Assignment 1

Team Battle Chips (CSE2 56)

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# 1.1

Below is a copy of the terminal interaction with the [www.weer.nl](http://www.weer.nl) server. Text highlighted in gray is the input typed into the console.

zbook@Tobro-ZBook:~$ telnet weer.nl 80

Trying 80.92.65.53...

Connected to weer.nl.

Escape character is '^]'.

HEAD / HTTP/1.1

host:weer.nl

HTTP/1.1 301 Moved Permanently

Date: Fri, 16 Nov 2018 13:59:11 GMT

Server: Apache

Status: 301 Moved Permanently

Location: http://www.weer.nl/

Content-Type: text/html; charset=UTF-8

Connection closed by foreign host.

zbook@Tobro-ZBook:~$ telnet www.weer.nl 80

Trying 52.49.205.192...

Connected to b2cwebsite-live-lb-960116390.eu-west-1.elb.amazonaws.com.

Escape character is '^]'.

HEAD / HTTP/1.1

host:www.weer.nl

HTTP/1.1 200 OK

Age: 260

Cache-Control: max-age=600

Content-Type: text/html; charset=utf-8

Date: Fri, 16 Nov 2018 13:55:38 GMT

Server: nginx/1.12.0

Vary: Accept-Encoding

Via: 1.1 varnish-v4

X-Cache: HIT

X-Powered-By: PHP/5.5.26

X-Varnish: 997703983 998247972

Connection: keep-alive

GET / HTTP/1.1

host:www.weer.nl

HTTP/1.1 200 OK

Accept-Ranges: bytes

Age: 296

Cache-Control: max-age=600

Content-Type: text/html; charset=utf-8

Date: Fri, 16 Nov 2018 13:55:38 GMT

Server: nginx/1.12.0

Vary: Accept-Encoding

Via: 1.1 varnish-v4

X-Cache: HIT

X-Powered-By: PHP/5.5.26

X-Varnish: 997922388 998247972

transfer-encoding: chunked

Connection: keep-alive

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<!DOCTYPE html>

<html lang="nl">

<head>

...

GET /radar/ HTTP/1.1

host:www.weer.nl

HTTP/1.1 200 OK

Accept-Ranges: bytes

Age: 0

Cache-Control: max-age=600

Content-Type: text/html; charset=utf-8

Date: Fri, 16 Nov 2018 14:03:44 GMT

Server: nginx/1.12.0

Vary: Accept-Encoding

Via: 1.1 varnish-v4

X-Cache: MISS

X-Powered-By: PHP/5.5.26

X-Varnish: 966024039 966024040

transfer-encoding: chunked

Connection: keep-alive

f97

<!DOCTYPE html>

<html lang="nl">

<head>

...

# 1.2

The content of the html-code that is received in the final request to the server corresponds with the site with the exception of the elements that require a live connection with the server (e.g. the actual map with weather information is replaced with a placeholder image).

# 1.3

The X\_Cache tag is used by the server to indicate if the content was coming from a cache server (“HIT”) or not (“MISS”). Since “MISS” is reported the information is coming directly from the main server.

# 1.4

The Cache-Control directive "max-age=600" specifies that the maximum amount of time the resource will be considered fresh is 600 seconds. The 600 seconds count relative to the time of the request.

# 2.1

Below is the terminal interaction with the server.

zbook@Tobro-ZBook:~$ telnet httpbin.org 80

Trying 52.45.111.123...

Connected to httpbin.org.

Escape character is '^]'.

PUT /put HTTP/1.1

host:httpbin.org

Content-type:text/plain

Content-length:12

Hello World!

HTTP/1.1 200 OK

Connection: keep-alive

Server: gunicorn/19.9.0

Date: Fri, 16 Nov 2018 14:19:34 GMT

Content-Type: application/json

Content-Length: 296

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true

Via: 1.1 vegur

{

"args": {},

"data": "Hello World!",

"files": {},

"form": {},

"headers": {

"Connection": "close",

"Content-Length": "12",

"Content-Type": "text/plain",

"Host": "httpbin.org"

},

"json": null,

"origin": "83.85.38.153",

"url": "http://httpbin.org/put"

}

When specifying the wrong number of characters (13 instead of 12) the server pads the response with additional /r characters, as can be seen from below:

PUT /put HTTP/1.1

host:httpbin.org

Content-type:text/plain

Content-length:13

Hello World!

HTTP/1.1 200 OK

Connection: keep-alive

Server: gunicorn/19.9.0

Date: Fri, 16 Nov 2018 14:22:36 GMT

Content-Type: application/json

Content-Length: 298

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true

Via: 1.1 vegur

{

"args": {},

"data": "Hello World!\r",

"files": {},

"form": {},

"headers": {

"Connection": "close",

"Content-Length": "13",

"Content-Type": "text/plain",

"Host": "httpbin.org"

},

"json": null,

"origin": "83.85.38.153",

"url": "http://httpbin.org/put"

}

When specifying a too low number of characters (11 instead of 12) the server truncates the text:

PUT /put HTTP/1.1

host:httpbin.org

Content-type:text/plain

Content-length:11

Hello, World!

HTTP/1.1 200 OK

Connection: keep-alive

Server: gunicorn/19.9.0

Date: Fri, 16 Nov 2018 14:25:43 GMT

Content-Type: application/json

Content-Length: 295

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true

Via: 1.1 vegur

{

"args": {},

"data": "Hello, Worl",

"files": {},

"form": {},

"headers": {

"Connection": "close",

"Content-Length": "11",

"Content-Type": "text/plain",

"Host": "httpbin.org"

},

# 3.1

After logging in to the page and reloading, the browser does not ask for username and password again.

# 3.2

Please refer to the text below for a view on the terminal interaction with the server:

zbook@Tobro-ZBook:~$ telnet httpbin.org 80

Trying 52.72.251.164...

Connected to httpbin.org.

Escape character is '^]'.

HEAD /basic-auth/user/passwd HTTP/1.1

host:httpbin.org

HTTP/1.1 401 UNAUTHORIZED

Connection: keep-alive

Server: gunicorn/19.9.0

Date: Fri, 16 Nov 2018 14:30:05 GMT

Www-Authenticate: Basic realm="Fake Realm"

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true

Content-Length: 0

Via: 1.1 vegur

===

zbook@Tobro-ZBook:~$ telnet httpbin.org 80

Trying 52.86.186.182...

Connected to httpbin.org.

Escape character is '^]'.

HEAD /basic-auth/user/passwd HTTP/1.1

host:httpbin.org

Authorization: Basic dXNlcjpwYXNzd2Q=

HTTP/1.1 200 OK

Connection: keep-alive

Server: gunicorn/19.9.0

Date: Fri, 16 Nov 2018 14:34:35 GMT

Content-Type: application/json

Content-Length: 47

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true

Via: 1.1 vegur

===

zbook@Tobro-ZBook:~$ telnet httpbin.org 80

Trying 52.204.188.97...

Connected to httpbin.org.

Escape character is '^]'.

HEAD /basic-auth/user/passwd HTTP/1.1

host:httpbin.org

HTTP/1.1 401 UNAUTHORIZED

Connection: keep-alive

Server: gunicorn/19.9.0

Date: Fri, 16 Nov 2018 14:35:53 GMT

Www-Authenticate: Basic realm="Fake Realm"

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true

Content-Length: 0

Via: 1.1 vegur

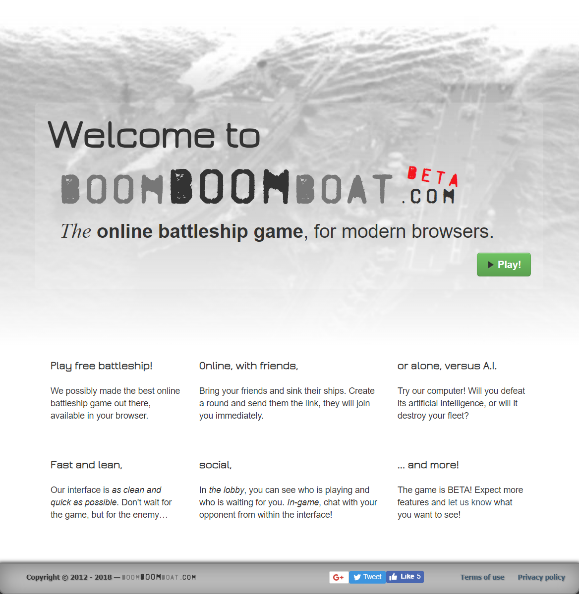
The behavior is not the same as the server rejects the connection without the user name and password. Reason for that is that HTTP requires username+password to be provided with each HTTP request whereas the browser hides this from the end-user.

# 4.1

Our team will implement the Battle Ships game

# 4.2

*Example 1:* [*https://boomboomboat.com*](https://boomboomboat.com)



Good: clean game interface with clear intentions

Bad: splash screen is fully text-based and, in combination with the creative site name, the intention of the app is not immediately clear.

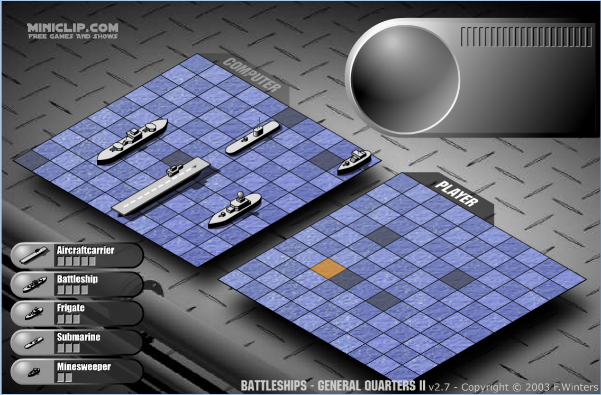
*Example 2: http://www.hoodamath.com/mobile/games/app/battleship.html*



Good: graphically very rich game

Bad: the screen where user has to enter his moves is different from the visualization above creating a chaotic user experience

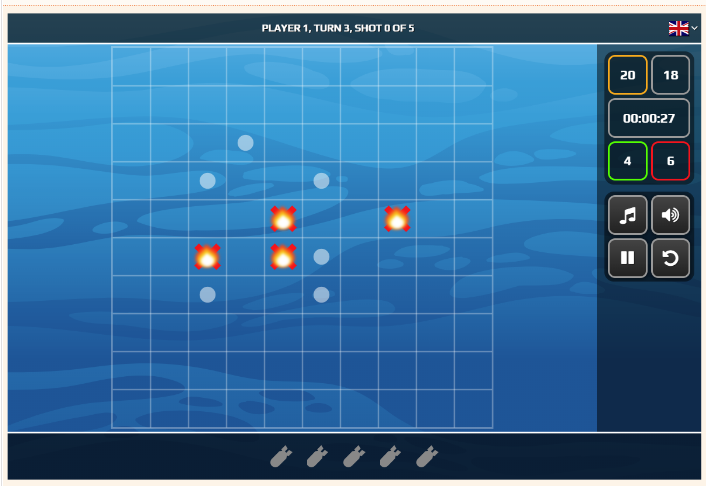
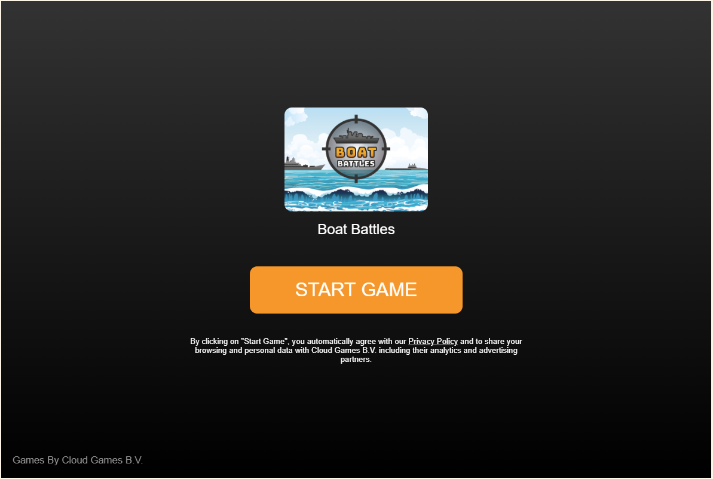
*Example 3: http://www.speeleiland.nl/zeeslag.htm*



Good: graphically very rich game

Bad: requires a flash-plugin in the browser

*Example 4:* [*https://www.1001spelletjes.nl/spellen/zeeslag.html*](https://www.1001spelletjes.nl/spellen/zeeslag.html)



Good: graphically very rich game, interesting take on the rules (each player gets to do 5 shots in each turn, rather than taking turns firing a single shot)

Bad: requires a flash-plugin in the browser, laced with advertisements, site does not work if adblocker is active

# 4.3

*Positive features to include*

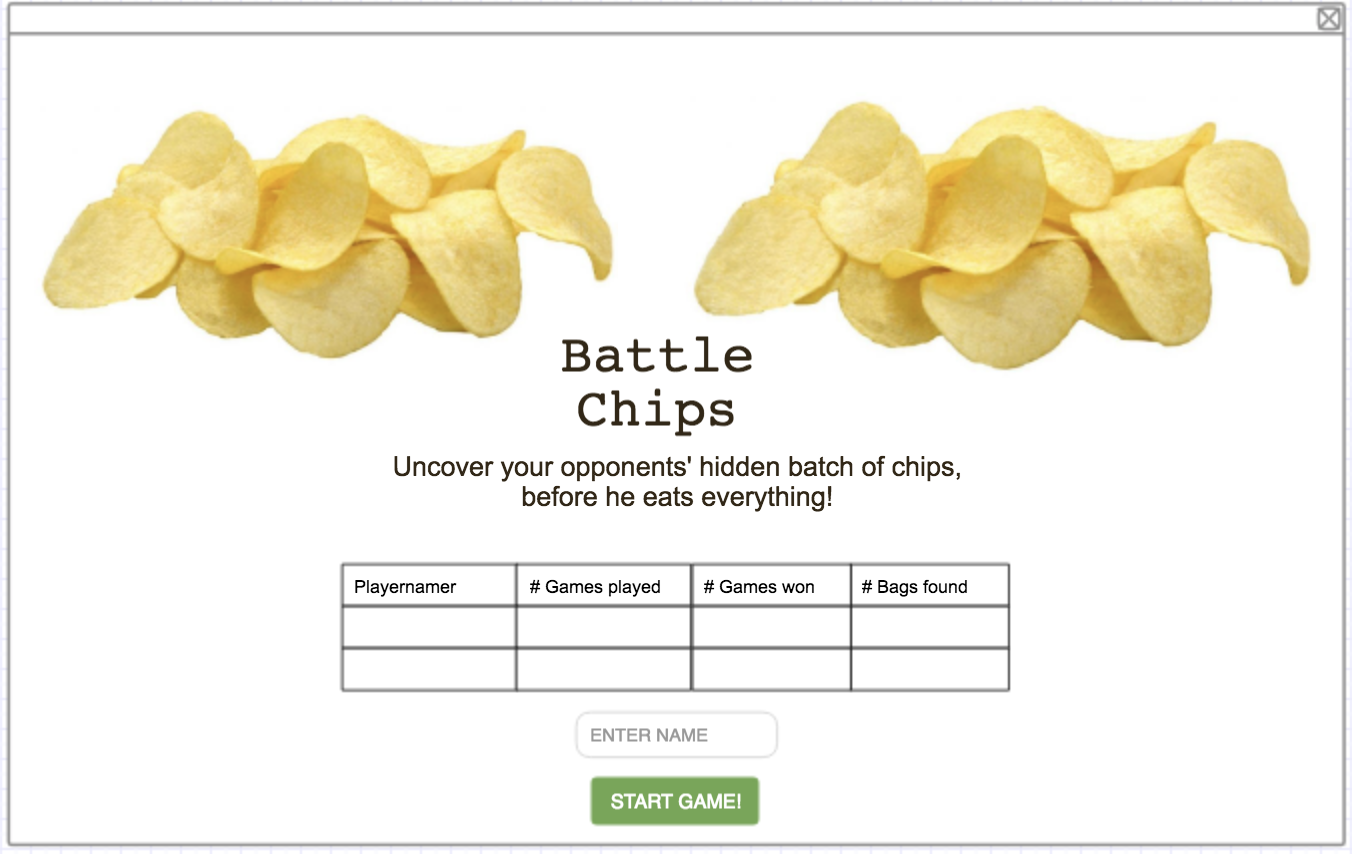
* A clean and simple user interface without too many options: in game screen we will only include a button for “forfeit game” and for “full screen”
* Preferably a graphically rich interface but this is likely going to be limited due to time constraints
* Quick click-through to start a game with random set-up instead of tedious/slow set-up procedure

*Negative features to avoid*

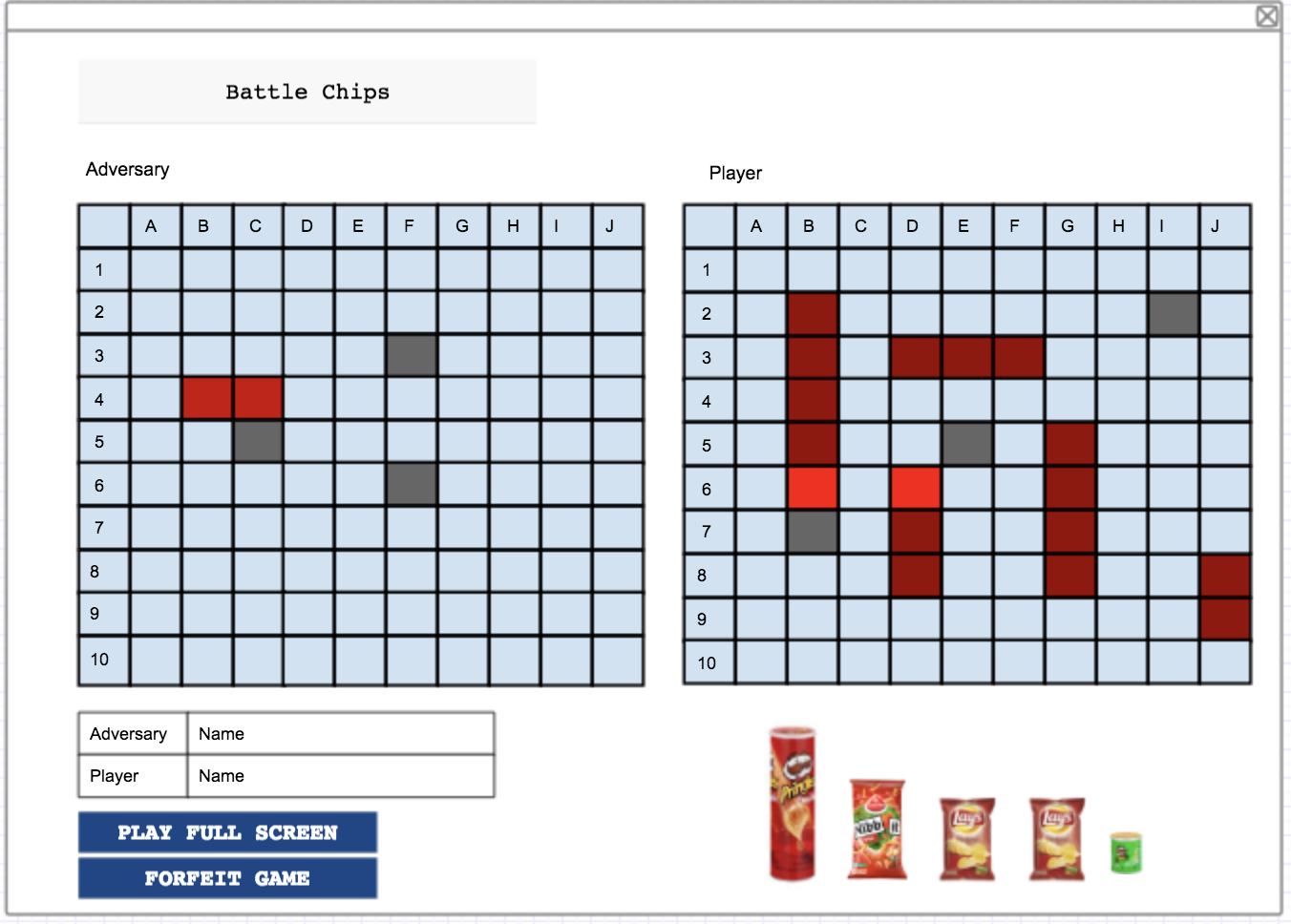
* No advertisements that delay/block the user experience
* Based on standard Javascript – no need for additional browser plug-ins
* A crisp splash screen without too much text

# 5.1

Splash screen design:



# 5.2



# 5.3

Done

# 6.

Submitted in separate .zip file