



Sparkling Light Inc.

Environment Setup For Windows Platforms

1. Introduction

Sparkling Light Inc., is a company focussed on delivering cloud based IT products and solutions targeting general public as well as prospects of few domains. This guide is intended to provide instructions for setting up a development environment in Windows Platforms for developers of products associated with Sparkling Light Inc.,

2. Infrastructure

Sparkling Light Inc., is a customer of Salesforce's [Heroku Cloud Application](#) platform. The products of Sparkling Light Inc. are hosted using this cloud offering and are limited by any restrictions imposed by the Heroku Cloud Application platform.

3. Technologies

Sparkling Light Inc., solely uses [PHP 5.6](#) as its programming language and [PostgreSQL 9.6](#) relational database software for development of its products. The source code is maintained in a [Git](#) repository offered by the Heroku Cloud Application platform.

4. Development Environment Setup

This section walks you through the steps involved in setting up a workspace in your Windows PC in order to contribute to the development of

products of Sparkling Light Inc., The below softwares need to be installed in your Windows PC in order to proceed further. Please ensure to download the right installer for your architecture (32 bit/64 bit) and install it. If there's only an installer for 32 bit, you can install it in 64 bit platforms also.

S. No	Name	32 Bit Download Link	64 Bit Download Link
1	Git	https://github.com/git-for-windows/git/releases/download/v2.15.0.windows.1/Git-2.15.0-32-bit.exe	https://github.com/git-for-windows/git/releases/download/v2.15.0.windows.1/Git-2.15.0-64-bit.exe
2	Heroku CLI	https://cli-assets.heroku.com/heroku-cli/channels/stable/heroku-cli-x86.exe	https://cli-assets.heroku.com/heroku-cli/channels/stable/heroku-cli-x64.exe
3	XAMPP	https://sourceforge.net/projects/xampp/files/XAMPP%20Windows/5.6.31/xampp-win32-5.6.31-0-VC11-installer.exe/download	(Note: XAMPP contains Apache, MySQL, PHP and Perl. It's suffice to install just Apache and PHP components for our setup)
4	PostgreSQL	https://www.enterprisedb.com/downloads/postgres-postgresql-downloads	https://www.enterprisedb.com/downloads/postgres-postgresql-downloads

After installation of these components, the source code of Sparkling Light Inc. shall be cloned into any folder of your choice. Create a folder in any drive of your choice and ensure the full path to the folder does not contain any spaces. Let's refer the absolute path to this folder as %CODE% from now on. Open a command prompt and run the below commands.

```
cd /d "%CODE%"
```

```
heroku login(credentials will be provided to you)
```

```
git clone https://git.heroku.com/sparkling-zone.git
```

```
cd sparkling-zone
```

```
git config user.name "Your Name"
```

```
git config user.email "Your Email"
```

The next step is to configure the Apache Web Server. This can be completed using the below steps.

1. Launch XAMPP Control Panel.
2. Click the Config Button Next to Apache Module and select httpd.conf file
3. Search for DocumentRoot and edit this section with the directory where we have the source code. Ensure the path separator used is "/" and not "\".

```
DocumentRoot "%CODE%/sparkling-zone"
```

For e.g,

```
DocumentRoot "D:/sparkling-zone"
```

Update the <Directory> tag next to the Document Root also with the same path.

```
<Directory "%CODE%/sparkling-zone">
```

For e.g,

<Directory "D:/sparkling-zone">

Now start Apache Web server and you should be able to access the website of Sparkling Light Inc. using the below URLs in a web browser.

S.No.	Environment	URL
1	Production	http://localhost
2	Development	http://localhost/develop

The next step is to configure two PostgreSQL databases(one for development environment and another for production environment). Products used by general public use the public schema and products developed for specific customers use a dedicated schema. The source code has the ability to connect to appropriate database instances based on the URL. If the URL contains “develop”, development database is used and production database is used in all other cases. The connection information to database instances is managed by environment variables as shown below.

S.No	Environment	Variable	Value
1	Production	DATABASE_URL	postgres://produser:prodpas swd@localhost:5432/prod
2	Development	HEROKU_POSTGRE SQL_PINK_URL	postgres://developer:devpas swd@localhost:5432/develo p

Create the above Environment Variables using the Advanced System Settings → Environment Variables...→ System Variables → New Option in your Windows PC.

Now, we shall create the above two database instances in our PostgreSQL server. PostgreSQL has a graphical tool named PGAdmin for user friendly interaction. Launch PGAdmin and create the roles “produser” and “developer” with super admin privileges and password “prodpasswd” and “devpasswd” respectively. Then continue to create two databases named “prod” and “develop” with owners as “produser” and “developer” respectively.

Next, we shall configure the Web Server with ability to connect to PostgreSQL databases. This can be done by following the below steps.

1. Launch XAMPP Control Panel.
2. Click the Config Button Next to Apache Module and select php.ini file
3. “;” represents commented lines in php.ini file. Uncomment the below two lines by deleting the leading “;” so that they appear as shown below

```
extension=php_pdo_pgsql.dll
```

```
extension=php_pgsql.dll
```

4. Restart Apache Web Server

If you have completed the above steps successfully, you should have the database connectivity ability in the products. To test if this successful, load the database objects of Virtual T20 Cricket product by executing the below steps in a command prompt.

```
cd /d
"%CODE%\sparkling-zone\develop\sparks\virtual-t20-cricket\api\db\scripts"

psql -U devuser develop < 1-virtual-t20-cricket.sql
Password for user devuser: devpasswd
```

Once the Virtual T20 Cricket's database objects are loaded into PostgreSQL development database, you should be able to access it using below link

<http://localhost/develop/sparks/virtual-t20-cricket>

At this moment, you've successfully setup your Windows PC with environment for contributing to development of Sparkling Light Inc. products.

5. Next Steps

The next step is to understand how the code is organized, learn, develop code using industry standards and contribute to the growth of Sparkling Light Inc. and its products, namely the Sparks.



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