

## **1203 Database 1 - Take Home Assignment**

### **Group 47**

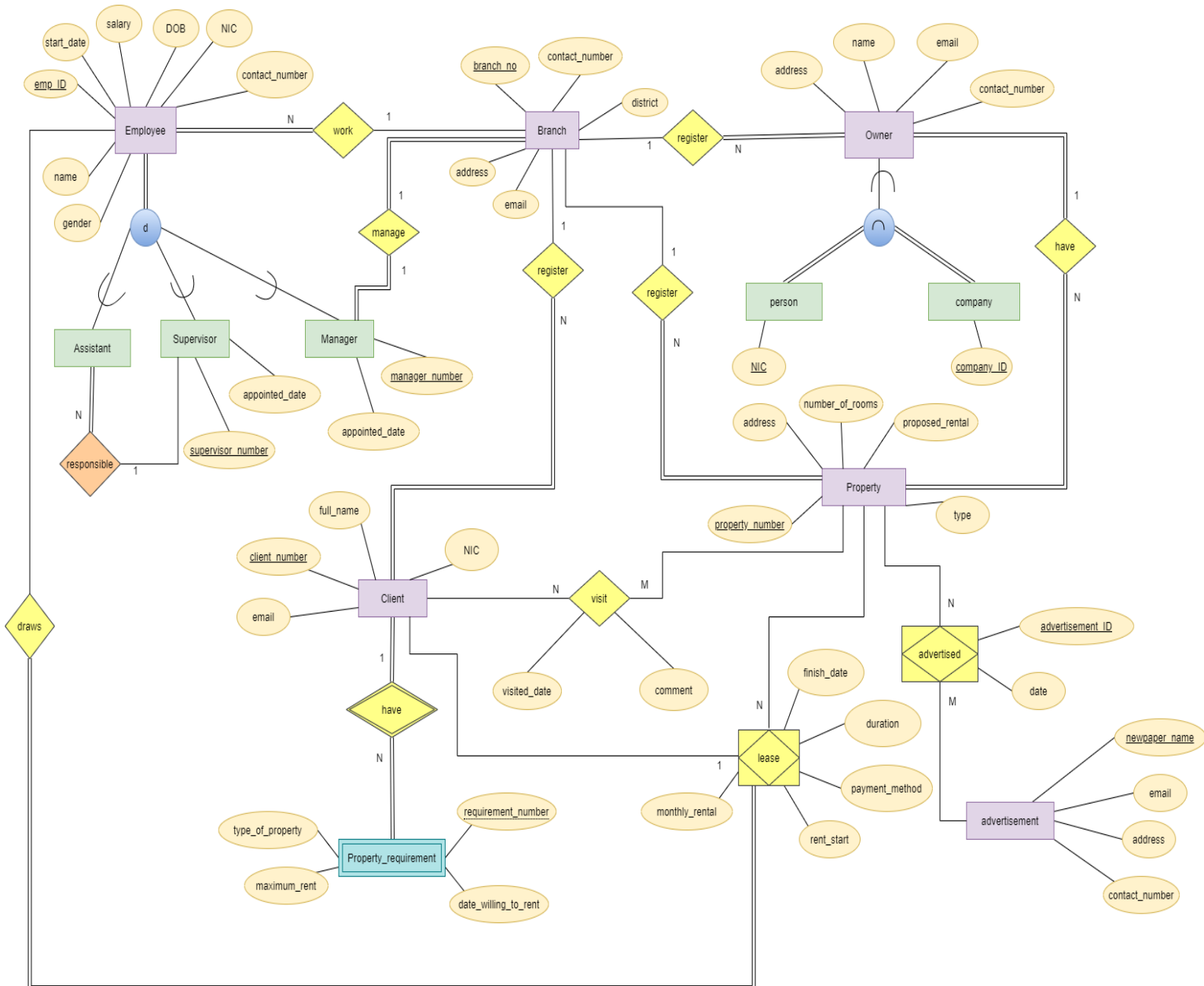
#### **Scenario 1 – Sewana Property for Rent**

#### **Group Members**

<b>Registration Number</b>	<b>Index Number</b>	<b>Name</b>
2020/CS/185	20001851	THILAKARATHNA K.D.D.O.
2020/CS/187	20001878	THILINIKA K.A.H.
2020/CS/189	20001894	UMAYANGA N.G.J.
2020/CS/191	20001916	UYANAHEWA D.D.



### EER Diagram:



## Mapping:

Employee [emp\_ID, gender, name, start\_date, salary, DOB, NIC, contact\_number, **Branch\_no**<sub>(fk)</sub> ]

Assistant [emp\_ID, **supervisor\_number**<sub>(fk)</sub> ]

Supervisor [emp\_ID, supervisor\_number, appointed\_date]

Manager [emp\_ID, manager\_number, appointed\_date, **Branch\_no**<sub>(fk)</sub> ]

Branch [Branch\_no, contact\_number, address, email, district]

Owner [owner\_ID, address, name, email, contact\_number, **Branch\_no**<sub>(fk)</sub> ]

Person [NIC, **owner\_ID**<sub>(fk)</sub> ]

Company [company\_ID, **owner\_ID**<sub>(fk)</sub> ]

Property [property\_number, address, number\_of\_rooms, proposed\_rental, type, **owner\_ID**<sub>(fk)</sub>, **client\_number**<sub>(fk)</sub>, **Branch\_no**<sub>(fk)</sub> ]

Advertisement [newspaper\_name, email, address, contact\_number]

Advertised [advertisement\_ID, date, **newspaper\_name**<sub>(fk)</sub>, **property\_number**<sub>(fk)</sub> ]

Client [client\_number, email, full\_name, NIC, **Branch\_no**<sub>(fk)</sub> ]

Visit [**property\_number**<sub>(fk)</sub>, **client\_number**<sub>(fk)</sub>, visited\_date, comment]

Property\_requirement [**client\_number**<sub>(fk)</sub>, requirement\_number, maximum\_rental, type\_of\_property, date\_willing\_to\_rent]

Lease [**client\_number**<sub>(fk)</sub>, **property\_number**<sub>(fk)</sub>, **emp\_ID**<sub>(fk)</sub>, monthly\_rent, payment\_method, started\_date, finished\_date]

## Assumptions:

1. A manager can only manage one branch. Every branch has a manager. Every manager manages a branch.
2. There is not an owner without a property and there is not a property without an owner.
3. Assume every client has property requirements.
4. Assume, it is necessary to define new primary key attribute for **owner** called **owner\_ID**. (surrogate key)
5. There are only two types of owners. Owner can be either a person or a company.
6. There are no other types of employees. Only three types, manager, supervisor, assistant.
7. Staff needs to keep track of the date and advertisements. For uniquely identified each advertisement, put advertisement\_ID as a primary key.
8. According to property attributes there are 4 types, Flat, Annex, Bungalow and Commercial. Assume that 4 types are domain of property type.
9. Weekly report to the clients is set up from the system according to clients' requirements and availability of properties.
10. Assume payment method is just an input from the client.

## Authorization Diagram:

		Admin	Employee	Client	Owner
<b>Insert</b>	Employee				
	Branch				
	Owner				
	Property				
	Newspaper				
	Advertisement				
	Client				
	Property Requirement				
	Visit				
	Lease				
<b>Update</b>	Employee				
	Owner				
	Property				
	Client				
	Lease				
<b>Show</b>	Employee				
	Branch				
	Owner				
	Property				
	Newspaper				
	Advertisement				
	Client				
	Visit				
	Property Requirement				
	Lease				
<b>Delete</b>	Employee				
	Owner				
	Client				
	Newspaper				
	Lease				

### Individual Collaboration:

Index Number	Name	Collaboration
20001851	THILAKARATHNA K.D.D.O.	<ul style="list-style-type: none"><li>• Create EER diagram</li><li>• Mapping</li><li>• Assumptions</li><li>• Create database</li><li>• Create Login, Logout header, footer files</li><li>• Create insert files</li><li>• Page and form design</li><li>• Create report</li></ul>
20001878	THILINIKA K.A.H.	<ul style="list-style-type: none"><li>• Create EER diagram</li><li>• Mapping</li><li>• Assumptions</li><li>• Create show files</li><li>• Table design</li><li>• Create report</li></ul>
20001894	UMAYANGA N.G.J.	<ul style="list-style-type: none"><li>• Create EER diagram</li><li>• Mapping</li><li>• Assumptions</li><li>• Create database</li><li>• Create update files</li><li>• Page and form design</li><li>• Create report</li></ul>
20001916	UYANAHEWA D.D.	<ul style="list-style-type: none"><li>• Create EER diagram</li><li>• Mapping</li><li>• Assumptions</li><li>• Create delete files</li><li>• Table design</li><li>• Create report</li></ul>