Assignment – I (12%)
COMP 3133 – Full Stack Development – II

Submission: Sunday, 19th Feb 2023, 11:59 PM

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_assigment1**

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

Communication:

- Please contact on 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

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