

## ASSIGNMENT FOR BACKEND DEVELOPER

### # Instructions

- 1) Use NodeJs for Backend and MongoDB for Database.
- 2) Use Proper commenting and Naming conventions should be meaningful.
- 3) Reusable code functionality would be expected.
- 4) MVC Pattern should be followed.
- 5) ECMAScript 2015 version would be preferred.
- 6) The code should be efficient and follow best practices.
- 7) Always Use 'mongoose' instead of 'mongodb' npm package.

### # Before Start Working on it,

- 1) Create a public GitHub repository.
- 2) Share the repository with us.
- 3) For Every concept completion should be pushed in GitHub with proper commit message. For bug fixing also, should have proper commit message.

### # Assignment

We have to create Restful APIs for User Profile Management, with functionalities,  
(Note : You can use your own flexibility in splitting or grouping APIs)

1. Add Admin
2. Update Admin
3. View Admin
4. Add User
5. Update User
6. View User

### # Model

(Note 1 : Both Admin and User holds same model)

(Note 2 : All Admin and User details should be stored in one place in database)

(Note 3 : \* Represents Mandatory Field)

(Note 4 : Naming Conventions are up to you.)

1. First Name\*
2. Middle Name
3. Last Name\*
4. Email\*
5. Password (Encrypted)\*
6. Role (Admin or User)\*
7. Department
8. Created Time\*
9. Updated Time\*

### # Add Admin or User

1. All Mandatory fields should be present.
2. Password should have 6 to 12 characters.
3. Confirm password should also be present in adding User/Admin.
4. Created Time and Updated Time should be auto-generated.
5. Admin can add Admin/User. User can add user only.

### **# Update Admin or User**

1. Admin/User can edit any field. If 1 field given means, that particular field should update.
2. Admin/User cannot edit password (Once created password, it remains same).
3. Created Time and Updated Time should be auto-updated and it cannot be manually edit by any User/Admin.
4. An Admin can edit Admins/Users and himself. A User can edit users and himself.

### **# View Admin or User**

1. Admin/User can view any field. If 1 field given means, that particular field should view. If nothing mentioned means, all details should display.
2. Password should not be display for any User/Admin.
3. An Admin can view Admins/Users and himself. A User can view Users and himself.

### **# Conditions**

1. Without Authentication no one can view, add or edit any users.
2. JWT Concepts should followed.
3. All APIs should be protected with Cross Origin Restriction.

### **# Additional** (Unrelated to current Assignment)

1. Try to Understand the basic concept of 'MQTT' Protocol.

### **# Greetings**

Hope you understand the document thoroughly.  
See you soon. All the Best.  
Thank you.