Frontend Project

INT (219)

ON

**MUSIC PLAYER**

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Submitted to:

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Logo

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**PROBLEM STATEMENT**

**Accessibility and Responsiveness:**

Enhance accessibility with semantic HTML, ARIA attributes, and roles.

Ensure responsiveness for different devices.

**Security:**

Verify the security of external resources like Bootstrap and Font Awesome via CDN.

**Mixed Content:**

Eliminate mixed content issues by using secure (HTTPS) resources.

**Unused CSS Links:**

Remove redundant CSS links for efficiency.

**Missing Audio Source:**

Specify audio sources for the <audio> element.

**Missing JavaScript Files:**

Confirm availability and functionality of index.js and script.js.

**Styling Issues:**

Refine layout, color scheme, and font choices for a polished appearance.

**Unused Meta Tags:**

Remove redundant or unused meta tags.

**Unused Bootstrap Components:**

Optimize page load times by using a custom Bootstrap build with necessary components.

**Code Organization:**

Improve code organization for better readability and maintainability.

**DESCRIPTION OF PROJECT**

This project is a web-based music player designed to provide users with a visually appealing and functional interface for playing audio tracks. Key features of the project include:

**User Interface:**

The application boasts a clean and intuitive user interface with a responsive design, ensuring a seamless experience across various devices.

**Playlist Management:**

Users can manage their playlists efficiently through a dynamic list of selectable tracks, each represented by a button with corresponding song titles.

**Album Carousel:**

An engaging album carousel showcases album art corresponding to the selected track, enhancing the visual experience for users.

**Playback Controls:**

The player incorporates essential playback controls such as play, pause, skip forward, skip backward, and a progress bar for tracking the current playback position.

**Shuffle Functionality:**

Users have the option to shuffle the playlist, introducing an element of randomness to the playback sequence.

**Track Information Display:**

The application displays the current track's name and provides a visual representation of the track's duration through a progress indicator.

**Custom Styling:**

The project utilizes Bootstrap for a foundation of responsive design and Font Awesome for scalable vector icons. Additionally, custom styling enhances the overall aesthetics of the player.

**Technologies Used:**

The project leverages HTML, CSS, and JavaScript for the front-end, incorporating Bootstrap and Font Awesome for styling and icons.

**External Dependencies:**

External dependencies, including Bootstrap and Font Awesome, are sourced via Content Delivery Network (CDN) links for ease of integration.

**Future Improvements:**

Future enhancements may include refining the user interface, incorporating additional features such as volume control, and further optimizing the codebase for performance.

**TECHNICAL DESCRIPTION**

**HTML:**

Markup language for structuring the web page content.

**CSS:**

Stylesheet language for designing and formatting the visual presentation.

**JavaScript:**

Programming language used for adding dynamic behavior to the web page.

**Bootstrap :**

Front-end framework for responsive and mobile-first web development.

**Font Awesome :**

Icon font and toolkit for scalable vector icons.

**jQuery :**

JavaScript library for simplifying DOM manipulation and event handling.

**Google Fonts :**

External font library providing the "Roboto" font for the project.

**INNOVATION AND PROCESS**

**HTML (HyperText Markup Language):**

Utilized HTML to structure the content of the web page, defining elements such as buttons, images, audio elements, and div containers.

Established a clear document structure, including the head section with metadata and the body section containing the main content.

**CSS (Cascading Style Sheets):**

Applied CSS for styling and formatting, enhancing the visual presentation of the music player.

Implemented custom styles for elements like buttons, cards, and the playlist overlay, ensuring a cohesive and visually appealing design.

Integrated Bootstrap (v4.0.0-beta.2) styles for responsive layout and predefined components.

**JavaScript:**

Employed JavaScript to add dynamic behavior to the music player.

Implemented functionality for play, pause, skip forward, skip backward, and shuffle controls.

Managed the display of track information, including the current song name and track duration.

Controlled the interaction with the playlist buttons, allowing users to select and play specific tracks.

Integrated the <audio> element to handle audio playback, including updating the progress bar.

**Bootstrap:**

Incorporated Bootstrap for a responsive and mobile-first design approach.

Utilized Bootstrap components, such as cards, buttons, and the carousel, to enhance the overall user interface.

Leveraged the grid system for layout organization and responsiveness.

**Font Awesome :**

Integrated Font Awesome for scalable vector icons, enhancing the visual representation of control buttons (play, pause, shuffle).

**jQuery**

Included jQuery for simplified DOM manipulation and enhanced functionality.

Leveraged jQuery Slim version for a streamlined library, excluding unnecessary features.

**Google Fonts :**

Accessed the Google Fonts API to incorporate the "Roboto" font, contributing to the project's overall typography.

**SOURCE CODE**

**HTML**

<!DOCTYPE html>

<html lang="en" >

<head>

  <meta charset="UTF-8">

  <title>CodePen - Music Player</title>

  <meta charset="utf-8">

  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

<meta name="author" content="Vijit Ail">

<meta name="keywords" content="HTML, CSS, JavaScript, Music Player,Vijit Ail">

<meta name="description" content="HTML/CSS Audio Player">

<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-beta.2/css/bootstrap.min.css" integrity="sha384-PsH8R72JQ3SOdhVi3uxftmaW6Vc51MKb0q5P2rRUpPvrszuE4W1povHYgTpBfshb" crossorigin="anonymous">

    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css" >

      <link rel="stylesheet" href="http://fonts.googleapis.com/css?family=Roboto:100,300,400,500,700" type="text/css">

<link rel='stylesheet' href='https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/4.0.0-beta.2/css/bootstrap.css'>

<link rel='stylesheet' href='https://maxcdn.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css'>

<link rel='stylesheet' href='https://fonts.googleapis.com/css?family=Roboto:100,300,400,500,700'><link rel="stylesheet" href="./style.css">

</head>

<body>

*<!-- partial:index.partial.html -->*

<audio>

    <source>

      </audio>

<div class="container">

  <div class="card">

    <div class="card-img-top">

      <div class="playlist overlay">

        <ul class="list-group">

          <h4 class="text-center" style="padding:10px;color:white;margin:0;">Playlist</h4>

          <button value=0 class="list-group-item">Closer</button>

          <button value=1 class="list-group-item">Shape Of You</button>

          <button value=2 class="list-group-item">Unmistakable</button>

        </ul>

      </div>

      <div id="Album-carousel" class="carousel slide">

        <div class="carousel-inner">

          <div class="carousel-item active">

            <img src="https://is1-ssl.mzstatic.com/image/thumb/Music71/v4/37/ea/5d/37ea5df1-06e1-e2cd-9a68-3f7fb4c787fb/886446102054.jpg/1200x630bb.jpg" class="album-img">

          </div>

          <div class="carousel-item">

            <img src="https://is5-ssl.mzstatic.com/image/thumb/Music122/v4/9a/35/95/9a3595c7-c675-fd74-352f-44e3638ac123/190295851286.jpg/600x600bf.jpg" class="album-img">

          </div>

          <div class="carousel-item">

            <img src="https://is1-ssl.mzstatic.com/image/thumb/Music/1f/c7/2d/mzi.vtzhepeg.jpg/600x600bf.jpg" class="album-img">

          </div>

        </div>

      </div>

    </div>

    <div class="card-body">

      <div id=range>

        <div class="range-indicator range-indicator-pause">&nbsp;</div>

        <input type=range id="inputrange">

      </div>

      <button id="playlist-btn" value=0><i class="fa fa-bars"></i></button>

      <button id="shuffle-btn"><i class="fa fa-random"></i></button>

      <div id="songName">&nbsp;</div>

      <div id=tracktime>0/0</div>

      <div class="controls">

        <button id=prev class="control-btn"><i class="fa fa-backward"></i></button>

        <button id=play-pause class="control-btn" value=1><i class="fa fa-play"></i></button>

        <button id=next class=" control-btn"><i class="fa fa-forward"></i></button>

      </div>

    </div>

  </div>

</div>

*<!-- Optional JavaScript -->*

*<!-- jQuery first, then Popper.js, then Bootstrap JS -->*

<script src="https://code.jquery.com/jquery-3.2.1.slim.min.js" integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCkRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5KkN" crossorigin="anonymous"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.3/umd/popper.min.js" integrity="sha384-vFJXuSJphROIrBnz7yo7oB41mKfc8JzQZiCq4NCceLEaO4IHwicKwpJf9c9IpFgh" crossorigin="anonymous"></script>

<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-beta.2/js/bootstrap.min.js" integrity="sha384-alpBpkh1PFOepccYVYDB4do5UnbKysX5WZXm3XxPqe5iKTfUKjNkCk9SaVuEZflJ" crossorigin="anonymous"></script>

<script src="index.js"></script>

*<!-- partial -->*

  <script  src="./script.js"></script>

</body>

</html>

**JAVASCRIPT**

$(document).ready(function() {

  var i = 0;

  var Playlist = [

    {

      Artist: "The Chainsmokers ft. Halsey",

      Song: "Closer",

      Album: "Collage",

      Src:

        "https://ncs-files-1.nyc3.digitaloceanspaces.com/mp3s/Unison-Aperture.mp3"

    },

    {

      Artist: "Ed Sheeran",

      Song: "Shape Of You",

      Album: "Divide",

      Src:

        "https://ncs-files-1.nyc3.digitaloceanspaces.com/mp3s/Waysons%20-%20Eternal%20Minds.mp3"

    },

    {

      Artist: "Backstreet Boys",

      Song: "Unmistakable",

      Album: "Unbreakable",

      Src:

        "https://ncs-files-1.nyc3.digitaloceanspaces.com/mp3s/High%20Maintenance%20-%20Change%20Your%20Ways%20%28feat.%20Charlotte%20Haining%29.mp3"

    }

  ];

  $("#songName").html(Playlist[i]["Song"]);

  $("source").attr("src", Playlist[i]["Src"]);

  $(".artist-name").html(Playlist[i]["Artist"]);

  $(".list-group-item:nth-child(" + i + 2 + ")").addClass("active");

  $(".carousel").carousel({

    interval: false

  });

  var audio = $("audio").get(0);

  audio.load();

  $("#play-pause").on("click", function() {

    if (*this*.value == 1) {

      $("audio")

        .get(0)

        .play();

*this*.value = 0;

      $(*this*).html("<i style='color:#007bff' class='fa fa-pause'></i>");

      $(".range-indicator").toggleClass("range-indicator-pause");

      $(".active").attr("style", "");

    } else {

      $("audio")

        .get(0)

        .pause();

*this*.value = 1;

      $(*this*).html("<i class='fa fa-play'></i>");

      $(".range-indicator").addClass("range-indicator-pause");

      $(".active").attr("style", "background-color:#F44336a1");

    }

  });

  $("#next").on("click", function() {

    i++;

    if (i == Playlist.length) i = 0;

    $(".carousel").carousel("next");

    $("source").attr("src", Playlist[i]["Src"]);

    audio.load();

    audio.play();

    $("#songName").html(Playlist[i]["Song"]);

    var btn = $("#play-pause");

    $(btn).html("<i style='color:#007bff' class='fa fa-pause'></i>");

    $(".range-indicator").removeClass("range-indicator-pause");

    $(".artist-name").html(Playlist[i]["Artist"]);

    var x = String(parseInt(i) + 2);

    var y = String(parseInt(x) - 1);

    str = "nth-child(" + y + ")";

    if (x == 2) str = "last-child()";

    $(".list-group-item:nth-child(" + x + ")").addClass("active");

    $(".list-group-item:" + str).removeClass("active");

    $(".list-group-item:" + str).attr("style", "");

  });

  $("#prev").on("click", function() {

    i--;

    if (i == -1) {

      i = Playlist.length - 1;

    }

    $(".carousel").carousel("prev");

    $("source").attr("src", Playlist[i]["Src"]);

    audio.load();

    audio.play();

    $("#songName").html(Playlist[i]["Song"]);

    var btn = $("#play-pause");

    $(btn).html("<i style='color:#007bff' class='fa fa-pause'></i>");

    $(".range-indicator").removeClass("range-indicator-pause");

    $(".artist-name").html(Playlist[i]["Artist"]);

    var x = String(parseInt(i) + 2);

    var y = String(parseInt(x) + 1);

    str = "nth-child(" + y + ")";

    if (x == Playlist.length + 1) str = "nth-child(2)";

    $(".list-group-item:nth-child(" + x + ")").addClass("active");

    $(".list-group-item:" + str).removeClass("active");

    $(".list-group-item:" + str).attr("style", "");

  });

  audio.addEventListener("timeupdate", function() {

    var cmin = Math.floor(*this*.currentTime / 60);

    if (cmin < 10) cmin = "0" + cmin;

    var csec = Math.floor(*this*.currentTime) % 60;

    if (csec < 10) csec = "0" + csec;

    var dmin = Math.floor(*this*.duration / 60);

    if (dmin < 10) dmin = "0" + dmin;

    var dsec = Math.floor(*this*.duration) % 60;

    if (dsec < 10) dsec = "0" + dsec;

    $("#tracktime").html(cmin + ":" + csec + " / " + dmin + ":" + dsec);

    $(".range-indicator").attr(

      "style",

      "width:" +

        Math.floor(*this*.currentTime) / Math.floor(*this*.duration) \* 100 +

        "%"

    );

    if (*this*.currentTime == *this*.duration) {

      $("#next").trigger("click");

    }

  });

  $("#inputrange").attr("max", Math.floor($("audio").get(0).duration));

  $("#inputrange").on("click", function() {

    $("audio").get(0).currentTime =

*this*.value \* $("audio").get(0).duration / 100;

  });

  $(window).keypress(function(e) {

    if (e.keyCode === 0 || e.keyCode === 32) {

      e.preventDefault();

      $("#play-pause").trigger("click");

    }

  });

  $(".list-group-item").on("click", function() {

    var x = String(parseInt(i) + 2);

    $(".list-group-item:nth-child(" + x + ")").removeClass("active");

    $(".list-group-item:nth-child(" + x + ")").attr("style", "");

    i = *this*.value;

    var x1 = String(parseInt(i) + 2);

    $(".list-group-item:nth-child(" + x1 + ")").addClass("active");

    $(".carousel").carousel(parseInt(i));

    $("source").attr("src", Playlist[i]["Src"]);

    audio.load();

    audio.play();

    $("#songName").html(Playlist[i]["Song"]);

    var btn = $("#play-pause");

    $(btn).html("<i style='color:#007bff' class='fa fa-pause'></i>");

    $(".range-indicator").removeClass("range-indicator-pause");

    $(".artist-name").html(Playlist[i]["Artist"]);

  });

  $("#playlist-btn").on("click", function() {

    if (*this*.value == 0) {

      $(".playlist").attr("style", "height:298px");

*this*.value = 1;

      $(*this*).html('<i class="fa fa-times">');

    } else if (*this*.value == 1) {

      $(".playlist").attr("style", "");

*this*.value = 0;

      $(*this*).html('<i class="fa fa-bars">');

    }

  });

});

**CSS**

body {

  background-image: linear-gradient(to top, #fbc2eb 0%, #a6c1ee 100%);

}

input[type="range"] {

  position: absolute;

  width: 100%;

  display: block;

  cursor: pointer;

  background: transparent;

  -webkit-appearance: none;

  height: 5px;

  z-index: 1;

}

input[type="range"]::-webkit-slider-thumb {

  -webkit-appearance: none;

  background: none;

  height: 10px;

  width: 10px;

}

input[type="range"]::-webkit-slider-runnable-track {

  background: transparent;

  height: 10px;

}

#range {

  position: absolute;

  background-color: grey;

  padding: 0px;

  height: 5px;

  width: 100%;

  display: block;

}

input[type="range"]:focus {

  outline: none;

}

.range-indicator {

  position: absolute;

  background: #007bff;

  height: 5px;

  z-index: 1;

  width: 0%;

  display: block;

  transition: all 0.5s;

}

.card {

  width: 300px;

  margin: 10rem auto;

  padding: 0px;

  box-shadow: 0px 0px 100px black;

}

.card-body {

  padding: 0px;

  text-align: center;

  padding-bottom: 30px;

  width: 100%;

  background-color: #fff;

}

#tracktime {

  text-align: center;

  padding: 10px;

  width: 100%;

  font-family: "Roboto", sans-serif;

  font-weight: 300;

}

.controls {

  display: inline;

  margin: auto;

  padding: 0px;

}

.album-img {

  width: 100%;

}

#Album-carousel {

  width: 100%;

  margin: auto;

}

.control-btn {

  padding: 7px 7px;

  color: black;

  background: transparent;

  border: none;

  margin: 0px 30px;

  font-size: 23px;

  transition: color 0.2s;

}

.control-btn:hover {

  background: transparent;

  color: #f44336;

  cursor: pointer;

}

.control-btn:focus {

  outline: none;

}

.control-btn:active {

  border: none;

  outline: none;

}

#play-pause {

  width: 10%;

  transition: all 0.2s;

  color: #f44336;

}

#songName {

  height: 54px;

  padding: 10px;

  padding-top: 15px;

  font-size: 27px;

  font-family: "Roboto", sans-serif;

  transition: all 0.5s;

}

.range-indicator-pause {

  background-color: #f44336;

  transition: all 0.5s;

}

.current-song {

}

#playlist-btn {

  position: absolute;

  transform: translate(-130px, 25px);

  background: transparent;

  border: none;

  transition: color 0.2s;

}

#playlist-btn:hover {

  cursor: pointer;

}

#shuffle-btn {

  position: absolute;

  transform: translate(105px, 25px);

  background: transparent;

  border: none;

  transition: color 0.2s;

}

.playlist {

  position: absolute;

  width: 298px;

  height: 0px;

  background: transparent;

  z-index: 1;

  overflow: hidden;

  transition: all 0.5s;

}

.list-group-item:hover {

  cursor: pointer;

}

.list-group-item {

  background-color: transparent;

  transition: background-color 0.5s;

  color: white;

  border-color: white transparent;

}

.list-group-item.active {

  transition: background-color 0.4s;

  background-color: #007bffa1;

  border-color: transparent;

}

.overlay {

  position: absolute;

  top: 0;

  bottom: 0;

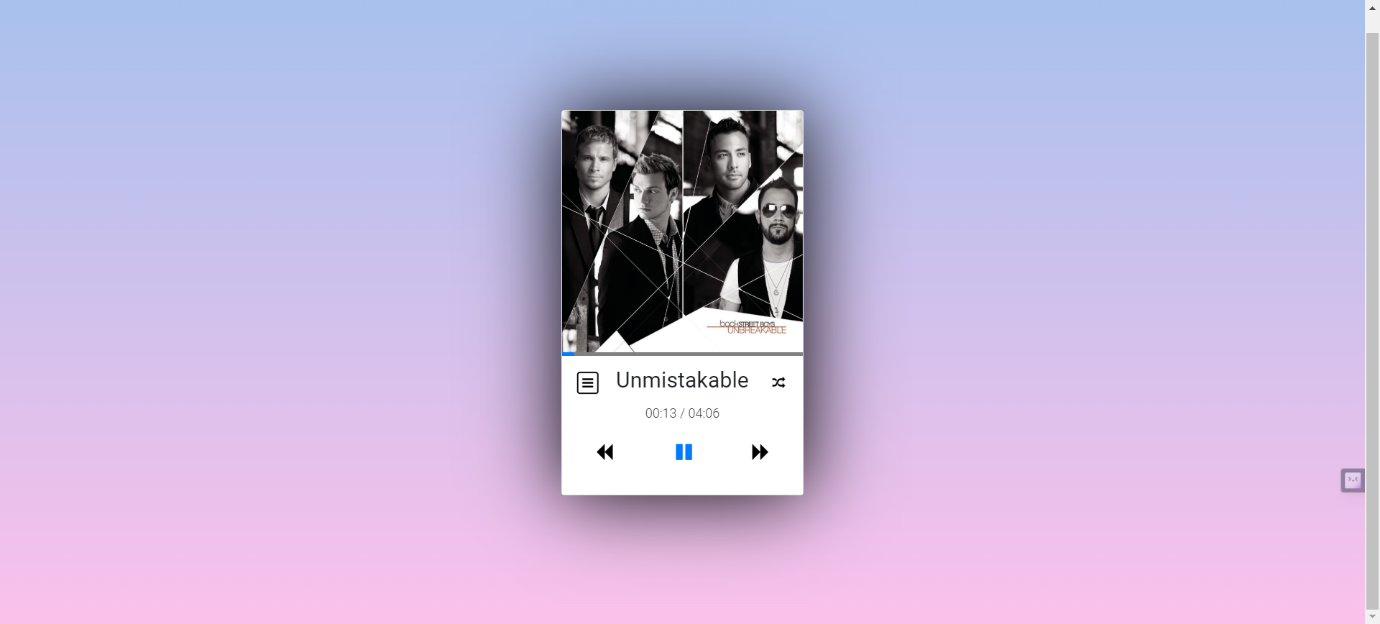
  right: 0;

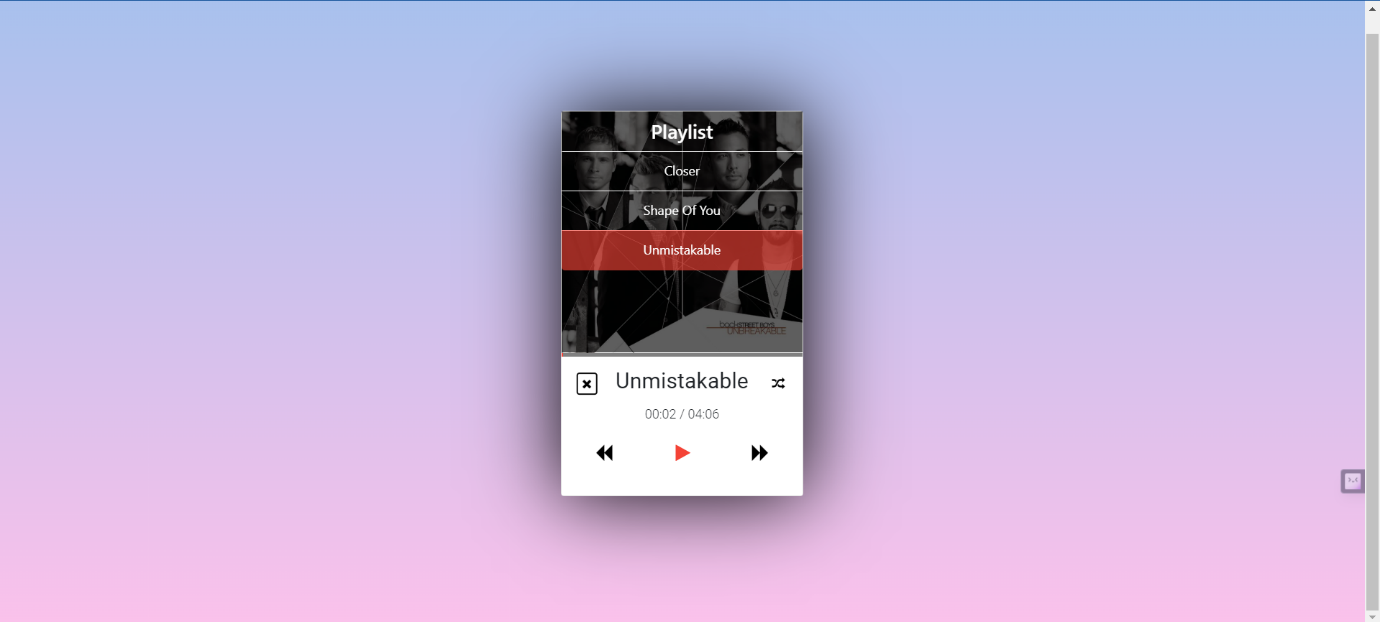
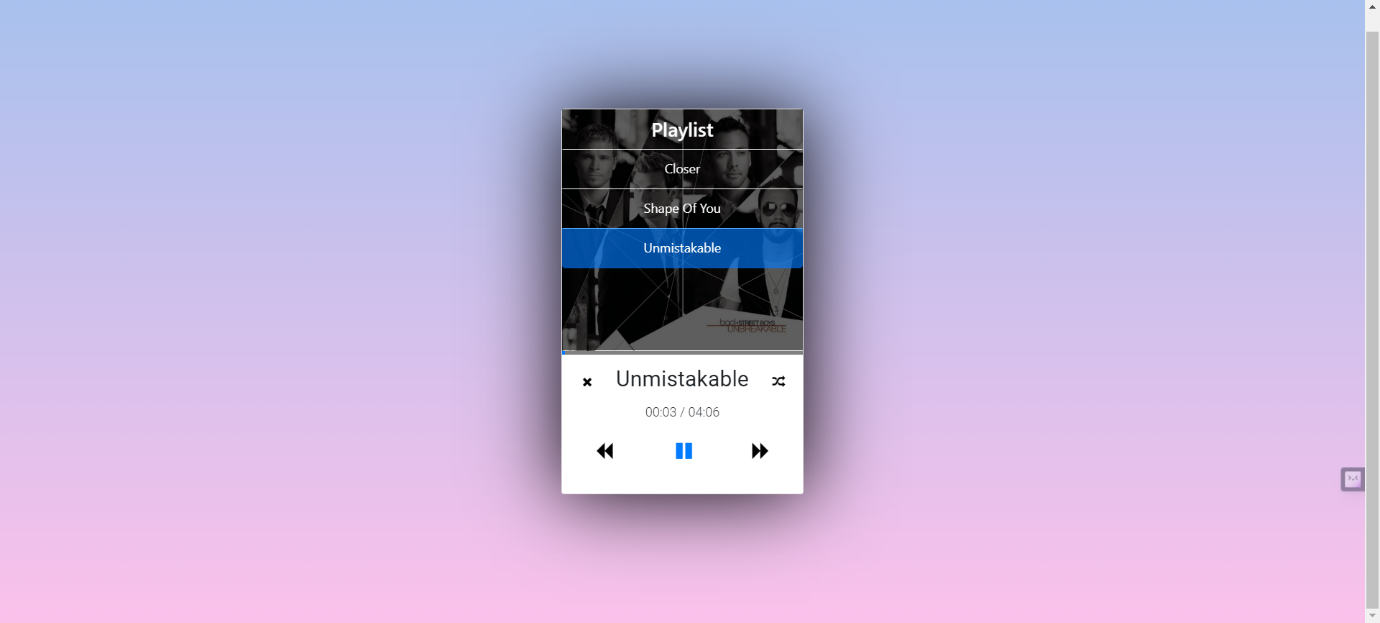
  left: 0;

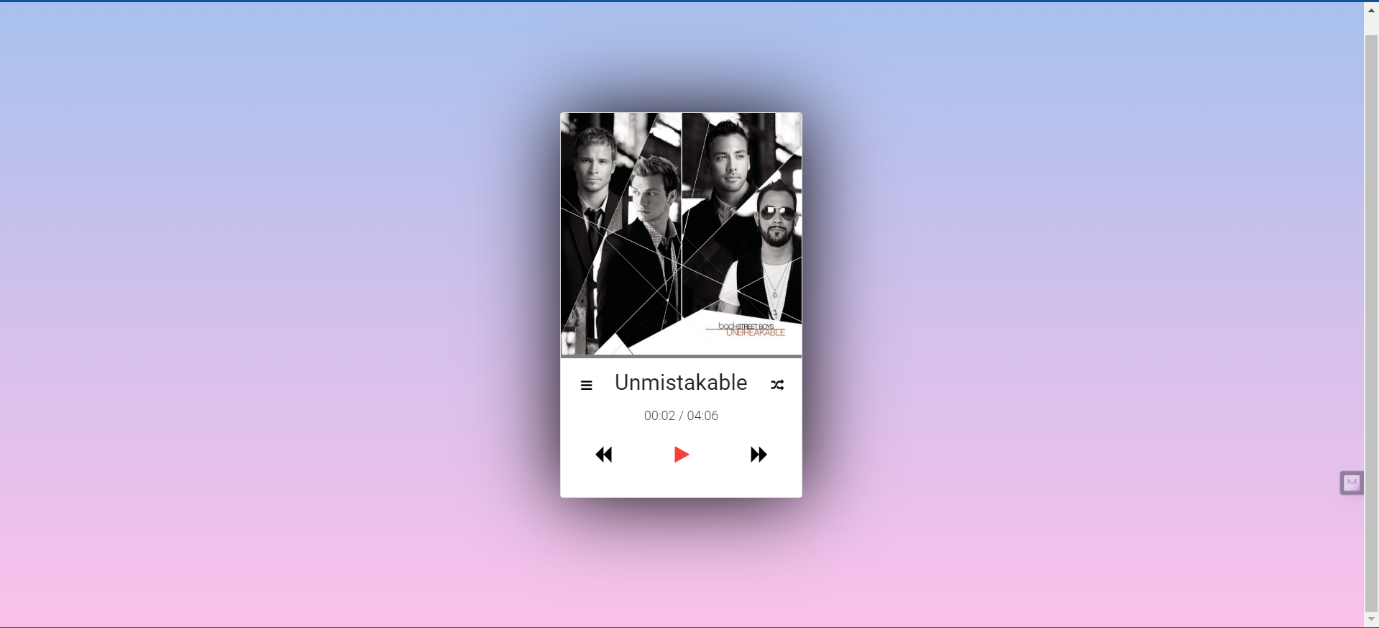
  background-color: #000000a1;

}

**SCREENSHOTS OF OUTPUT**

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