**Goal:** Create a web service using PHP that returns data in JSON format. This service should accept POST, PUT, GET, and DELETE requests acting as a RESTFUL web service. The script should update a database row in the company table given the request type and parameters as defined below. Implement the methods and appropriate validations for all parameters. There is no requirement for a graphical interface.

In addition to the code satisfying the above requirements please append a development plan for implementing a third party service to populate the latitude and longitude values for company\_address records. The format of the development plan should be an easy to read outline of necessary modifications and identification of third party service and how it will be integrated.

**Notes:**

* A single script should handle all requests.
  + I.E. <http://localhost/your-project-controller.php>
* No HTML is necessary to complete this project.
* Set appropriate headers for response in JSON.
* Homogenize format of objects and error responses for all methods.

**Schema:**

This project will require a relational database to complete. The SQL for the schema is provided below (MySQL syntax):

**CREATE TABLE `company` (**

**`id` int(10) unsigned NOT NULL AUTO\_INCREMENT,**

**`name` varchar(255) NOT NULL,**

**`created\_time` timestamp NOT NULL DEFAULT CURRENT\_TIMESTAMP,**

**`updated\_time` timestamp NOT NULL DEFAULT CURRENT\_TIMESTAMP ON UPDATE CURRENT\_TIMESTAMP,**

**`description` text,**

**PRIMARY KEY (`id`)**

**) ENGINE=InnoDB DEFAULT CHARSET=utf8;**

**CREATE TABLE `company\_address` (**

**`id` int(11) NOT NULL AUTO\_INCREMENT,**

**`company\_id` int(10) unsigned NOT NULL,**

**`address` varchar(255) NOT NULL,**

**`address\_2` varchar(255) DEFAULT NULL,**

**`city` varchar(255) NOT NULL,**

**`state` varchar(200) NOT NULL,**

**`zip` varchar(9) NOT NULL,**

**`latitude` decimal(11,8) DEFAULT NULL,**

**`longitude` decimal(11,8) DEFAULT NULL,**

**`created\_time` timestamp NOT NULL DEFAULT CURRENT\_TIMESTAMP,**

**PRIMARY KEY (`id`),**

**CONSTRAINT `company\_address\_ibfk\_1` FOREIGN KEY (`company\_id`) REFERENCES `company` (`id`) ON DELETE CASCADE ON UPDATE CASCADE**

**) ENGINE=InnoDB DEFAULT CHARSET=utf8;**

**Requirements:**

* A POST request to this script should create a new company object and thus a new row in the company table and associated company address table.
  + Parameters:

|  |  |  |
| --- | --- | --- |
| Parameter | Acceptable Values | Required |
| name | String. | Yes |
| description | String. | No |
| address | String. | Yes |
| address2 | String. | No |
| city | String | Yes |
| state | String. | Yes |
| zip | String | Yes |

* + Action:
    - Validate required parameters. Validate inputs against schema data types.
    - Create database record if inputs valid.
  + Response:
    - New company object represented in JSON.
      * Include address as a separate JSON object in an array attribute of the company object.
    - Return error response if request invalid.
* A PUT request to this script should update an existing company object.
  + Note that the PUT request should receive the id parameter from the path. Request example: PUT “http://test.com/index.php/{id}”.
  + Parameters:

|  |  |  |
| --- | --- | --- |
| Parameter | Acceptable Values | Required |
| company | JSON string. | Yes |
| id | Integer. | Yes. |

* + Action:
    - Validate required parameters. Validate inputs against schema data types. Validate company identified by id parameter exists.
    - Update existing company record for only the attribute keys provided. This company JSON string should mimic your company JSON returned in responses to these methods.
  + Response:
    - Updated company object represented in JSON.
      * Include address as a separate JSON object in an array attribute of the company object.
    - Return error response if request invalid.
* A GET request to this script should return the data for a given company object.
  + Note that the GET request should receive the id parameter from the path. Request example: GET “http://test.com/index.php/{id}”.
  + Parameters:

|  |  |  |
| --- | --- | --- |
| Parameter | Acceptable Values | Required |
| id | Integer. | Yes. |

* + Action:
    - Validate company identified by id parameter exists.
  + Response:
    - Updated company object represented in JSON.
      * Include address as a separate JSON object in an array attribute of the company object.
    - Return error response if request invalid.
* A DELETE request to this script should remove a row from the company table.
  + Note that the DELETE request should receive the id parameter from the path. Request example: DELETE “http://test.com/index.php/{id}”.
  + Parameters:

|  |  |  |
| --- | --- | --- |
| Parameter | Acceptable Values | Required |
| id | Integer. | Yes. |

* + Action:
    - Validate company identified by id parameter exists.
    - Remove company record.
  + Response:
    - Simple success message if request valid.
    - Return error response if request invalid.

**Assumptions:**

The relationship between company and company\_address is one to many. This project doesn’t require realization of the company\_address specific CRUD to support that full relation.

**Restrictions:**

* No use of any frameworks or additional libraries beyond PHP’s built in functions and constructs.
* Using a service like <https://www.getpostman.com/> or alternative (plain old curl) is allowed and recommended for testing.