

Enterprise Computing – TECH2102: Assignment 1



# Directions

This is a group assignment. Each group should be of two learners.

This Assignment will require you to understand Web Server Architecture, Service Oriented Architecture, and Installation and configuration of Apache Web Server.

Please see D2L for the due date.

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# Assignment Description

Read the following short description then answer the following questions.

Use the Apache, MySQL and PHP server you created in your class learning activity to create a REST API without the use of any custom REST API framework to provide the details of BVC students. The REST API for the student module will have HTTP Get, Post, Put and Delete to request or fetch records from MySQL, add record into MySQL, update record into MySQL and delete record from MySQL. The Rest details are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Route** | **Method** | **Type** | **Posted JSON** | **Description** |
| /students | GET | JSON | – | Get all students data |
| / students /{id} | GET | JSON | – | Get a single student data |
| / students | POST | JSON | {"student\_name": "Mark", " student \_age": "30", "student\_number": "23421"} | Insert new student record into database |

Create 'api/' folder. This folder will keep all the files which are required for this REST API assignment.

**Deliverables**

1. Create a 'students' MySQL database with a student table that has the following columns:

* `id` primary key
* `student\_name` the name of the student
* `student\_number`
* `student\_age` the age of the student

1. create connection.php file and add MySQL connection string to connect MySQL with php using mysqli\_connect() method
2. create students.php file and add MySQL connection file to access database table data.
   1. Connect to the database
   2. use $\_SERVER method to access action information
3. Write the following functions
   1. get\_students() // to get all records of students
   2. get\_student($id=0) // to get the record of the student with the provided ID
   3. insert\_student()

# Rubric (Out of 100 total Marks)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Question number** | **Mark** | **Excellent (100%)** | **Good (75%)** | **Fair (50%)** | **Poor (25%)** |
| **1 Creating a ‘students’ database** | 10 | All the correct elements of the ‘students’database are represented | Most of the correct elements of the ‘students’ database are represented | Some of the correct elements of the ‘students’ database are represented | The correct elements of the ‘students’ database are not represented properly |
| **2 create ‘connection.php’** | 10 | All the correct elements of the ‘connection.php’are represented | Most of the correct elements of the ‘connection.php’ are represented | Some of the correct elements of the ‘connection.php’ are represented | The correct elements of the ‘connection.php’are not represented properly |
| **3 create ‘get\_students()’ function** | 25 | All correct elements of ‘get\_students()’ function are represented | Most of the correct elements of ‘get\_students()’ function are represented | Some of the correct elements of ‘get\_students()’ function are represented | The correct the elements of ‘get\_students()’ function are not represented properly |
| **4 create ‘get\_students($id=0)’ function** | 30 | All correct elements of ‘get\_students($id=0)’ function are represented | Most of the correct elements of ‘get\_students($id=0)’ function are represented | Some of the correct elements of ‘get\_students($id=0)’ function are represented | The correct the elements of ‘get\_students($id=0)’ function are not represented properly |
| **5 create ‘insert\_students($id=0)’ function** | 25 | All correct elements of ‘insert\_students($id=0)’ function are represented | Most of the correct elements of ‘insert\_students($id=0)’ function are represented | Some of the correct elements of ‘insert\_students($id=0)’ function are represented | The correct the elements of ‘insert\_students($id=0)’ function are not represented properly |
| **Total** | **100** |  |  |  |  |