



Introduction to Data Base Systems

Software House Database

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Submitted to:

Mr. Muhammad Imran Saeed

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Introduction

This introduction provides an overview of the **Database for Organization**. From organization I consider **Tech Company** or **Software House**. The organization has many customer, managers, staff, developers and one CEO. The organization works for many local and international clients(customer). The company generates huge amount of data which need a proper data management system.

Manual System and its Issues

This **Software House** is a startup that has all necessary departments. Also the company has developers, project manager, customer and so on. So they produce huge amount of data which need proper data management. In existing system (file processing system) there is many problems and the staff of company face difficulty in finding records. Some of the problems are

- Slow access time
- Presence of redundant data
- Inconsistent data
- Data integrity problem
- No sharing of data
- Difficult in recovery of corrupt data

Proposed Solution

In this situation the company need a proper data management which is possible with **Data Base**. So in this project I will **Design a Data Base** i.e. diagrams like bubble chart, entity relationship diagram (ERD), Enhanced Entity relationship diagram (EERD) and so on. Also in this projects I

will find **Anomalies** and removing Anomalies from relation (if they exist) with the process of **Normalization**. This will be helpful in the implementation of database for Tech Company.

In the end of the designing, I implement this project in **Microsoft Access**. I make tables of different entity classes, implement **static** and **dynamic** queries. Also make attractive **forms** and **generate report**, which is very helpful for any person to understand about data in MS access database.

About Software House

A software house is a company that primarily provides software products. This company may specialize in business or consumer software. Many clients want software for their business, so software house provide them a service in making software that will help client and client can easily do their business work with that software.

Advantages of Database

- Data Integrity
- Data Security
- Data Consistency
- Backup and Recovery
- Reducing Data Redundancy and many more!

Bubble Chart diagram

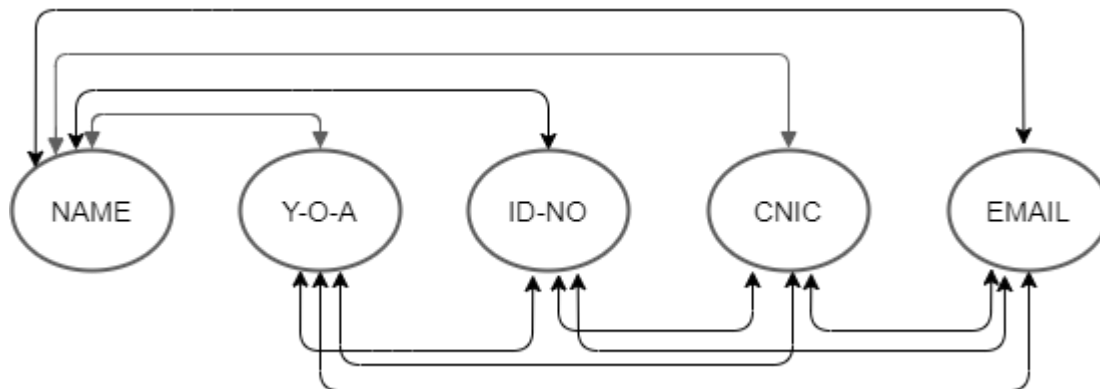
It helps us to represent the association or relationship between attributes of an entity classes.

In projects (Database design for Software House) I find the following **entity classes**.

- Chief Executive Officer (CEO)
- Customer/Client
- Manager (Project lead)
- Staff (Developers team)
- Products
- Departments

Bubble chart for CEO class

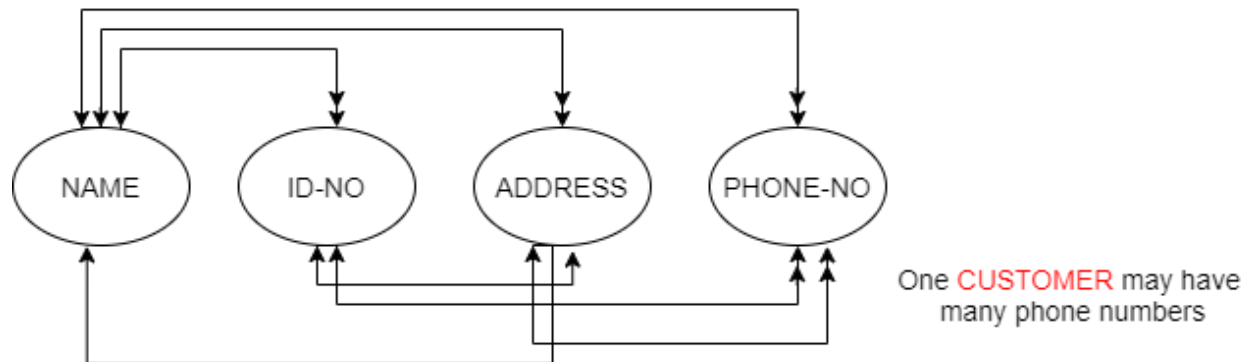
As the CEO of company is signal person so the bubble chart diagram for CEO entity class and its attributes is as below



At one time there is only one CEO of company, so different CEO's tenure are find with help of **Year of Appoipment**.

1. CEO **name** has only one address, ID-No, CNIC and Email
2. **Y-O-A** has one name, one id-no, CNIC and Email
3. **Id-No** has one name, address, CNIC and Email
4. **CNIC** has only one name, address, id-no, and Email
5. **Email** has one name, address, id-no and CNIC along with it.

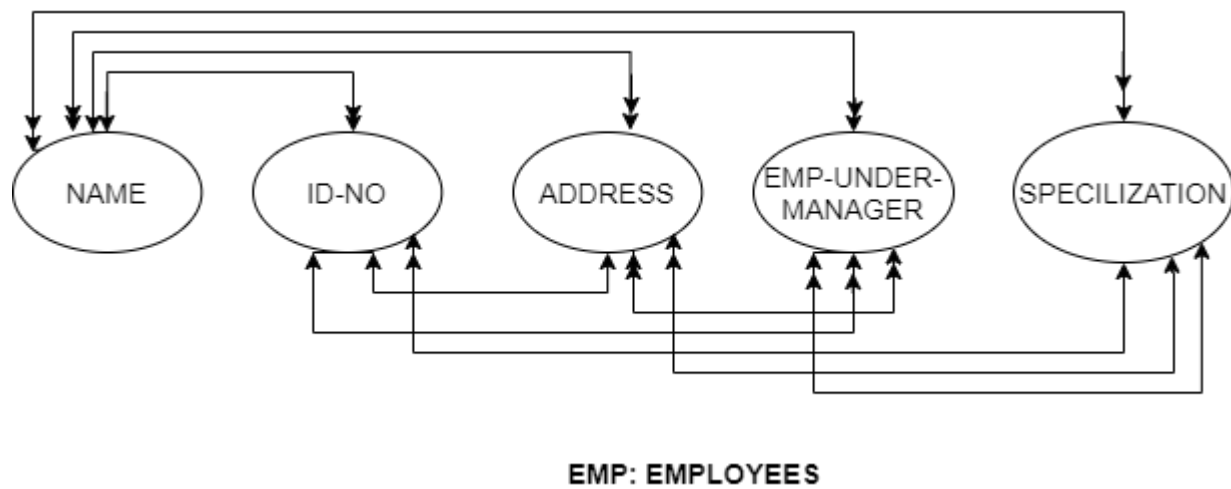
Bubble chart for Customer class



In customer data

1. For one **name** there can be many id-no, address and phone number
2. One **id-no** has only one name, address, and many phone numbers (customer may have many contact numbers)
3. For one **address** there is only one name, id-no and many phone-numbers
4. For one **phone-no** there is only one name, id-number and address.

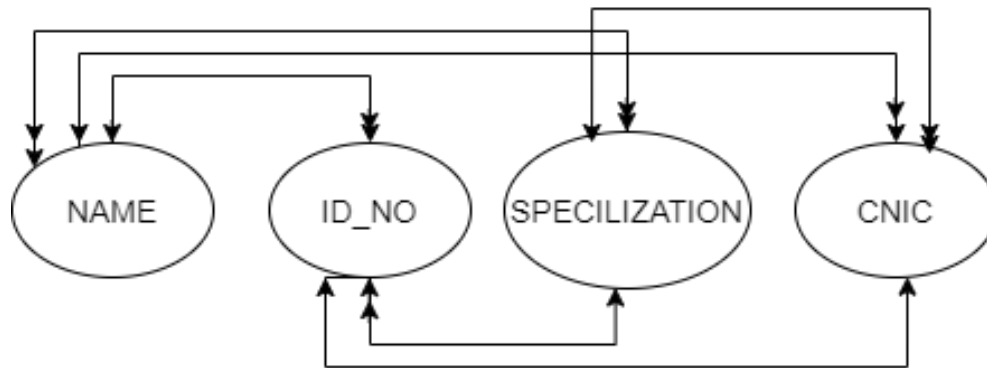
Bubble chart for Project Manager class



In project manager table

1. For one **name** there is many id-no, specialization, address and employees.
2. For one **id-no** there is only one name, one specialization and many employees.
3. For one **specialization** in some area there is many names, id-no.
4. For employees under project manager there is one name, address, and many id-no.

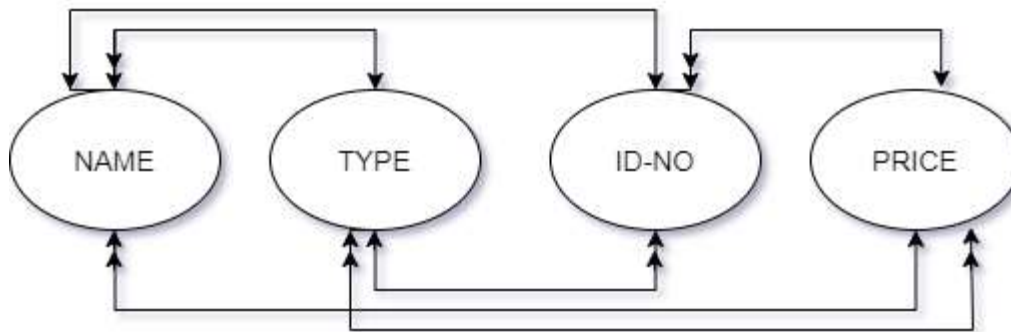
Bubble chart for Developers class



In developers table

1. For one **name** there is many id-no, specialization and CNIC
2. For one **id-no** there is only one name, one specialization and only one CNIC
3. For one **specialization** in some area there is many names, id-no and CNIC
4. For one **CNIC** number there is only one name, one id-no, and specialization associated with it.

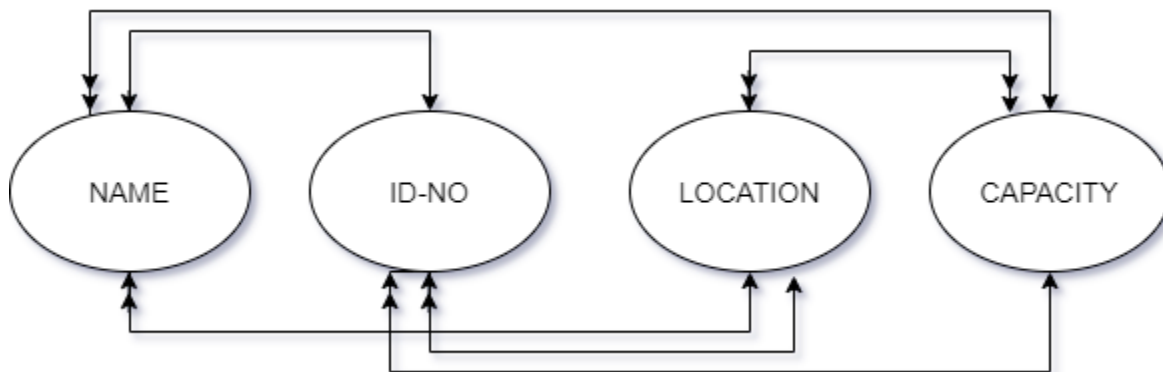
Bubble chart for **Product** class



In product table

1. For one product **name** there is one type, id-no and one fix price.
2. For **type** there are many names, id-no and price.
3. For **id-no** there is one name product name, type and price.

Bubble chart for **Departments** class



In department table

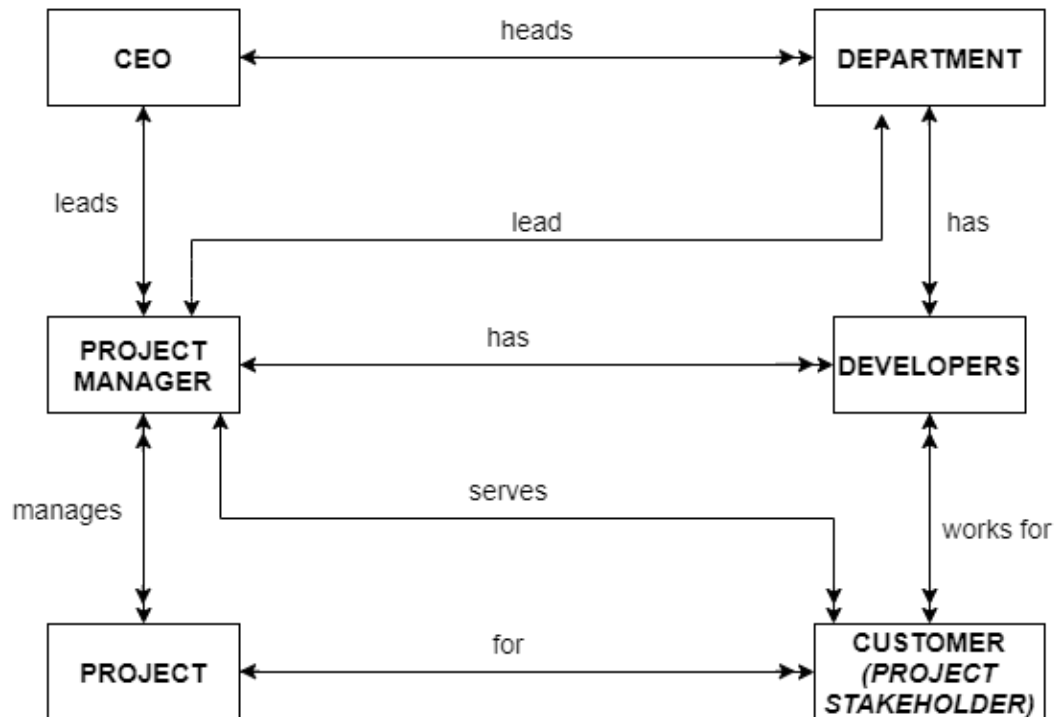
1. For one department **name** there is one id-no, location, and fix capacity.
2. For department **id-no** there is only one name, location and capacity.
3. At one **location** there are many departments exist, many id-no, and different capacity.
4. For one **capacity** (department with same capacity size) there are many department names, id-no, and location.

Data Structure Diagram

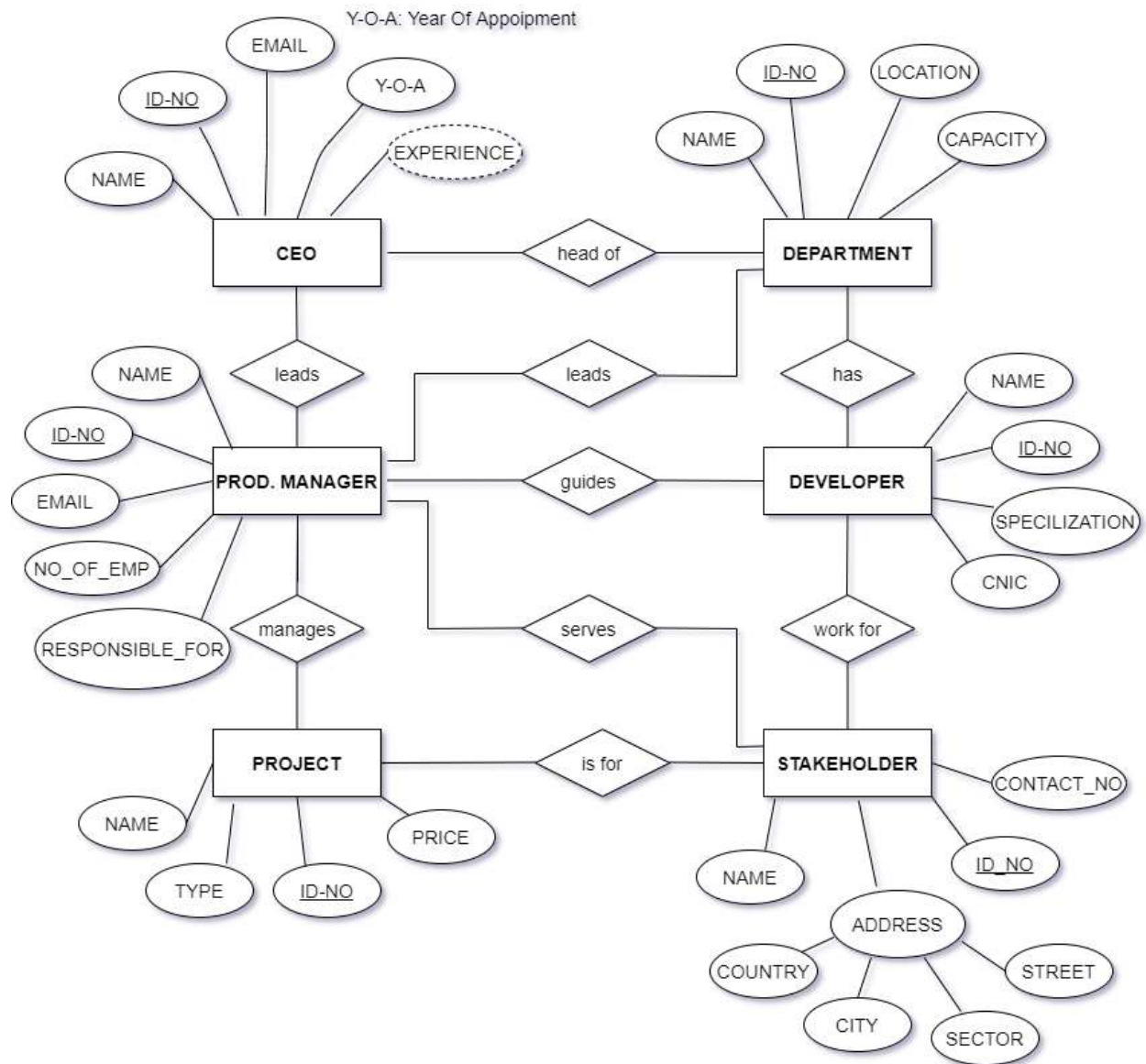
There are following classes in this project and the relationship between them is also represented with data structure diagram.

- Chief Executive Officer(CEO)
- Departments
- Project Manager
- Developers
- Projects
- Stakeholder

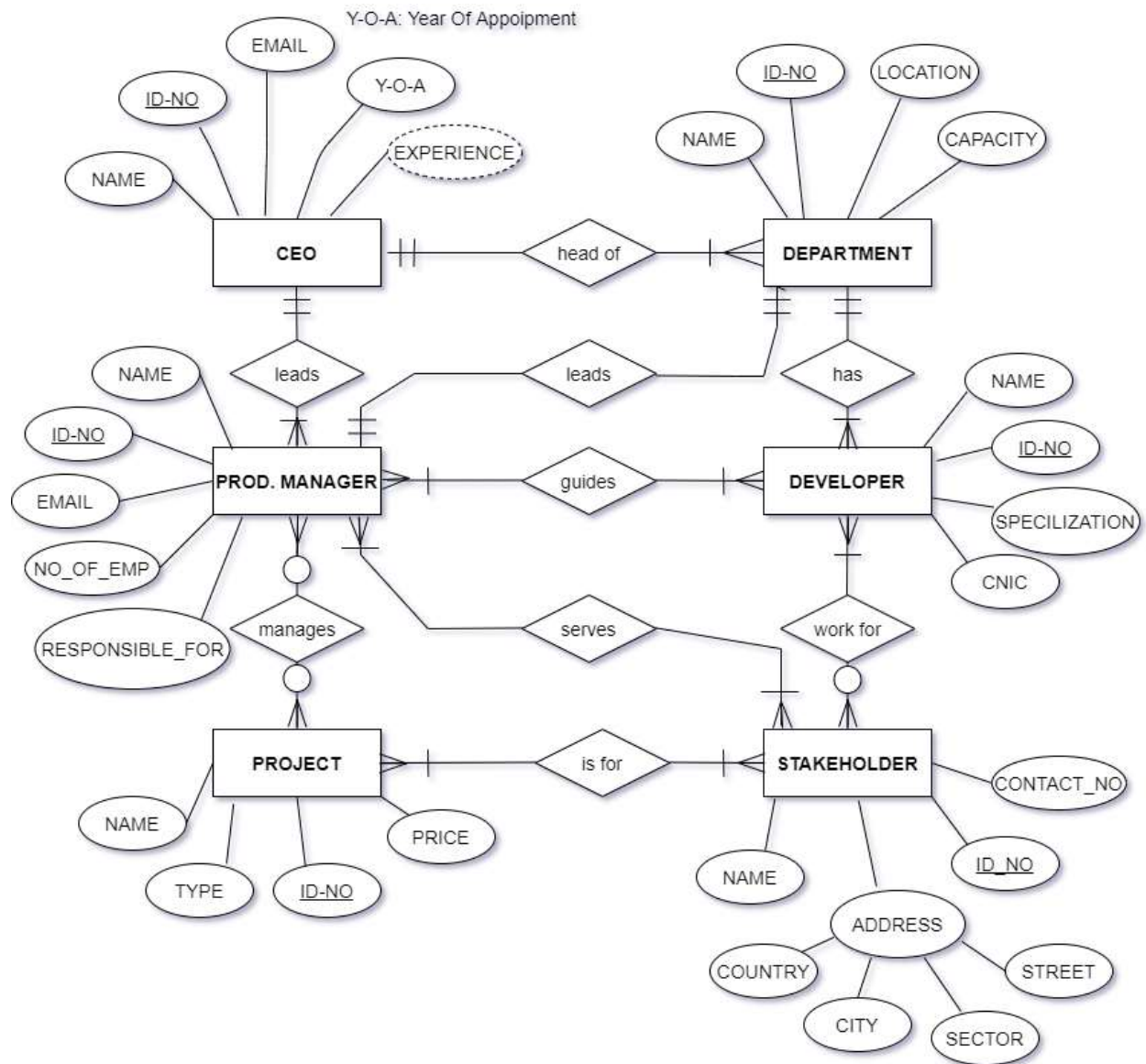
Seperate **DEPARTMENT** for different areas
i.e Web Development, App Development etc



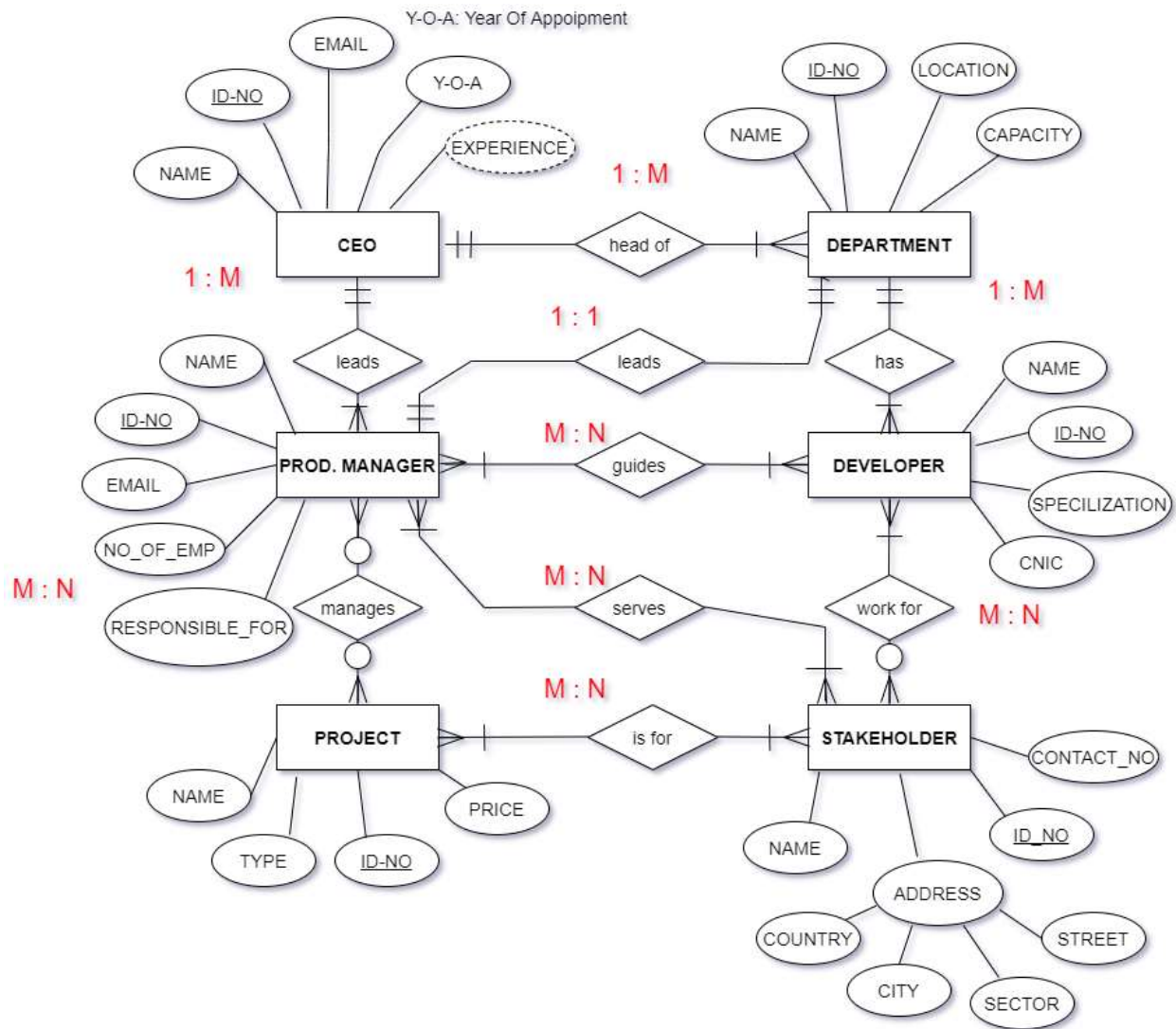
Entity Relationship Diagram (ERD)



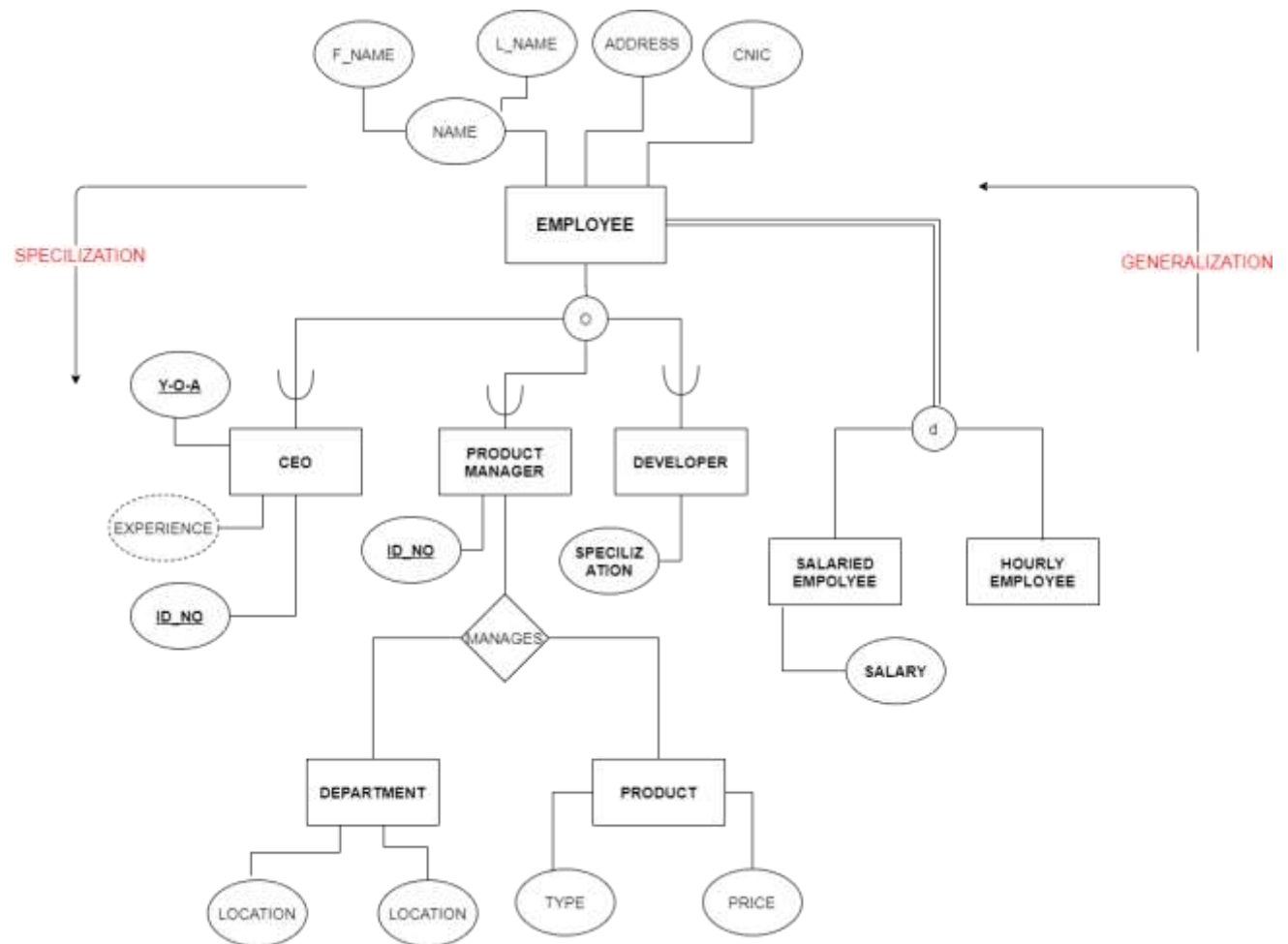
Finding Cardinalities



Finding Relationship

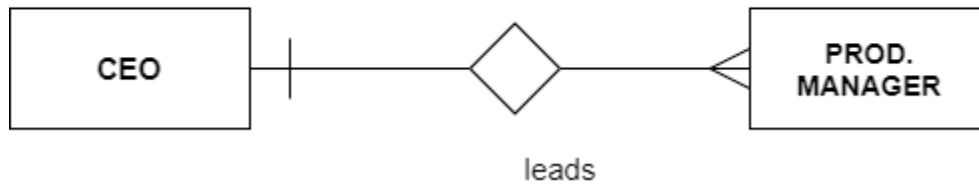


Enhanced Entity Relationship Diagram (EERD)

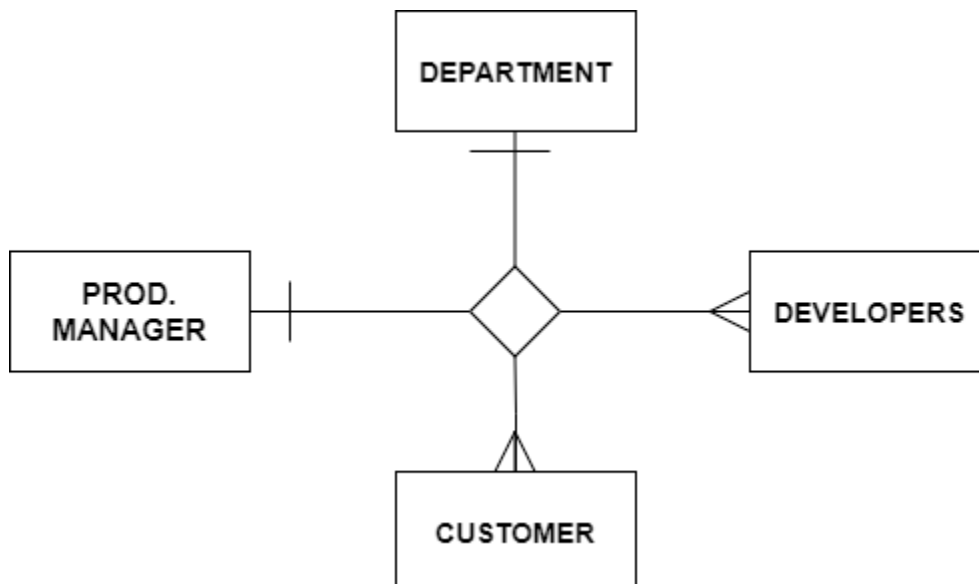
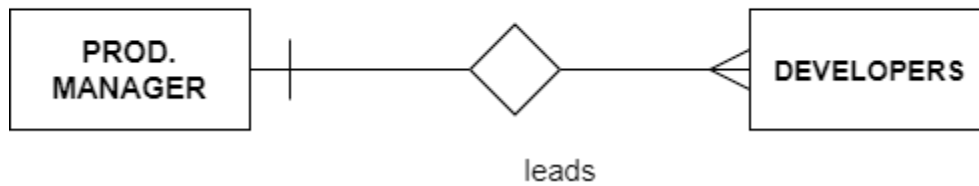


Identifying Degree

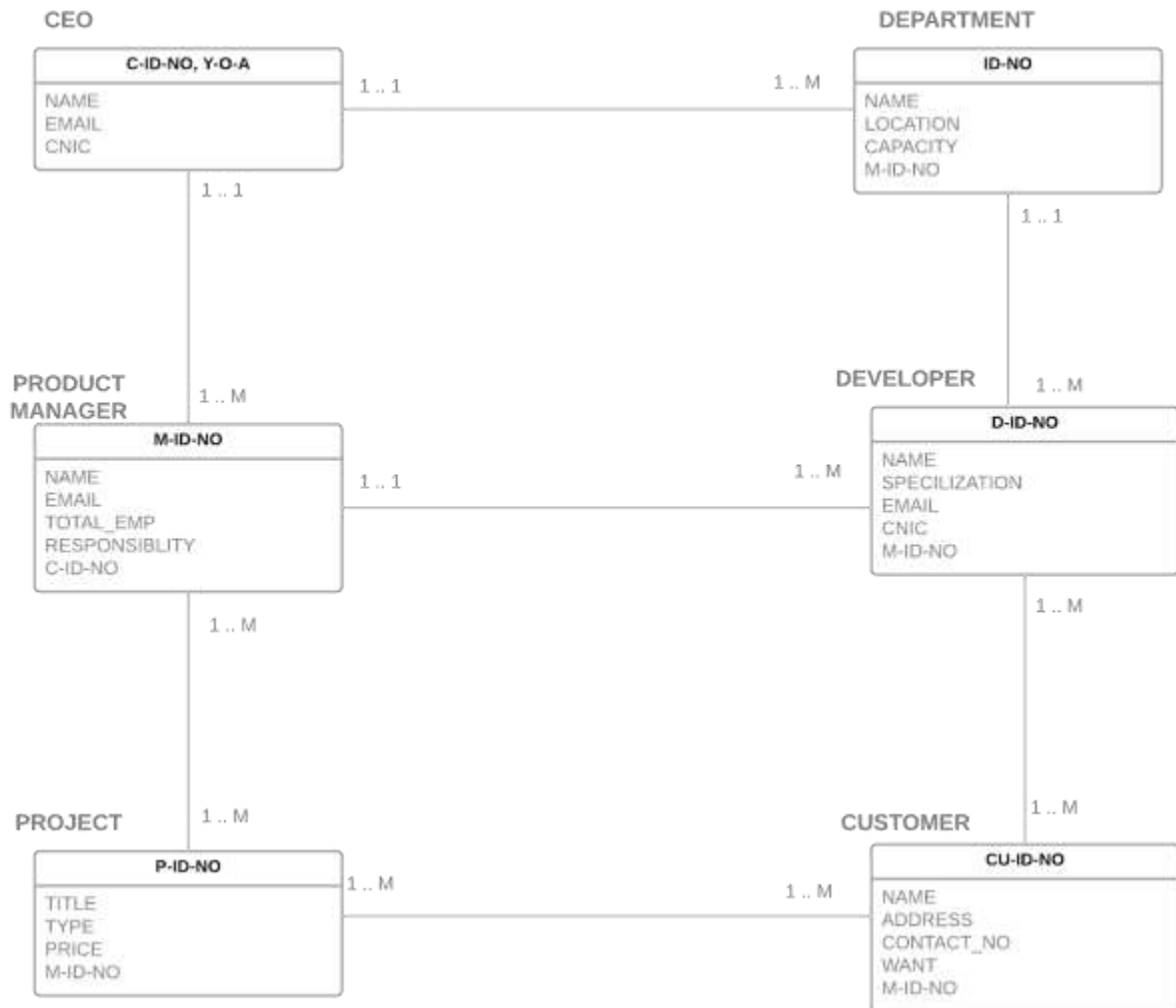
1 : M



1 : M



Modern Entity Relationship Diagram



Logical Data Model

This is a data model that appears from conceptual data model (ERD/EERD).

There are 4 steps for logical data model

1. Representing entity classes
2. Represent Relationship
3. Normalization
4. Integration of Relations

1. Representing Entity Classes

In this step we make table for each entity class.

Chief Executive Officer table

CHIEF EXECUTIVE OFFICER (CEO)				
ID-NO	Y-O-A	NAME	EMAIL	CNIC
1	2012	M. ALI	ali@example.com	37431-323223-2
2	2015	HAMZA	hamza@example.com	37431-363003-3
3	2016	M.ALI	ali1@example.com	39933-32883-5
4	2018	M. FAHAD	fahad@example.com	3901-323123-2
5	2019	M. SAAD	saad@example.com	37431-32001-9

Product Manager table

PRODUCT MANAGER				
ID-NO	NAME	EMAIL	TOTAL-EMPLOYEES	RESPONSIBILITY
2	DAIM	daim@example.com	10	Web Apps Dev
1	SHAHMEER	shahmeer@example.com	7	Android App Dev
3	SARMAD	sarmad@example.com	9	DataBase Dev
4	KASHIF	kashif@example.com	6	AI Apps Dev
5	NABEEL	nabeel@example.com	7	DevOps team Management

Department table

DEPARTMENT				
ID-NO	NAME	LOCATION	CAPACITY	HEAD
100	WEB APPS DEP	Block A	50	DAIM
105	MOBILE APPS DEP	Block A	70	SHAHMEER
103	DATABASE DEP	Block B	30	SARMAD
102	AI APPS DEP	Block A	35	KASHIF
104	DEVOPS	BLOCK B	40	NABEEL

Developer table

DEVELOPER				
ID-NO	NAME	SPECILIZATION	EMAIL	CNIC
2	Naeem	Web developer	naeem@example.com	34568-4534892-5
1	Hamza	AI Engineer	hamza@example.com	32598-4044800-2
3	Aslam	Android developer	aslam@example.com	34001-3454800-8
4	Saad	Full Stack Developer	saad@example.com	32352-4034241-0
5	Hassan	DevOps engineer	hassan@example.com	33508-4414902-1

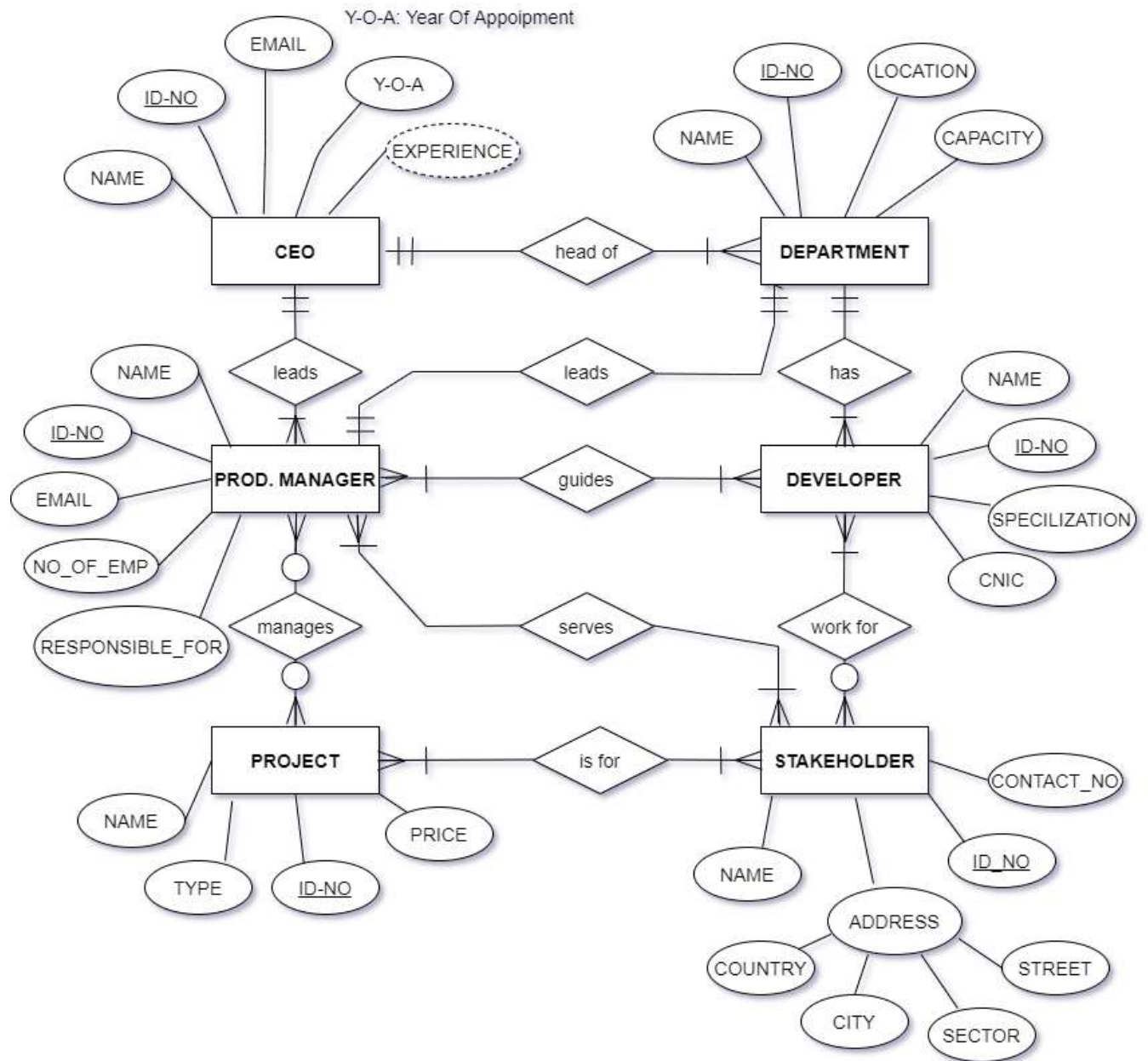
Project table

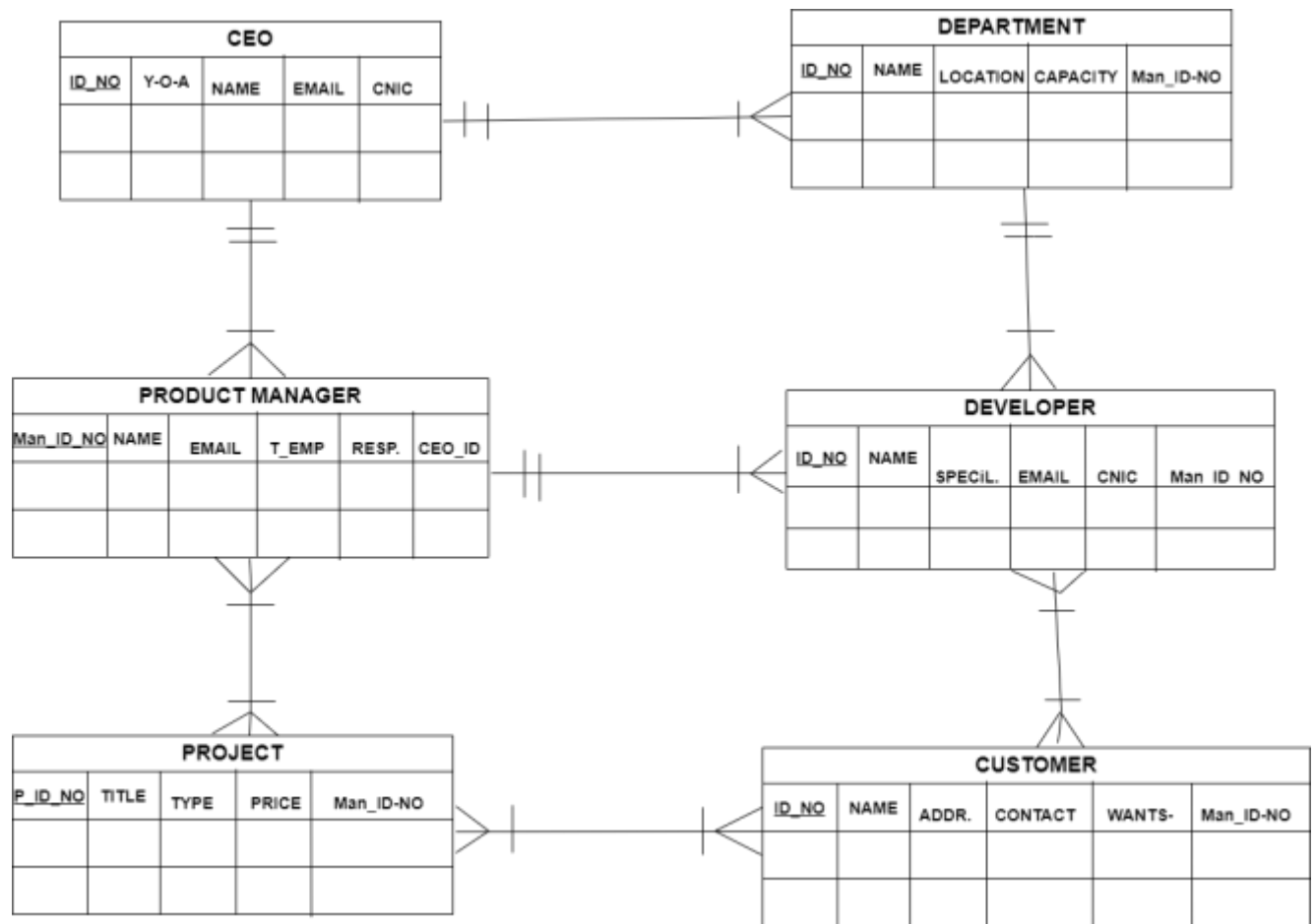
PROJECT				
ID-NO	TITLE	TYPE	PRICE	LEAD BY
1	Web App for Sales store	WEB APP	50000	DAIM
2	Mobile App for Daraz	ANDROID APP	30000	SHAHMEER
3	Design DataBase for Retail Sector	DATABASE DEV	60000	SARMAD
4	Face Detection System for Security Agency	AI BASED APP	100000	KASHIF
5	Manage Company Project	DevOps	90000	NABEEL

Stockholder/Customer table

STACKHOLDER				
<u>ID-NO</u>	NAME	ADDRESS	CONTACT NO	WANTS
1	Jhanzaib	USA	1232323224	WEB APP
2	Aslam	Pakistan, Lahore	9243434232	ANDROID APP
3	ALI	Afghanistan	9374783478	AI APP
4	BILAL	Pakistan, ISB	9243548935	DATABASE SYSTEM
5	FAHAD	Canada	1783473847	PROJECT MANAGEMENT

2. Representing Relationship





3. Normalization

First we have to check whether any **Anomaly** exist in relation or not then go for normalizing relation **if any anomaly exists**.

Chief Executive Officer table

CHIEF EXECUTIVE OFFICER (CEO)				
ID-NO	Y-O-A	NAME	EMAIL	CNIC
1	2012	M. ALI	ali@example.com	37431-323223-2
2	2015	HAMZA	hamza@example.com	37431-363003-3
3	2016	M.ALI	ali1@example.com	39933-32883-5
4	2018	M. FAHAD	fahad@example.com	3901-323123-2
5	2019	M. SAAD	saad@example.com	37431-32001-9

Checking for Anomalies

- **Insertion Anomaly**

As we can easily insert data and none of the data depend on other so no insertion anomaly exists in this relation

- **Modification Anomaly**

We can easily update data as there is no copies of data present in relation, So there is no modification anomaly present in relation.

- **Deletion Anomaly**

We can easily delete any data in this relation as it does not cause deletion of some other data. So deletion anomaly not exist here.

Normalization – Normal Forms

- **1st Normal Form**

Relation is already in 1NF as there is no **repeating group** present in relation.

- **2nd Normal Form**

Relation is already in 2NF as there is no **partial functional dependency** exist in relation

- **3rd Normal Form**

Relation is already in 3NF as there is no **transitive dependency** exist in relation

So the relation **CEO** is already in Normal Form (s)

Product Manager table

PRODUCT MANAGER				
ID-NO	NAME	EMAIL	TOTAL-EMPLOYEES	RESPONSIBILITY
2	DAIM	daim@example.com	10	Web Apps Dev
1	SHAHMEER	shahmeer@example.com	7	Android App Dev
3	SARMAD	sarmad@example.com	9	DataBase Dev
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So the relation **Product Manager** is already in Normal Forms

Department table

DEPARTMENT				
ID-NO	NAME	LOCATION	CAPACITY	HEAD
100	WEB APPS DEP	Block A	50	DAIM
105	MOBILE APPS DEP	Block A	70	SHAHMEER
103	DATABASE DEP	Block B	30	SARMAD
102	AI APPS DEP	Block A	35	KASHIF
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So the relation **Department** is already in Normal Forms

Developer table

DEVELOPER				
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1	Hamza	AI Engineer	hamza@example.com	32598-4044800-2
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Relation is already in 3NF as there is no **transitive dependency** exist in relation

So the relation **Developer** is already in Normal Forms

Project table

PROJECT				
ID-NO	TITLE	TYPE	PRICE	LEAD BY
1	Web App for Sales store	WEB APP	50000	DAIM
2	Mobile App for Daraz	ANDROID APP	30000	SHAHMEER
3	Design DataBase for Retail Sector	DATABASE DEV	60000	SARMAD
4	Face Detection System for Security Agency	AI BASED APP	100000	KASHIF
5	Manage Company Project	DevOps	90000	NABEEL

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- **3rd Normal Form**

Relation is already in 3NF as there is no **transitive dependency** exist in relation

So the relation **Project** is already in Normal Forms

Stockholder/Customer table

STACKHOLDER				
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1	Jhanzaib	USA	1232323224	WEB APP
2	Aslam	Pakistan, Lahore	9243434232	ANDROID APP
3	ALI	Afghanistan	9374783478	AI APP
4	BILAL	Pakistan, ISB	9243548935	DATABASE SYSTEM
5	FAHAD	Canada	1783473847	PROJECT MANAGEMENT

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- **3rd Normal Form**

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So the relation **Customer** already in Normal Forms.

Screenshots

Forms - Static



MS-PROJECT_Base - Database - D:\Shree\Shree\Shree\MS-PROJECT_Base.accdb (Access 2007 - 2010 Workgroup) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Navigation Pane

Company's Department Form

Dep-ID-NO: [Text Box] Name: [Text Box] WEB APP ID-NO: [Text Box]

Location: [Text Box] Contact No: [Text Box]

MAN-NO: [Text Box]

Records: 1 of 1

MS-PROJECT_Base - Database - D:\Shree\Shree\Shree\MS-PROJECT_Base.accdb (Access 2007 - 2010 Workgroup) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Navigation Pane

Customer Form

ID-NO: [Text Box] Name: [Text Box]

Address: [Text Box] Contact No: [Text Box]

MAN: [Text Box] Manager ID-NO: [Text Box]

Records: 1 of 1

MS-PROJECT_Base - Database: C:\Users\Shahid\OneDrive\MS-PROJECT_Base\msdb (Access 2007 - 2010 File Format) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Records: 1 of 1

Navigation Pane

Company CEO Form

CEO ID NO: [Text Box] Y.O.B: [Text Box]

Name: [Text Box] EMAIL: [Text Box]

CMC: [Text Box] Find Record

Records: 1 of 1

MS-PROJECT_Base - Database: C:\Users\Shahid\OneDrive\MS-PROJECT_Base\msdb (Access 2007 - 2010 File Format) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Records: 1 of 1

Navigation Pane

Product Manager Form

ID Number: [Text Box] Name: [Text Box]

Email: [Text Box] Total Employees under Manager: [Text Box]

Responsibility: [Text Box] CEO Year Of Appointment: [Text Box]

Records: 1 of 1

MS-PROJECT_Base - Database - C:\Users\Shreyas\Desktop\MS-PROJECT_Base.accdb (Access 2007 - 2010 FileFormat) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Navigation Pane

Projects Form

Project ID Number:

Project TITLE:

Project TYPE:

Project PRICE:

Manager ID-NO:

Form View

MS-PROJECT_Base - Database - C:\Users\Shreyas\Desktop\MS-PROJECT_Base.accdb (Access 2007 - 2010 FileFormat) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Navigation Pane

Form Query Customer

Customer ID-NO:

Name:

Address:

Contact No.:

Form View

Form Query Department

Dep-ID-NO: 100 Name: DATABASE DEP

Location: Block B Capacity: 30

Close form

Navigation Pane

Record: 1 of 1 | Page: 1 of 1 | Search

Form Query Developer

Dev-ID-NO: 10000 Name: HANZHI

Specification: AI Engineer Email: hanzhi@sample.com

CNIC: 30098-404800-2

Find Next

Navigation Pane

Record: 1 of 1 | Page: 1 of 1 | Search

Form Query CEO

CEO-ID-NO

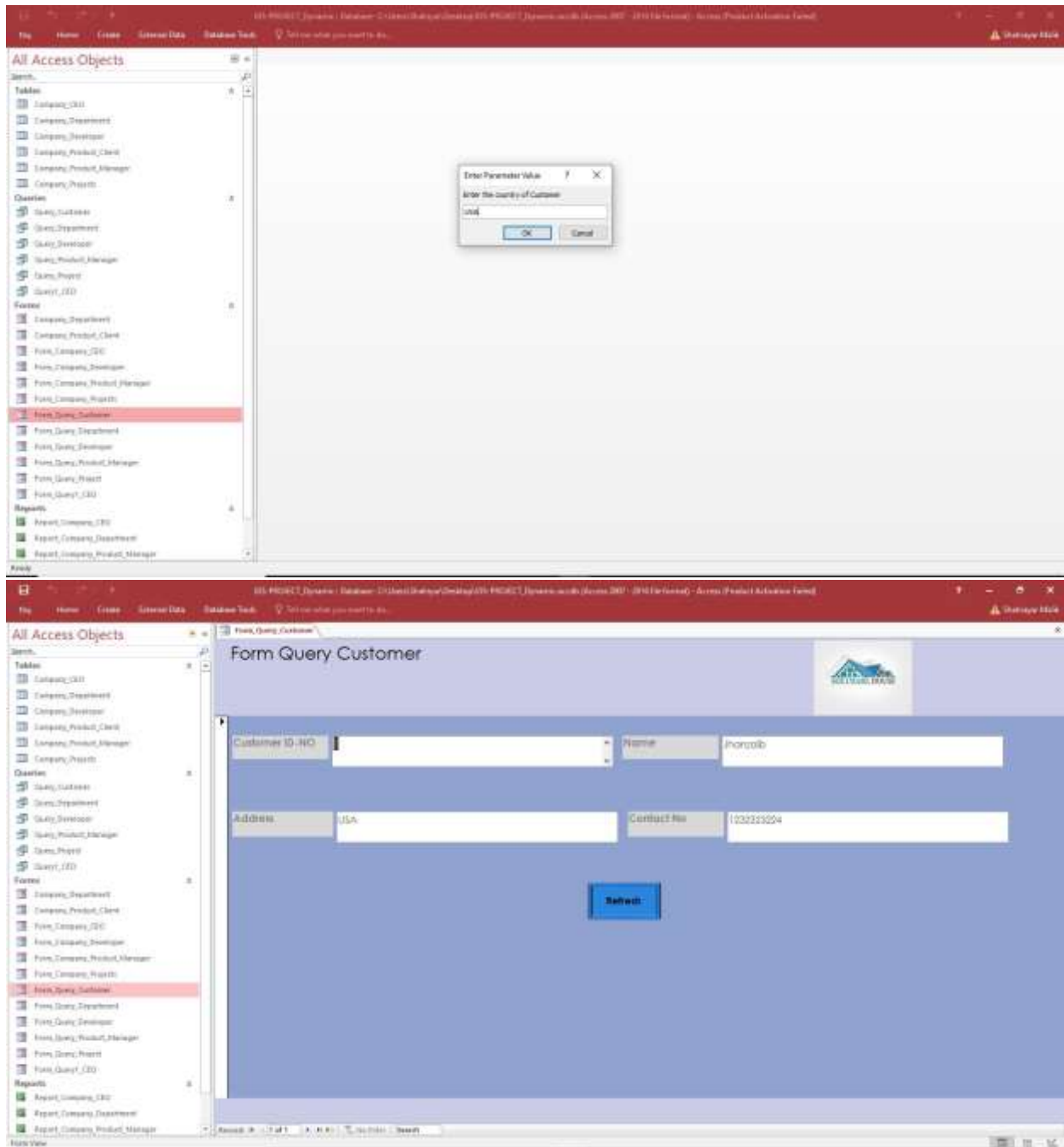
T-O-A

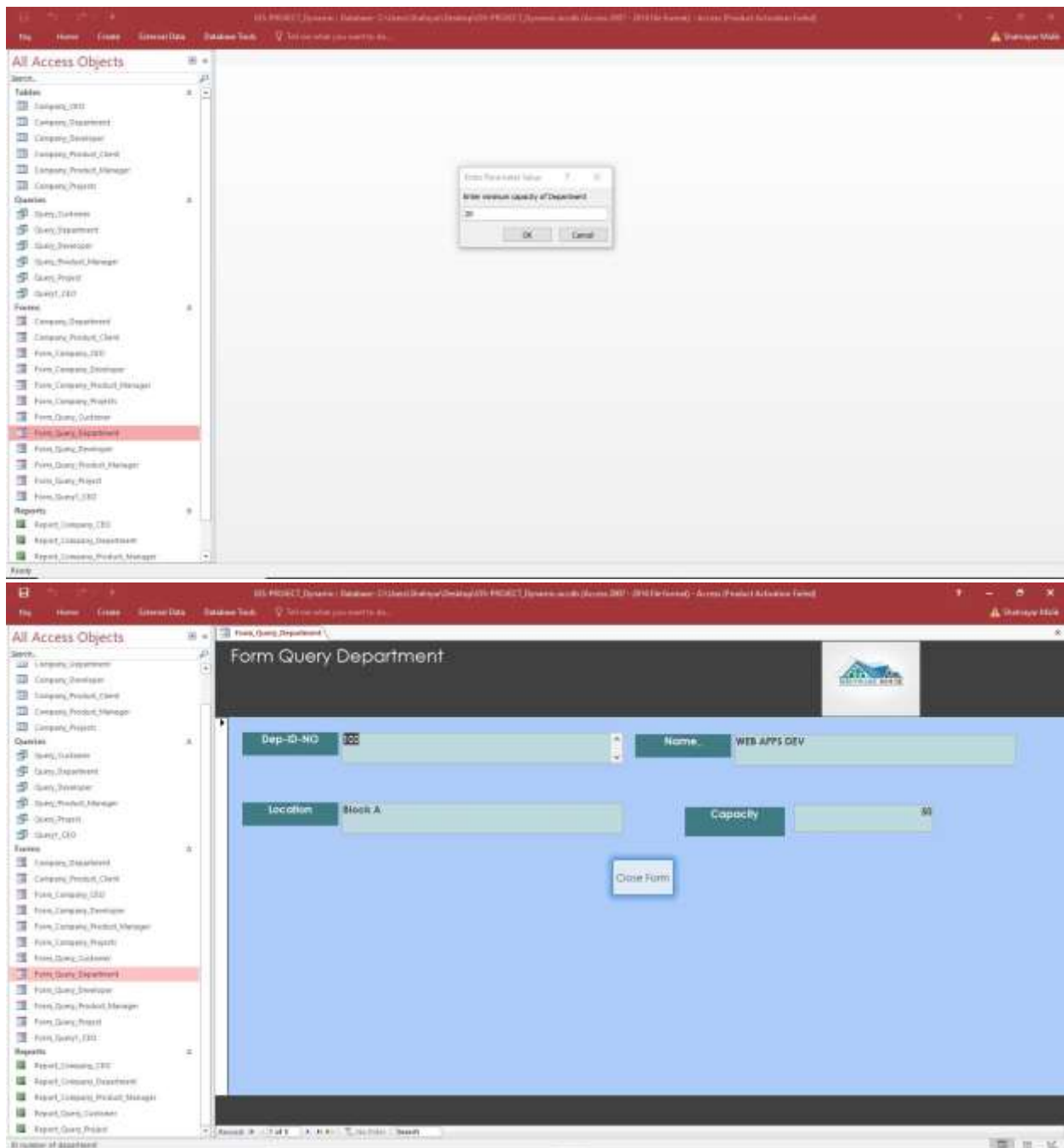
Name EMAIL

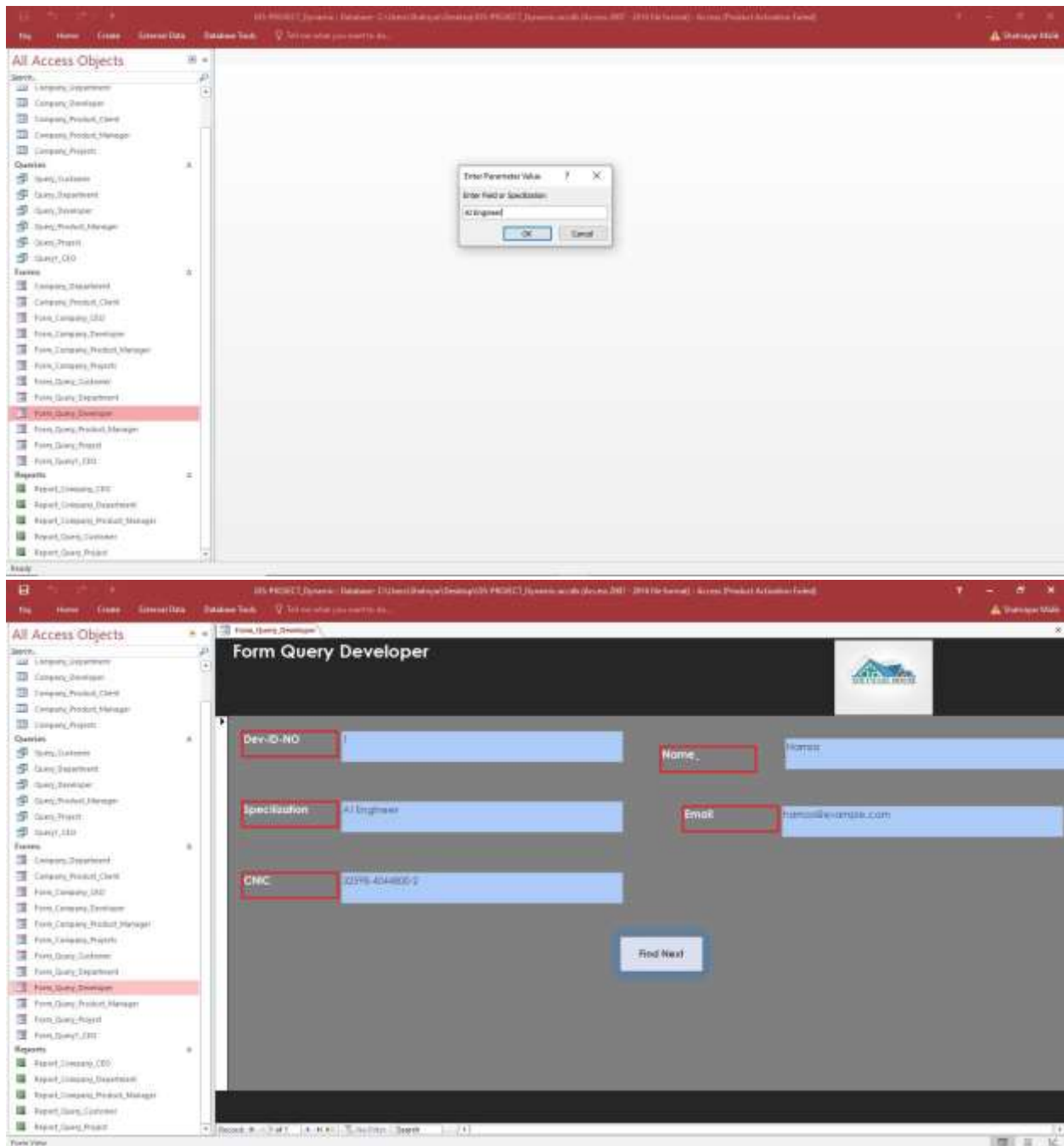
CNIC

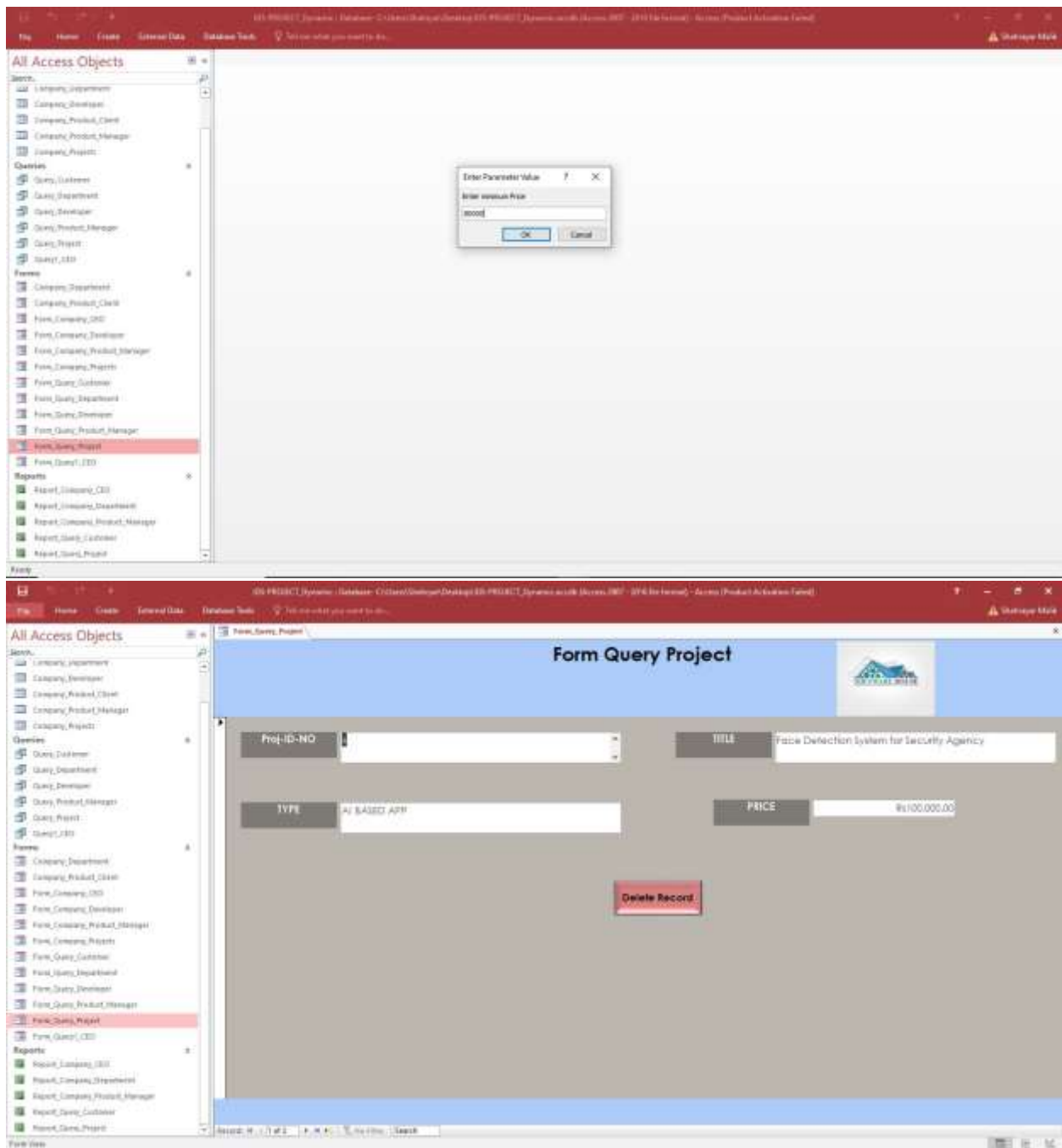
Record: 1 of 1
ID number of CEO:

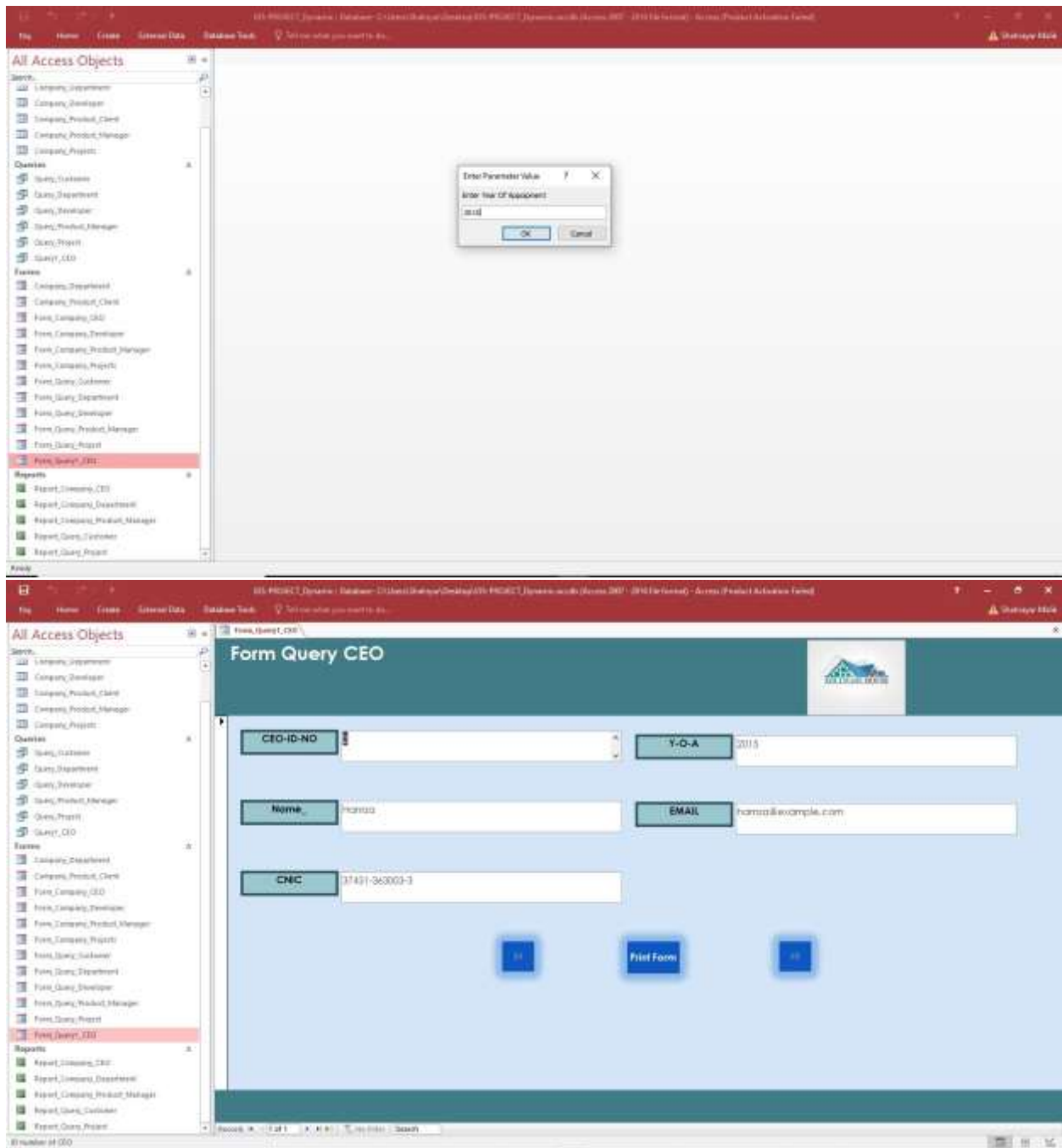
Forms – Dynamic



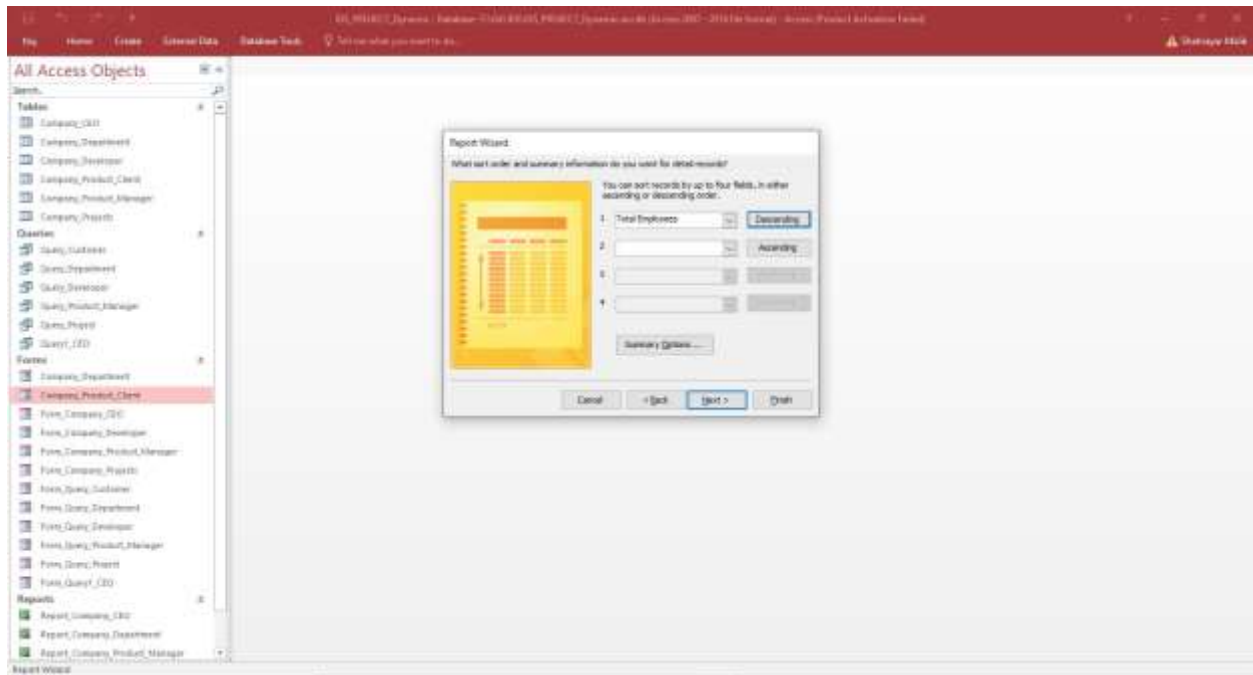








Reports



Microsoft Dynamics 365 - Customer Engagement - Microsoft Dynamics 365 (Online) - Access (Product Activation Panel)

File Home Create Settings Data Database Tools Tell me what you want to do...

Report Company CEO

ID Number	Date of Appointment	Name	Email	CHIC
1	2016	M. Ali	ali@example.com	37431-02229-2
2	2018	Hampa	hampa@example.com	37431-36300-3
3	2018	M. Ali	ali@example.com	39933-22885-5
4	2018	M. Fahad	fahad@example.com	3901-023123-2
5	2019	M. Saad	saad@example.com	37431-32001-9

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Report Company Department

Capacity	30
Dep ID NO	103
Name	DATABASE DEP
Location	Block B
LA ID NO	3
Capacity	35
Dep ID NO	102
Name	AI APP DEP
Location	Block A
LA ID NO	4
Capacity	40
Dep ID NO	104
Name	DEVOPS
Location	Block B
LA ID NO	1
Capacity	50
Dep ID NO	105
Name	WEB APPS DEV

Report View

Microsoft Access - Database: C:\Users\Banger\Desktop\MS PROJECT\Project.accdb (Access 2010 file format) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

All Access Objects

Search...

- Company_Environment
- Company_Developer
- Company_Product_Client
- Company_Product_Manager
- Company_Project

Queries

- Query_Customer
- Query_Department
- Query_Developer
- Query_Product_Manager
- Query_Project
- Query_OIG

Forms

- Form_Company_Developer
- Form_Company_Client
- Form_Company_OIG
- Form_Company_Developer
- Form_Company_Product_Manager
- Form_Company_Project
- Form_Query_Customer
- Form_Query_Department
- Form_Query_Developer
- Form_Query_Product_Manager
- Form_Query_Project
- Form_Query_OIG

Reports

- Report_Customer_OIG
- Report_Customer_Developer
- Report_Company_Product_Manager**
- Report_Query_Customer
- Report_Query_Product

Enter Parameter Value

Field: ID

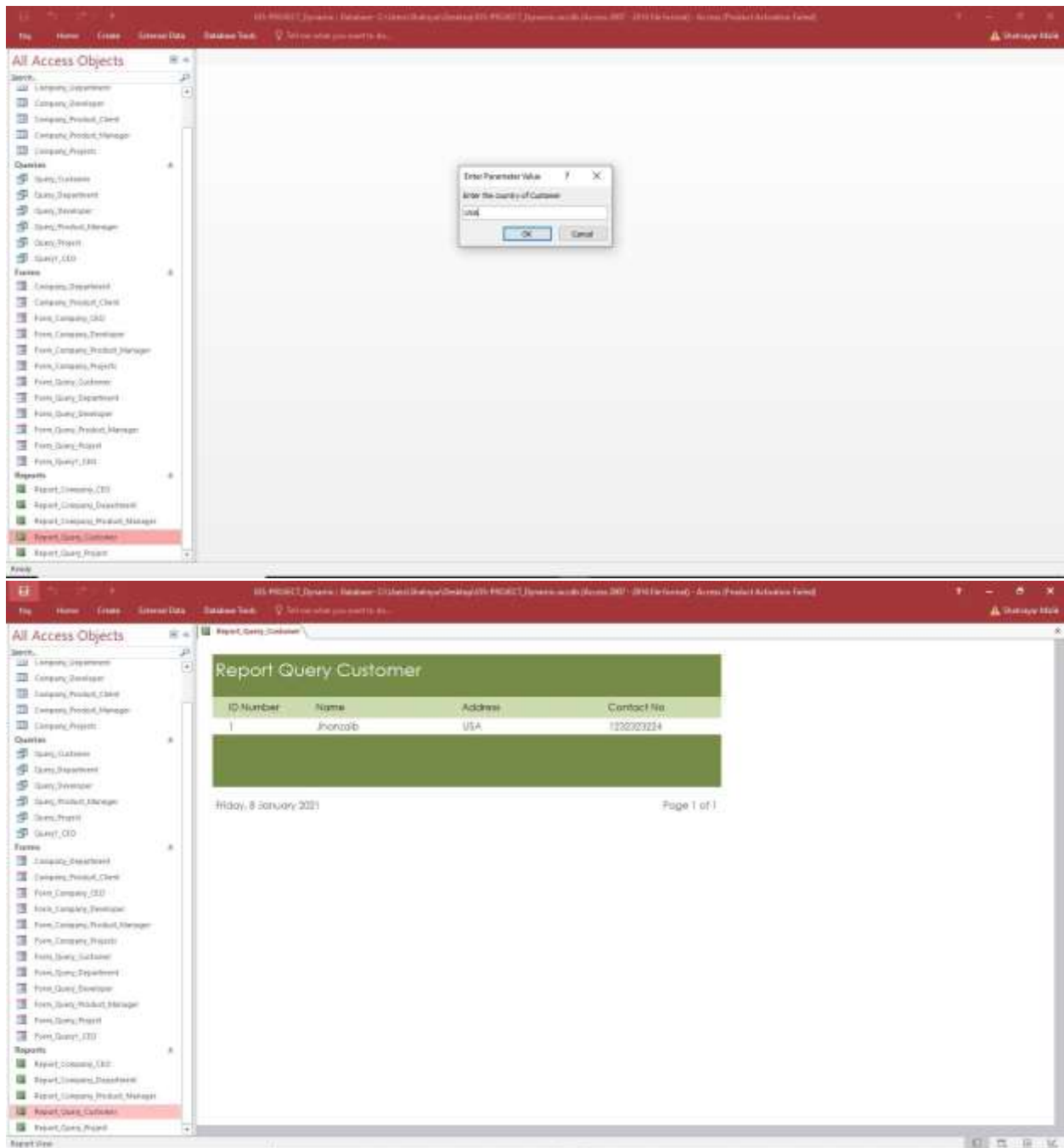
Value: 1010

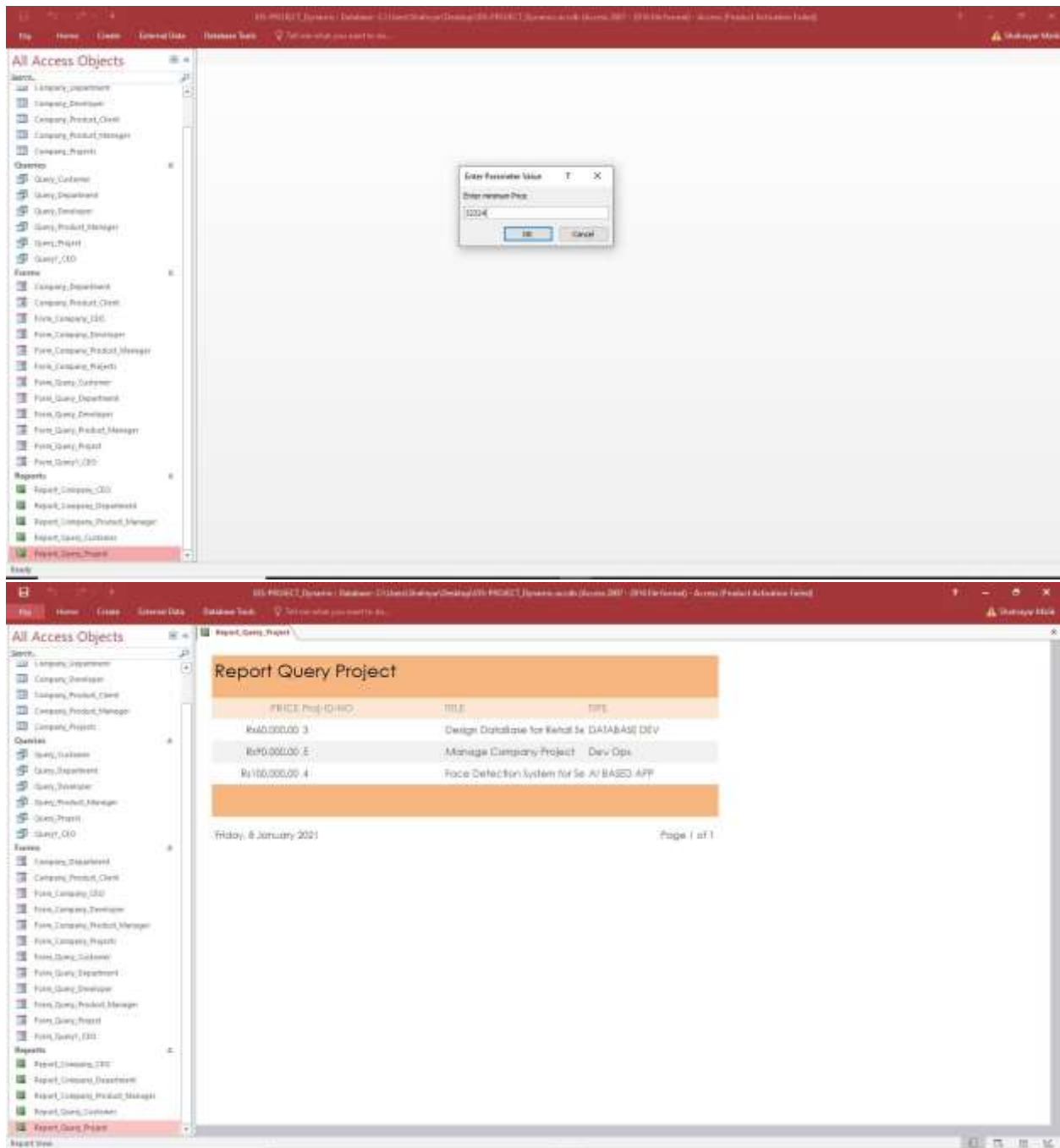
OK Cancel

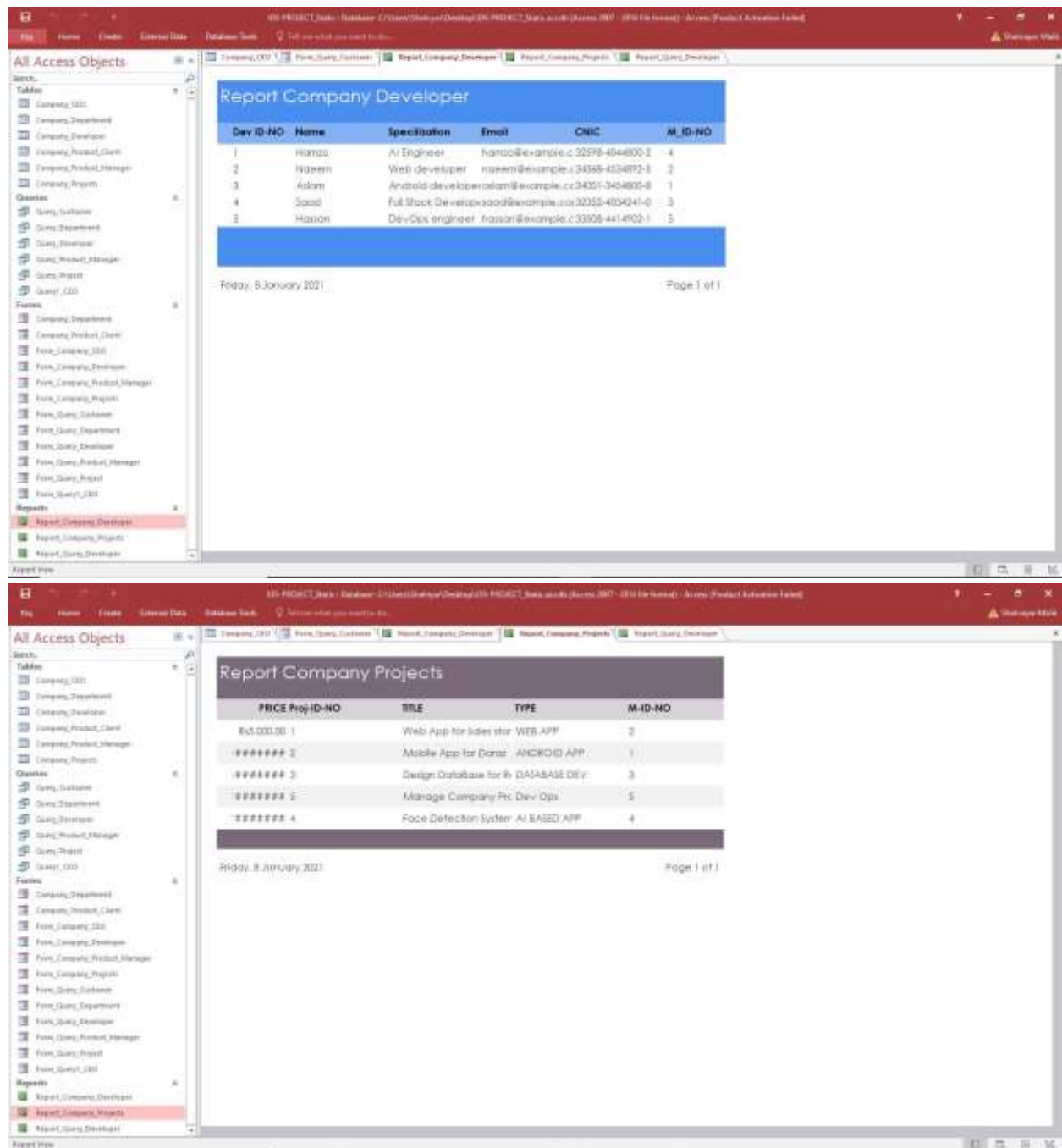
Report Company's Product Manager

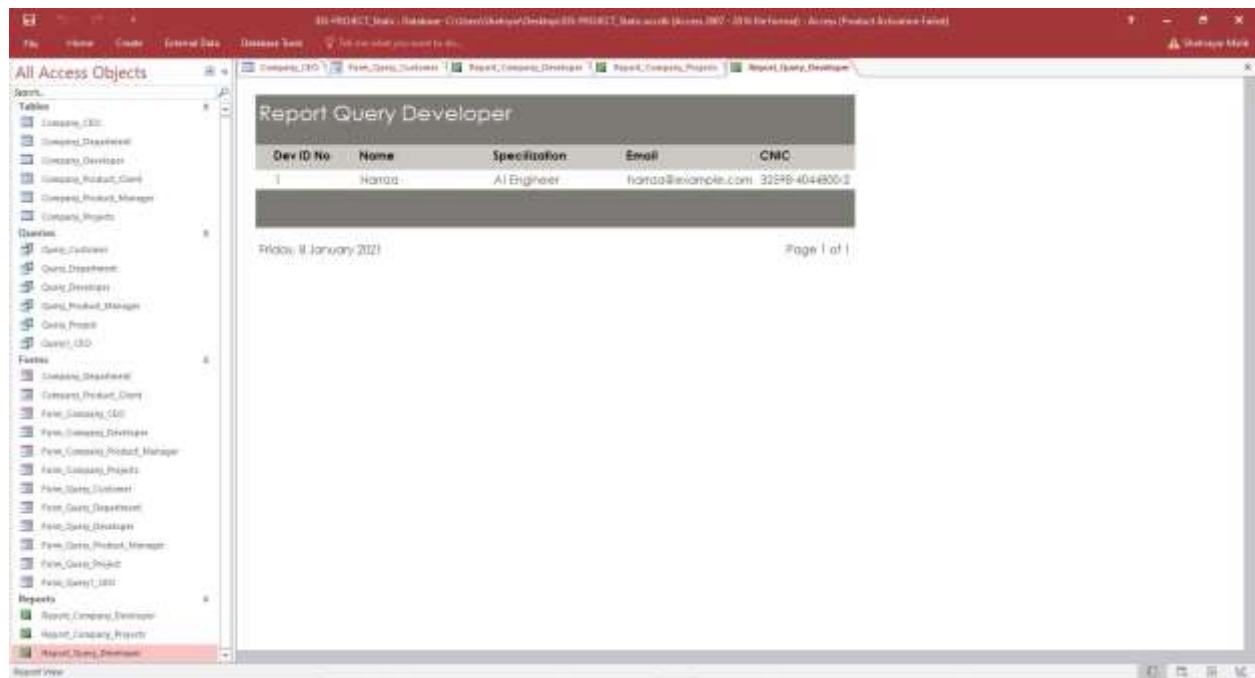
ID	NAME	EMAIL	WORKING	DATE
1	SHANVEER	shanveer@sample.Android App Dev	2015	
2	IOGAIM	ioigaim@sample.cy Web Apps Dev	2015	
3	SARMAD	sarmad@sample.Database Dev	2015	
4	KASHIF	kashif@sample.c AI Apps Dev	2015	
5	NABEEL	nabeel@sample.DevOps team Mgr	2015	

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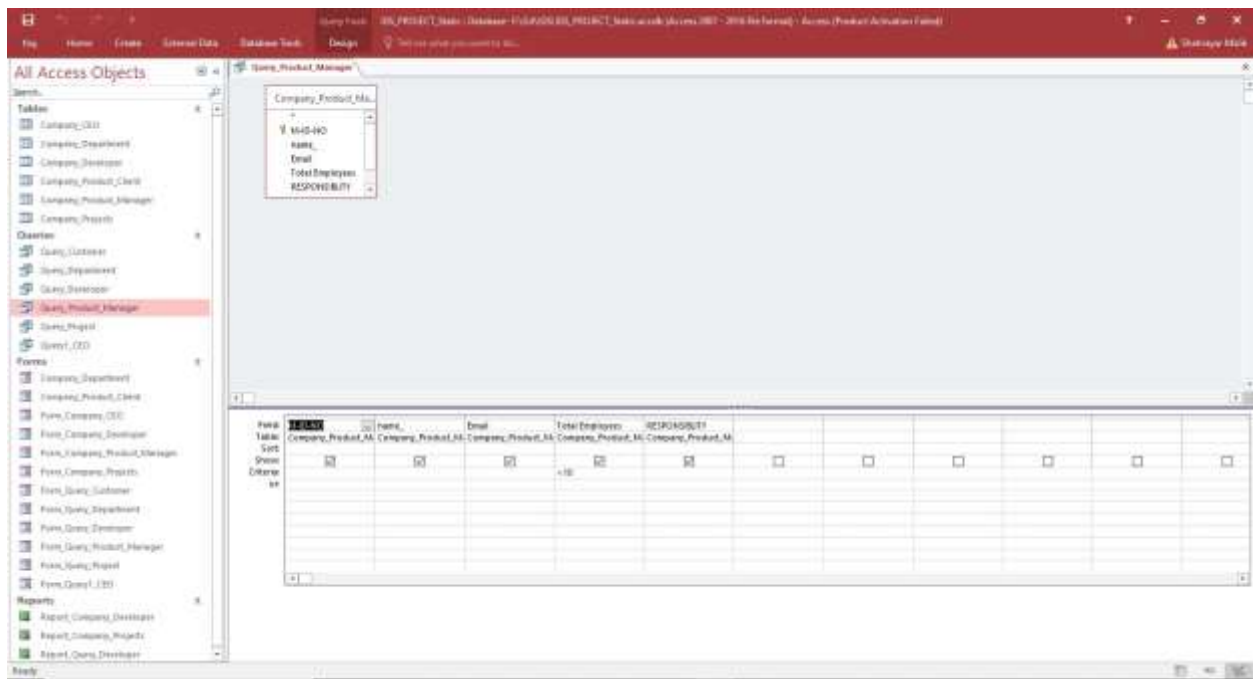


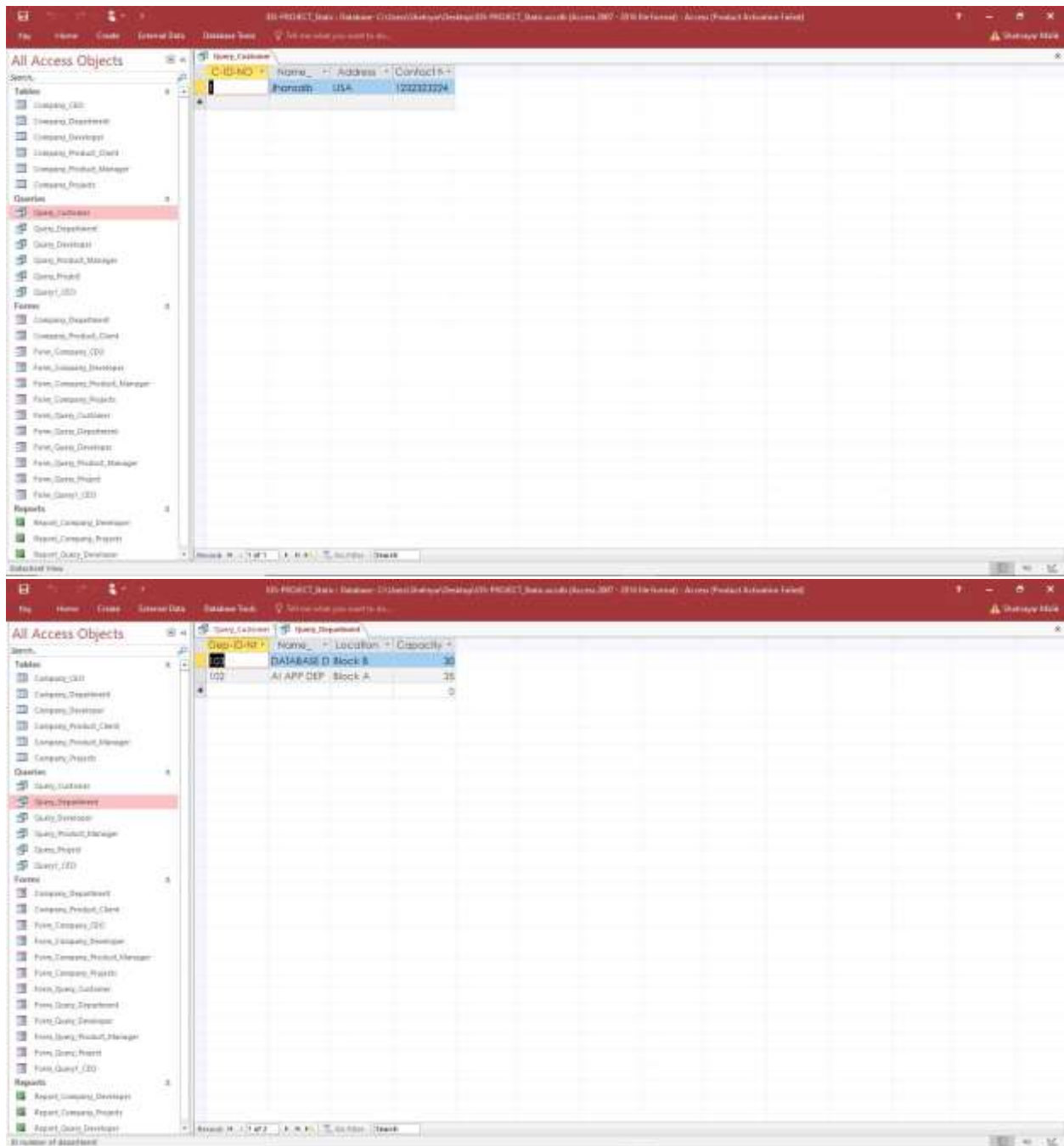






Queries – Static





The screenshot displays the Microsoft Access application interface. On the left, the 'All Access Objects' pane shows a tree view of the database's structure. The 'Queries' section is expanded, and 'Query1' is selected. The main window on the right shows a table view of 'Query1'. The table has five columns: 'ID', 'Name', 'Specialties', 'Email', and 'CNIC'. A single record is visible with the following data: ID: 1, Name: Htet, Specialties: AI Engineer, Email: htmz@uwa.edu, and CNIC: 30299-40448. The status bar at the bottom indicates 'Record 1 of 1' and 'Table'.

The screenshot shows the Microsoft Access interface. On the left, the 'All Access Objects' pane is visible, with 'Queries' expanded and 'Query: Product Manager' selected. The main window displays a table view of the 'RESPONSE' table. The table has three columns: 'name', 'email', and 'total_email'. The data is as follows:

	name	email	total_email
1	SHAHJADEE	shahjadee@	2 Android App
3	SAMMAD	sammad@	9 Database D
4	KASHIF	kashif@	6 AI Apps Dev
5	NABEEL	nabeel@	7 DevOps lead

MS-PROJECT_Base - Database: C:\Users\Shreyas\Desktop\MS-PROJECT_Base\msdb (Access 2007 - 2010 file format) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Query_Calculator Query_Department Query_Developer Query_Product_Manager Query_Project

All Access Objects

Search

Tables

- Company_CEO
- Company_Development
- Company_Developer
- Company_Product_Client
- Company_Product_Manager
- Company_Products

Queries

- Query_Calculator
- Query_Department
- Query_Developer
- Query_Product_Manager
- Query_Project**
- Query_TODO

Forms

- Company_Development
- Company_Product_Client
- Form_Company_TODO
- Form_Company_Development
- Form_Company_Product_Manager
- Form_Company_Products
- Form_Query_Calculator
- Form_Query_Department
- Form_Query_Developer
- Form_Query_Product_Manager
- Form_Query_Product
- Form_Query_TODO

Reports

- Report_Company_Development
- Report_Company_Product
- Report_Query_Development

PHOTO-NAME	TITLE	TYPE	PRICE
	Face Detect AI BASED AP		Rs100,000.00
			Rs0.00

Records: 1 of 1

MS-PROJECT_Base - Database: C:\Users\Shreyas\Desktop\MS-PROJECT_Base\msdb (Access 2007 - 2010 file format) - Access (Product Activation Failed)

File Home Create External Data Database Tools Tell me what you want to do...

Query_Calculator Query_Department Query_Developer Query_Product_Manager Query_Project Query_TODO

All Access Objects

Search

Tables

- Company_CEO
- Company_Development
- Company_Developer
- Company_Product_Client
- Company_Product_Manager
- Company_Products

Queries

- Query_Calculator
- Query_Department
- Query_Developer
- Query_Product_Manager
- Query_Project
- Query_TODO**

Forms

- Company_Development
- Company_Product_Client
- Form_Company_TODO
- Form_Company_Development
- Form_Company_Product_Manager
- Form_Company_Products
- Form_Query_Calculator
- Form_Query_Department
- Form_Query_Developer
- Form_Query_Product_Manager
- Form_Query_Product
- Form_Query_TODO

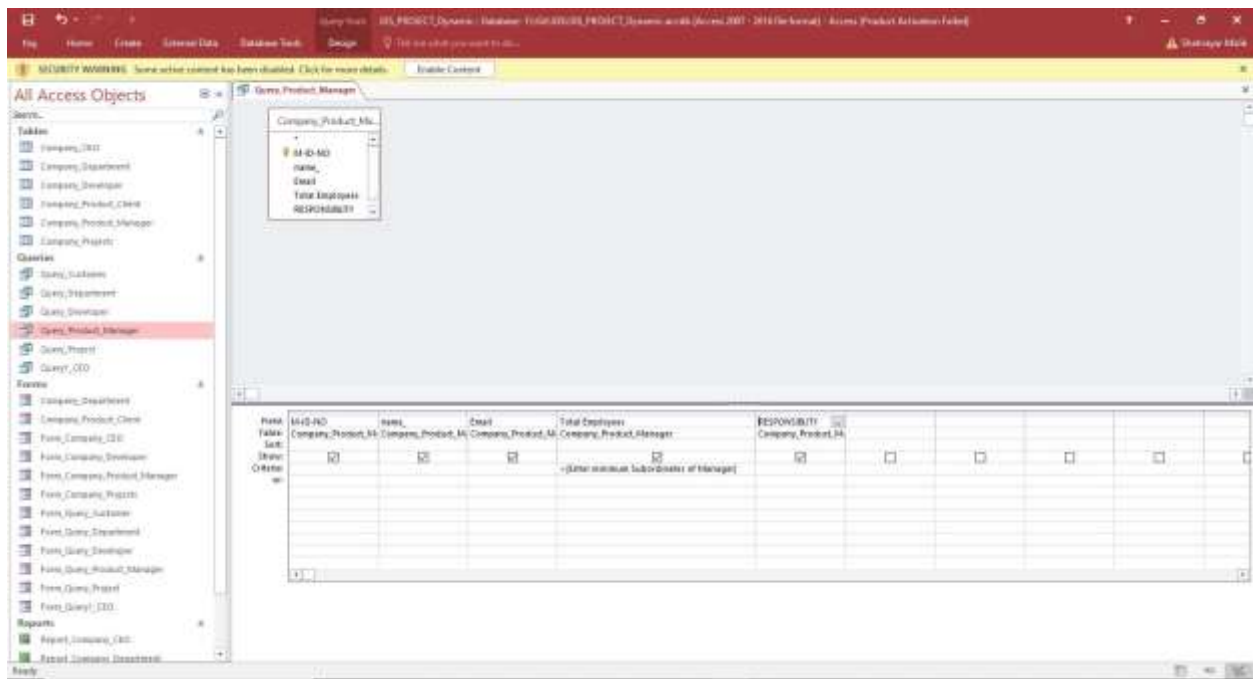
Reports

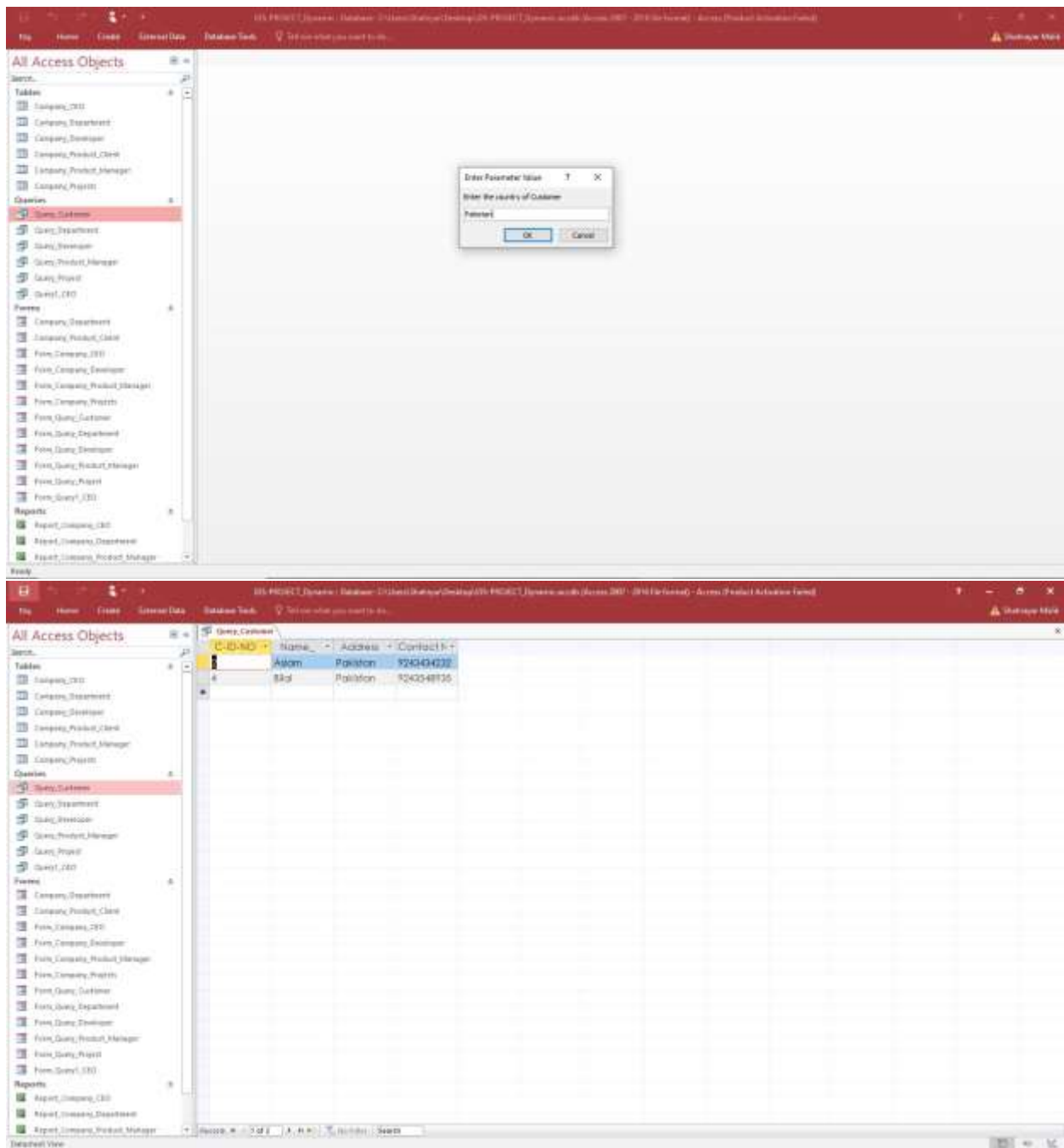
- Report_Company_Development
- Report_Company_Product
- Report_Query_Development

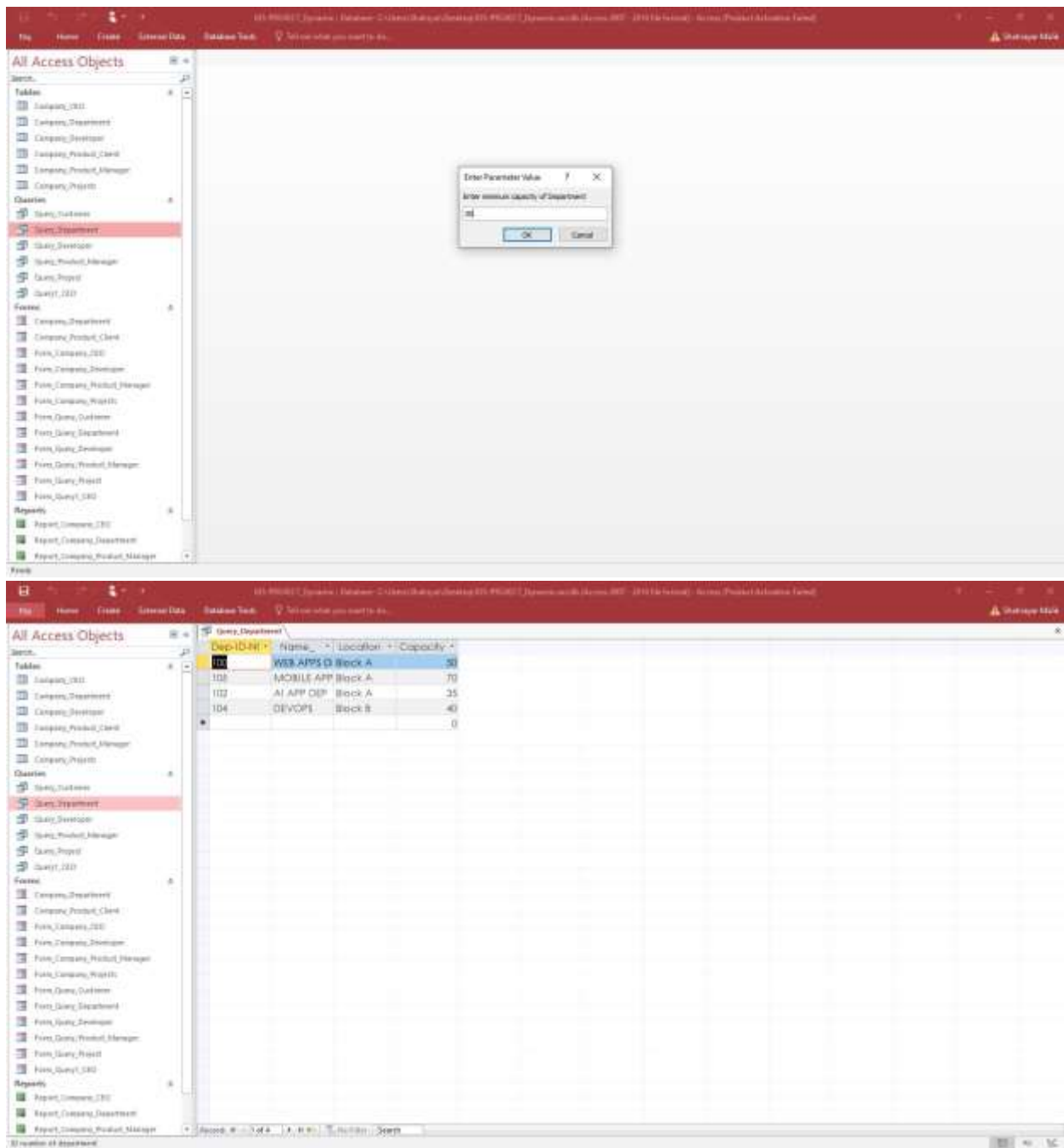
CEO.ID-NAME	Y-OUR	NAME	EMAIL	CNIC
2010	M. Ali		ali@example.75431-773225-2	

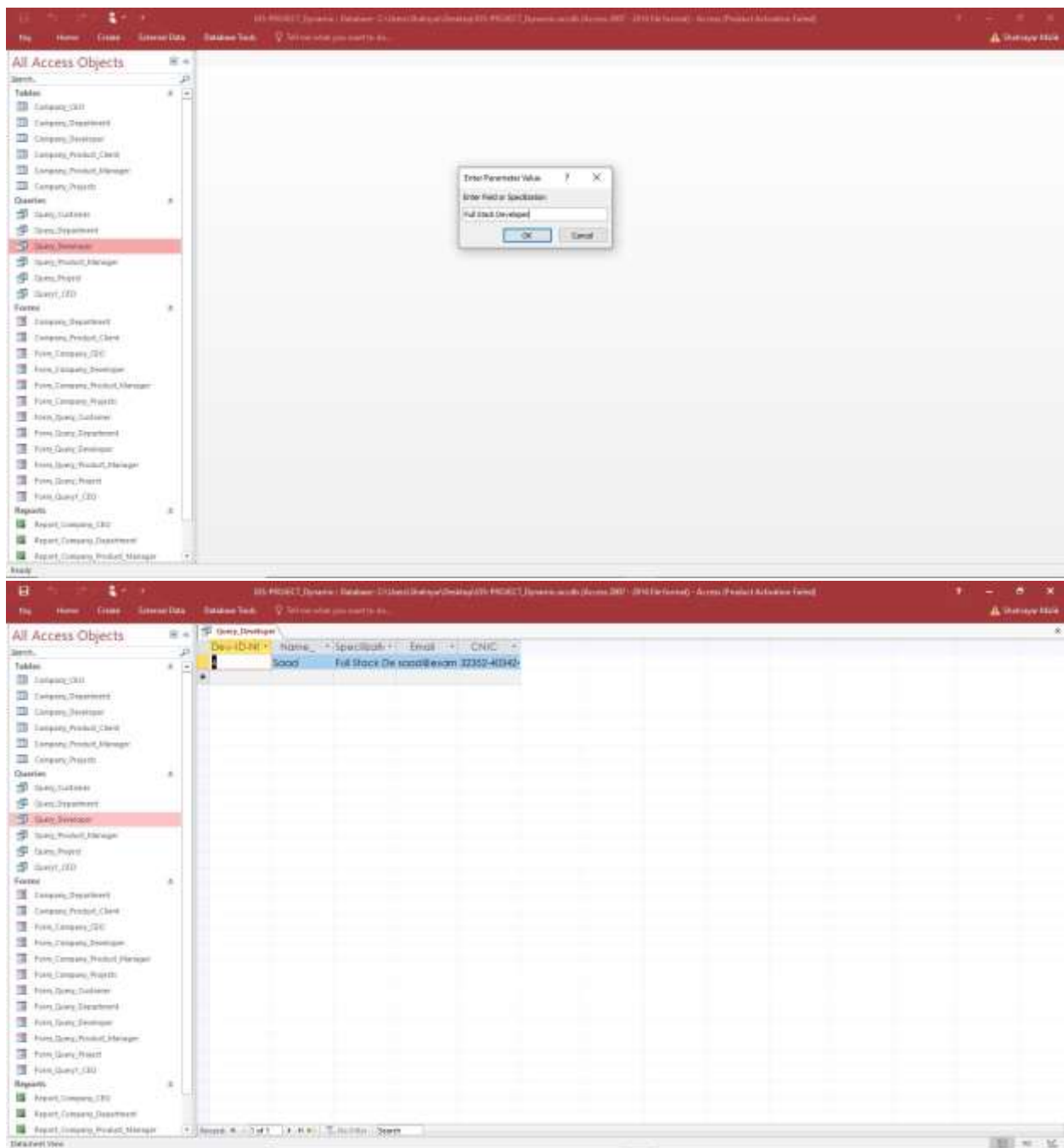
Records: 1 of 1

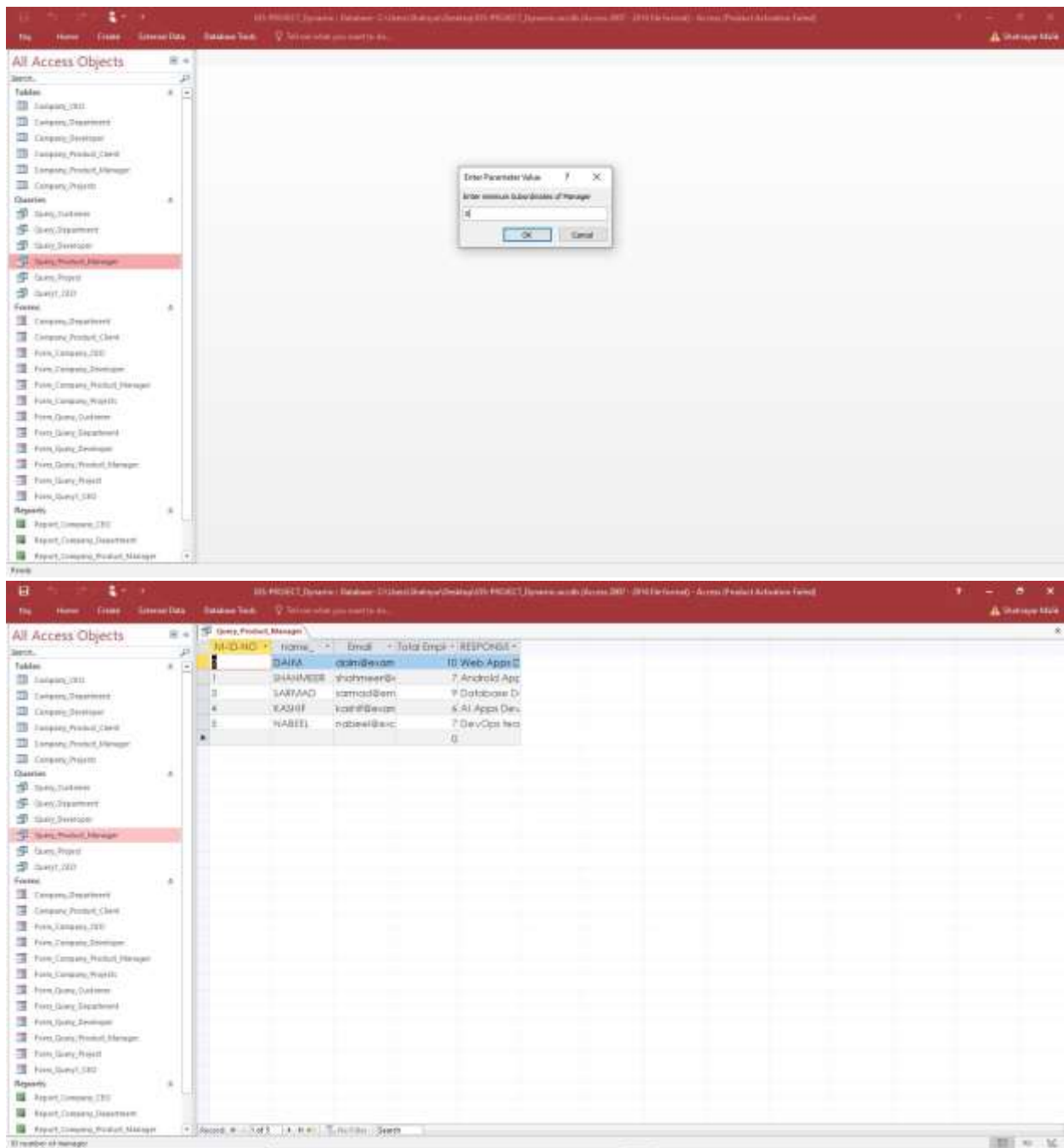
Queries – Dynamic

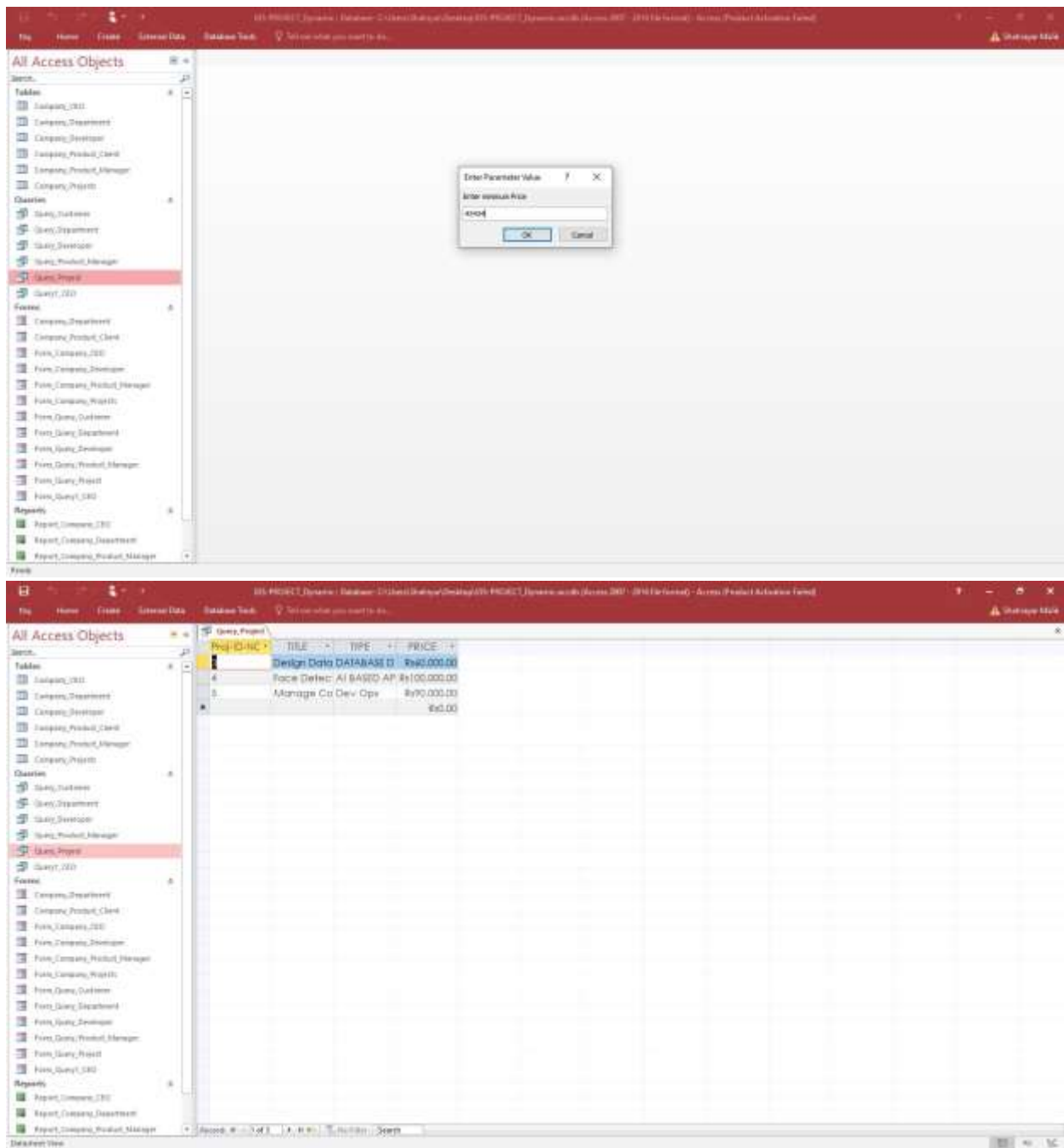


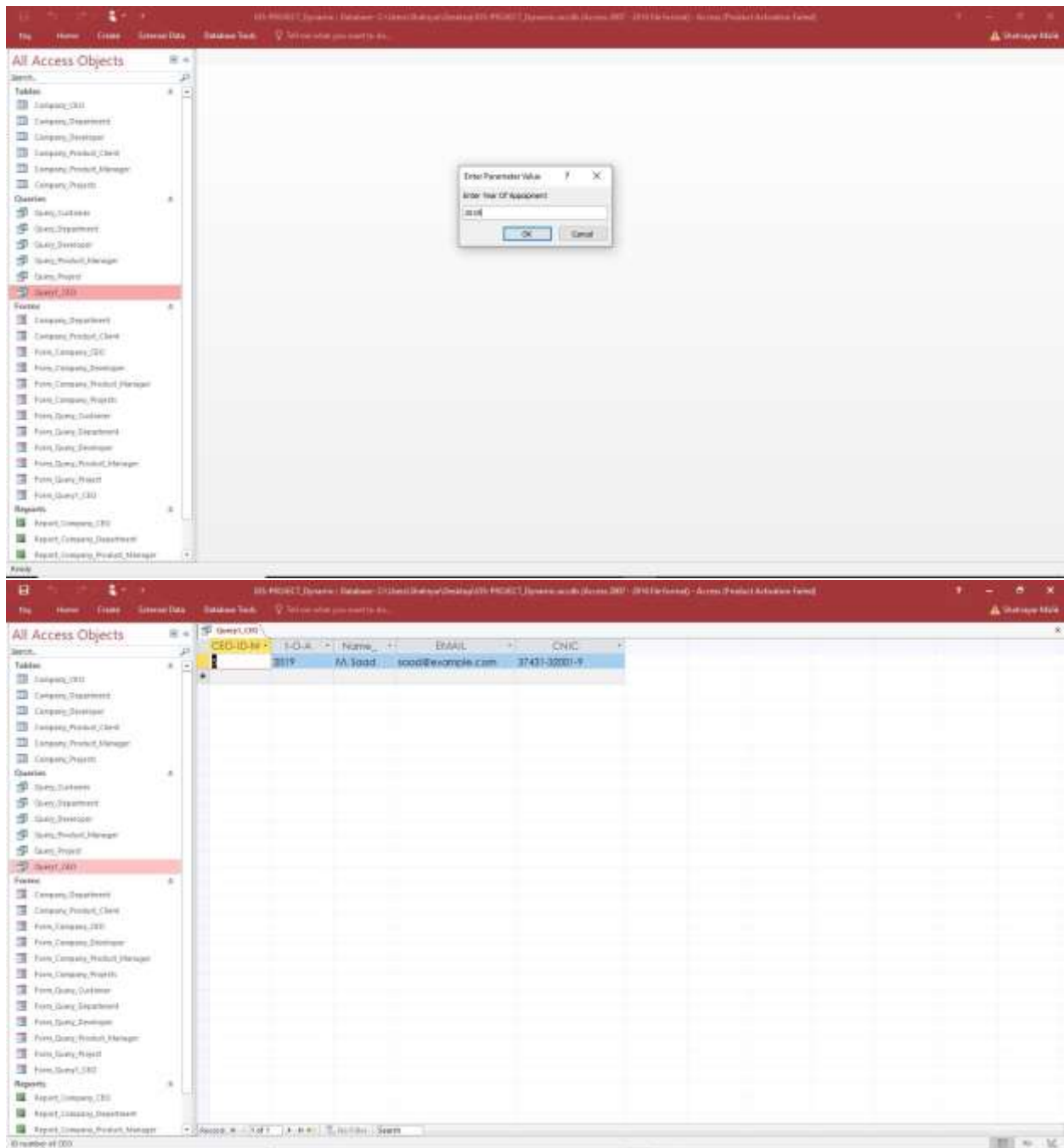




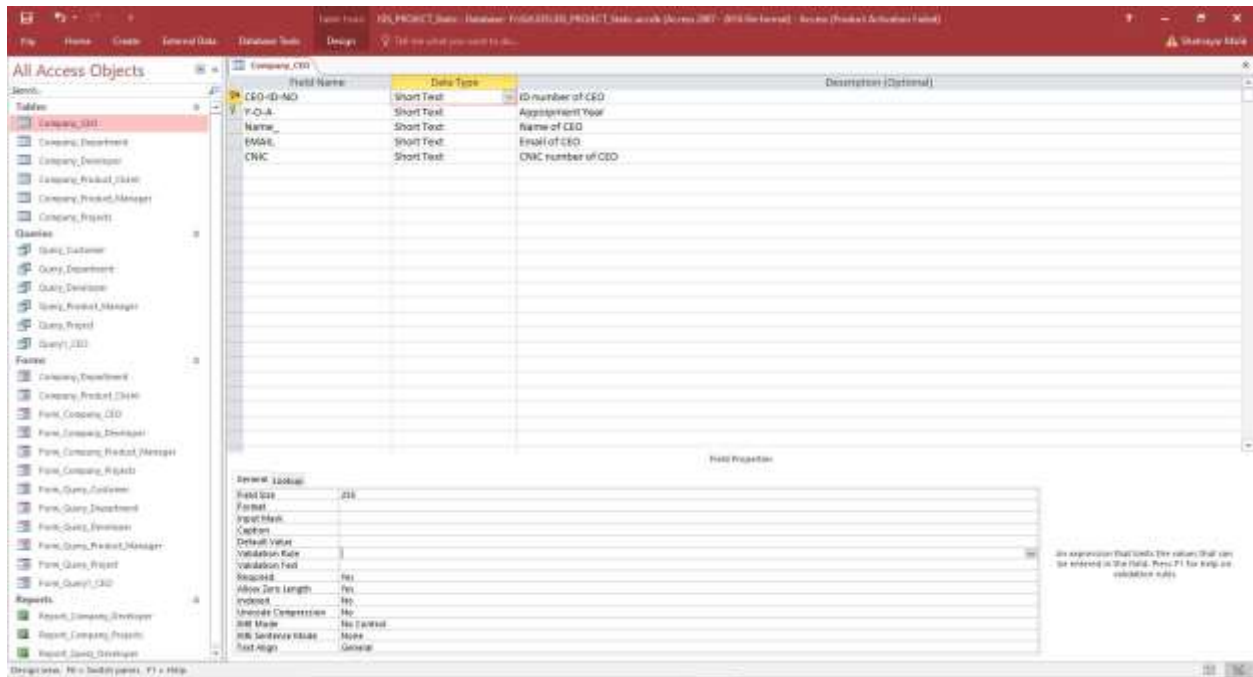








Tables



The screenshot displays the Microsoft Access application window. The title bar indicates the current database is 'MS PROJECT - Database: C:\Users\Bakht\Desktop\MS PROJECT\Access.accdb (Access 2013 - 2016 File Format) - Access (Product Activation Failed)'. The ribbon at the top shows the 'Database Tools' tab, with the 'Table' group selected. The 'All Access Objects' task pane on the left lists various database objects, including Tables, Queries, Forms, and Reports. The 'Company' table is selected under the 'Tables' category. The main window displays the 'Company' table in a table view. The table has four columns: 'CEO-ID', 'Name', 'EMAIL', and 'CNIC'. The data is as follows:

CEO-ID	Name	EMAIL	CNIC
1	2010	AA All	all@example 37431-30303-3
2	2015	Harman	harman@example 37431-36303-3
3	2016	AA All	all@example 39935-33885-5
4	2018	AA Farhad	farhad@example 3901-303123-3
5	2019	AA Saeed	saeed@example 37431-30201-9

All Access Objects									
Search:									
Tables									
Company_CDD									
Company_Development									
Company_Developer									
Company_Product_Client									
Company_Product_Manager									
Company_Products									
Queries									
Query_Customer									
Query_Development									
Query_Developer									
Query_Product_Manager									
Query_Product									
Query_CDD									
Forms									
Form_Company_Development									
Form_Company_Product_Client									
Form_Company_CDD									
Form_Company_Developer									
Form_Company_Product_Manager									
Form_Company_Products									
Form_Query_Customer									
Form_Query_Development									
Form_Query_Developer									
Form_Query_Product_Manager									
Form_Query_Product									
Form_Query_CDD									
Reports									
Report_Company_CDD									
Report_Company_Development									
Report_Company_Product_Manager									
Report_Company_Products									
Report_Query_Customer									
Report_Query_Development									
Report_Query_Developer									
Report_Query_Product_Manager									
Report_Query_Product									
Report_Query_CDD									

All Access Objects									
Search:									
Tables									
Company_CDD									
Company_Development									
Company_Developer									
Company_Product_Client									
Company_Product_Manager									
Company_Products									
Queries									
Query_Customer									
Query_Development									
Query_Developer									
Query_Product_Manager									
Query_Product									
Query_CDD									
Forms									
Form_Company_Development									
Form_Company_Product_Client									
Form_Company_CDD									
Form_Company_Developer									
Form_Company_Product_Manager									
Form_Company_Products									
Form_Query_Customer									
Form_Query_Development									
Form_Query_Developer									
Form_Query_Product_Manager									
Form_Query_Product									
Form_Query_CDD									
Reports									
Report_Company_CDD									
Report_Company_Development									
Report_Company_Product_Manager									
Report_Company_Products									
Report_Query_Customer									
Report_Query_Development									
Report_Query_Developer									
Report_Query_Product_Manager									
Report_Query_Product									
Report_Query_CDD									

The screenshot shows the Microsoft Access interface. On the left, the 'All Access Objects' pane is visible, with 'Company_Product_Manager' selected under the 'Tables' category. The main window displays the 'Company_Product_Manager' table in a data grid. The table has the following columns: ID, Name, Email, Total Emps, and RESPONSIBLE. The data is as follows:

ID	Name	Email	Total Emps	RESPONSIBLE
1	SHAHVEER	shahveer@v	7	Android App 3
2	DAIRA	daira@wapt	10	Web-App C-5
3	SARHAD	sarhad@em	9	Database D-2
4	KASHIF	kashif@wapt	6	AI Apps Dev-1
5	HABIB	habib@wapt	7	Dev-Opt tw-3

The screenshot displays the Microsoft Access interface. On the left, the 'All Access Objects' pane shows a tree view of the database's structure. The 'Company_Development' table is selected and highlighted in red. The right pane shows the 'Company_Development' table in a data view. The table has five columns: ID, Title, Type, Price, and a link to add more items. The data rows are as follows:

ID	Title	Type	Price	Link to Add
1	Web App to WEB APP		\$15,000.00	
2	Mobile App ANDROID AI		\$30,000.00	
3	Design Data DATABASE D		\$60,000.00	
4	Face Detect AI BASED AP		\$100,000.00	
5	Machine Cla Devr Ops		\$190,000.00	

The status bar at the bottom indicates 'Record 1 of 5' and 'Page 1 of 1'.