Php and mongoDB
Sample Project Tutorial

ELANUR GÜNAY

05/02/2021

CONTENT

How to create a sample application with php is explained in this tutorial.

- Creating environment with Php
- Connecting MongoDB database
- Accessing database through Php
- Displaying and inserting data to database.

What is Php?

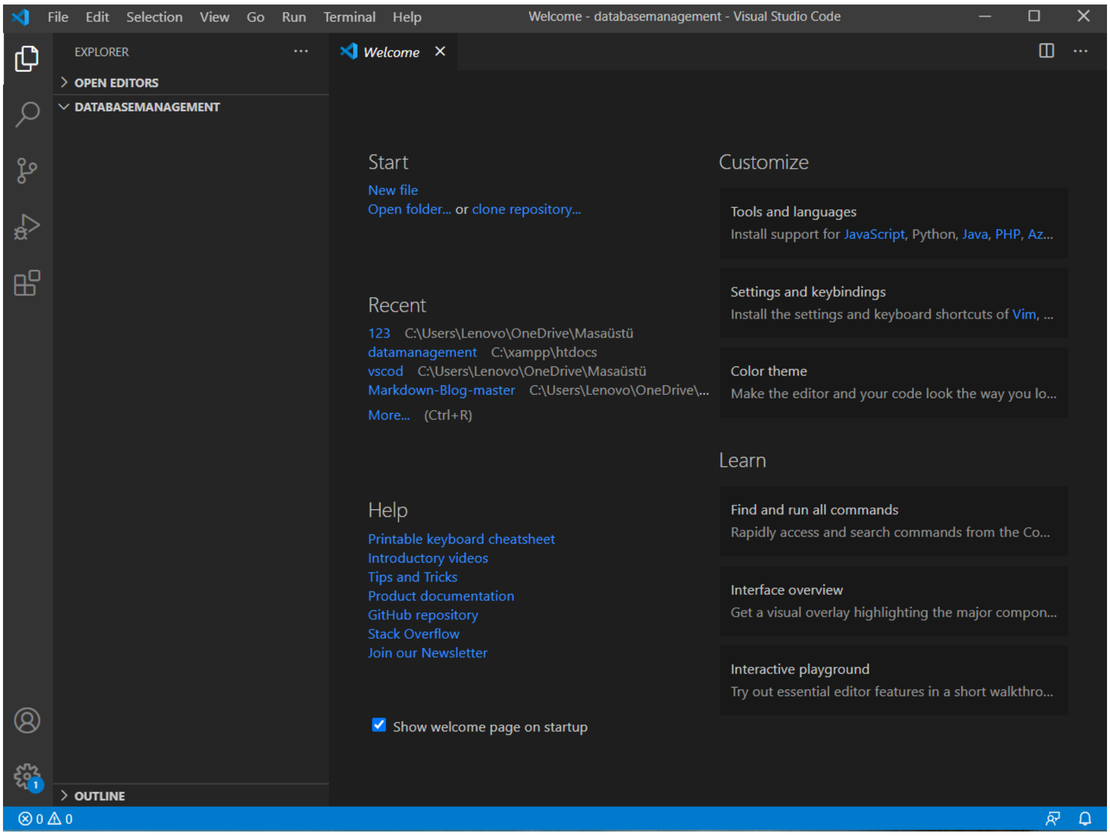
PHP is a programming language created for server-side communications.
For this reason, it can perform server-side functions such as collecting data, managing files on the server, editing databases. It is most commonly used for web development. Self-managed dynamic websites can be created with PHP. It is an open source programming language.

What is MongoDB?

MongoDB is an open source NoSQL (Not only SQL) database application. Its primary feature is scalable. Since the data is stored as JSON, even if the structure of the incoming data changes, there is no problem in saving.

Also use Visual Studio Code

Creating Environment



Start

New file

Open folder... or clone repository...

Recent

123 C:\Users\Lenovo\OneDrive\Masaüstü
datamanagement C:\xampp\htdocs
vscod C:\Users\Lenovo\OneDrive\Masaüstü
Markdown-Blog-master C:\Users\Lenovo\OneDrive\...
More... (Ctrl+R)

Help

Printable keyboard cheatsheet
Introductory videos
Tips and Tricks
Product documentation
GitHub repository
Stack Overflow
Join our Newsletter

☑ Show welcome page on startup

Customize

Tools and languages
Install support for JavaScript, Python, Java, PHP, Az...

Settings and keybindings
Install the settings and keyboard shortcuts of Vim, ...

Color theme
Make the editor and your code look the way you lo...

Learn

Find and run all commands
Rapidly access and search commands from the Co...

Interface overview
Get a visual overlay highlighting the major compon...

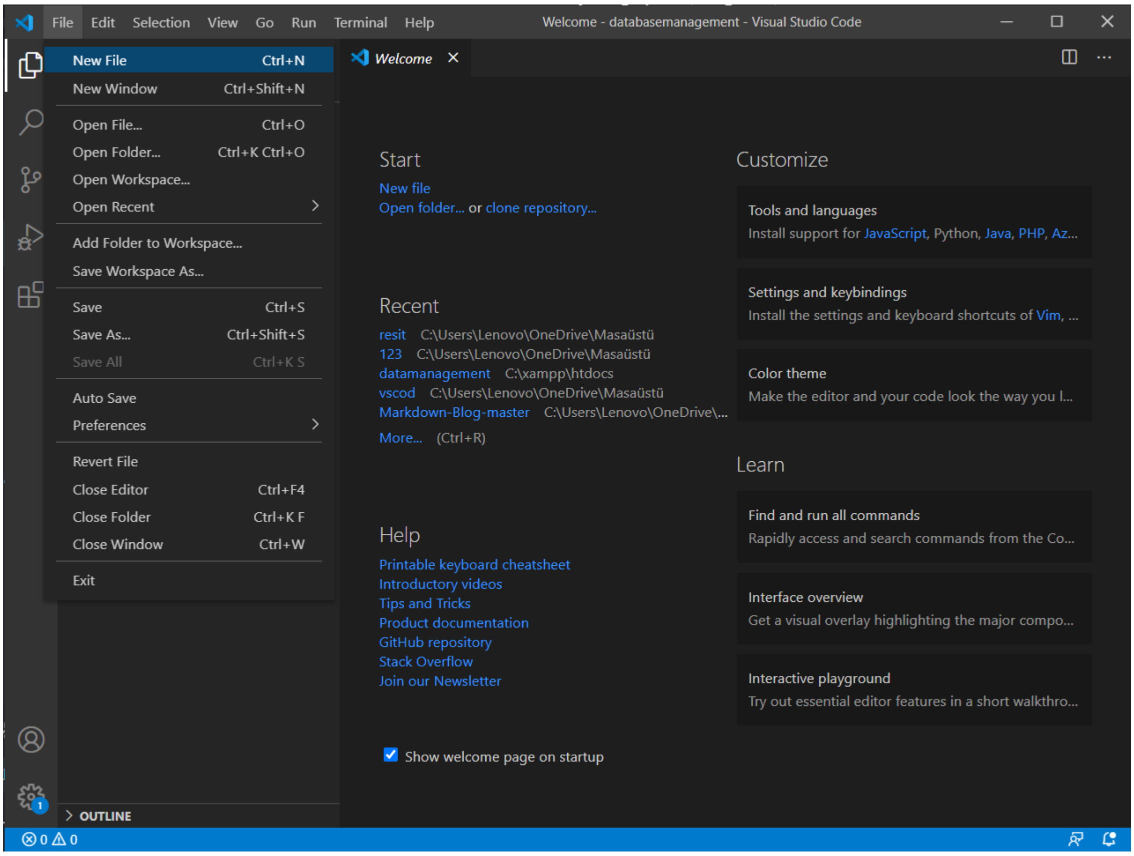
Interactive playground
Try out essential editor features in a short walkthro...

Firstly ;

File → Open Folder

Then select the directory.

Coding Stages



Start

New file

Open folder... or clone repository...

Recent

resit C:\Users\Lenovo\OneDrive\Masaüstü

123 C:\Users\Lenovo\OneDrive\Masaüstü

datamanagement C:\xampp\htdocs

vscod C:\Users\Lenovo\OneDrive\Masaüstü

Markdown-Blog-master C:\Users\Lenovo\OneDrive\...

More... (Ctrl+R)

Help

Printable keyboard cheatsheet

Introductory videos

Tips and Tricks

Product documentation

GitHub repository

Stack Overflow

Join our Newsletter

☑ Show welcome page on startup

Customize

Tools and languages

Install support for JavaScript, Python, Java, PHP, Az...

Settings and keybindings

Install the settings and keyboard shortcuts of Vim, ...

Color theme

Make the editor and your code look the way you l...

Learn

Find and run all commands

Rapidly access and search commands from the Co...

Interface overview

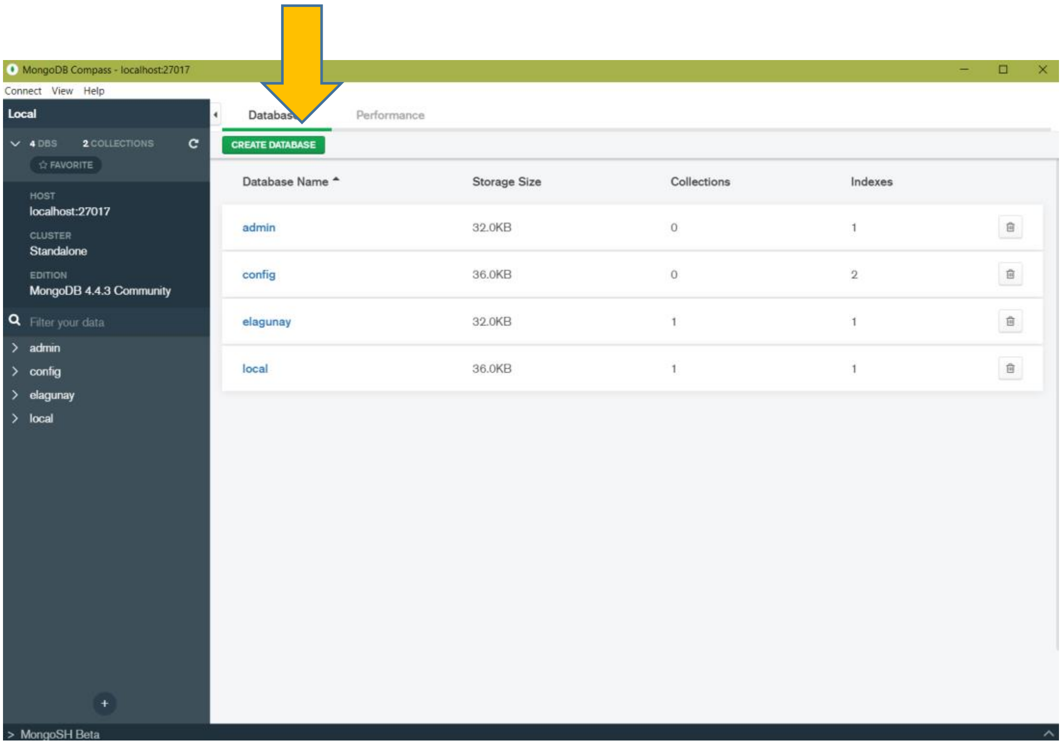
Get a visual overlay highlighting the major compo...

Interactive playground

Try out essential editor features in a short walkthro...

Right click on the left panel and click to “New File” and type “index.php” as file name.

Designing Database



HOST
localhost:27017

CLUSTER
Standalone

EDITION
MongoDB 4.4.3 Community

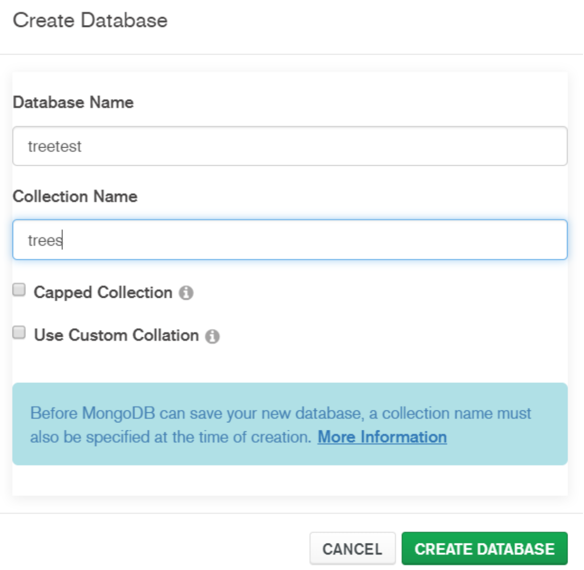
Database Name	Storage Size	Collections	Indexes
admin	32.0KB	0	1
config	36.0KB	0	2
elagunay	32.0KB	1	1
local	36.0KB	1	1

Open MongoDB Compass

Connect → Connect To → Fill in connection fields individually → Create Database

Create Database named “treetest”

Create table named “trees”



Create Database

Database Name

treetest

Collection Name

trees

☐ Capped Collection

☐ Use Custom Collation

Before MongoDB can save your new database, a collection name must also be specified at the time of creation. More Information

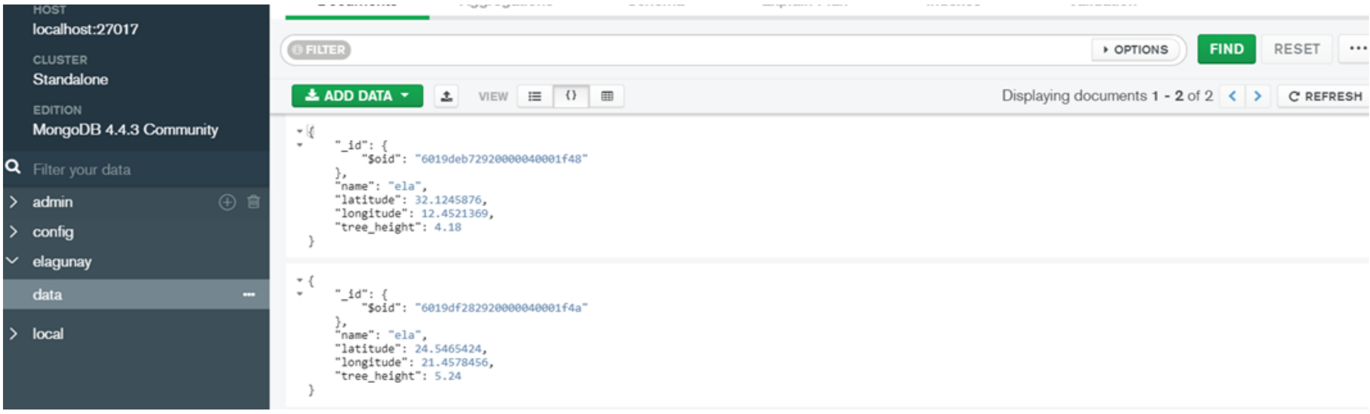
Create Columns named with names:

→name

→ latitude

→longitude

→height



HOST
localhost:27017

CLUSTER
Standalone

EDITION
MongoDB 4.4.3 Community

Displaying documents 1 - 2 of 2

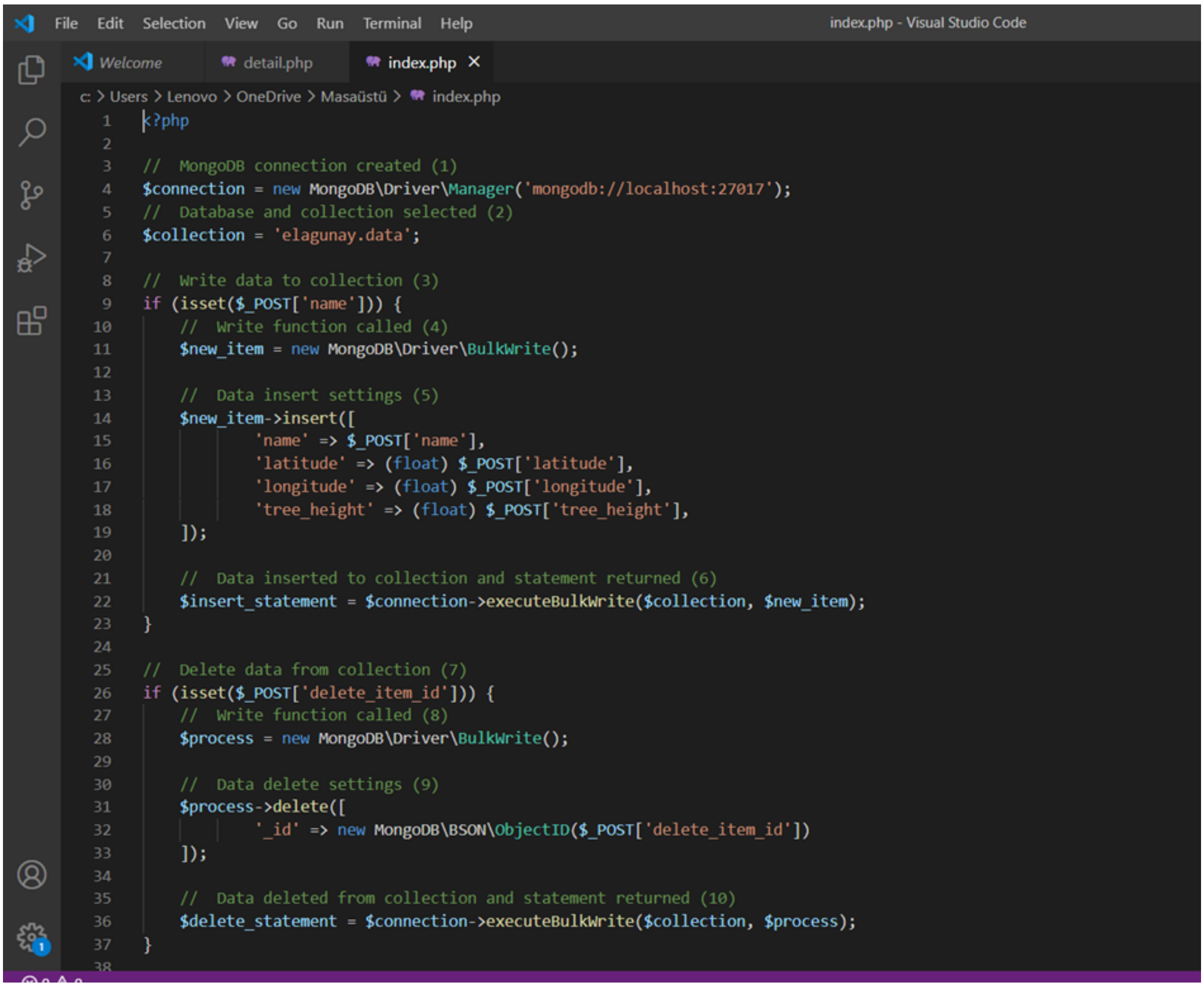
```
{
    "_id": {
        "$oid": "6019deb72920000040001f48"
    },
    "name": "ela",
    "latitude": 32.1245876,
    "longitude": 12.4521369,
    "tree_height": 4.18
}

{
    "_id": {
        "$oid": "6019df282920000040001f4a"
    },
    "name": "ela",
    "latitude": 24.5465424,
    "longitude": 21.4578456,
    "tree_height": 5.24
}
```

Coding

https://github.com/elagunay/php-mongoDBtutorial

Index.php :

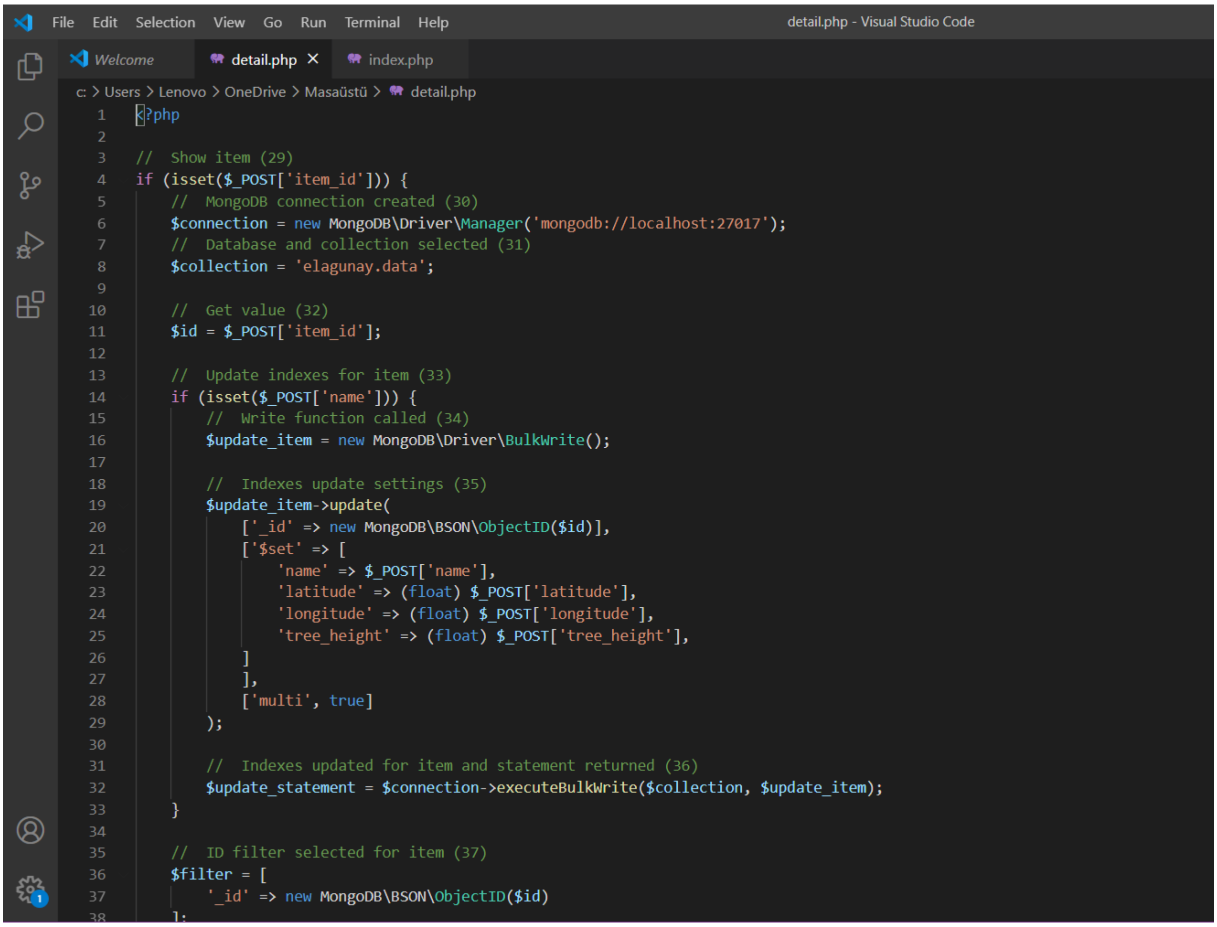
https://github.com/elagunay/php-mongoDBtutorial/blob/main/index.php


File
Edit
Selection
View
Go
Run
Terminal
Help
index.php - Visual Studio Code
Welcome
detail.php
index.php ×
c: > Users > Lenovo > OneDrive > Masaüstü > index.php

```php
<?php

//  MongoDB connection created (1)
$connection = new MongoDB\Driver\Manager('mongodb://localhost:27017');
//  Database and collection selected (2)
$collection = 'elagunay.data';

//  Write data to collection (3)
if (isset($_POST['name'])) {
    //  Write function called (4)
    $new_item = new MongoDB\Driver\BulkWrite();

    //  Data insert settings (5)
    $new_item->insert([
            'name' => $_POST['name'],
            'latitude' => (float) $_POST['latitude'],
            'longitude' => (float) $_POST['longitude'],
            'tree_height' => (float) $_POST['tree_height'],
    ]);

    //  Data inserted to collection and statement returned (6)
    $insert_statement = $connection->executeBulkWrite($collection, $new_item);
}

//  Delete data from collection (7)
if (isset($_POST['delete_item_id'])) {
    //  Write function called (8)
    $process = new MongoDB\Driver\BulkWrite();

    //  Data delete settings (9)
    $process->delete([
            '_id' => new MongoDB\BSON\ObjectID($_POST['delete_item_id'])
    ]);

    //  Data deleted from collection and statement returned (10)
    $delete_statement = $connection->executeBulkWrite($collection, $process);
}
```

Detail.php :

https://github.com/elagunay/php-mongoDBtutorial/blob/main/detail.php


File
Edit
Selection
View
Go
Run
Terminal
Help
detail.php - Visual Studio Code
Welcome
detail.php
index.php
c: > Users > Lenovo > OneDrive > Masaüstü > detail.php

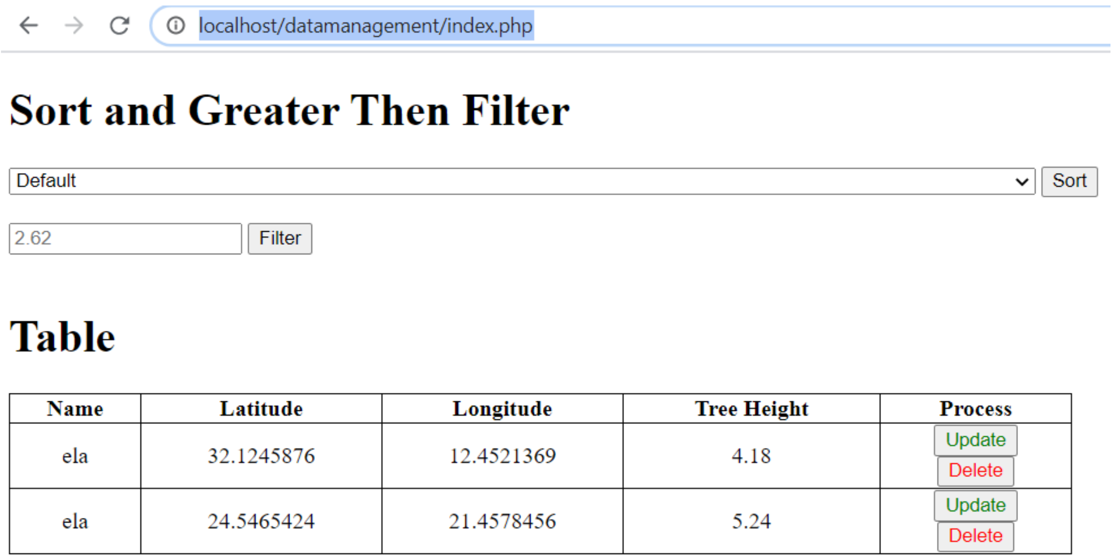
```php
<?php

//  Show item (29)
if (isset($_POST['item_id'])) {
    //  MongoDB connection created (30)
    $connection = new MongoDB\Driver\Manager('mongodb://localhost:27017');
    //  Database and collection selected (31)
    $collection = 'elagunay.data';

    //  Get value (32)
    $id = $_POST['item_id'];

    //  Update indexes for item (33)
    if (isset($_POST['name'])) {
        //  Write function called (34)
        $update_item = new MongoDB\Driver\BulkWrite();

        //  Indexes update settings (35)
        $update_item->update(
            ['_id' => new MongoDB\BSON\ObjectID($id)],
            ['$set' => [
                'name' => $_POST['name'],
                'latitude' => (float) $_POST['latitude'],
                'longitude' => (float) $_POST['longitude'],
                'tree_height' => (float) $_POST['tree_height'],
            ]
            ],
            ['multi', true]
        );

        //  Indexes updated for item and statement returned (36)
        $update_statement = $connection->executeBulkWrite($collection, $update_item);
    }

    //  ID filter selected for item (37)
    $filter = [
        '_id' => new MongoDB\BSON\ObjectID($id)
    ];
```

By running XAMPP Control Panel and start from apache must be selected.

Finally this project can be reached here

http://localhost/datamanagement/index.php

Filtering



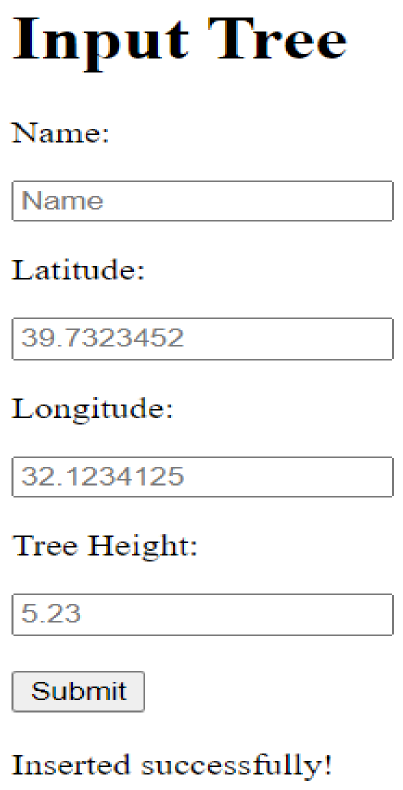
localhost/datamanagement/index.php

Sort and Greater Then Filter

Table

Name	Latitude	Longitude	Tree Height	Process
ela	32.1245876	12.4521369	4.18	Update Delete
ela	24.5465424	21.4578456	5.24	Update Delete

Provided to enter data and update,delete.



Input Tree

Name:

Name

Latitude:

39.7323452

Longitude:

32.1234125

Tree Height:

5.23

Inserted successfully!

Data is entered and submitted so it is saved in the database.

End of the Project