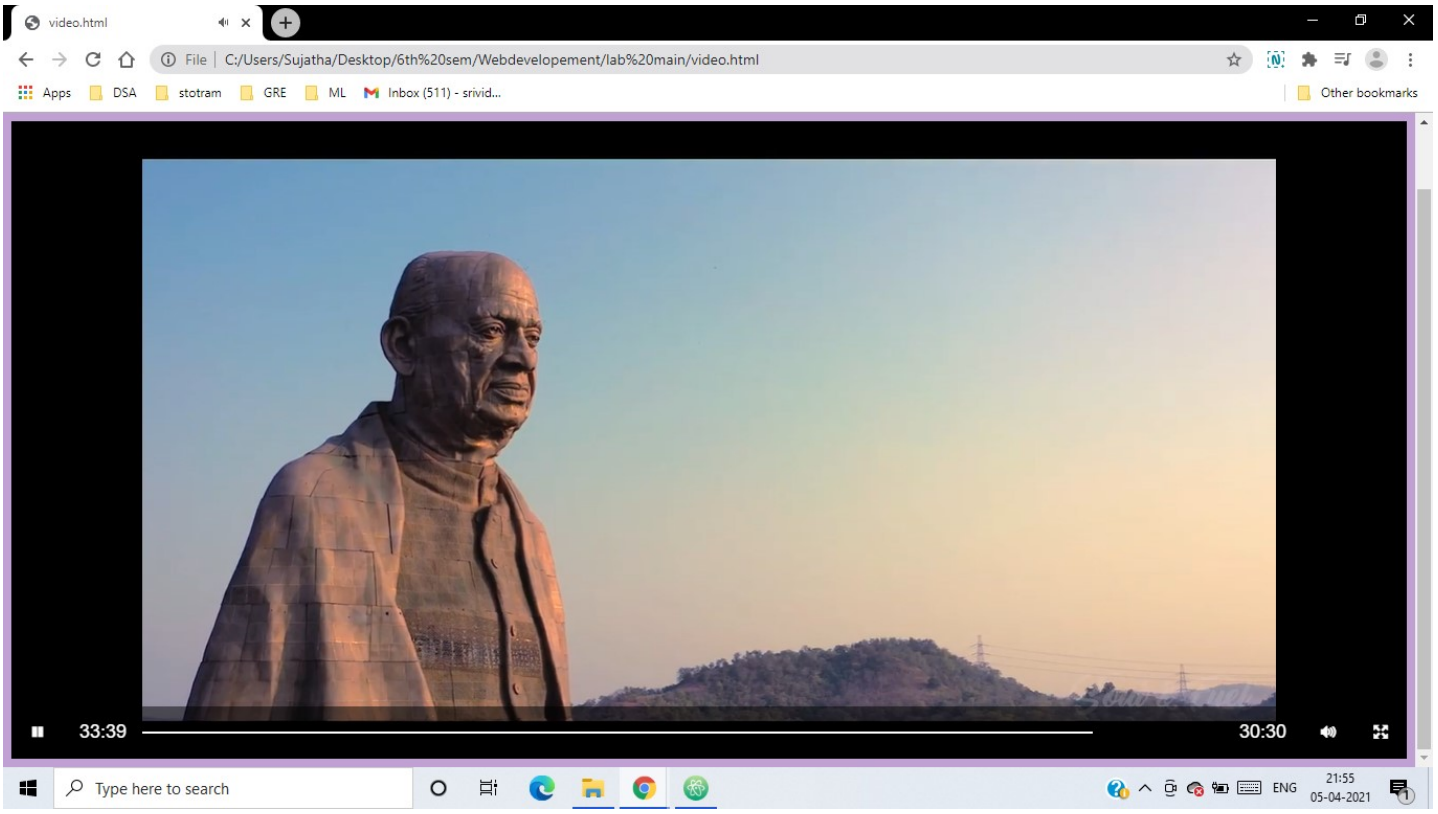


Video visuals:



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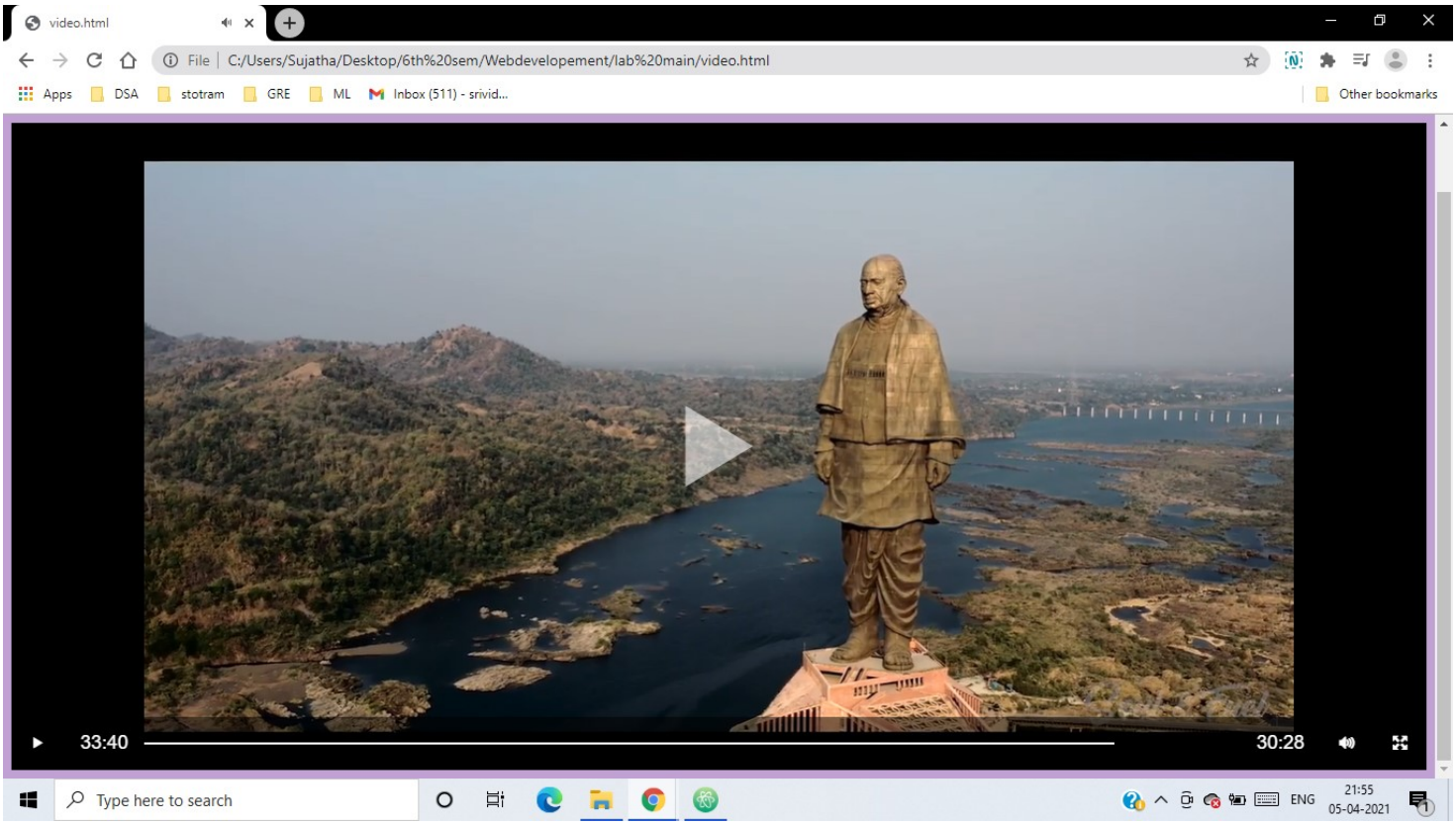
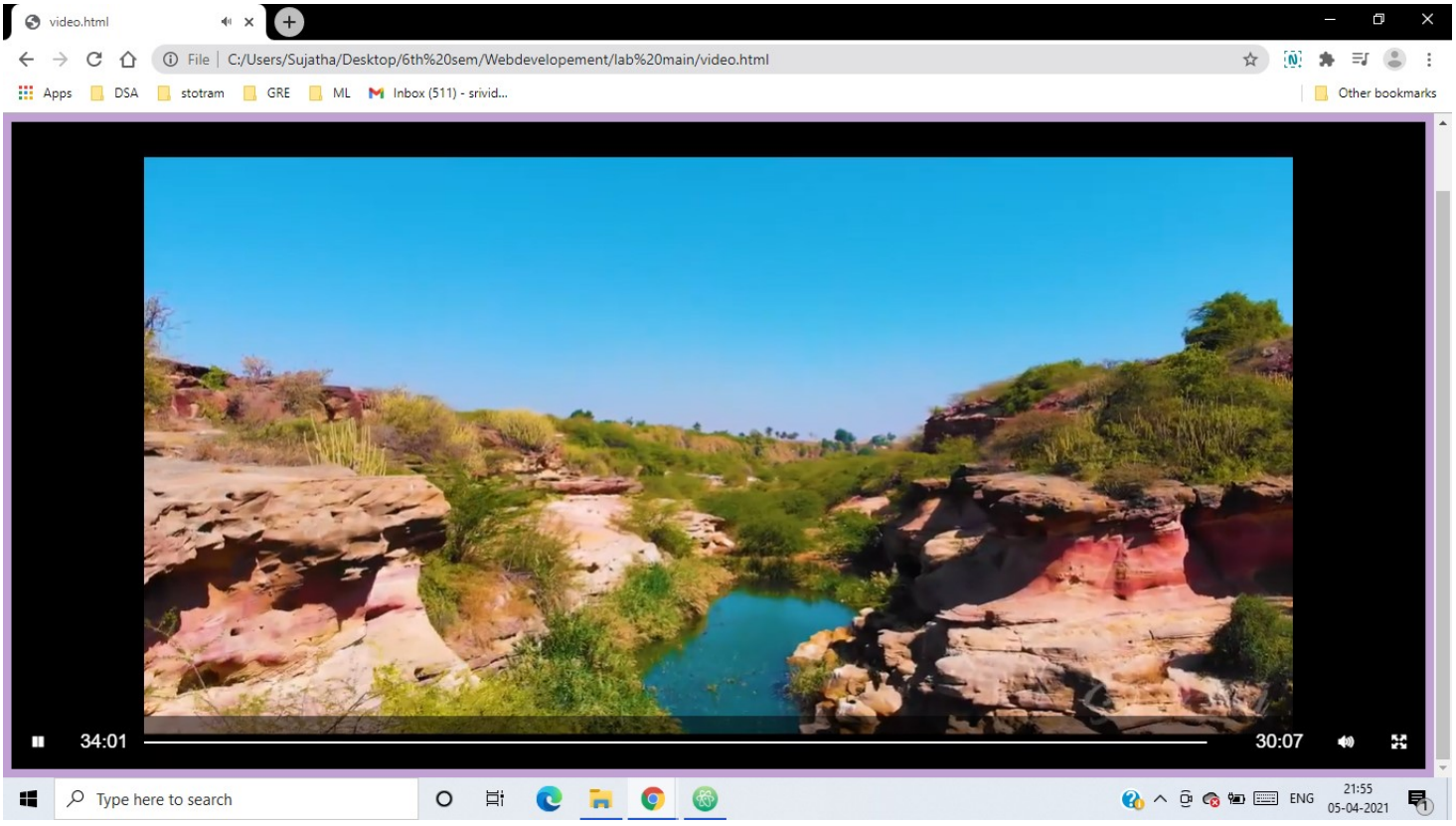
Video visuals:



Video visuals:



Result: The program using angular js for video player has been successfully written and verified.