|  |  |  |
| --- | --- | --- |
|  | **set up the two CodeIgniter projects, where one exposes data via a REST API and the other consumes it** | |
| **Step:** | **Headings** | **Details** |
| TS00.47 | Download Code igniter | <https://codeigniter.com/userguide3/installation/downloads.html> |
| TS 00.48 | Copy paste in htdocs folder in Xampp | C:\xampp\htdocs\6\_api\funda\_api\_s1\application\controllers\Welcome.php  C:\xampp\htdocs\1\_api  http://localhost/1\_api/funda/ |
|  | 1. First Project (API Provider) |  |
|  | Download the Required file | 1. RestController.php 2. Rest\_controller\_lang.php 3. Rest.php 4. Format.php   <https://www.fundaofwebit.com/post/codeigniter-3-restful-api-tutorial-using-postman#google_vignette> |
|  | Paste the language file in language folder | C:\xampp\htdocs\6\_api\funda\_api\_s1\application\language\english\rest\_controller\_lang.php |
|  | Code are here |  |
|  | Copy the( rest.php ) and pestle the following path | C:\xampp\htdocs\6\_api\funda\_api\_s1\application\config\rest.php |
|  | Code are here |  |
|  | Copy the restContrer.php & Format.php int he following path | C:\xampp\htdocs\6\_api\funda\_api\_s1\application\libraries\RestController.php  C:\xampp\htdocs\6\_api\funda\_api\_s1\application\libraries\Format.php |
|  |  |  |
|  | `Composer check | Open >new terminal>  Write “Composer” |
|  | Call page through composer | php -S localhost:8000 |
|  | Call the page | <http://localhost:8000> |
|  |  |  |
|  | Controller create :  C:\xampp\htdocs\1\_api\API\_Provider\application\controllers\ApiDemo.php | **1. First Project (API Provider)**  In your first project, you have the controller ApiDemoController. Let's refine it a bit by preparing to send data.  **ApiDemoController:**  php  Copy code  <?php  defined('BASEPATH') OR exit('No direct script access allowed');  require APPPATH . 'libraries/RestController.php';  require APPPATH . 'libraries/Format.php';  use chriskacerguis\RestServer\RestController;  class ApiDemo extends RestController  {      public function \_\_construct()      {          parent::\_\_construct();          // Load models if necessary      }      public function users\_get()      {          // Sample data that will be returned as JSON          $users = [              ['id' => 1, 'name' => 'John Doe', 'email' => 'john@example.com'],              ['id' => 2, 'name' => 'Jane Smith', 'email' => 'jane@example.com']          ];          // Respond with data and HTTP status code          $this->response($users, RestController::HTTP\_OK);      }  }  ?>   * **Explanation:**   + The users\_get function returns a list of users as JSON.   + You could modify this to fetch data from your database using models. |
|  | Route create | $route['api'] = 'ApiDemo/users';  C:\xampp\htdocs\1\_api\API\_Provider\application\config\routes.php |
|  |  |  |
|  | Call the page | http://localhost:8000/api |
|  |  |  |
|  |  |  |
|  | ****2. Second Project (API Consumer)**** In the second project, you need to make an HTTP request to the first project's API and handle the response. |  |
|  | ApiClientController: | C:\xampp\htdocs\1\_api\API\_Consumer\application\controllers\ApiClientController.php |
|  |  | <?php  defined('BASEPATH') OR exit('No direct script access allowed');  class ApiClientController extends CI\_Controller  {      public function \_\_construct()      {          parent::\_\_construct();      }      public function get\_users()      {          // The API URL of the first project          $api\_url = 'http://localhost:8000/api';          // Initialize cURL session          $ch = curl\_init();          // Set cURL options          curl\_setopt($ch, CURLOPT\_URL, $api\_url);          curl\_setopt($ch, CURLOPT\_RETURNTRANSFER, true);          // Execute the cURL request          $response = curl\_exec($ch);          // Check for errors          if ($response === false) {              echo "cURL Error: " . curl\_error($ch);          } else {              // Decode the response              $data['users'] = json\_decode($response, true);              // Load view and pass the data (You can replace 'users\_view' with your actual view)              $this->load->view('users\_view', $data);          }          // Close the cURL session          curl\_close($ch);      }  }  ?> |
|  | View to Display Data (users\_view.php) | C:\xampp\htdocs\1\_api\API\_Consumer\application\views\users\_view.php |
|  |  | <html>  <head>      <title>Users List</title>  </head>  <body>      <h1>List of Users</h1>      <ul>          <?php if (!empty($users)) : ?>              <?php foreach ($users as $user) : ?>                  <li><?php echo $user['name']; ?> (<?php echo $user['email']; ?>)</li>              <?php endforeach; ?>          <?php else : ?>              <li>No users found.</li>          <?php endif; ?>      </ul>  </body>  </html> |
|  | ****Second Project (Client Routes):**** In application/config/routes.php, add the route for the client: | $route['client/get\_users'] = 'ApiClientController/get\_users'; |
|  | **Run the composer** | **php -S localhost:8080** |
|  | Call the page | http://localhost:8080/client/get\_users |
|  |  |  |
|  | 1. First Project (API Provider) |  |
|  |  | …or create a new repository on the command line echo "# API\_Consumer" >> README.md  git init  git add README.md  git commit -m "first commit"  git branch -M master  git remote add origin https://github.com/Code-with-nandu/API\_Consumer.git  git push -u origin master …or push an existing repository from the command line git remote add origin https://github.com/Code-with-nandu/API\_Consumer.git  git branch -M master  git push -u origin master |
|  | ****2. Second Project (API Consumer)**** |  |
|  |  | …or create a new repository on the command line echo "# API\_Provider" >> README.md  git init  git add README.md  git commit -m "first commit"  git branch -M master  git remote add origin https://github.com/Code-with-nandu/API\_Provider.git  git push -u origin master …or push an existing repository from the command line git remote add origin https://github.com/Code-with-nandu/API\_Provider.git  git branch -M master  git push -u origin master |
|  |  |  |
|  | 1. First Project (API Provider) | Call Data from database create : |
|  |  |  |
|  |  | git branch  git checkout -b krish/2nd  git branch |
|  | C:\xampp\htdocs\1\_api\API\_Provider\application\config\autoload.php | $autoload['libraries'] = array('database'); |
|  |  | $active\_group = 'default';  $query\_builder = TRUE;  $db['default'] = array(      'dsn'   => '',      'hostname' => 'localhost',      'username' => 'root',      'password' => '',      'database' => 'busbooking',      'dbdriver' => 'mysqli',      'dbprefix' => '',      'pconnect' => FALSE,      'db\_debug' => (ENVIRONMENT !== 'production'),      'cache\_on' => FALSE, |
|  | C:\xampp\htdocs\1\_api\API\_Provider\application\models\Employee\_model.php | <?php  defined('BASEPATH') OR exit('No direct script access allowed');  class Employee\_model extends CI\_Model {      // Method to insert data into the employee table      public function insert\_employee()      {          $query = $this->db->get('employee');          return  $query->result();      }  }  ?> |
|  | C:\xampp\htdocs\1\_api\API\_Provider\application\controllers\ApiDemo.php | <?php  defined('BASEPATH') OR exit('No direct script access allowed');  require APPPATH . 'libraries/RestController.php';  require APPPATH . 'libraries/Format.php';  use chriskacerguis\RestServer\RestController;  class ApiDemo extends RestController  {      public function \_\_construct()      {          parent::\_\_construct();          $this->load->model('Employee\_model');          // Load models if necessary      }      public function users\_get()      {          $emp = new Employee\_model;          $result\_emp = $emp ->insert\_employee();              // Respond with data and HTTP status code          $this->response($result\_emp, RestController::HTTP\_OK);      }  }  ?> |
|  |  | php -S localhost:8000 |
|  |  | <http://localhost:8000/api> |
|  |  |  |
|  |  |  |
|  | ****2. Second Project (API Consumer)**** | C:\xampp\htdocs\1\_api\API\_Consumer\application\views\users\_view.php |
|  |  | <html>  <head>      <title>Users List</title>  </head>  <body>      <h1>List of Users</h1>      <ul>          <?php if (!empty($users)) : ?>              <?php foreach ($users as $user) : ?>                  <li><?php echo $user['id']; ?> (<?php echo $user['first\_name']; ?>)<?php echo $user['last\_name']; ?> (<?php echo $user['phone']; ?>)<?php echo $user['email']; ?></li>              <?php endforeach; ?>          <?php else : ?>              <li>No users found.</li>          <?php endif; ?>      </ul>  </body>  </html> |
|  | Run composer | **php -S localhost:8080** |
|  | Call the page | http://localhost:8080/client/get\_users |
|  |  |  |
|  | Display in table | <!DOCTYPE html>  <html>  <head>      <title>Users List</title>      <style>          table {              width: 100%;              border-collapse: collapse;          }          table, th, td {              border: 1px solid black;          }          th, td {              padding: 8px;              text-align: left;          }          th {              background-color: #f2f2f2;          }      </style>  </head>  <body>      <h1>List of Users</h1>      <?php if (!empty($users)) : ?>          <table>              <thead>                  <tr>                      <th>ID</th>                      <th>First Name</th>                      <th>Last Name</th>                      <th>Phone</th>                      <th>Email</th>                  </tr>              </thead>              <tbody>                  <?php foreach ($users as $user) : ?>                      <tr>                          <td><?php echo htmlspecialchars($user['id']); ?></td>                          <td><?php echo htmlspecialchars($user['first\_name']); ?></td>                          <td><?php echo htmlspecialchars($user['last\_name']); ?></td>                          <td><?php echo htmlspecialchars($user['phone']); ?></td>                          <td><?php echo htmlspecialchars($user['email']); ?></td>                      </tr>                  <?php endforeach; ?>              </tbody>          </table>      <?php else : ?>          <p>No users found.</p>      <?php endif; ?>  </body>  </html> |
|  | Call the page again | <http://localhost:8080/client/get_users> |
|  |  |  |
|  |  |  |
|  | 1. First Project (API Provider) | Inserting Data **Second Project (API Consumer)** |
|  | Controller function create for insering data  C:\xampp\htdocs\1\_api\API\_Provider\application\controllers\ApiDemo.php | public function storeEmp\_post(){          $emp = new Employee\_model;          $data=[              'first\_name'=> $this->input->post('first\_name'),              'last\_name'=> $this->input->post('last\_name'),              'phone'=> $this->input->post('phone'),              'email'=> $this->input->post('email'),          ];          $result =$emp ->inn\_employee($data);          // $this ->response($data,$resul,200);          if($result>0)          {              $this->response([                  'status'=> true,                  'message'=> 'New Employee created'              ] ,RestController::HTTP\_OK );          }          else          {              $this->response([                  'status'=> false,                  'message'=> 'Failed to  created employee'              ] ,RestController::HTTP\_BAD\_REQUEST );          }      } |
|  |  |  |
|  | Model function create  C:\xampp\htdocs\1\_api\funda\_2\application\models\Employee\_model.php | public function inn\_employee($data)      {          return $this ->db->insert('employee',$data);      } |
|  | Route Create  C:\xampp\htdocs\1\_api\API\_Provider\application\config\routes.php | $route['api/store'] = 'ApiDemo/storeEmp'; |
|  | Run the project | php -S localhost:8000 |
|  | First check data insertion through postman | <http://localhost:8000/api/store> |
|  |  |  |
|  |  |  |
|  |  | This my controller of First Project (API Provider)  <?php  defined('BASEPATH') OR exit('No direct script access allowed');  require APPPATH . 'libraries/RestController.php';  require APPPATH . 'libraries/Format.php';  use chriskacerguis\RestServer\RestController;  class ApiDemo extends RestController  {      public function \_\_construct()      {          parent::\_\_construct();          $this->load->model('Employee\_model');          // Load models if necessary      }      public function users\_get()      {          $emp = new Employee\_model;          $result\_emp = $emp ->insert\_employee();          // Respond with data and HTTP status code          $this->response($result\_emp, RestController::HTTP\_OK);      }      public function storeEmp\_post(){          $emp = new Employee\_model;          $data=[              'first\_name'=> $this->input->post('first\_name'),              'last\_name'=> $this->input->post('last\_name'),              'phone'=> $this->input->post('phone'),              'email'=> $this->input->post('email'),          ];          $result =$emp ->inn\_employee($data);          // $this ->response($data,$resul,200);          if($result>0)          {              $this->response([                  'status'=> true,                  'message'=> 'New Employee created'              ] ,RestController::HTTP\_OK );          }          else          {              $this->response([                  'status'=> false,                  'message'=> 'Failed to  created employee'              ] ,RestController::HTTP\_BAD\_REQUEST );          }      }  }  ?>  And model is  <?php  defined('BASEPATH') OR exit('No direct script access allowed');  class Employee\_model extends CI\_Model {      // Method to insert data into the employee table      public function insert\_employee()      {          $query = $this->db->get('employee');          return  $query->result();      }      public function inn\_employee($data)      {          return $this ->db->insert('employee',$data);      }  }  ?>  And route is  $route['api'] = 'ApiDemo/users';  $route['api/store'] = 'ApiDemo/storeEmp';  Please provide code controller and vew pert to Inserting Data **Second Project (API Consumer)** |
|  |  |  |
|  | **To insert data from your Second Project (API Consumer) into the First Project (API Provider) via API, you will need to create a controller that sends data using an HTTP POST request.** | |
|  | Inserting Data **Second Project (API Consumer)** |  |
|  |  | <?php  defined('BASEPATH') or exit('No direct script access allowed');  class ApiClientController extends CI\_Controller  {      public function \_\_construct()      {          parent::\_\_construct();          $this->load->library('curl'); // Load cURL library      }      public function get\_users()      {          // The API URL of the first project          $api\_url = 'http://localhost:8000/api';          // Initialize cURL session          $ch = curl\_init();          // Set cURL options          curl\_setopt($ch, CURLOPT\_URL, $api\_url);          curl\_setopt($ch, CURLOPT\_RETURNTRANSFER, true);          // Execute the cURL request          $response = curl\_exec($ch);          // Check for errors          if ($response === false) {              echo "cURL Error: " . curl\_error($ch);          } else {              // Decode the response              $data['users'] = json\_decode($response, true);              // Load view and pass the data (You can replace 'users\_view' with your actual view)              $this->load->view('users\_view', $data);          }          // Close the cURL session          curl\_close($ch);      }      public function storeEmployee()      {          // Data to be sent to the API          $data = [              'first\_name' => $this->input->post('first\_name'),              'last\_name'  => $this->input->post('last\_name'),              'phone'      => $this->input->post('phone'),              'email'      => $this->input->post('email'),          ];          // cURL configuration for POST request to the API          $url = 'http://localhost:8000/api/store'; // API endpoint          $response = $this->curl->simple\_post($url, $data);          if ($response) {              $result = json\_decode($response);              if ($result->status) {                  $this->session->set\_flashdata('success', $result->message);              } else {                  $this->session->set\_flashdata('error', $result->message);              }          } else {              $this->session->set\_flashdata('error', 'Failed to communicate with the API');          }          // Redirect to the form page          redirect('ApiClientController/form');      }      public function form()      {          // Load a view for the form          $this->load->view('employee\_form');      }  }  ?> |
|  |  |  |
|  |  | php -S localhost:8080 |
|  |  | <http://localhost:8000/api/store> |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |