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Assignment 1

1 - HTTP Requests
1.1)

```
HEAD /regenradar/nederland HTTP/1.1
host: http://www.weer.nl

Trying 80.92.65.53...
Connected to weer.nl.
Escape character is '^]'.
HTTP/1.1 301 Moved Permanently
Date: Mon, 19 Nov 2018 16:10:36 GMT
Server: Apache
Status: 301 Moved Permanently
Location: http://www.weer.nl/regenradar/nederland
Content-Type: text/html; charset=UTF-8


HEAD /regenradar/nederland HTTP/1.1
Host: www.weer.nl

Trying 52.49.205.192...
Connected to
b2cwebsite-live-lb-960116390.eu-west-1.elb.amazonaws.com.
Escape character is '^]'.
HTTP/1.1 200 OK
Age: 318
Cache-Control: max-age=600
Content-Type: text/html; charset=utf-8
Date: Mon, 19 Nov 2018 16:06:24 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: 1015426327 1015425453
Connection: keep-alive
```

```
GET /regenradar/nederland HTTP/1.1
Host: www.weer.nl
```

1.2) Yes, it does corresponds with the webpage in the browser.

1.3)
X-cache tells if the page is send from a cache-server. A hit means the webpage is served from the cache-server. A miss means it was not send from the cache-server.

1.4)
Cache-Control: max-age=600
The file can only be used from the cache if it has arrived less than 10 minutes ago.

2 - HTTP request messages: PUT
2.1)
If content-length is smaller than actual content it will just get all input up to the given length. If it is content-length is larger than actual content, you have to add content until it reaches the given content-length.

3 - Basic authentication
3.1)
It loads a page with the following content:
{
  "authenticated": true,
  "user": "user"
}

3.2)
```
PUT /put HTTP/1.1
Host: httpbin.org
Content-Type: text/plain
Content-Length: 3

abc

Trying 34.206.253.53...
Connected to httpbin.org.
Escape character is '^]'.
HTTP/1.1 200 OK
Connection: keep-alive
Server: gunicorn/19.9.0
Date: Mon, 19 Nov 2018 16:25:03 GMT
Content-Type: application/json
Content-Length: 287
Access-Control-Allow-Origin: *
```

```
Access-Control-Allow-Credentials: true
Via: 1.1 vegur

{
 "args": {},
 "data": "abc",
 "files": {},
 "form": {},
 "headers": {
   "Connection": "close",
   "Content-Length": "3",
   "Content-Type": "text/plain",
   "Host": "httpbin.org"
 },
 "json": null,
 "origin": "143.179.19.24",
 "url": "http://httpbin.org/put"
}

HEAD /basic-auth/user/passwd HTTP/1.1
Host: httpbin.org

Trying 34.206.9.96...
Connected to httpbin.org.
Escape character is '^]'.
HTTP/1.1 401 UNAUTHORIZED
Connection: keep-alive
Server: gunicorn/19.9.0
Date: Mon, 19 Nov 2018 16:27:22 GMT
Www-Authenticate: Basic realm="Fake Realm"
Access-Control-Allow-Origin: *
Access-Control-Allow-Credentials: true
Content-Length: 0
Via: 1.1 vegur

GET /basic-auth/user/passwd HTTP/1.1
Host: httpbin.org
Authorization: Basic dXNlcjpwYXNzd2Q=

Trying 52.3.63.2...
```

```
Connected to httpbin.org.
Escape character is '^]'.
HTTP/1.1 200 OK
Connection: keep-alive
Server: gunicorn/19.9.0
Date: Mon, 19 Nov 2018 16:32:05 GMT
Content-Type: application/json
Content-Length: 47
Access-Control-Allow-Origin: *
Access-Control-Allow-Credentials: true
Via: 1.1 vegur

{
 "authenticated": true,
 "user": "user"
}
```

After restarting telnet and then trying to access the page again we get another 401 Unauthorized. In the browser this does not happen, since chrome remembers the password using sessions.
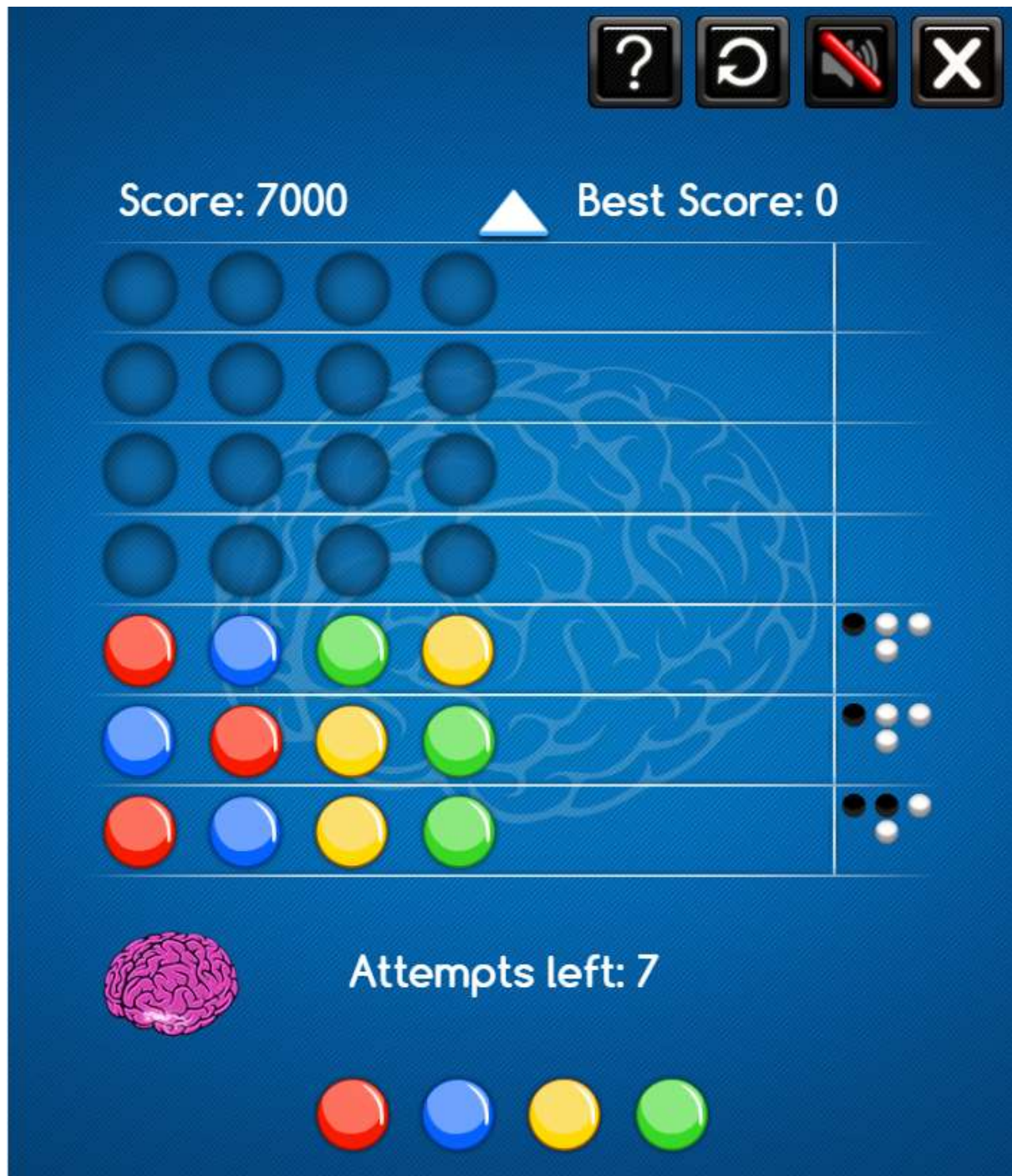
4 - Web programming project: board game app
4.1)
Mastermind.
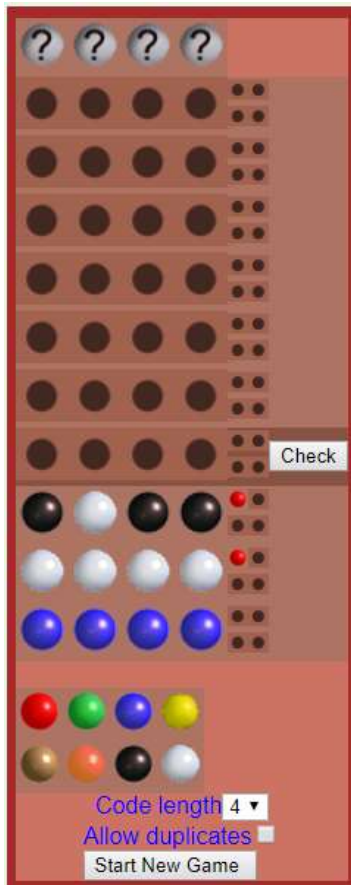
4.2)
http://spele.nl/mastermind-online-spel/

Pros:
- Click on sphere to remove it.
- Clear colors.
- Possible to disable audio.

Cons:
- Board is not aligned.
- Can only drag spheres (we want to click on it)
- Brain image and background is distracting
- Pointing system is unclear and not aligned
- Only four colors

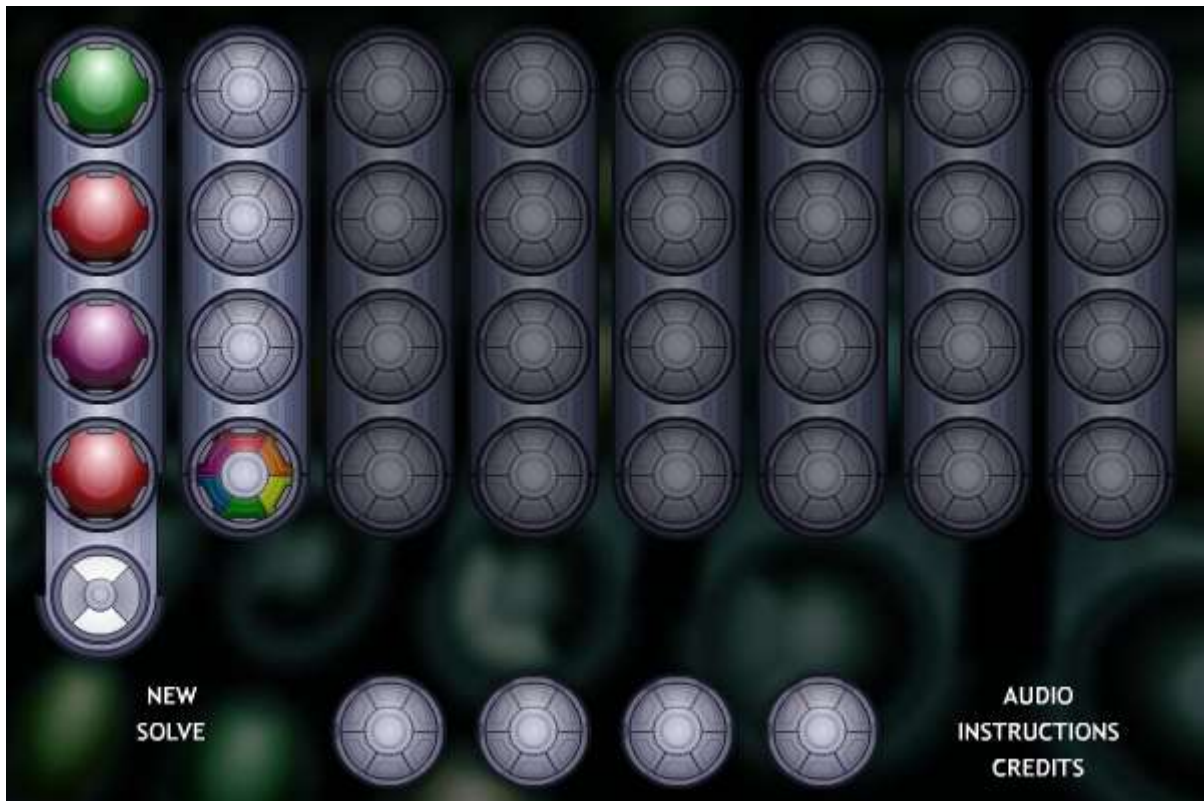http://www.webgamesonline.com/mastermind/index.php

Pros:
- Stays close to original game
- More than four colors.

Cons:
- Horrible UI (buttons, inputs, hyperlinks)
- Check button is unnecessary.
- Not aligned.
- Code length not clear what it does.
- Menu always visible, no button for menu.

https://www.1001spelletjes.nl/spellen/mastermind+2.html

Pros:
- Fancy design.
- Few cluttering elements
- Menu buttons have a clear names

Cons:
- Design makes it unclear how game works.
- Colors are not distinct enough
- Not clear how pointing system works
- Picking color area is too small

https://supermastermind.github.io/playonline/game.html

Pros:
- Lots of options
- Funny statistics
- Uses canvas, so you can make a screenshot very easy
- If buttons cannot be used, they fade and are disabled

Cons:
- UX/UI not intuitive
- Harsh color scheme
- Too many buttons for choosing your guess
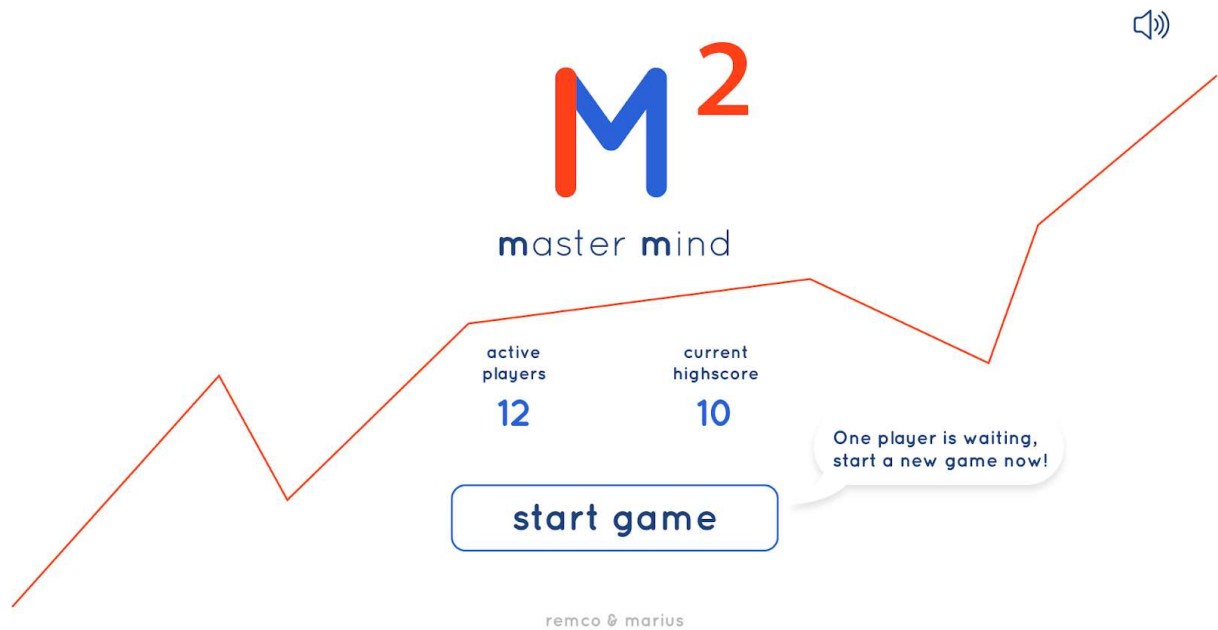
4.3)
Positive game features:
- Clear colors in game 1.
- Third game showed new and intuitive way for picking a color.
- Possible to disable audio in first game.

Negative game features:
- Picking colors in game 4 was not intuitive. Took some small amount of time to figure it out, but this can be the time a user closes the game window.
- Colors of the balls should be distinct, because if they are not it makes it hard to play the game.
- All games show ugly UI except game 3. To keep the gamers attracted to the game, it should have a nice and clear UI, so you want to keep on playing and playing and playing.

5 - Design of splash and game screen
Splash screen

M²

master mind

active players
12

current highscore
10

One player is waiting, start a new game now!

start game

remco & marius

Game screen

M²
master mind

Victory!

exit   random   check   clear