**Assignment – I (10%)**

**COMP 3123 – Full Stack Development – I**

**Submission: Sunday, 15th Oct 2023, 11:59 PM (Week06)**

As a newly hired Jr. Software Engineer my manager assigned me a task to develop Backend application using NodeJS, Express and MongoDB. He also wants me to apply my VCS (**GitHub**) skills to develop these projects where I will commit and push all my code to **Student#\_COMP3123\_Assignment1** repository.

Following is the list of APIs to develop which accept all data as JSON Object whenever needed:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. #** | **Method** | **Endpoint** | **Response Code** | **Description** |
| **1** | POST | /api/v1/user/signup | 201 | Allow user to create new account |
| **2** | POST | /api/v1/user/login | 200 | Allow user to access the system |
| **3** | GET | /api/v1/emp/employees | 200 | User can get all employee list |
| **4** | POST | /api/v1/emp/employees | 201 | User can create new employee |
| **5** | GET | /api/v1/emp/employees/{eid} | 200 | User can get employee details by employee id |
| **6** | PUT | /api/v1/emp/employees/{eid} | 200 | User can update employee details |
| **7** | DELETE | /api/v1/emp/employees?eid=xxx | 204 | User can delete employee by employee id |

**Sample Error Response:**

*{*

*“status”: false,*

*“message”: “Invalid Username and password”*

*}*

**Sample Request Payload for login:**

*{*

*“username”: “*[*p@p.com*](mailto:p@p.com)*”,*

*“password”: “password$123”*

*}*

**Sample Request Payload for login:**

*{*

*“status”: true*

*“username”:* [*p@p.com*](mailto:p@p.com)*,*

*“message”: “User logged in successfully”*

***“jwt\_token”: “Optional implementation”***

*}*

**Sample Request Payload for employee:**

*{*

*“first\_name”: “Tam”,*

*“last\_name”: ”Harrow”,*

*“email: :* [*tam@hollywood.com*](mailto:tam@hollywood.com)*,*

*“gender”: “Male”,*

*“salary”: 125500.00*

*}*

MongoDB Database name: **comp3123\_assigment1**

**Users Collection**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Type** | **Constraint** |
| \_id | Object ID | Auto Generate |
| username | String (100) | Primary Key |
| email | String (50) | Unique |
| password | String (50) | May be encrypted with other fields |

User can login using username/email and password

**Employee Collection**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Type** | **Constraint** |
| \_id | Object ID | Auto Generate |
| first\_name | String (100) | Required |
| last\_name | String (50) | Required |
| email | String (50) | Unique |
| gender | String (25) | Male/Female/Other |
| salary | Float | Required |

**Notes:**

* Make use of express.Routes() and modules
* Validate the data whenever required
* Return error details or success response details whenever required
* All data must be sent back and forth in JSON Object format
* Optionally apply JWT security concept to secure all your API calls
* No late submission

**Submission:**

1. MongoDB console screenshots
2. Postman API collection
3. Screenshots of each API tested with response and payload
4. Project ZIP file after **deleting node\_modules folder**
5. GitHub Project Link
6. Sample user detail to login
7. Any comment
8. If hosted on Vercel/MS Azure App service/AWS BeanStack/Heroku or any platform share the details with urls

**Evaluations:**

|  |  |
| --- | --- |
| **Points** | **Evaluation Component** |
| 35 | 5 points for each 7 working API without database connection |
| 70 | 10 points for each 7 working API with database connection |
| 10 | 10 Point for sending validation and error messages to client |
| 10 | 10 point maintaining GitHub repository with read me file |
| 10 | Uploading valid screenshots with appropriate name and documentation |

**Communication:**

* Please contact on [pritesh.patel2@georgebrown.ca](mailto:pritesh.patel2@georgebrown.ca) or SLACK channel for any question or query.
* NO communication before 3 days for submission deadline

***~~~ Wish you all the Best ~~~***