**This repository contains the source code of defining REST API using flask framework and mongoDB ODM in python.**

**Pre-requites:**

**python3** installed and path specified in local machine.

“git clone <https://github.com/micvitc/Events-App.git>” to create a local repository inside your PC

“git pull” the update recent changes from “[micvitc](https://github.com/micvitc)/[**Events-App**](https://github.com/micvitc/Events-App)” repository.(has to be done frequently to ensure the bugs/new features are updated to your local repository)

**About REST APIs:**

In a nutshell, REST APIs (which are a type of web API) involve requests and responses, not too unlike visiting a web page. You make a request to a resource stored on a server, and the server responds with the requested information. The protocol used to transport the data is HTTP. “REST” stands for Representational State Transfer.

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|  |
| *REST APIs involve requests and responses over HTTP protocol* |

Usually response methods consist of data in HTML, CSV, JSON, JPEG(or any form of image), XML, SOAP etc.. However, this project is developed in a sense to send/receive in JSON format.

**HTTP Methods used in this project:**

* GET - Requests retrieve resource information
* POST - The server creates a new entry in a database
* PUT - Updates an existing resource
* DELETE - Deletes resource or related component

**Database model attributes:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Attributes defined** | **Description** | **Input type** | **Necessity** |
| **event\_id** | Uniquely identifies an event | String | Required and have to be unique |
| **event\_name** | Name of the event | String | Required |
| **event\_date** | Date the event is held | Datetime | Required |
| **event\_venue** | Venue/Location the event is held | String | Required |
| **event\_host** | Name/names of the host team/club/organization | Array of strings | Required |
| **event\_coordinators** | Name/names of the coordinators | Array of strings | Optional |
| **school\_name** | Name of school | String | Required |

**Endpoints and methods (API reference tutorial):**

🚀 **Request:** Retrieve response from endpoint instantly.

1. Choose method
2. Enter URL
3. Send

👋 **Response**: Contains the status line, headers, and the message/response body.

* Copy response to clipboard
* Download response as a file
* View response headers
* View raw and preview of HTML, image, JSON, XML responses

**Usage of endpoints:**

**This project contains 3 endpoints at present. Below is a documentation of using those endpoints**

**How to use those endpoints?**  
**1. http://<localhost>/api/events - Retrieves all the information of events inserted by the admin.**

What information will the “**/api/events”** retrieve**?**

* event\_id – Primary key ID to describe the event **uniquely**.
* event\_name
* event\_date
* event\_venue
* event\_host
* event\_coordinators
* school\_name

All these attributes of each and every event stored in the database will be operated according to the given CURD operations.

2. [**http://127.0.0.1:5000/api/events/<id**](http://127.0.0.1:5000/api/events/%3cid)**>** - Retrieves only the information of the event identified by “event\_id”.

**Note: <id> is dynamic. Event id passed on to the URL replacing <id> would result in fetching only a particular event information with respect to the event id provided.**

For example, to access event id = 2:

<http://127.0.0.1:5000/api/events/2>

3. [**http://127.0.0.1:5000/api/events/filter/<school\_name**](http://127.0.0.1:5000/api/events/filter/%3cschool_name)**>** - Retrieves event information based on “school name”.

**Note: <school\_name> field is dynamic. School name passed on to the URL replacing <school\_name> would result in fetching a list of events with respect to the school’s name provided.**

*This endpoint doesn’t return group by events, instead it only returns a list of events hosted/managed by that school.*

For example, to access only the events organized by “QBIT”:

<http://127.0.0.1:5000/api/events/filter/qbit>