



Horizon College of Business and Technology

Faculty of Information Technology

**BSc (Hons.) in Information Technology/BIT (Hons.) in Networking and Mobile
Computing Second Year Second Semester Final Examination – Nov 2023**

**IT31063: Service-Oriented Computing
Mini Project**

Use RestAPIs with PHP and Python.

(100 Marks)

1. Read the following API and use HTML, CSS, Bootstrap, and PHP to display *province names, latitudes, and longitudes* in China. **(10 Marks)**

URL: <https://rapidapi.com/axisbits-axisbits-default/api/covid-19-statistics>

2. Use the REST Countries API documentation (<https://restcountries.com/>) to get all countries in a dropdown list, then select one and display the following information: flag, country official name, capital city, region, subregion, currencies, country code, population, area, borders, and Google Map. (Use HTML, CSS, Bootstrap, PHP, and AJAX.) **(20 Marks)**

URL: <https://restcountries.com/>

URL : <https://developers.google.com/maps/documentation/javascript/get-api-key>

3. Develop RestFul API using PHP - Object Oriented Programming(OOP) and PDO - MySQL **(60 Marks)**
 - a. By using command line or graphical user interface
 - i. Create a database called "restful."
 - ii. Create a table named "horizonstudents" inside database.
 - iii. Add eight (8) fields named "Index No., First Name, Last Name, City, District, Province, Email Address, and Mobile Number."
 - iv. Insert 5 rows into the table.
 - b. Create a RestFul web service to perform CRUD operations with MySQL database.
 - i. Write RestFul API for the popular HTTP verbs GET, POST, PUT, and DELETE

- ii. API URL should be <http://localhost/restfull/horizonstudents> (if you can upload into webspace on the Internet, that will be an added advantage).
 - c. Test your API using the Postman tool. (Each GET, POST, PUT, and DELETE)
4. Access “<https://rapidapi.com/wirefreethought/api/geodb-cities>” Rest API and get country places in New Zealand using Python and display “place id”, “place name”, “place type”, and “region code” by using panda library. **(10 Marks)**

Your mini-project should be a single pdf document that contains all commands, screenshots, source codes, and other resources. Name of the pdf file: <your_index_number>. pdf and upload into the LMS.

10 minutes to demonstrate and viva to evaluate your mini-project. (After submitting your work, you will be informed via LMS.)