

## BASIS Code Warriors' Challenge

### *Battle #2 (PHP Track)*

#### **1. Tech-Adda integrates with BDEvents**

The Tech-Adda platform is a very new site in its sector so not many people are aware of it. As a result, not many events are being added in the platform. This puts the visitors of the site in a dilemma – they want to use the site but if it doesn't have the events listed, then it's very hard to spread around among friends.

In order to solve this, Tech-Adda team has decided to import new event information from a well-known event portal called BDEvents who provides event web service. So they'll be running a script every week that will fetch new events from the web service and will add the events in the Tech-Adda system. However, it will make sure that if an event has already been added in the system, it will not be added again.

The BDEvents team has provided us with the following service details:

Endpoint: **http://192.168.2.2**

Request: **GET /api/events**

Response Format: **JSON**

Shows a list of events, sorted by start time descending. Each result looks something like this:

- name: Dutch PHP Conference 2011
- start\_date: 2011-05-18T22:00:00+00:00
- end\_date: 2011-05-21T21:59:59+00:00
- description: Ibuidings is proud to organize the fifth Dutch PHP Conference on May 20 and 21, plus a pre-conference tutorial day on May 19. Both programs will be completely in English so the only Dutch thing about it is the location.
- href: <https://www.phpconference.nl/>

Your job is to write a script called **fetch-bdevents.php** for the Tech-Adda team for this purpose.

## 2. Tech-Adda provides REST service!

The users of Tech-Adda are now super happy to have new events in the site on a regular basis. They are so happy that some of the geeky-minded users of the site now want to build their own small tools for the site. In order to be able to make their tools, they have requested the Tech-Adda team to provide a modern API for them. The Tech-Adda team have decided to provide them with a partial REST based API.

After an architectural discussion among the team, the Tech-Adda developers have decided to spend one day for the development of the API and have the following design in mind:

1. The API endpoint will be <http://tech-adda.com.bd/api/>
2. The following resources will be exposed: **Event, Talk**
3. The following HTTP methods will be supported for now: **GET, POST**
4. The response format will be: **JSON**

### Class skeletons:

```
/**
 * Process the incoming HTTP request
 */
class Request {
    public $uri;
    public $supportedHttpMethods = array('GET', 'POST');
    public $defaultMethod = 'GET';
    public $requestData;
    public $resources = array();

    public function __construct($requestData = array()) {}
    public function loadResource() {}
}

/**
 * Base resource class
 */
abstract class Resource {
    private $parameters;
    public function __construct($parameters) {}
    public function exec($request) {}
}

/**
 * Provide the outgoing HTTP response
 */
class Response {
    const OK = 200;
    const CREATED = 201;

    public $request;
    public $code = Response::OK;
    public $headers = array();
    public $body;

    public function __construct($request) {}
}
```

```

        public function addHeader($header, $value) {}
        public function output() {}
    }

```

### **Example Use Cases:**

#### **File: tech-adda/resources/EventResource.php**

```

<?php

class EventResource extends Resource
{
    public function __construct() {
        return '/events';
    }

    public function get($request) {
        $events = App::getRepository('Event')->getActiveEvents();
        $response = new Response();
        $response->addHeader('Content-type', 'application/json');
        $response->body = json_encode($events);
        return $response;
    }
}

```

#### **File: tech-adda/api/index.php**

```

<?php

// Application base path
define('APPPATH', '../');

// Include necessary path for class loading
set_include_path(implode(PATH_SEPARATOR, array(
    realpath(APPPATH . '/lib'),
    realpath(APPPATH . '/lib/Sparrow'),
    realpath(APPPATH . '/includes'),
    realpath(APPPATH . '/resources'),
    get_include_path(),
)));

// Load app engine
include_once 'App.php';

// Initiate engine and run!
App::init(APPPATH . '/config/app.ini');

// handle request
$request = new Request($_REQUEST);
$resource = $request->loadResource();
$response = $resource->exec($request);
$response->output();

```

#### **File: tech-adda/api/.htaccess**

```

RewriteEngine On
RewriteCond %{REQUEST_URI} !index\.php$
RewriteCond %{REQUEST_FILENAME} !-f
RewriteRule .* index.php [L,QSA]

```