```
<style>
body {font-family: Arial;}
.tab {
 overflow: hidden;
 border: 1px solid #ccc;
 background-color: #f1f1f1;
}
.tab button {
 background-color: inherit;
 float: left;
 border: none;
 outline: none;
 cursor: pointer;
 padding: 14px 16px;
 transition: 0.3s;
 font-size: 17px;
}
/* Change background color of buttons on hover */
.tab button:hover {
 background-color: #FFCC00;
}
/* Create an active/current tablink class */
.tab button.active {
 background-color: #FFFFCC;
}
/* Style the tab content */
.tabcontent {
 display: none;
 padding: 6px 12px;
 border: 1px solid #ccc;
 border-top: none;
</style>
```

```
<div class="tab">
 <button class="tablinks" onclick="openCity(event, 'Audio')">Audio/button>
 <button class="tablinks" onclick="openCity(event, 'Video')">Video</button>
</div>
<div id="Audio" class="tabcontent">
<!doctype html>
<html lang="en">
  <head>
    <title>Audio Recorder</title>
    k rel="canonical" href="https://markjivko.com/tutorials/B3wWlsNHPk4/">
    <meta charset="UTF-8">
    <meta name="apple-mobile-web-app-capable" content="yes">
    <meta name="apple-mobile-web-app-status-bar-style" content="black-translucent">
    <meta name="viewport" content="initial-scale=1.0, width=device-width">
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8">
    k rel="icon" type="image/ico" href="https://markjivko.com/favicon.ico">
    <style type="text/css">
.holder {
         background-color: #4c474c;
         background-image: -webkit-gradient(linear, left bottom, left top, from(#4c474c),
to(#141414));
         background-image: -o-linear-gradient(bottom, #4c474c 0%, #141414 100%);
         background-image: linear-gradient(0deg, #4c474c 0%, #141414 100%);
         border-radius: 50px;
       [data-role="controls"] > button {
         margin: 50px auto;
         outline: none;
         display: block;
         border: none;
         background-color: #D9AFD9;
         background-image: -webkit-gradient(linear, left bottom, left top, from(#D9AFD9),
to(#97D9E1));
         background-image: -o-linear-gradient(bottom, #D9AFD9 0%, #97D9E1 100%);
         background-image: linear-gradient(0deg, #D9AFD9 0%, #97D9E1 100%);
         width: 100px;
```

```
height: 100px;
          border-radius: 50%;
          text-indent: -1000em;
          cursor: pointer;
          -webkit-box-shadow: 0px 5px 5px 2px rgba(0,0,0,0.3) inset,
            Opx Opx Opx 30px #fff, Opx Opx Opx 35px #333;
               box-shadow: 0px 5px 5px 2px rgba(0,0,0,0.3) inset,
            Opx Opx Opx 30px #fff, Opx Opx Opx 35px #333;
       [data-role="controls"] > button:hover {
          background-color: #ee7bee;
          background-image: -webkit-gradient(linear, left bottom, left top, from(#ee7bee),
to(#6fe1f5));
          background-image: -o-linear-gradient(bottom, #ee7bee 0%, #6fe1f5 100%);
          background-image: linear-gradient(0deg, #ee7bee 0%, #6fe1f5 100%);
       }
       [data-role="controls"] > button[data-recording="true"] {
          background-color: #ff2038;
          background-image: -webkit-gradient(linear, left bottom, left top, from(#ff2038),
to(#b30003));
          background-image: -o-linear-gradient(bottom, #ff2038 0%, #b30003 100%);
          background-image: linear-gradient(0deg, #ff2038 0%, #b30003 100%);
       [data-role="recordings"] > .row {
          width: auto;
          height: auto;
          padding: 20px;
       }
       [data-role="recordings"] > .row > audio {
          outline: none;
       }
       [data-role="recordings"] > .row > a {
          display: inline-block;
          text-align: center;
          font-size: 20px;
          line-height: 50px;
          vertical-align: middle;
          width: 50px;
          height: 50px;
          border-radius: 20px;
          color: #fff;
          font-weight: bold;
          text-decoration: underline;
          background-color: #0093E9;
```

```
background-image: -webkit-gradient(linear, left bottom, left top, from(#0093E9),
to(#80D0C7));
         background-image: -o-linear-gradient(bottom, #0093E9 0%, #80D0C7 100%);
         background-image: linear-gradient(0deg, #0093E9 0%, #80D0C7 100%);
         float: right;
         margin-left: 20px;
         cursor: pointer;
       }
       [data-role="recordings"] > .row > a:hover {
         text-decoration: none;
       [data-role="recordings"] > .row > a:active {
         background-image: -webkit-gradient(linear, left top, left bottom, from(#0093E9),
to(#80D0C7));
         background-image: -o-linear-gradient(top, #0093E9 0%, #80D0C7 100%);
         background-image: linear-gradient(180deg, #0093E9 0%, #80D0C7 100%);
       }
     </style>
     <script type="text/javascript" src="https://code.jquery.com/jquery.min.js"></script>
     <script src="https://markjivko.com/dist/recorder.js"></script>
     <script>
       jQuery(document).ready(function () {
         var $ = jQuery;
         var myRecorder = {
            objects: {
               context: null,
               stream: null,
              recorder: null
            },
            init: function () {
               if (null === myRecorder.objects.context) {
                 myRecorder.objects.context = new (
                      window.AudioContext | window.webkitAudioContext
                      );
              }
            },
            start: function () {
               var options = {audio: true, video: false};
               navigator.mediaDevices.getUserMedia(options).then(function (stream) {
                 myRecorder.objects.stream = stream;
                 myRecorder.objects.recorder = new Recorder(
                      myRecorder.objects.context.createMediaStreamSource(stream),
                      {numChannels: 1}
                 );
```

```
myRecorder.objects.recorder.record();
     }).catch(function (err) {});
  },
  stop: function (listObject) {
     if (null !== myRecorder.objects.stream) {
       myRecorder.objects.stream.getAudioTracks()[0].stop();
     if (null !== myRecorder.objects.recorder) {
       myRecorder.objects.recorder.stop();
       // Validate object
       if (null !== listObject
             && 'object' === typeof listObject
             && listObject.length > 0) {
          // Export the WAV file
          myRecorder.objects.recorder.exportWAV(function (blob) {
             var url = (window.URL || window.webkitURL)
                  .createObjectURL(blob);
             // Prepare the playback
             var audioObject = $('<audio controls></audio>')
                  .attr('src', url);
             // Prepare the download link
             var downloadObject = $('<a>▼</a>')
                  .attr('href', url)
                  .attr('download', new Date().toUTCString() + '.wav');
             // Wrap everything in a row
             var holderObject = $('<div class="row"></div>')
                  .append(audioObject)
                  .append(downloadObject);
             // Append to the list
             listObject.append(holderObject);
          });
       }
};
// Prepare the recordings list
var listObject = $('[data-role="recordings"]');
```

```
// Prepare the record button
          $('[data-role="controls"] > button').click(function () {
             // Initialize the recorder
             myRecorder.init();
             // Get the button state
             var buttonState = !!$(this).attr('data-recording');
             // Toggle
             if (!buttonState) {
               $(this).attr('data-recording', 'true');
               myRecorder.start();
            } else {
               $(this).attr('data-recording', ");
               myRecorder.stop(listObject);
            }
          });
       });
     </script>
  </head>
  <body>
     <div class="holder">
       <div data-role="controls">
          <button>Record</button>
       </div>
       <div data-role="recordings"></div>
     </div>
  </body>
</html>
```

</div>

<div id="Video" class="tabcontent">

```
<style>
.button {
 background-color: #66CC00;
 border: none;
 color: white;
 padding: 15px 32px;
 text-align: center;
 text-decoration: none;
 display: inline-block;
 font-size: 16px;
 margin: 4px 2px;
 cursor: pointer;
 border-radius: 4px;
 transition-duration: 0.4s;
}
 .button:hover {
 border: 2px solid #66CC00;
 background-color: #ffffff;
 color: #333333;
 .button2 {
 background-color: #f44336;
 border: none;
 color: white;
 padding: 15px 32px;
 text-align: center;
 text-decoration: none;
 display: inline-block;
 font-size: 16px;
 margin: 4px 2px;
 cursor: pointer;
 border-radius: 4px;
 transition-duration: 0.4s;
}
 .button2:hover {
 border: 2px solid #f44336;
 background-color: #ffffff;
```

```
color: #333333;
}
p.capitalize {
 text-transform: capitalize;
</style>
  <meta charset="UTF-8">
  <title>MediaCapture and Streams API</title>
  <meta name="viewport" content="width=device-width">
       <link rel="stylesheet" href="main.css">
<center>
<h2 style="color:white">Record your practice.</h2>
</center>
  <center><video id="record" controls="" muted="muted"></video></center>
     <center>
</center>
     <center>
<button class="button" id="btnStart">START RECORDING <a>C</a>/button> <button class="button"</p>
button2" id="btnStop">STOP RECORDING [ </button>
</center>
<center><video id="vid2" controls=""></video></center>
<h4 style="color:white" class="capitalize">Watch your practice. Click to download.</h4>
</center>
  <script>
     let constraintObj = {
       audio: true,
       video: {
```

```
facingMode: "user",
          width: { min: 250, ideal: 560, max: 560 },
          height: { min: 250, ideal: 315, max: 315 }
       }
    };
    // width: 100%, height: 315 -- preference only
     // facingMode: {exact: "user"}
     // facingMode: "environment"
     //handle older browsers that might implement getUserMedia in some way
     if (navigator.mediaDevices === undefined) {
       navigator.mediaDevices = {};
       navigator.mediaDevices.getUserMedia = function(constraintObj) {
          let getUserMedia = navigator.webkitGetUserMedia || navigator.mozGetUserMedia;
          if (!getUserMedia) {
            return Promise.reject(new Error('getUserMedia is not implemented in this
browser'));
          return new Promise(function(resolve, reject) {
            getUserMedia.call(navigator, constraintObj, resolve, reject);
         });
       }
    }else{
       navigator.mediaDevices.enumerateDevices()
       .then(devices => {
          devices.forEach(device=>{
            console.log(device.kind.toUpperCase(), device.label);
            //, device.deviceId
         })
       })
       .catch(err=>{
          console.log(err.name, err.message);
       })
    }
     navigator.mediaDevices.getUserMedia(constraintObj)
     .then(function(mediaStreamObj) {
       //connect the media stream to the first video element
       let video = document.querySelector('video');
       if ("srcObject" in video) {
          video.srcObject = mediaStreamObj;
       } else {
          //old version
          video.src = window.URL.createObjectURL(mediaStreamObj);
```

```
}
  video.onloadedmetadata = function(ev) {
    //show in the video element what is being captured by the webcam
    video.play();
  };
  //add listeners for saving video/audio
  let start = document.getElementById('btnStart');
  let stop = document.getElementById('btnStop');
  let vidSave = document.getElementById('vid2');
  let mediaRecorder = new MediaRecorder(mediaStreamObj);
  let chunks = [];
  start.addEventListener('click', (ev)=>{
    mediaRecorder.start();
    console.log(mediaRecorder.state);
  })
  stop.addEventListener('click', (ev)=>{
    mediaRecorder.stop();
    console.log(mediaRecorder.state);
  });
  mediaRecorder.ondataavailable = function(ev) {
    chunks.push(ev.data);
  }
  mediaRecorder.onstop = (ev)=>{
    let blob = new Blob(chunks, { 'type' : 'video/mp4;' });
    chunks = [];
    let videoURL = window.URL.createObjectURL(blob);
    vidSave.src = videoURL;
  }
})
.catch(function(err) {
  console.log(err.name, err.message);
});
/*********
getUserMedia returns a Promise
resolve - returns a MediaStream Object
reject returns one of the following errors
AbortError - generic unknown cause
NotAllowedError (SecurityError) - user rejected permissions
NotFoundError - missing media track
NotReadableError - user permissions given but hardware/OS error
```

```
OverconstrainedError - constraint video settings preventing 
TypeError - audio: false, video: false 
*****************************/
</script>
```

```
</div>
<script>
function openCity(evt, cityName) {
 var i, tabcontent, tablinks;
 tabcontent = document.getElementsByClassName("tabcontent");
 for (i = 0; i < tabcontent.length; i++) {
  tabcontent[i].style.display = "none";
 }
 tablinks = document.getElementsByClassName("tablinks");
 for (i = 0; i < tablinks.length; i++) {
  tablinks[i].className = tablinks[i].className.replace(" active", "");
 }
 document.getElementById(cityName).style.display = "block";
 evt.currentTarget.className += " active";
}
</script>
```