

szoftverarchitektúrák gyakorlatok

1. standalone, konzolos alkalmazás telepítés

The screenshot shows a GitHub repository page for 'Training360/architecture-public'. A Windows security warning is displayed over the README file, stating: 'A Windows megvédte a számítógépet. A Microsoft Defender SmartScreen megakadályozta egy nem felismert alkalmazás elindulását. Az alkalmazás futtatása veszélyeztetheti a számítógépet. Alkalmazás: LocationsCli-1.0.0.exe. Gyártó: Ismeretlen kiadó.' The warning has two buttons: 'Futtatás mindenképpen' (Run anyway) and 'Futtatás mellőzése' (Skip). The README file is titled 'Szoftverarchitektúrák' and describes a 'Standalone konzolos alkalmazás'. It includes a list of commands to run in the terminal: 'C:\Program Files\LocationsCli> LocationsCli', followed by a numbered list: 1. List locations, 2. Create location, 3. Edit location, 4. Delete location, 5. Exit. It also shows a sample output: 'Select a number, than press Enter!'.

standalone, konzolos alkalmazás használat (listázás, adatbevitel, adatmódosítás, adattörlés)

The screenshot shows a Windows command prompt window running the 'LocationsCli' application. The prompt displays the following text: 'What is the coordinates of the location? Use 47.531605,21.627312 format!'. The user has entered '1,0,1,3', and the application responds: 'Location has been created'. The application then displays a menu: '1. List locations', '2. Create location', '3. Edit location', '4. Delete location', '5. Exit'. The user has selected '1', and the application displays a table of locations:

Id	Name	Coordinates
1	Budapest	47,497912,19,040235
5	Győr	47,687457,17,650397
6	Home	1,100000,1,100000
8	Home	1,000000,1,300000
3	Miskolc	48,103478,20,778439
4	Veszprém	47,102809,17,909302

The application then prompts the user to 'Select a number, than press Enter!'. The user has entered '1', and the application displays the same menu as before.

2. központi adatbázis indítása docker containerben. (Itt eltelt pár perc, mire rájöttem, hogy egyrészt elírtam az értéket és ezért ahogy elindítottam, le is állt a container, aztán hogy nem is azért állt le, hanem mert csupa nagybetűvel kell a környezeti változókat beírni. 😊)

The screenshot shows a Windows command prompt window with the following commands and output:

```
C:\WINDOWS\system32>robocopy E:\ H:\ /mit /e /r:2 /w:3 /eta /v /log:H:\naplo.txt
Log File : H:\naplo.txt
C:\WINDOWS\system32>robocopy E:\ H:\ * /e /r:2 /w:3 /eta /v /log:H:\naplo.txt
Log File : H:\naplo.txt
C:\WINDOWS\system32>docker run -d -e mysql_database=locations -e mysql_user=locations -e mysql_password=locations -e mysql_allow_empty_password=yes -p 3306:3306 --name locations-db mariadb
dad32cee74f122b5e96f8c40241909862c05c648931578439bcf42f6e3303e3
C:\WINDOWS\system32>
```

The web application interface shows the title "Központi adatbázis" and the instruction: "Amennyiben Docker telepítve van a gépedre, indítsd el az adatbázist a következő paranccsal:"

```
QL_PASSWORD=locations -e MYSQL_ALLOW_EMPTY_PASSWORD=yes -p 3306:3306 --name locations-dbclient-mariadb mariadb
```

Below this, it says: "Írd át az alkalmazás konfigurációs állományában, hogy az adatbázishoz kapcsolódjon! Ennek kell benne szerepelnie:"

```
config.store = "db"
config.db.type = "mysql"
config.db.url = "mysql://locations:locations@localhost:3306/locations"
config.db.logging = false
```

It then says: "Majd indítsd el az alkalmazást!"

Under "SQL nyelv", there is a link "SQL konzol".

At the bottom, it shows the command: `docker exec -it locations-dbclient-mariadb mysql locations`.

3. standalone, grafikus alkalmazás config.js állomány módosítás, hogy a containerben futó adatbázishoz kapcsolódjon

The screenshot shows a web application interface with the title "config.js - Jegyzet" and the following code:

```
const config = {}
config.db = {}
config.mongo = {}
config.rest = {}

//config.store = "inmemory"

config.store = "db"
config.db.type = "mysql"
config.db.url = "mysql://locations:locations@localhost:3306/locations"
config.db.logging = false

//config.store = "mongo"
//config.mongo.url = "mongodb://localhost:27017/locations"
//config.mongo.logging = true

//config.store = "rest"
//config.rest.url = "http://localhost:8080"
```

Below the code, it says: "Írd át az alkalmazás konfigurációs állományában, hogy az adatbázishoz kapcsolódjon! Ennek kell benne szerepelnie:"

```
config.store = "db"
config.db.type = "mysql"
config.db.url = "mysql://locations:locations@localhost:3306/locations"
config.db.logging = false
```

It then says: "Majd indítsd el az alkalmazást!"

Under "SQL nyelv", there is a link "SQL konzol".

Below this, it shows the command: `docker exec -it locations-dbclient-mariadb mysql locations`.

Under "SQL utasítások", there is a link "desc location;"

adatbevitel grafikus felületen

The screenshot shows a web application interface for managing locations. The 'Locations' form is open, displaying fields for Name, Coordinates, Interesting at, and Tags. A file explorer window is open in the background, showing the local file system. The console shows a 'Successful post' message.

Locations

Name*
work 1

Coordinates (format: 47.4979,19.0402, no spaces, max. 6 digits after decimal point)*
1.1,2

Interesting at (format: 2019-09-11T15:31:04)

Tags (format: favourite, capital)
ez egy tag

Create location Cancel Refresh table

Majd indítsd el az alkalmazást!

SQL nyelv

- SQL konzol

```
docker exec -it locations-database mariadb mysql locations
```

- SQL utasítások

```
desc location;
```

4. adatbevitel, módosítás, törlés SQL konzolon, containerben

The screenshot shows a web application interface for managing locations. The 'Locations' form is open, displaying a table of locations. A terminal window is open in the background, showing SQL commands and their output.

Locations

Location has been modified

Create location Refresh table

ID	Name	Coordinates	Interesting at	Tags
1	work - 3	1, 1		otthon édes otthon
2	work 1	1.1, 2		ez egy tag
3	work 2	2.1, 3		

NoSQL adatbázisok

MongoDB elindítása:

```
docker run -d -p27017:27017 --name locations-mongo mongo
```

Parancssoros kliens elindítása:

```
docker exec -it locations-mongo mongo locations
```

Parancsok:

```
db.location.find()
db.location.insert({name: "work", lat: 2, lon: 3})
```

Terminal output:

```
Field | Type | Null | Key | Default | Extra
id | int(11) | NO | PRI | NULL | auto_increment
name | varchar(255) | NO | | NULL |
lat | double | NO | | NULL |
lon | double | NO | | NULL |
interesting_at | datetime | YES | | NULL |
5 rows in set (0.002 sec)

MariaDB [locations]> insert into location(name, lat, lon) values ('work 2', 2.1, 3);
Query OK, 1 row affected (0.022 sec)

MariaDB [locations]> select * from location
->
+----+-----+-----+-----+-----+
| id | name | lat | lon | interesting_at |
+----+-----+-----+-----+-----+
| 1 | Home | 1 | 1 | NULL |
| 2 | work 1 | 1.1 | 2 | NULL |
| 3 | work 2 | 2.1 | 3 | NULL |
+----+-----+-----+-----+-----+
3 rows in set (0.000 sec)

MariaDB [locations]> update location set name = 'work - 3' where ID = 1;
Query OK, 1 row affected (0.042 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [locations]>
```

A locations alkalmazásban sem törölhető a felvitt kedvenc hely, ha van tag hozzá.

The screenshot shows the 'Locations' application interface. A modal dialog asks 'Are you sure to delete location?' with 'Delete location' and 'Cancel' buttons. Below the dialog is a table with columns: Id, Name, Coordinates, Interesting at, and Tags. The table contains one row with Id 2, Name 'work 1', Coordinates '1.1, 2', and Tags 'ez egy tag'. There are 'Edit' and 'Delete' buttons next to the row. In the background, a console window shows a database error: 'ER_ROW_ID_REFERENCED_2: Cannot delete or update a parent row: a foreign key constraint fails ('locations', 'tag', CONSTRAINT 'FK_tagofff1e4e9a12e4d979e4' FOREIGN KEY ('locationId') REFERENCES 'location' ('id') ON DELETE NO ACTION ON UPDATE NO ACTION)'. The error is thrown from 'C:\architektura\locations-win32-64x\resources\app\node_modules\typeorm\driver\mysql\MySQLQueryRunner.js:168:45'.

előbb törölni kell a kapcsolt tábla (tag) megfelelő sorát, vagy sorait, utána a kedvenc hely is törölhető.

The screenshot shows the 'Locations' application interface after a successful deletion. A green message box says 'Location has been deleted'. The 'Create location' button is visible. The table is empty. In the background, a console window shows the following commands and output:

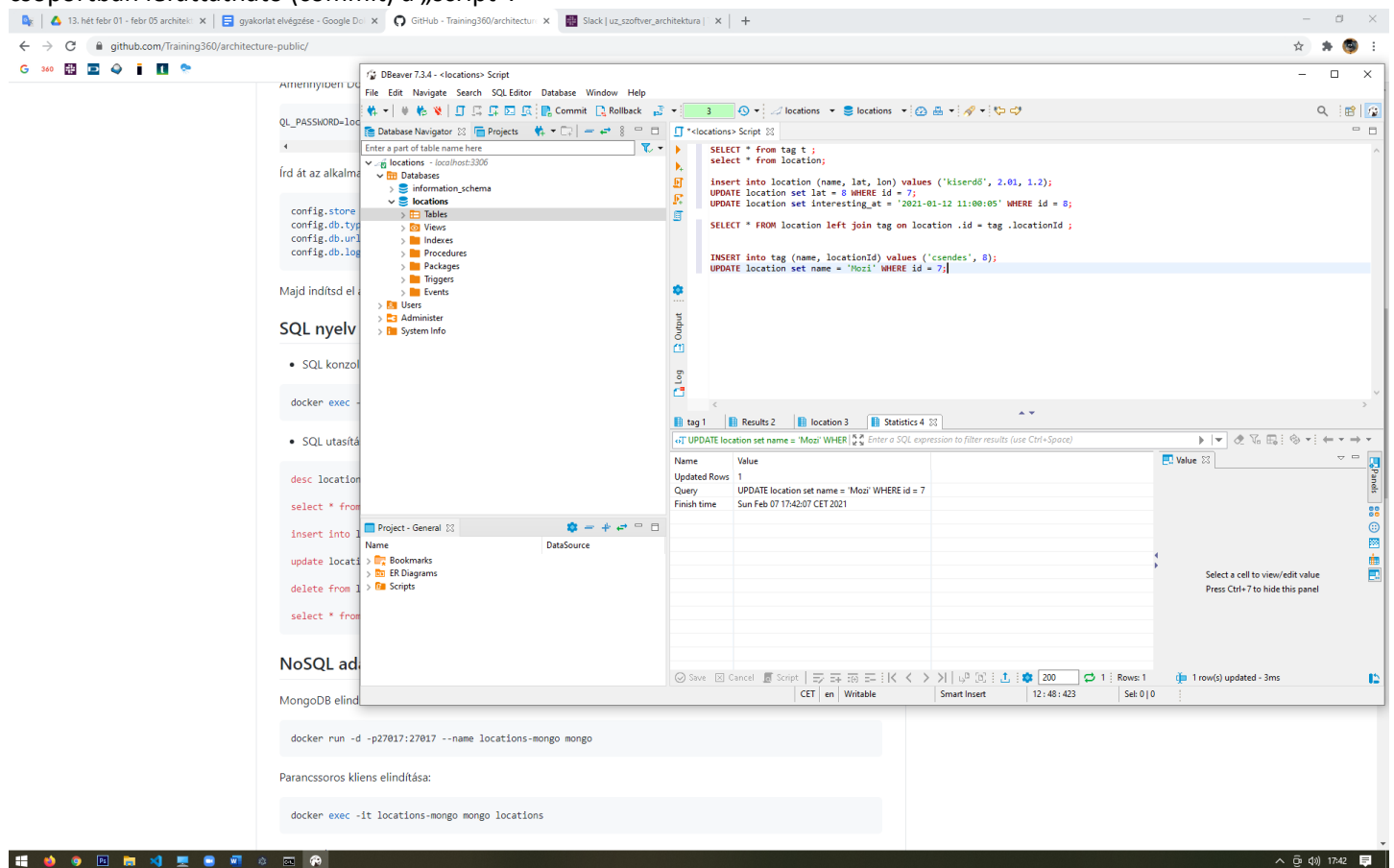
```
desc location;
select * from location;
insert into location(name, lat, lon) values ('Work2', 3, 3);
update location set name = 'Work3' where id = 3;
delete from location where id = 3;
select * from location left join tag on location.id = tag.locationId;
```

The output shows the table structure and the result of the delete operation. The console also shows the command 'MariaDB [locations]> select * from location' and the result:

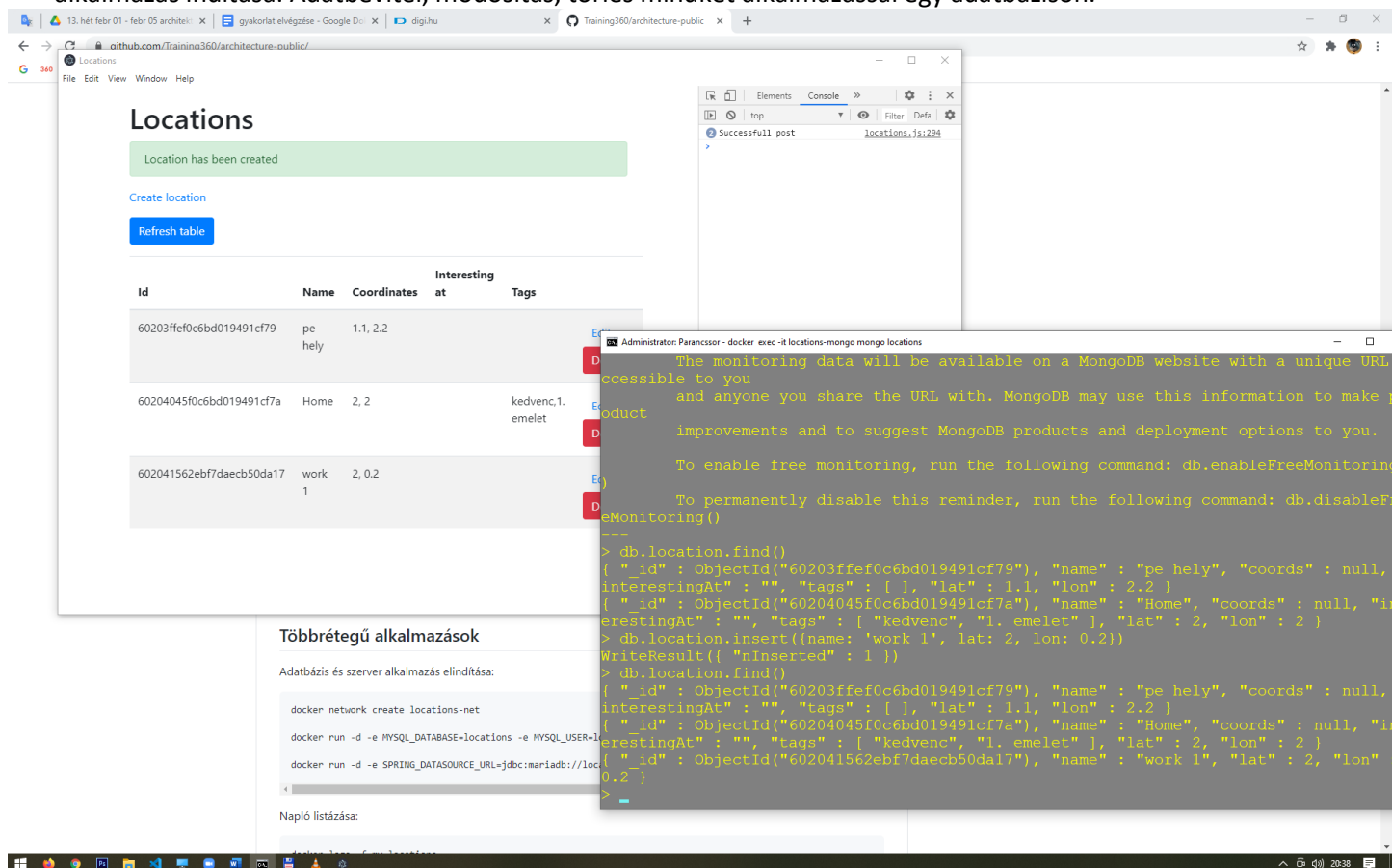
id	name	lat	lon	interesting_at
1	Home	1	1	NULL
2	work 1	1.1	2	NULL
3	work 2	2.1	3	NULL

The console also shows the command 'MariaDB [locations]> update location set name = 'work - 3' where ID = 1;' and the result: 'Query OK, 1 row affected (0.002 sec) Rows matched: 1 Changed: 1 Warnings: 0'.

Tranzakció kezelés DBeaver-el. Az sql utasítások futtatását manuális commit-ra állítva visszapörgethető (rollback), vagy csoportban lefuttatható (commit) a „script”.



5. noSQL adatbázis használata. MongoDB indítása containerben, és megfelelő config.js beállítással a locations alkalmazás indítása. Adatbevitel, módosítás, törlés mindkét alkalmazással egy adatbázison.



7. webes alkalmazásról adatbevitel, módosítás törlés

The screenshot shows a web browser at `localhost:8080/server/details?sessionId=03EEB5286CF0CA8A563A3198BE930B27id=6`. The page title is "Location details". A green message box says "Location has been created." Below it is a form with the following fields:

Field	Value
Name	új város
Coordinates	1.0, 4.0
Interesting at	
Tags	

At the bottom of the form are buttons: "Edit", "Delete", and "Back to list".

On the right, the Chrome DevTools Network tab is open, showing a list of requests. The "create" request is selected, showing a POST method to `/details?sessionId=03EEB5286CF0CA8A563A3198BE930B27id=6` with a status of 200.

.log ablak figyelése adat manipulálás közben

The screenshot shows a web browser at `localhost:8080/server`. The page title is "Locations". A green message box says "Location has been deleted." Below it is a table of locations:

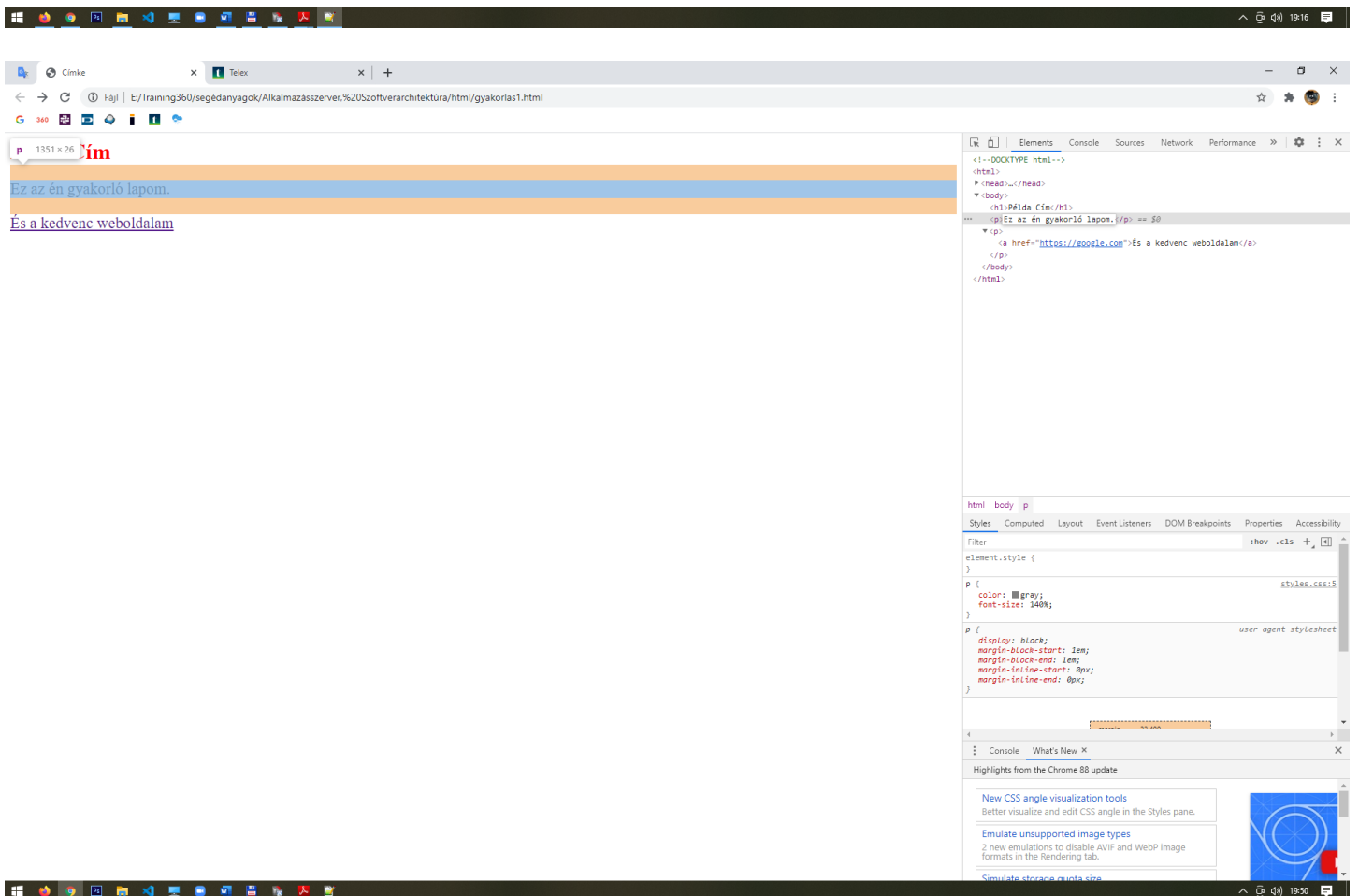
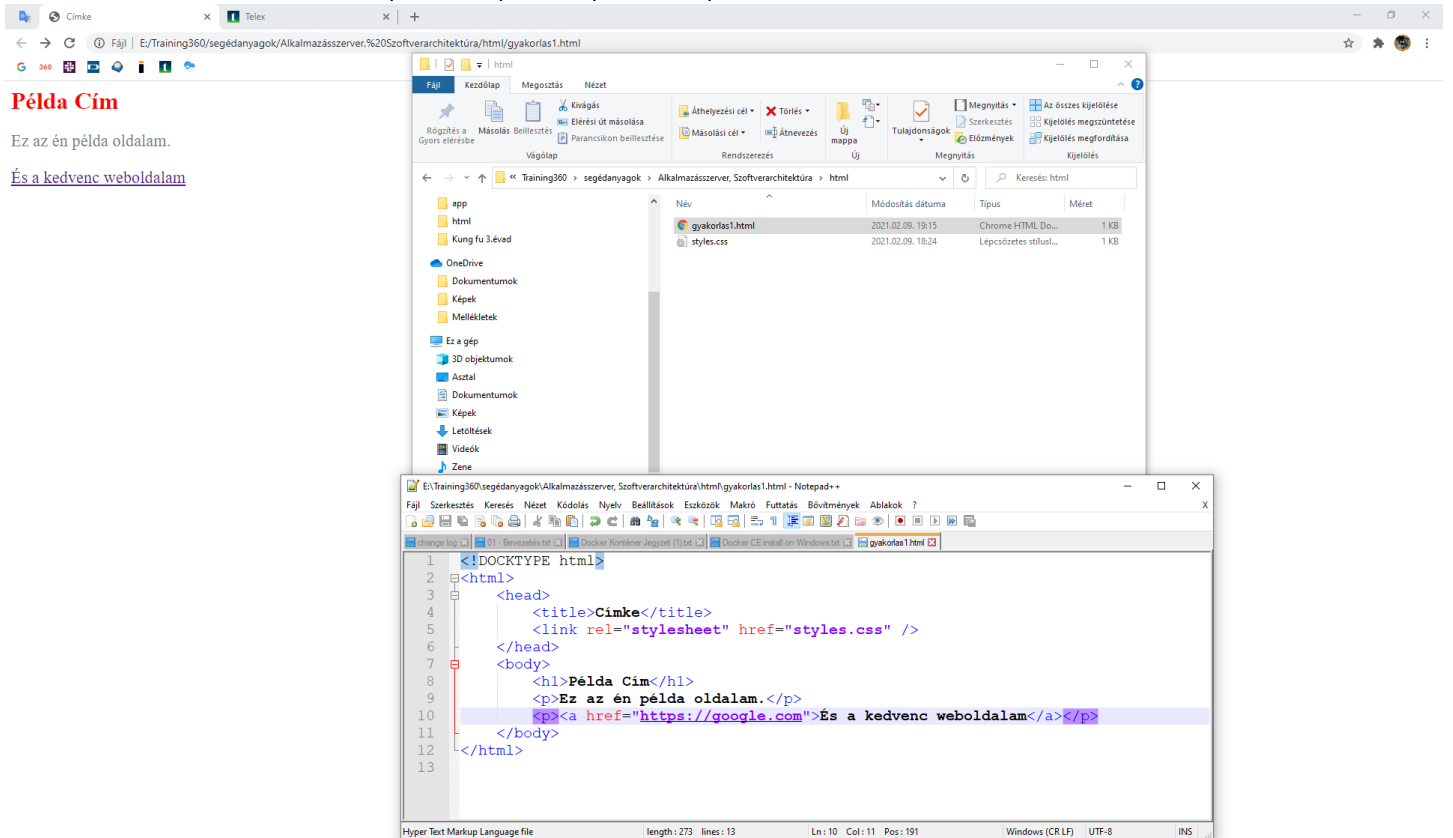
Name	Coordinates	Action
Budapest	47.497912, 19.040235	View
Debrecen	47.5316049, 21.6273124	View
Győr	47.6874569, 17.6503974	View
parti	3.0, 1.0	View
új város	1.0, 4.0	View
Veszprém	47.1028087, 17.9093019	View

At the bottom left, there is a "Create location" link.

On the right, a PowerShell terminal window is open, showing the following commands and output:

```
PS E:\Training360\githubra\szvarc [main 9cd9891] commit2
1 file changed, 0 insertions(+),
create mode 100644 "tartalom/szo
On branch main
Your branch is ahead of 'origin/main'
(use "git push" to publish your
nothing to commit, working tree
PS E:\Training360\githubra\szvarc
fatal: unable to access 'https://
PS E:\Training360\githubra\szvarc
```

8. web formátumok: html (tartalom) és css (formázás)



9. webes alkalmazás RIA felülettel (JavaScript)