**FullStack Group 5 Project:**

1) You are developing an Employee Management System.

2) Create an Angular application.

3) Create following components:

a) AddDepartmentComponent: This component should have a method that accepts Department object as an input and add that Department object to the Department array.

b) DepartmentListComponent: This component should display all the departments.

c) EmployeeListComponent : This component should display all the employees. This component should have CheckBox against each record and Select All and Delete buttons. When SelectAll button is

clicked, it should select the checkbox against each record. When the Delete button is clicked, all employee records should be deleted at once.

d) AddEmployeeComponent : This component should have a method that accepts Employee object as an input and add that Employee object to the Employee array.

e) EditEmployeeComponent : This component should have a method that accepts EmployeeId and Employee object as inputs, locate the employee object based on EmployeeId passed and update the

values based on Employee object passed.

f) DeleteEmployeeComponent: This component should have a method that accepts EmployeeId as an input, locate the employee object based on EmployeeId passed and delete that Employee object.

g) SearchEmployeeComponent : This component should have a method that accepts EmployeeId as an input, locate the Employee object based on EmployeeId passed and return that Employee object.

4) Implement routing in App component. Create links for each component and each CRUD operation. Each component should be in a separate module. Lazy load these modules. Key in the snapshots to prove that these modules are lazy loaded.

5) You need to meet the following requirements before storing the data in the system (Use Reactive forms)

a) DepartmentName, FirstName, LastName, ContactNo and DateOfBirth are mandatory.

b) FirstName and LastName can contain only characters and can have maximum 20 characters each. FirstName and LastName cannot have special characters.

c) ContactNo can contain only numbers.

6) Code for CRUD operations should be written in a RESTful service. Inject this RESTful service in each component performing CRUD operation and call the appropriate method from RESTful service in that component.

7) SearchEmployeeComponent should take care of the following things while displaying the data:

a) FirstName and LastName of the tourist should be displayed in capital letters.

b) DateOfBirth should be displayed in MON date, year format.

8) Log the message to the console showing name and date and time of CRUD operation. Create and use a singleton Logger service for this.

9) Write the unit test cases for your application using Jasmine and Karma.

10) Handle the exceptions wherever necessary.

**Evaluation Parameters:**

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| Input Validations | 15 Marks |
| Code for CRUD Operations | 25 Marks |
| Logging Messages to the Console | 10 Marks |
| Creating and Consuming RESTful service | 25 Marks |
| Exception Handling | 10 Marks |
| Unit Testing | 10 Marks |
| Naming Conventions and Coding Standards | 5 Marks |