



## ASSIGNMENT 3: WEEK 6, 7

### Recapitulation of the lectures

In the two final lectures we learned about other API's, their possibilities and how to use AJAX for certain API's that require it. This was completely new terrain for me, since I had no experience with these API's or AJAX. As such I paid close attention to the examples and kept copies of each and every one with comments to review later. As such I was able to work out the intricacies of the API's and how AJAX functions. In the end I understood how to make an AJAX request, how to process it and how to work with it. For the Google Maps API I quite often turned to the reference, seeing the complexity and possibilities that it provides.

### Description of assignment

For our final assignment we had to simulate a shuttle returning to earth and wanting ground information, for this I decided to present the user with 3 possible landing zones, each using an object to store all the information with. Using these three objects I populated them with data from the openweathermap API. Giving each all the information required. Next I generated the map and placed it on the currently active city. If the user select one of the other cities the page contents are updated with the new data without having to re-fetch the information. The map is then panned to the new cities location.

### Results

Possible landing sites  
Astana Bamako Nagadan  
Find warmest landing spot

Location Information

Astana  
Country: Republic of Kazakhstan  
Temperature: 11  
Temperature minimum: 11 maximum: 11  
Weather: clear sky  
Fact box: Astana is the second largest city in the world after Mexico City, Mexico.

Flag: Kazakhstan

Possible landing sites  
Astana Bamako Nagadan  
Find warmest landing spot

Location Information

Bamako  
Country: Republic of Mali  
Temperature: 40  
Temperature minimum: 40 maximum: 40  
Weather: few clouds  
Fact box: Bamako was a landing center of Muslim trade during the Malian Empire (13th - 15th century) before it declined into a small village.

Flag: Mali

Possible landing sites  
Astana Bamako Nagadan  
Find warmest landing spot

Location Information

Nagadan  
Country: Russian Federation  
Temperature: -1  
Temperature minimum: -1 maximum: -1  
Weather: clear sky  
Fact box: The nearest city, Yekaterinburg is 2,000 km away.

Flag: Russia

### Final reflection

At the end of these 8 weeks I can say that I learned a great deal that I intend to use in the future. Since I want to make front-end development my future HTML, CSS and JavaScript cannot be ignored in my opinion. As such I have kept local copies of all examples, with explanation added, for future reference. Furthermore I gained a great deal of understanding for the usage of API's, which I intend to use more actively in the near future if the situation or assignment allows it, seeing the strength they have. I will also keep in mind the various conventions set forth during these classes and workshops, as they are more effective and efficient than my old methods, such as object arrays. In the end I can say that I thoroughly enjoyed this course and its pacing, I would like to have a bit more freedom in the assignments however, seeing as I have to adapt everything to SpaceX got a bit of a tedium after a while. Finally I would say that it might be better in the future to present this course way earlier on in the program, as its possibilities are enormous. As such maybe try and intertwine this with the skills lab in the first period.

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# Interplanetary Transport Shuttle Interface

## Ship status

**Current Speed:** 9808 M/S

**Distance:** 18946343/62100000000 Meters

**Fuel:** 100%

## Information

**Water Supplies:** 1000000 Items

**Food Supplies:** 1000000 Items

**Earth Time:** Thu, 20 Apr 2017 12:30:47 GMT

## Starlog

Name:

Name

Date:

DD-MM-YYYY

Message:

Message

## Latest Starlogs

## Estimated landing zone



## Ship status

**Current Speed:** 8877 M/S

**Distance:** 21266021/62100000000 Meters

**Fuel:** 100%

## Information

**Water Supplies:** 1000000 Items

**Food Supplies:** 1000000 Items

**Earth Time:** Thu, 20 Apr 2017 12:31:11 GMT

## Starlog

Name:

Name

Date:

DD-MM-YYYY

Message:

Message

**Submit**

## Latest Starlogs

## Estimated landing zone



## Ship status

**Current Speed:** 9698 M/S

**Distance:** 23973293/62100000000 Meters

**Fuel:** 100%

## Information

**Water Supplies:** 1000000 Items

**Food Supplies:** 1000000 Items

**Earth Time:** Thu, 20 Apr 2017 12:31:40 GMT

## Starlog

Name:

Date:

Message:

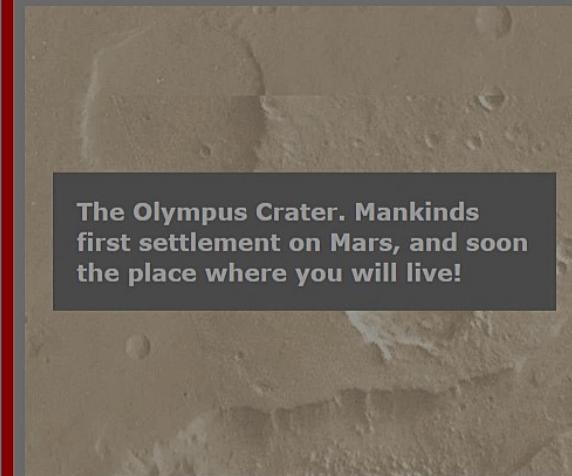
## Latest Starlogs

asdas

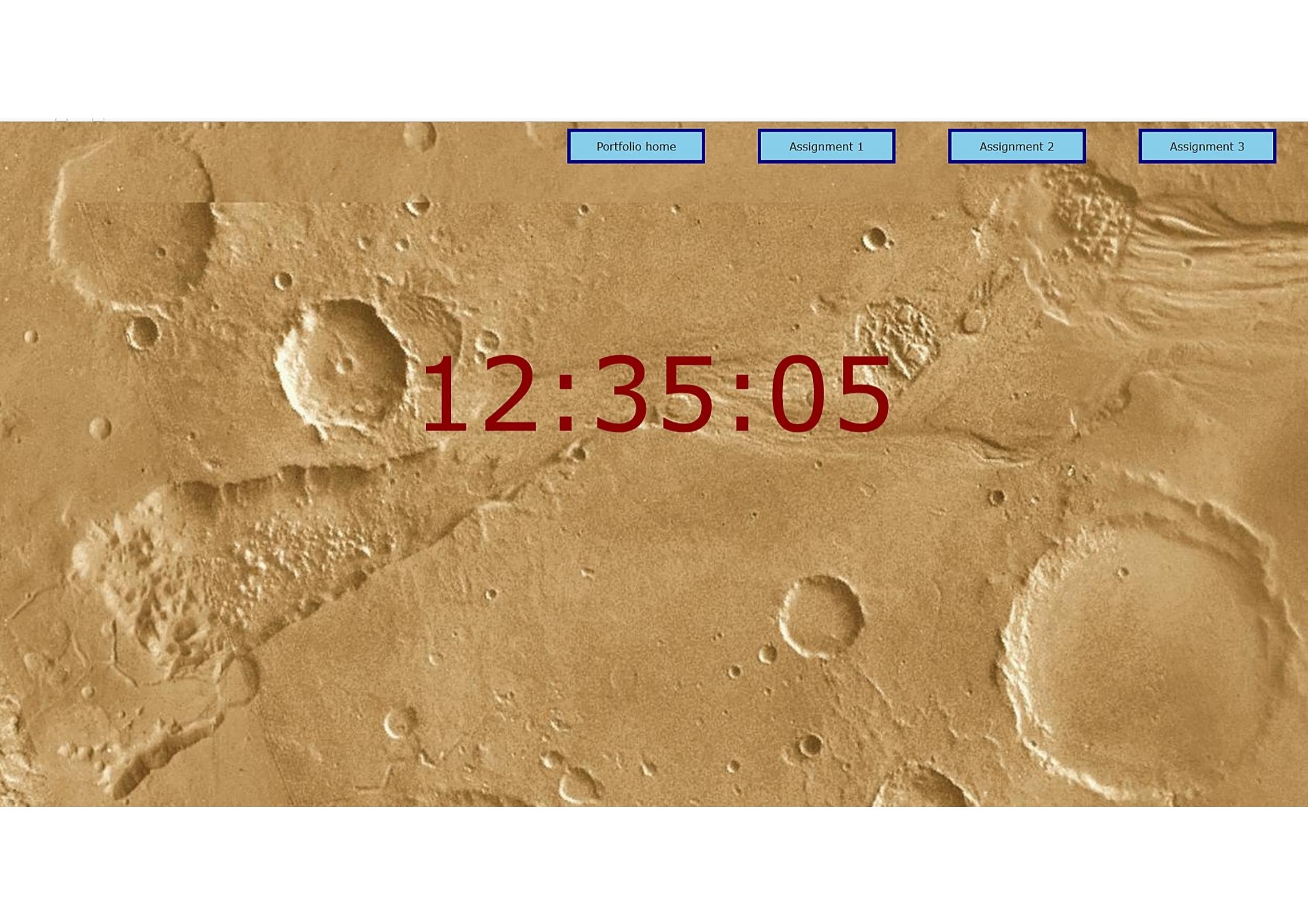
13-10-1944

adasfafafa

## Estimated landing zone



**The Olympus Crater. Mankinds first settlement on Mars, and soon the place where you will live!**



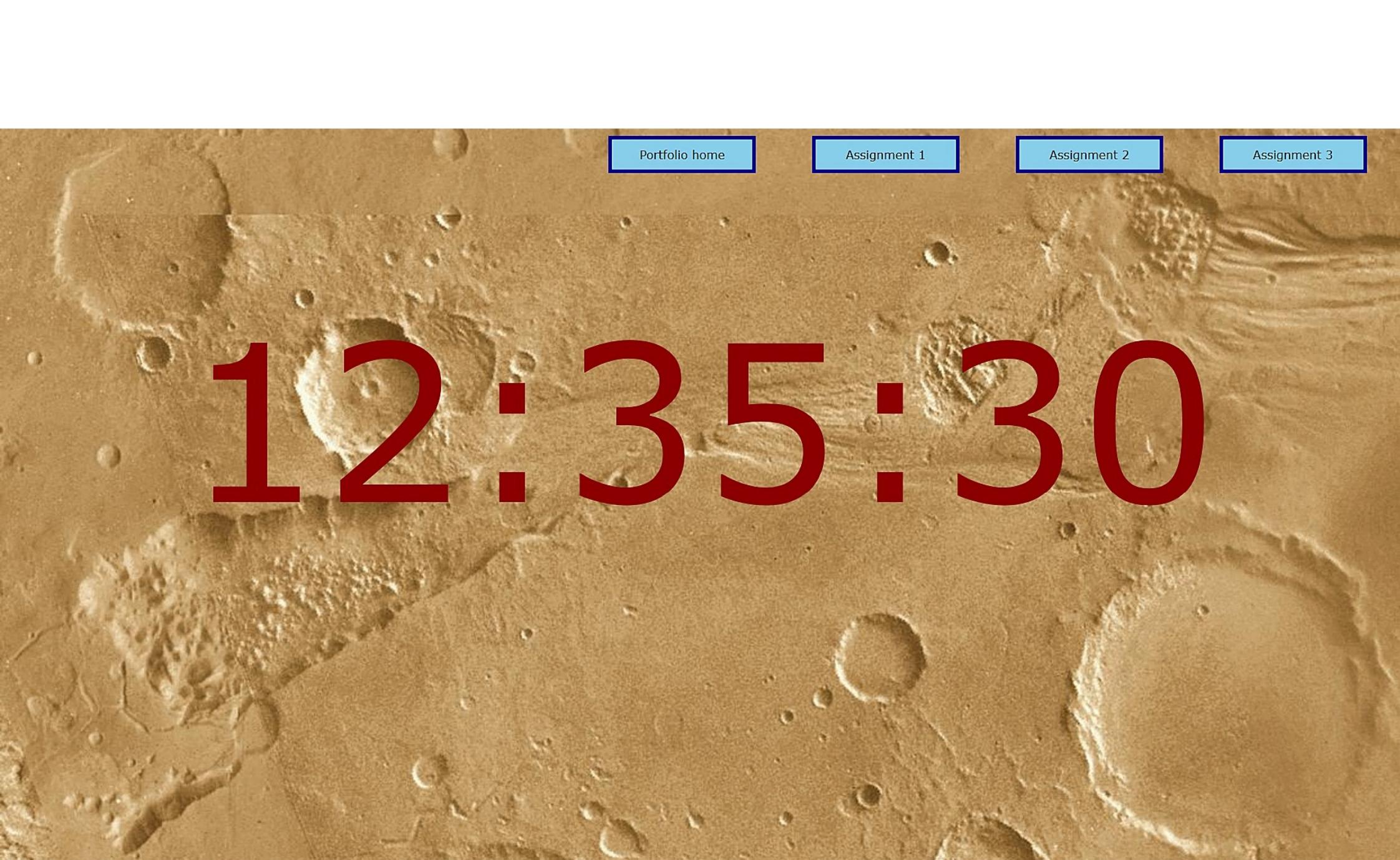
Portfolio home

Assignment 1

Assignment 2

Assignment 3

12:35:05

A high-resolution photograph of the surface of Mars, showing a vast, reddish-brown landscape covered in a dense network of craters of various sizes and light-colored, winding ridges or outcrops.

Portfolio home

Assignment 1

Assignment 2

Assignment 3

12:35:30



Portfolio home

Assignment 1

Assignment 2

Assignment 3

12:36:18

## Possible landing sites

Astana

Bamako

Magadan

Portfolio home

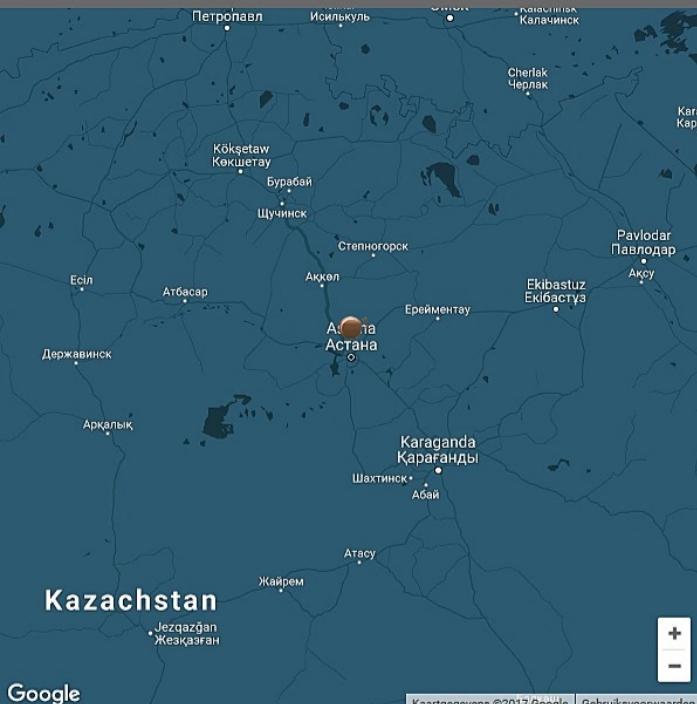
Assignment 1

Assignment 2

Assignment 3

Find warmest landing spot

### Location Information



Placename: Astana

Country: Republic of Kazakhstan

Temperature: 11

Temperature minimum: 11 maximum: 11

Weather: clear sky

Fun fact: Astana is the second coldest capital city in the world after Ulaanbaatar, Mongolia.



## Possible landing sites

Astana

Bamako

Magadan

Portfolio home

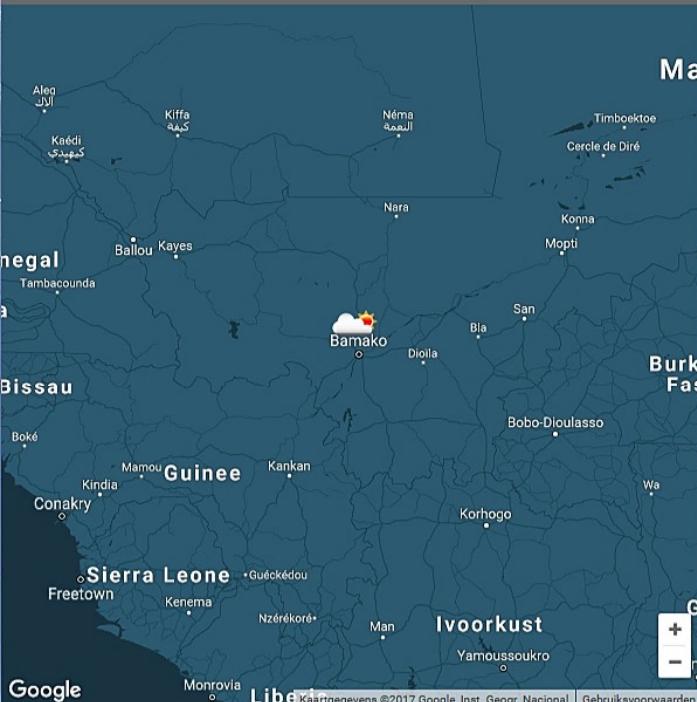
Assignment 1

Assignment 2

Assignment 3

Find warmest landing spot

### Location Information



Placename: Bamako

Country: Republic of Mali

Temperature: 40

Temperature minimum: 40 maximum: 40

Weather: few clouds

Fun fact: Bamako was a leading center of Muslim learning under the Mali empire (c.11th-15th century) but by the 19th century had declined into a small village



## Possible landing sites

Astana

Bamako

Magadan

Portfolio home

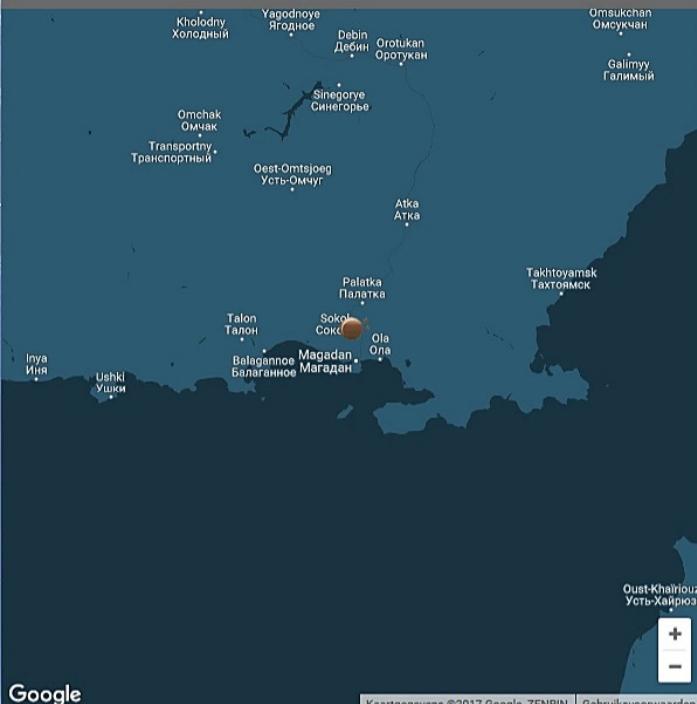
Assignment 1

Assignment 2

Assignment 3

Find warmest landing spot

### Location Information



Placename: Magadan

Country: Russian Federation

Temperature: -1

Temperature minimum: -1 maximum: -1

Weather: clear sky

Fun fact: The nearest city, Yakutsk is 2,000 kms away.



# Portfolio

Portfolio home

Assignment 1

Assignment 2

Assignment 3

## Disclaimer

Each week's assignments can be found using the menu on the right, this menu will persist for navigation through the assignments, but is not a part of the assignment.

A link to the PDF version of the website can be downloaded [here](#).

A zip file containing all files can be downloaded [here](#).

## Student information

Name: Riccardo Waardenburg

Student ID: 16087666

## ASSIGNMENT 1: WEEK 1, 2, 3

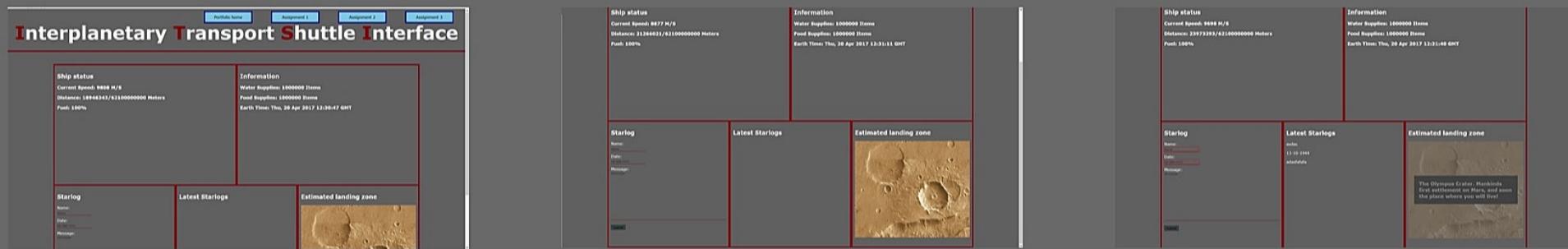
### Recapitulation of the lectures

During the first three weeks I mostly had to fresh up my knowledge of JavaScript, seeing as I already knew it, but hadn't used it in over half a year. The first lecture as such consisted of paying attention to the syntax used to remember the correct way of programming in JavaScript, such as the var declarations, the way conditionals are written (which was pretty much the same as I remembered it) and set me up for further self-study. After week 1 had passed I had already started reading up on the topics for week 2 and 3. As such I went well prepared into week 2 and 3, where I typed along during the lecture and tried to add extra features to see how the page would respond. Due to this I deepened my understanding of the complex data types and DOM manipulation.

### Description of assignment

The first assignment we had to make was an interface that a user could gather "real-time" information from. For this we had to access the DOM and manipulate it to do specific actions. For mine I decided to make a bound, pseudo-random number generator that makes a speedometer fluctuate up and down, but tries to balance it around the 10000 mark. I used this number to increment a distance travelled number. Secondly I created a form that the user could fill in. Once filled in, the next field will present the message typed by the user. Thirdly I implemented a simple UTC clock. Lastly I created an image that, once mouse over will present some text to the user, this is all done through JavaScript. I implemented the various elements from the lectures in the assignment through the various event listeners and conditionals that contain the rest of the elements.

### Results



## ASSIGNMENT 2: WEEK 4, 5

## ASSIGNMENT 2: WEEK 4, 5

### Recapitulation of the lectures

In the week 4 lectures we learned about animating, for this we used the greensocks API. This was a part of JavaScript that I had never used before, or any API in general. As such this was the first time that I learned something really new. I didn't have much trouble with it however, as the greensocks API is very understandable in its functions. The week 5 lecture consisted of timekeeping using the Date object, during this week I learned new tips and tricks on how to store and use this Date object, such as how to call multiple functions with multiple variables in an interval loop, as this was something that I didn't know before.

### Description of assignment

The second assignment that I created was to be an animated, working, representative clock. As such we had to use the greensocks API and the Date object. I decided to try and implement a very clean and efficient code to try and experiment with how trimmed down I could get the file. As of writing this, the line count stands at 61 lines of code, including empty separator lines and broken up arrays. I placed these all in an interval loop as learned in class, but since I wanted multiple functions to run in parallel, each with their own parameters, I had to find another way. Which I did with the anonymous function method. I then used greensocks to animate the clock in a pulsating method, reverting scale direction every second using a conditional that checks for the modulo of the time.

### Result



## ASSIGNMENT 3: WEEK 6, 7

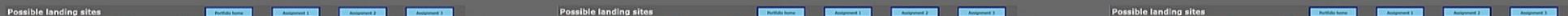
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