Anexe

Index.php

```
49      }
50    </style>
51    <script>
52    function pageRedirect() {
53            window.location.replace("http://localhost:4567");
54        }
55    </script>
56    </head>
57    <body>
58
59    <div class="hero-image">
60      <div class="hero-text">
61        <h1 style="font-size:50px">WiCar</h1>
62        <p style ="font-size: 25px">Drive through WiFi Control</p>
63      </div>
64       <button type="button"  class="btn btn-primary btn-lg " onclick="pageRedirect()" id="btn-login">Get started!</button>
65    </div>
66    </body>
67    </html>
68
```

login.erb

```
14
15      <body style="background-color: 004d4d">
16      <div>
17        <h1 style="font-size: 25px; color: white; margin-top: 1px">Face Login</h1>
18        <div id='camera_stuff'>
19          <div id='message'>
20            <p>Change your browser. It does not support a camera!</p>
21          </div>
22        </div>
23        <br>
24        <p>
25          <button type="button" class="btn" id='search_face' style="width: 100%">Login</button>
26        </p>
27        <a href="register">Register new user</a>
28        <div id='state'></div>
29        <div id='confirm'></div>
30        <img height='30' id='wait_image' src='images/wait.gif' width='30'>
31        <audio id='voice' src='#'></audio>
32        <script src="js/jpeg_camera/jpeg_camera_with_dependencies.min.js" type="text/javascript"></script>
33        <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
34        <script src="https://cdnjs.cloudflare.com/ajax/libs/moment.js/2.17.1/moment.min.js"></script>
35        <script src="js/login.js" type="text/javascript"></script>
36        </div>
37      </body>
38    </html>
39
```

Register.erb

```
1     <html>
2       <head>
3         <title>Face Login</title>
4         <link href="css/camera.css" rel="stylesheet" type="text/css" />
5         <!-- Latest compiled and minified CSS -->
6         <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
7
8         <!-- jQuery library -->
9         <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
10
11        <!-- Latest compiled JavaScript -->
12        <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
13
14      </head>
15
16      <body style="background-color: 004d4d">
17        <h1 style="font-size: 25px; color: white; margin-top:1px">Add User</h1>
18        <div id='camera_stuff' style="margin-top: 1px">
19          <div id='message'>
20            <p>Change your browser. It does not support a camera!</p>
21          </div>
22        </div>
23        <br>
24        <input type="text" class="form-control" id='face_id' placeholder="Introduce users' name" type='text'>
25        <button type="button" class="btn" id='register_user' style="margin-top: 2px; width:100%">Register</button>
26        <!--<button type="button" class="btn" id='back' style="margin-top: 2px">Back to Login Page</button>-->
27        <a href="back"> Back to login page</a>
28        <div id='state'></div>
29        <div id='confirm'></div>
30        <br>
31        <img height='30' id='wait_image' src='images/wait.gif' width='30'>
32        <!--
33        <p>
34          <a href="/collection/create">Create Collection</a> | <a href="/collection/delete">Delete Collection</a>
35        </p>
36        -->
37        <script src='https://code.jquery.com/jquery-3.1.1.min.js'></script>
38        <script src="https://cdnjs.cloudflare.com/ajax/libs/moment.js/2.17.1/moment.min.js"></script>
39        <script src="js/jpeg_camera/jpeg_camera_with_dependencies.min.js" type="text/javascript"></script>
40        <script src="js/register.js" type="text/javascript"></script>
41      </body>
42    </html>
43
```

Login.js

```
// Compare the captured image of the face to our collection from AWS
var search_face = function() {
  var snapshot = camera_stuff.capture();
  //setting the api_url for the ruby file for comparing faces
  var api_url = "/search";
  $("#wait_image").show();
  snapshot.upload({api_url: api_url}).done(function(response) {
      //parsing the response received from the ruby file
      //it contains three properties: message, id and confidence coefficient
    var data = JSON.parse(response);
    if (data.id !== undefined) {
      $("#confirm").html(data.message + " " + data.id + ", Accuracy: " + data.confidence);
      //response through a vocal message using the name of the matching face
      $.post("/voice", {tosay: "Good " + timeOfDay(moment()) + " " + data.id}, function(response)
      {
          //set properties for the "voice"
        $("#voice").attr("src", "data:audio/mpeg;base64," + response);
        $("#voice")[0].play();
      });
      //if login is successfull redirect to the next page after 5 seconds
      setTimeout(function(){
          $(document).ready( function() {
            url = "test";
            $( location ).attr("href", url);
            });
      }, 5000);


    } else
    {
      $("#confirm").html(data.message);
    }
    $("#wait_image").hide();
    this.discard();
  }).fail(function(status_code, error_message, response)
  {
      //in case of fail show the error message
    $("#state").html("Login failed with status " + status_code + " (" + error_message + ")");
    $("#confirm").html(response);
    $("#wait_image").hide();
  });
};
```

Register.js

```
$(document).ready(function() {

if (window.JpegCamera) {

  var camera_stuff;

  // Register an user by adding the photo in the collection
  var register_user = function()
  {
      //verifying if the user sets a name for its face
    var face_id = $("#face_id").val();
    if (!face_id.length) {
      $("#state").html("Please tell us the name for this user");
      return;     }
      //take the face image at the moment of pressing the button
    var snapshot = camera_stuff.capture();
    //setting the api_url for the ruby file for "adding" operation
    var api_url = "/add/" + face_id;
    $("#wait_image").show();
    snapshot.upload({api_url: api_url}).done(function(response)
    {
        //in case of successfull add of the image show an information message
      $("#confirm").html(response);
      $("#wait_image").hide();
      this.discard();
    }).fail(function(status_code, error_message, response)
    {
        //in case of fail show which is the problem
      $("#state").html("Adding user failed with status " + status_code + " (" + error_message + ")");
      $("#confirm").html(response);
      $("#wait_image").hide();
    });
  };

  //setting actions for each button
  $("#register_user").click(register_user);

  //setting the camera_stuff properties used in the JpegCamera library
  var options = {
    shutter_ogg_url: "js/jpeg_camera/shutter.ogg",
    shutter_mp3_url: "js/jpeg_camera/shutter.mp3",
    swf_url: "js/jpeg_camera/jpeg_camera.swf"
  }
```

Go.erb

```
<style type="text/css">
    #warning-message { display: none; }
    @media only screen and (orientation:portrait){
        #wrapper { display:none; }
        #warning-message { display:block; }
    }
    @media only screen and (orientation:landscape){
        #warning-message { display:none; }
    }
</style>

<html>
<head>


</head>
<body bgcolor="004d4d">

   <div id="wrapper" class="center2">
    <div style="font-size: 200px; color: white"><span id="timer"></span></div>
   </div>
    <div id="warning-message" class="center-div">
    <div>
            <img src="http://cdn.3dvista.com/brookwood/media/rotate.gif" class="center">
    </div>
    <div style="height: 20px;">
            <p align="center" style="color:white;">ROTATE YOUR DEVICE!!!</p>
    </div>
   </div>

   <script>
    document.getElementById('timer').innerHTML = 4;
    startTimer();

    function startTimer() {
        var m = document.getElementById('timer').innerHTML;
        if(m>0 && window.innerHeight < window.innerWidth){m=m-1}
        if(m==0){
            //window.location.href="http://www.google.com";
        }
        document.getElementById('timer').innerHTML = m ;
        setTimeout(startTimer, 1000);
        if(window.innerHeight > window.innerWidth){
                document.getElementById('timer').innerHTML = 4 ;
        }
    }
```

App.erb

```
var  socket = io.connect('192.168.43.170:8080');
var nIntervId;
var start=0;
$(function()
{
    nIntervId = setInterval(SendToPi ,2500);
});

function logout() {
                start=0;
                window.location.href="192.168.43.170";
}

function inc() {
                var elem = document.getElementById("btn-start");
                if (elem.value == "START") elem.value = "STOP";
                else elem.value = "START";
                if (start%2 == 1) {
                        elem.style.backgroundColor = "#A93226"
                        elem.value = "STOP";
                        elem.innerHTML = 'STOP';
                }
                else {
                        elem.style.backgroundColor = "#1E8449"
                        elem.value = "START";
                        elem.innerHTML = 'START';
            }
                start=start+1;

            }
```

```
function SendToPi() {
                if(window.DeviceMotionEvent) {
                        window.addEventListener('devicemotion', function(event) {
                                var x = event.accelerationIncludingGravity.x;
                                var y = event.accelerationIncludingGravity.y;
                                var z = event.accelerationIncludingGravity.z;
                socket.emit('fromclient', {start,x,y,z} );
                        });
                }
}
</script>
</head>
<body bgcolor="teal">
<div class="hero-image">
  <div class="hero-text">
    <h1 style="font-size:30px">WiCar</h1>
 <p style ="font-size: 10px">Drive through WiFi Control</p>
  </div>
   <button type="button"  class="btn btn-primary" onclick="inc()" id="btn-start" value="START">START</button>

   <button type="button"  class="btn btn-primary" onclick="logout()" id="btn-logout">Logout</button>

</div>
</body>
</html>
```

App.js

```
//declare required modules
var app = require('http').createServer(handler)
  , io = require('socket.io').listen(app)
  , fs = require('fs')
  , static = require('node-static')
  , sys = require('util')
  , sleep = require('sleep-ms')
  app.listen(8080);
var Gpio = require('onoff').Gpio;
var FW = new Gpio(19, 'out');
var RET = new Gpio(26, 'out');
var LEFT = new Gpio(6, 'out');
var RIGHT = new Gpio(13, 'out');

//Make a web server on port 8080
//
var file = new(static.Server)();
function handler(request, response) {
  console.log('serving file',request.url)
 file.serve(request, response);
};
console.log('Pi Car we server listening on port 8080 visit http://licenta.local$
lastAction = "";
//If we lose comms set the servos to neutral //
function emergencyStop() {
        //enter 0 point here specific to your pwm control
         FW.writeSync(0);
         RET.writeSync(0);
        console.log('###EMERGENCY STOP - signal lost or shutting down');
}//END emergencyStop
// fire up a web socket server isten to cmds from the phone and set pwm
// accordingly, if using a separate battery pack then disable the
// motor acceleration rate limiting algorithm as this is required when the
// Pi and motors share the same battery.
//
io.sockets.on('connection', function (socket) {
        //got phone msg
        socket.on('fromclient', function (data)
        {
// rate limit accelration only
                // we want normal de-cceleration as this doesn't drain the batt$
          if(data.start%2==0){
              if(data.x < 5) //fwd accel
              {
                      //console.log('inainte');
                      FW.writeSync(1);
                      RET.writeSync(0);
              }else if(data.z < 5) //fwd accel
              {
```

```
50      //console.log('inapoi');
51                              FW.writeSync(0);
52                              RET.writeSync(1);
53
54                      }else{
55                              //console.log('stop');
56                              FW.writeSync(0);
57                              RET.writeSync(0);
58                      }
59                      if(data.y < -2.5)
60      {
61      //console.log('stanga');
62                              LEFT.writeSync(1);
63                              RIGHT.writeSync(0);
64                      }else if(data.y > 2.5)
65                      {
66                              //console.log('dreapta');
67                              LEFT.writeSync(0);
68                              RIGHT.writeSync(1);
69                      }else
70      {
71                              //console.log('nimic');
72                              LEFT.writeSync(0);
73                              RIGHT.writeSync(0);
74                      }
75
76                      clearInterval(lastAction); //stop emergency stop timer
77                      lastAction = setInterval(emergencyStop,2000); //set emergency s$
78                  }else{
79                              LEFT.writeSync(0);
80      RIGHT.writeSync(0);
81                              FW.writeSync(0);
82                              RET.writeSync(0);
83                      }
84              });
85      });//END io.sockets.on
86       //user hits ctrl+c
87       //
85      });//END io.sockets.on
86       //user hits ctrl+c
87       //
88      process.on('SIGINT', function() {
89        emergencyStop();
90       console.log("\nGracefully shutting down from SIGINT (Ctrl-C)");
91
92        return process.exit();
93      });//END process.on
94
```

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