

PROJECT #1: "Auction Site" v1.0

PART 1: "Create project config & bootstrap files"

Objectives:

- Setup the workspace/directory structure
- Create the project configuration file **config.php** and **.htaccess** file
- Use Composer to install required dependencies
- Create and test the bootstrap file

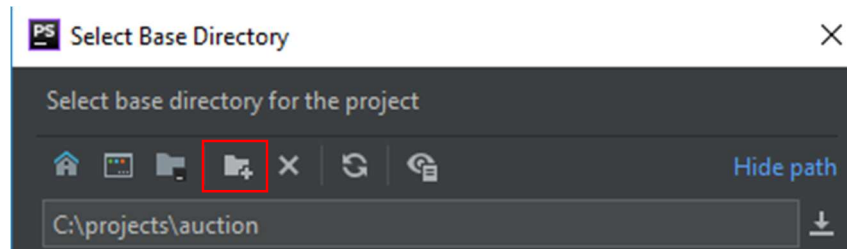
Definition of an "Auction" – the process of buying and selling goods by offering them up for bids, then selling them to the winning bidder.

In this project, you will build your own online auction site.

Our goal is to learn some new programming concepts while developing the application. You will learn several new skills that can be applied to other projects or web applications.

Instructions:

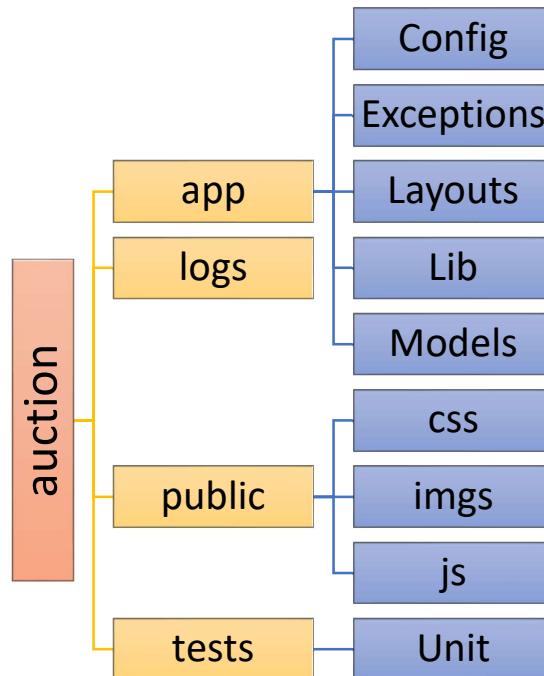
1. Open PHPStorm and select **"Create new Project"**



2. Create a project directory called **auction**, select it and press **Create**
3. Configure the server settings and auto-upload settings for PHPStorm by clicking **Tools >> Deployment >> Configuration**

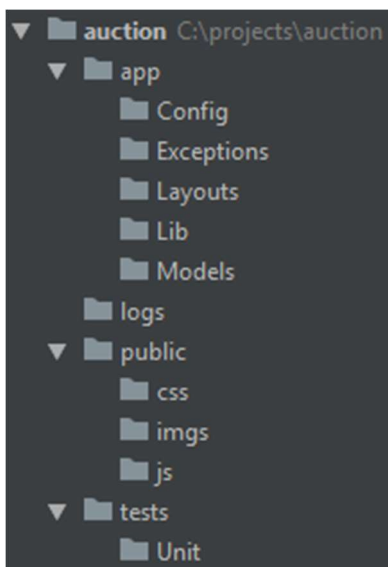
Please review the lecture slides if you need help.

4. Inside the **auction** directory, create the following directory structure:



Note: please use the same case-sensitive directory names.

Once complete, compare your structure against the following screen capture to ensure they match:



The following table lists each directory and its intended purpose:

Directory	Contents
app	All application logic
app\Config	Project configuration files
app\Exceptions	Custom exceptions
app\Layouts	Project template files
app\Lib	Project libraries
app\Models	Project models
logs	Log files
public	All presentation logic
public/css	Project css files
public/imgs	Project img files
public/js	Project js files
tests/Unit	Unit tests

5. Create a new PHP file named **config.php** in the **app/Config** directory.

6. Modify the code in the **config.php** file so that it reflects your configuration on the scweb.ca server. See the picture below for an example:

```
<?php

//Database Configuration
define("DB_HOST", "localhost");
define("DB_USER", "nsylvestre");
define("DB_PASSWORD", "YOUR_PASSWORD_HERE");
define("DB_NAME", "nsylvestreauction");

// Add your name below
define("CONFIG_ADMIN", "Nick Sylvestre");
define("CONFIG_ADMINEMAIL", "YOUR_EMAIL@stclairconnect.ca");
// Add the location of your forums below
define("CONFIG_URL", "https://nsylvestre.scweb.ca/auction");
// Add your blog name below
define("CONFIG_AUCTIONNAME", "Web Guys Online Auction");
// The currency used on the auction
define("CONFIG_CURRENCY", "$");

//Set Timezone
date_default_timezone_set("America/Toronto");

//Log Location
define("LOG_LOCATION", __DIR__ . "/../logs/app.log");

//File Upload Location
define("FILE_UPLOADLOC", "imgs/");
```

This file contains some global configuration information such as the website name and contact information.

A configuration file makes customization of your 'Online Auction' easy. A standard configuration file is especially useful, when distributing the application.

Ensure that you have changed all configuration values so they reflect your scweb.ca account name.

The **CONFIG_URL** constant should be configured to point to your auction directory on the scweb.ca server.

7. Download the provided starter file **Functions.zip** from blackboard and unpack the contents into the project's **app/Lib/** directory.
8. Create a new file in the application root directory called **.htaccess** with the following content:

Hint: right click on the auction directory in PHPStorm and select **New >> File**

```
RewriteEngine On

RewriteRule ^(/)?$ public/index.php [END]

RewriteCond %{REQUEST_URI} !(public)
RewriteRule ^(.*)$ public/$1 [END]
```

9. Create another new file in the application root directory called **composer.json** with the following contents:

```
{
  "name": "nsylvestre/auction",
  "description": "Auction App",
  "license": "MIT",
  "authors": [
    {
      "name": "Nicholas Sylvestre",
      "email": "nsylvestre@stclaircollege.ca"
    }
  ],
  "require": {
    "ext-PDO": "*",
    "ext-curl": "*"
  },
  "require-dev": {
  },
  "autoload": {
    "psr-4": {
      "App\\": "app/",
      "Tests\\": "tests/"
    }
  }
}
```

Change the name and author fields to reflect your own name and email address.

10. It's now time to install all the required dependencies using Composer.

In PHPStorm, select **Tools >> Start SSH Session** and select the php.scweb.ca connection you created earlier.

Note: If you do not see any connections, this means you have not yet configured the server (see step 3).

11. Switch into the project directory in the terminal window at the bottom of the screen by typing the following into the command prompt:

```
cd public_html/auction
```

This assumes you created the auction project directory in the **public_html** directory.

12. Once inside the auction project directory, type the following to install the composer dependencies:

```
composer install
```

You should see the following message:

```
[auction]$ composer install
Loading composer repositories with package information
Updating dependencies (including require-dev)
Nothing to install or update
Writing lock file
Generating autoload files
[auction]$
```


13. Now that the project dependencies have been loaded and the **autoload.php** generated, we can now create a bootstrap file.

Create a new PHP file inside the **app/** directory called **bootstrap.php**

14. Within **bootstrap.php**, use the PHP function **require_once()** to include the configuration files we just created.

```
<?php
require_once(__DIR__ . '/Config/config.php');
require_once(__DIR__ . '/Lib/Functions.php');

require_once(__DIR__ . '/../vendor/autoload.php');
```

The purpose of this file is to load the website and database configuration into memory as well as load the PSR-4 standard class files defined in the **composer.json** file and all dependency classes.

15. To test your application, create a new file called **index.php** in the **public/** directory with the following contents:

```
<?php
require_once(__DIR__ . '/../app/bootstrap.php');

echo "Hello World";
```

16. Test that everything works by visiting the following URL with your browser:

<https://yourname.scweb.ca/auction/>



Hello World

You should see the “Hello World” message without any PHP errors.

17. Once you’ve finished, double check that all your files have been successfully uploaded to the server.

You’re now ready to move on to the next section.