

## Assignment – I (12%)

### COMP 3133 – Full Stack Development – II

**Submission: Sunday, 19<sup>th</sup> Feb 2023, 11:59 PM**

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**No extension or late submission will be allowed as I have already added 1 more week for submission. Late submission will be awarded ZERO points.**

As a newly hired Jr. Software Engineer my manager assigned me a task to develop Backend application using NodeJS, Express, GraphQL 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#\_COMP3133\_Assignment1** repository.

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

Sr. #	Method	Operations	Description	Points
1	Mutation	Signup	Allow user to create new account	10
2	Query	Login	Allow user to access the system	05
3	Query	Get all employees	User can get all employee list	10
4	Mutation	Add New employee	User can create new employee	10
5	Query	Search employee by eid	User can get employee details by employee id	10
6	Mutation	Update employee by eid	User can update employee details	10
7	Mutation	Delete employee by eid	User can delete employee by employee id	05

MongoDB Database name: **comp3133\_assignment1**

#### Users Collection

Field Name	Type	Constraint
_id	Object ID	Auto Generate
username	String	Primary Key
email	String	Unique
password	String	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	Required
last_name	String	Required

email	String	Unique
gender	String	Male/Female/Other
salary	Float	Required

### Notes:

- Implement GraphQL API using Apollo server
- Test GraphQL API using GraphiQL OR Postman
- Validate the input 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 accepted

### Submission:

- 1) MongoDB console screenshots
- 2) Postman API collection or GraphiQL screenshots
- 3) Screenshots of each API tested with response and payload
- 4) Project ZIP file after **deleting node\_modules folder**
- 5) GitHub Project Link and add me as a collaborator if private repo (GitHub username **pritamworld**)
- 6) Sample user detail to login
- 7) Any comments if need for clarification
- 8) If hosted on Heroku or any platform share the details with URLs

### Evaluations:

Points	Evaluation Component
<b>15</b>	GraphQL Object creation for both collection with MongoDB schemas
<b>60</b>	GraphQL APIs
<b>10</b>	Screenshots, Sending validation and error messages to client
<b>10</b>	Maintaining GitHub repository with ReadMe file
<b>05</b>	Test GraphQL API using GraphiQL OR Postman with Screenshots

### 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

### References:

- <https://graphql.org/learn/>
- <https://www.howtographql.com/>
- [https://www.apollographql.com/blog/backend/using-express-with-graphql-server-node-js/?\\_ga=2.81606039.1894545270.1674864877-990100504.1674864877](https://www.apollographql.com/blog/backend/using-express-with-graphql-server-node-js/?_ga=2.81606039.1894545270.1674864877-990100504.1674864877)

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