NU Electronics

Csci305 Database Systems

Presented to:

Dr. Tamer Arafa

Done by:

Rawan Ramdan Sayed - 19106199

Reham Galal Mohamed – 19105790

Salma Aymen El-Sayed -19104941

Project Description

Since we live in a fast-paced world, online shopping has become a popular method of shopping ever since Internet's gradual advancement. Nowadays, people prefer to shop online for a variety of reasons, including time savings and the ability to shop whenever they want. There is also a wealth of reviews and other information available online to help you choose and compare between models and brands. NU Electronics is a database application for online electronic store that aims to simplify the shopping experience.

Project Summary

NU Electronics application is a database application tends to simplify the process of shopping. The technology used in the application is windows forms C# .Net framework.

The Application

The application starts with a login page with availability to log in as an admin or a customer each one of them have different interfaces with different options and different events. Before Building ER:

1-Normalization Table

The admin can:

1- Add, Update, Delete and Locate products.
2- Check user payments, balance and fees.
3- Generate Report.
4- Login as a Customer (Recursive Relationship).

The Customer Can:

1- Login & Logout Generate Profile.
2- Search For Product.
3- Add to Cart.

Database

The application's database includes 4 tables (Category, customer, Product, Bill).

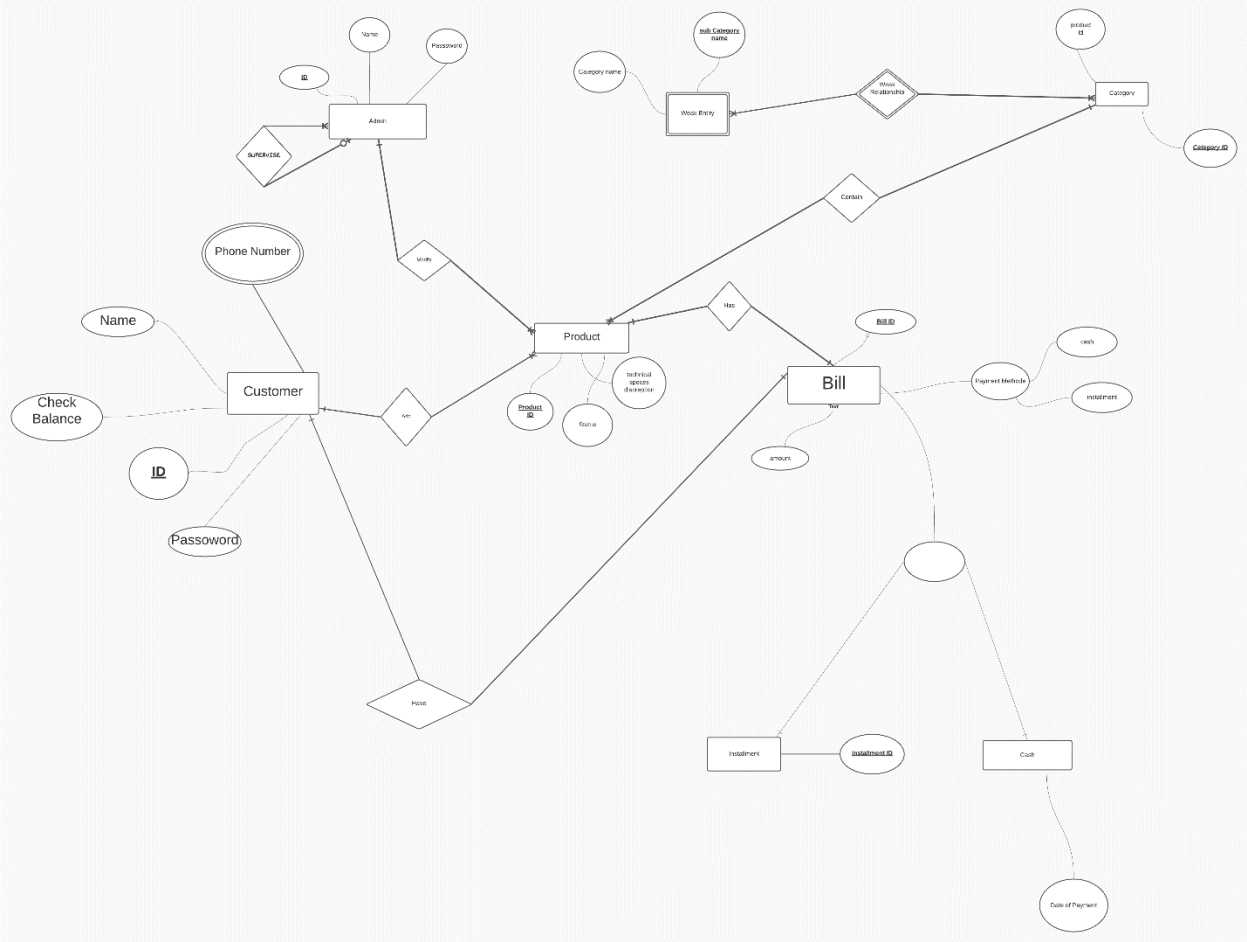
	Name	Data Type	Allow Nulls	Default	
🔑	ProductID	int	☐		
	ProductName	varchar(50)	☐		
	ProductQuantity	int	☐		
	ProductPrice	int	☐		
	ProductCategory	varchar(50)	☐		
	StatusProduct	varchar(50)	☐	('new')	
	Technical_Speces_Discripti	varchar(500)	☐		
			☐		

	Name	Data Type	Allow Nulls	Default
🔑	CategoryId	int	☐	
	Category_Name	varchar(50)	☐	
	Category_Description	varchar(100)	☐	
			☐	

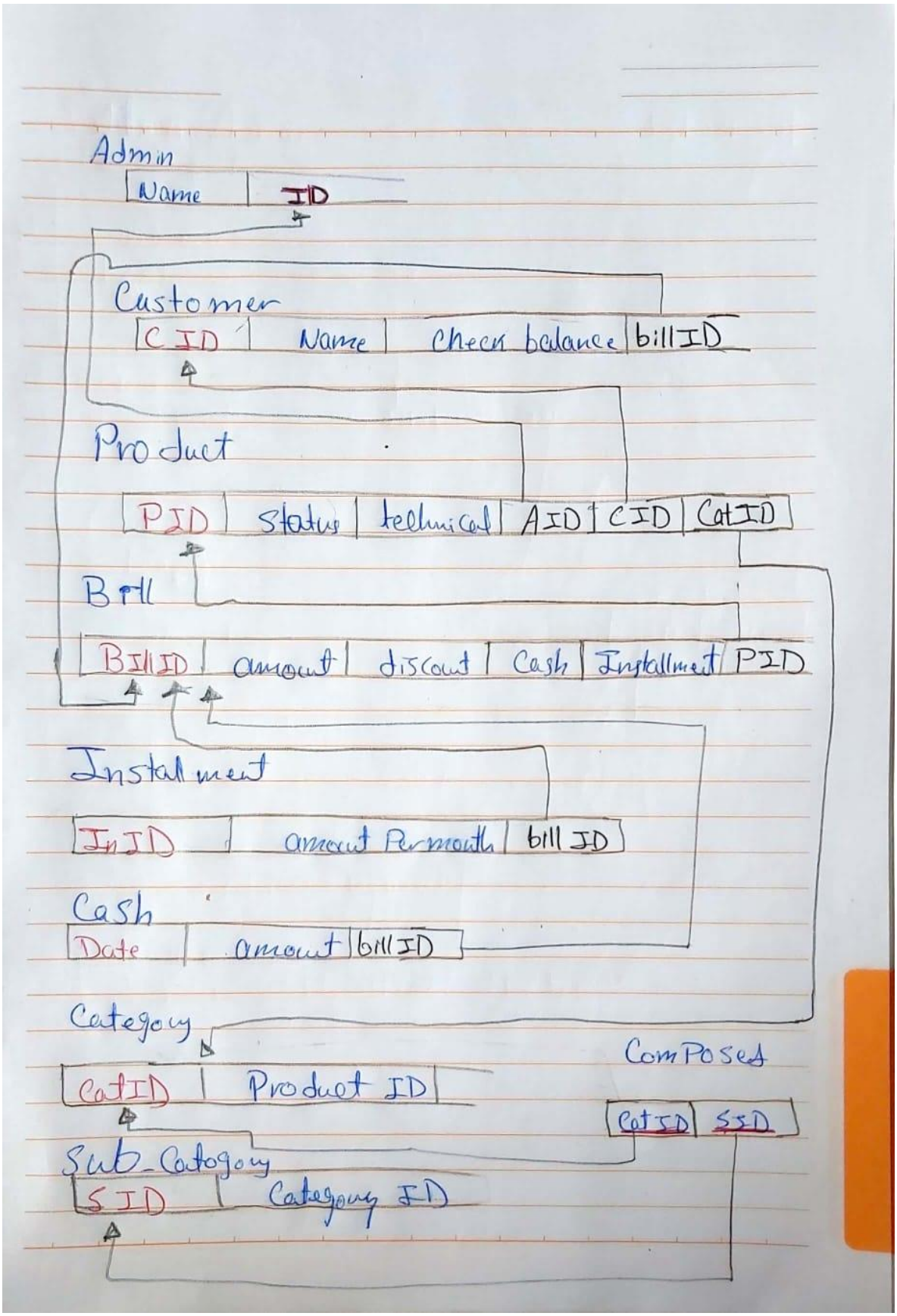
	Name	Data Type	Allow Nulls	Default
🔑	BillId	int	☐	
	SellerName	varchar(50)	☐	
	BillDate	varchar(50)	☐	
	TotAmt	int	☐	
			☐	

	Name	Data Type	Allow Nulls	Default
🔑	CustomerId	int	☐	
	CustomerName	varchar(50)	☐	
	CustomerAge	int	☐	
	CustomerPassord	varchar(50)	☐	
	CustomerPhone	varchar(50)	☐	
	CustomerSpeces	varchar(500)	☐	
			☐	

ERD diagram


Name
Password
ID
Admin
SUPERVISE
sub Category name
Category name
Week Entity
Week Relationship
product id
Category
Category ID
Contain
Phone Number
Name
Customer
Check Balance
ID
Passoword
Product
Product ID
technical specs discription
Has
Bill ID
Bill
Payment Methode
cash
installment
amount
Have
Installment
Installment ID
Cash
Date of Payment

CSCI305 Database Systems Project


Admin
Name
ID
Customer
CID
Name
Check balance
billID
Product
PID
status
technical
AID
CID
CatID
Bill
BillID
amount
discount
Cash
Instalment
PID
Instalment
InID
amount Permonth
bill ID
Cash
Date
amount
bill ID
Category
CatID
Product ID
Sub_Category
SID
Category ID
Composed
CatID
SID

CSCI305 Database Systems Project

Entities:

Weak entities: Subcategory.

Strong entities: Admin, Customer, Product, Category, Bill, Cash, Installment.

Relationships:

1:N Relationships

1:1 Relationships

N:1 Relationships

Recursive relationships.

Admin has a recursive relationship as he can act as a customer.

Types Of Keys:

- A composite key contains two or more attributes.
- Candidate keys are keys that uniquely identify each row in a relation.

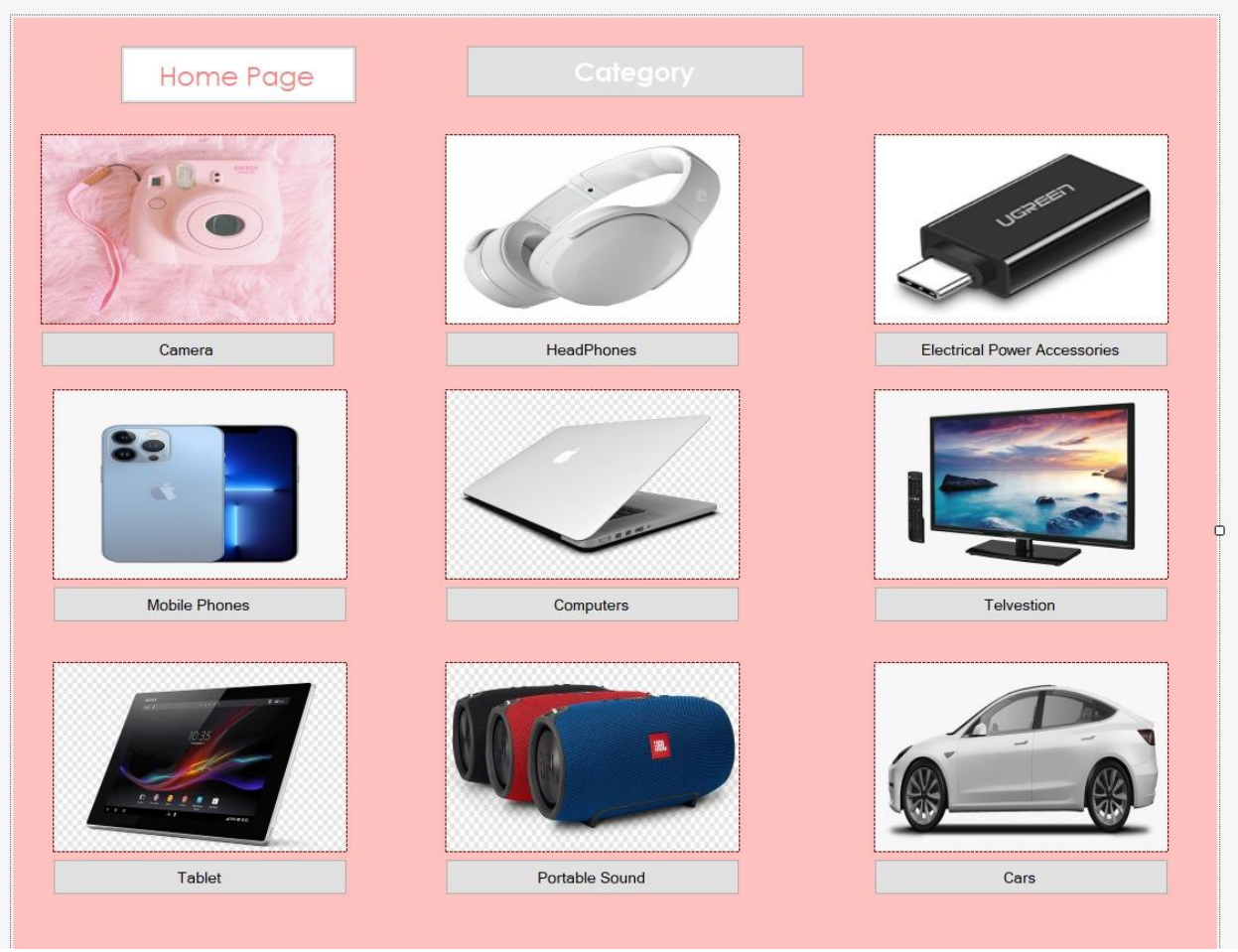
Database Rights Granted in the application:

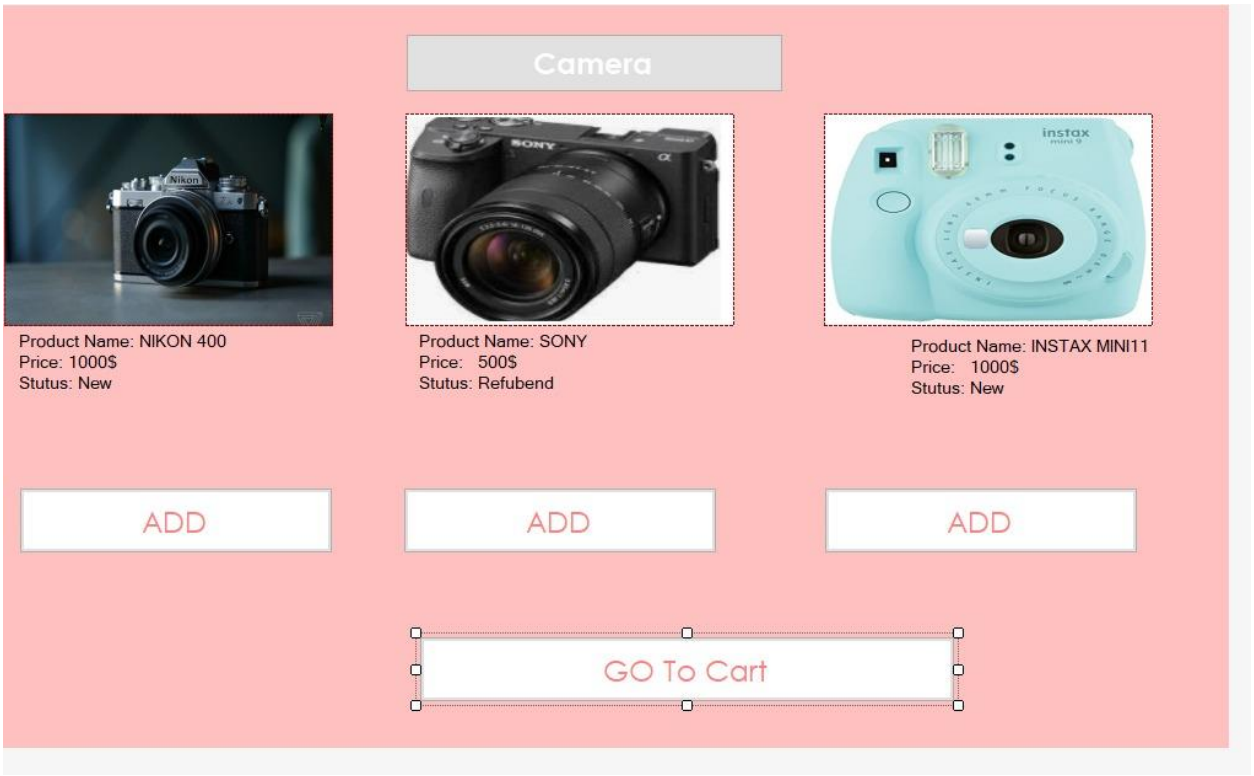
Table	Administrative Assistants	Management	System Administrator
Admin	Read Insert Change	Read Insert Change Delete	Grant rights, Modify structure
Customer	Read Insert Change	Read Insert Change	Grant rights, Modify structure
Product	Read Insert Change	Read Insert Change Delete	Grant rights, Modify structure
Categories	Read Insert Change	Read Insert Change Delete	Grant rights, Modify structure

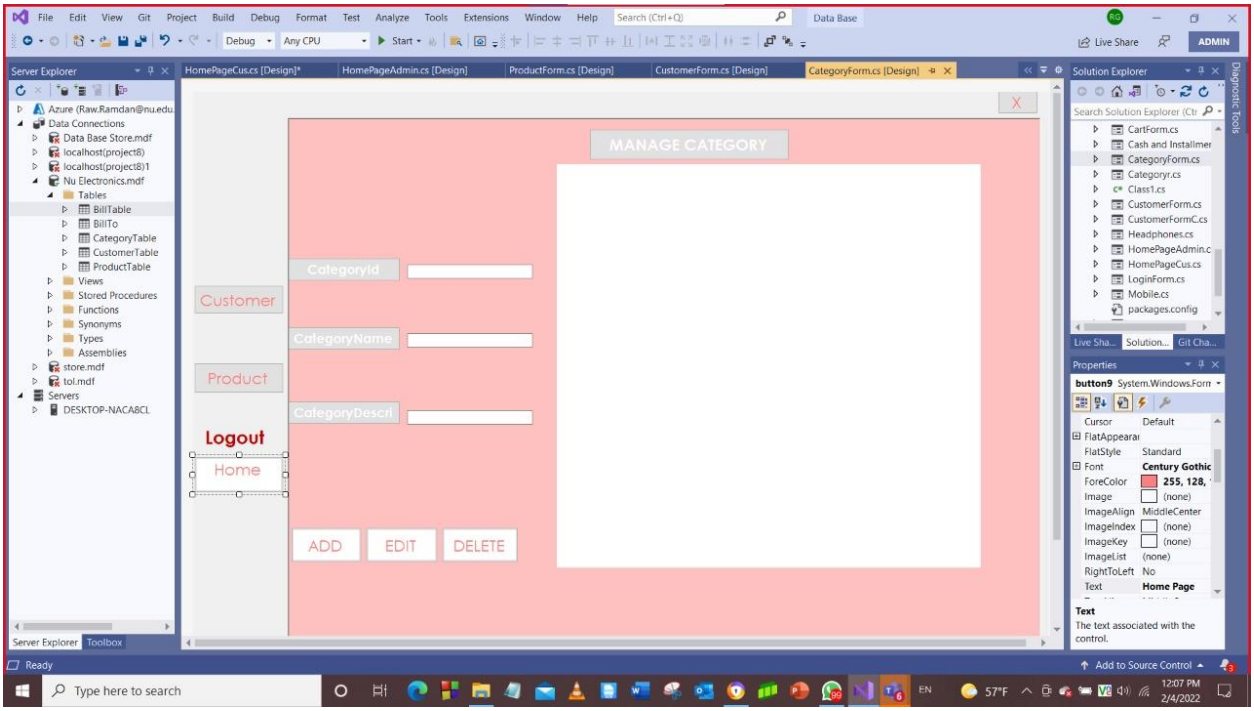
Screenshots

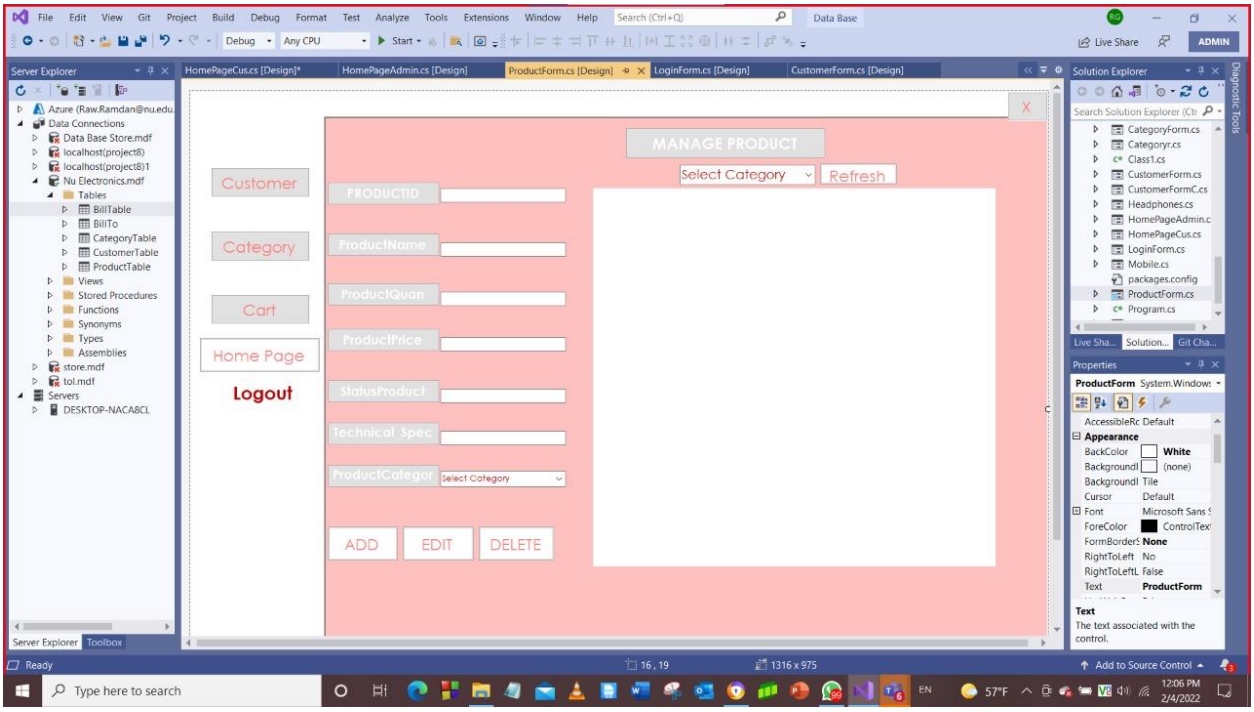
X
Login
Select Role
USERNAME
Password
LOGIN
Clear
STAY HOME.
SHOP ONLINE.

Welcome To NU Electronics Store
Please One of Choice
LOGIN
SHOP


Home Page
Category
Camera
HeadPhones
Electrical Power Accessories
Mobile Phones
Computers
Telvestion
Tablet
Portable Sound
Cars


Camera
Product Name: NIKON 400
Price: 1000$
Stutus: New
Product Name: SONY
Price: 500$
Stutus: Refubend
Product Name: INSTAX MINI11
Price: 1000$
Stutus: New
ADD
ADD
ADD
GO To Cart


MANAGE CATEGORY
CategoryId
CategoryName
CategoryDescri
Customer
Product
Logout
Home
ADD
EDIT
DELETE



Future Work:

Business Intelligence Systems