

# Mailinglist – php example code – part 6 – further small improvements

Article focus on small code improvements that can be extended by time. Our first improvement is separation of database access constants into a `appvars.php` file. This file is included into a main code with `require_once()`; PHP function.

Better maintainability of code is gained by separating all constants on one place. Then they can be invoked by `include` or `require_once()` PHP function. For further reading about differences between these functions, please visit as example this page.

File with defined constants, in our case database server access parameters is implemented in all `.php` files with `require_once()` statement.

## `appvars.php` code

Next photo show content of mentioned file.

```

appvars.php
1  <!-- ***** -->
2  <!-- PHP code app variables included in to a script -->
3  <!-- ***** -->
4  <!-- Vrsion: 1.0      Date: 26.9.2020 by CDesigner.eu -->
5  <!-- ***** -->
6
7  <!-- ***** -->
8  <!-- Part I | database access variables -->
9  <!-- ***** -->
10
11 <?php
12     define('DB_HOST', 'localhost');
13     define('DB_USER', 'admin');
14     define('DB_PW', 'test*555');
15     define('DB_NAME', 'test');
16     /* this part defines global variables that can be changed from single location
17        in all others files is these content included by require_once(); function */
18     // mysqli_connect(DB_HOST, DB_USER, DB_PW, DB_NAME);
19     ?>
20
21

```

Example of appvars.php code

Example of changed parts of other pages follow.

```

<?php // script for accessing database and first table
structure establishment
require_once('appvars.php'); // including variables for databa
se
/* Attempt MySQL server connection. Assuming you are running M
ySQL
server with (user 'admin' with password test*555) */
$dbc = mysqli_connect(DB_HOST, DB_USER, DB_PW, DB_NAME);
... next part omitted

```

Full application code of mailinglist can be obtained from [github](#) here.