

University of Wales

Trinity Saint David

MODULE CODE/ COD Y MODIWL: ACCC4004
INFORMATION ENGINEERING

Antoci Bianca

1817784

Table of contents

Task 1	3
Data Analysis	5
Relationships between the entities	6
Task 2	7
Screen Capture for each form used	7
Output from all reports	8
Evidence of SQL	15
Brief User Guide	16

Task 1

'Home from Home' is a database program developed in Microsoft Access, which helps to find the best offer from an agent.

MainForm User: Admin

Forms

- Branch Form
- Buyers Form
- East AgentForm
- Vendors Form
- VendorsProperty Form
- Properties Form
- Sale Offer

Reports

- Buyers Report
- East Agent Report
- EastAgentBrunch Report
- Properties Report
- Vendors Report
- Property Sale

Property:

Agents:

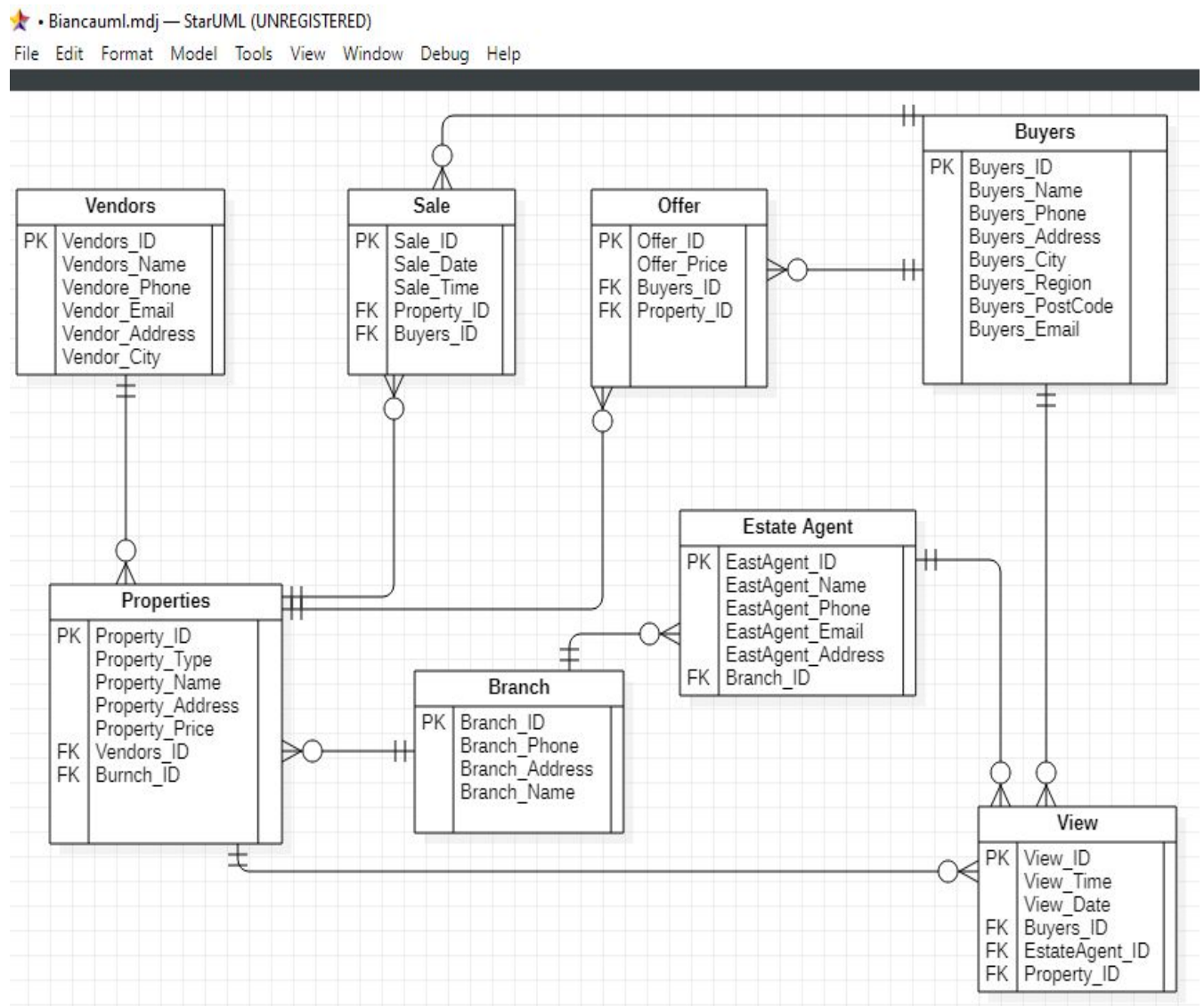
Buyer:

Agent Page

- Add New Buyer
- Add New Vendor
- Add New Property
- Property Search
- Print

Buyers View Time

The diagram shows the entities and the relationship between them and contains all the attributes from each entity.



Data Analysis

The entities that can be identified in the problem are:

Vendors
Properties
Sale
Offer
Buyers
Brunch
Estate Agent
View

Each entity has attributes as follows:

Vendors (Vendors_ID(PK), Vendors_Name, Vendors_Phone, Vendors_Email, Vendors_Address, Vendors_City).

Properties (Property_ID(PK), Property_Type, Property_Name, Property_Address, Property_Price, Vendors_ID(FK), Brunch_ID(FK)).

Sale (Sale_ID(PK), Sale_Date, Sale_Time, Property_ID(FK), Buyers_ID(FK)).

Offer (Offer_ID(PK), Offer_Price, Buyers_ID(FK), Property_ID(FK)).

Buyers (Buyers_ID(PK), Buyers_Name, Buyers_Phone, Buyers_Address, Buyers_City, Buyers_Region, Buyers_PostCode, Buyers_Email).

Brunch (Brunch_ID(PK), Brunch_Phone, Brunch_Address, Brunch_Name).

Estate Agent (EastAgent_ID(PK), EastAgent_Name, EastAgent_Phone, EastAgent_Email, EastAgent_Address, Brunch_ID(FK)).

View (View_ID(PK), View_Time, View_Date, Buyers_ID(FK), EastAgent_ID(FK), Property_ID(FK)).

Relationships between the entities

Relationship between **Vendors** and **Property** (one-to-many)

- One Vendor can have **one** or **many** Property
- One Property can have **one** Vendor

Relationship between **Property** and **Sale** (one-to-many)

- One Property can have **one** or **many** Sale
- One Sale can have **one** Property

Relationship between **Buyers** and **Sale** (one-to-many)

- One Buyer can do **one** or **many** Sales
- One Sale can have **one** Buyer

Relationship between **Offer** and **Buyers** (one-to-many)

- One buyer can make **one** or **many** Offers
- One offers can be made by **one** Buyer

Relationship between **Buyers** and **View** (one-to-many)

- One Buyer can make **one** or **many** Views
- One View can be made by **one** Buyer

Relationship between **EastAgent** and **View** (one-to-many)

- One EastAgent can make **one** or **many** Views
- One View can be made by **one** EastAgent

Relationship between **Properties** and **View** (one-to-many)

- One Property can have **one** or **many** Views
- One View can have **one** Property

Relationship between **Branch** and **Property** (one-to-many)

- One Branch can have **one** or **many** Properties

- One Property can have **one** Branch

Relationship between **Branch** and **EastAgent** (one-to-many)

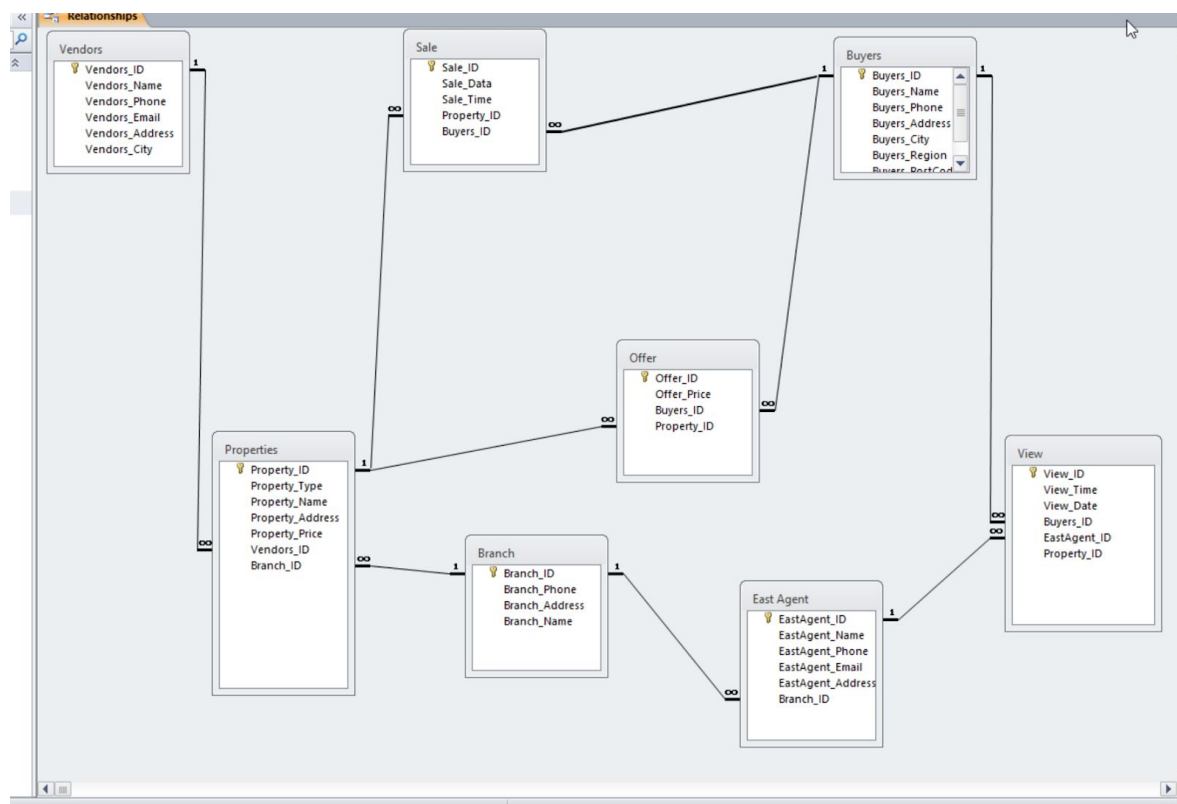
- One Branch can have **one** or **many** EastAgents
- One EastAgent can have **one** Branch

Relationship between **Property** and **Offer** (one-to-many)

- One Property can have **one** or **many** Offer
- One Offer can have **one** Property

Task 2

Screen Capture from the Relationship Diagram from Access Database



Screen Capture for each form used

Main Form:

The screenshot shows the 'MainForm' window with the user 'Admin'. The interface is divided into three main sections: 'Forms', 'Reports', and 'Agent Page'. The 'Forms' section on the left contains buttons for 'Branch Form', 'Buyers Form', 'East AgentForm', 'Vendors Form', 'VendorsProperty Form', 'Properties Form', and 'Sale Offer'. The 'Reports' section in the center contains buttons for 'Buyers Report', 'East Agent Report', 'EastAgentBrunch Report', 'Properties Report', 'Vendors Report', 'Propertie Sale', and 'Buyers View Time'. It also includes dropdown menus for 'Property:', 'Agents:', and 'Buyer:'. The 'Agent Page' section on the right contains buttons for 'Add New Buyer', 'Add New Vendor', 'Add New Property', 'Property Search', and 'Print'. At the bottom center, there is a graphic of a group of people silhouettes.

Branch Form:

The screenshot shows the 'Branch' form within the 'MainForm' window. The form has a title bar with 'MainForm' and 'Branch' tabs. Below the title bar, there are four navigation buttons: a left arrow, a right arrow, a double right arrow, and a double left arrow. The form contains four input fields with labels: 'Branch_ID' (empty), 'Branch_Phone' (07948573459), 'Branch_Address' (80 King Street), and 'Branch_Name' (Goldschmidt).

Buyers Form:

The screenshot shows a software window titled "MainForm" with a sub-tab labeled "Buyers". The window has a title bar with a close button (X). Below the title bar, there is a header area with the word "Buyers" in a large font, followed by four navigation buttons (back, forward, search, and another back) and two buttons labeled "Delete" and "Add New". The main content area contains a form with the following fields:

Buyers_ID	1
Buyers_Name	Adam
Buyers_Phone	07938275663
Buyers_Address	68 Mile End
Buyers_City	London
Buyers_Region	England
Buyers_PostCode	G53DV
Buyers_Email	adam@gmail.com

East Agent Form:

The screenshot shows a software window titled "MainForm" with a sub-tab labeled "East Agent". The window has a title bar with a close button (X). Below the title bar, there is a header area with the word "East Agent" in a large font, followed by four navigation buttons (back, forward, search, and another back) and two buttons labeled "Delete" and "Add New". The main content area contains a form with the following fields:

EastAgent_ID	
EastAgent_Name	Ron
EastAgent_Phone	07846583648
EastAgent_Email	ron@agent.com
EastAgent_Address	67 Tredegar Road
Branch_ID	1

To the right of the form fields is a placeholder image of a person's head and shoulders.

Vendors Form:

The screenshot shows a software window titled "MainForm" with a sub-tab "Vendors". The window has a title bar with standard OS controls. Below the title bar, the word "Vendors" is displayed in a large font. To the right of the title, there are four navigation buttons (back, forward, search, and another forward) and two action buttons labeled "Delete" and "Add New". The main area of the form contains a list of fields for vendor information, each with a corresponding input box:

Vendors_ID	
Vendors_Name	Mark
Vendors_Phone	07859684578
Vendors_Email	mark@gmail.com
Vendors_Address	56 Roman Road
Vendors_City	London

Properties Form:

The screenshot shows a software window titled "MainForm" with a sub-tab "Properties". The window has a title bar with standard OS controls. Below the title bar, the word "Properties" is displayed in a large font. To the right of the title, there are four navigation buttons (back, forward, search, and another forward) and two action buttons labeled "Delete" and "Add New". The main area of the form contains a list of fields for property information, each with a corresponding input box:

Property_ID	
Property_Type	Single
Property_Name	Fabian Bell Tower
Property_Address	5 Ingram Ave
Property_Price	£256.000
Vendors_ID	1
Branch_ID	1

To the right of the input fields, there is a rectangular image placeholder showing a photograph of a large, modern building with a glass facade and a green lawn in front.

VendorProperty Form:

The VendorProperty form includes search filters for 'Search Cost' and 'Type', and buttons for 'Search' and 'Clear'. Below these are input fields for vendor details: Vendors_ID, Vendors_Name (Mark), Vendors_Phone (07859684578), Vendors_Email (mark@gmail.com), Vendors_Address (56 Roman Road), and Vendors_City (London).

Property_ID	Property_Type	Property_Name	Property_Address	Property_Price	Branch_ID
1	Single	Fabian Bell Tower	5 Ingram Ave	£256.000	1
* (New)					

Record: 1 of 1 | No Filter | Search

BuyersOfferSale Form:

The BuyersOfferSale form includes a 'Buyers_Name' field with the value 'Adam'. Below it is a 'Sale' section containing a table of property sale records.

Property_Name	Sale_Data
Fabian Bell Tower	24/01/2020
* (New)	

Record: 1 of 1 | No Filter | Search

Output from all reports

Buyers Report:

Buyers						
Buyers_Name	Buyers_Phone	Buyers_Address	Buyers_Email	Buyers_City	Buyers_Region	Buyers_PostCode
Adam	07938275663	68 Mile End	adam@gmail.com	London	England	G53DV
Chris	07293853917	9 Sheridan Road	chris@gmail.com	Kiglington	England	E73GT
Clark	07582734628	67 Balmore Street	clark@gmail.com	Bedford	England	P97JH
Ester	07596836458	90 Sheridan Road	ester@gmail.com	Cambrige	England	L83FG
Mark	07645298346	67 Clapham Street	mark@gmail.com	Chelmsford	England	E59DR
Max	07839562843	7 Burnham Gardens	max@gmail.com	Luton	England	F35TG
Sam	07482736492	56 Gresham Street	sam@gmail.com	Oxford	England	G46GH

05 January 2020 Page 1 of 1

EastAgent and Brunch Report:

EastAgent and Brunch	
EastAgent_Name	Branch_Name
Ana	Hamptons
Elisabet	Foxton
Jesica	Yellands
Natalia	AllanFuller
Robert	Coopers
Ron	Goldschmidt
Will	MadisonFox

05 January 2020 Page 1 of 1

PropertySale Report:

PropertySale		
Property_Name	Property_Price	Sale_Data
Beach House	£565.000	#####
Brandon's	£365.000	#####
Ebby	£865.000	#####
Fabian Bell Tower	£256.000	#####
Flat Broke	£321.000	#####
Hhoneysuckle House	£493.000	#####
Stone House	£546.000	#####
05 January 2020		Page 1 of 1

BuyersView Report:

BuyersView		
Buyers_Name	View_Date	View_Time
Sam	19/01/2020	04:00 pm
Chris	27/03/2020	10:00 am
Max	07/03/2020	01:00 pm
Clark	18/04/2020	12:45 am
Ester	17/04/2020	03:00 pm
Mark	18/04/2020	02:00 pm
05 January 2020		Page 1 of 1

East Agent Report:

East Agent			
EastAgent_Name	EastAgent_Phone	EastAgent_Address	EastAgent_Email
Ana	07456294738	56 Douro Street	ana@agent.com
Elisabet	07683546937	8 Blodin Street	elisabet@agent.com
Jesica	07492648503	3 Merchan Road	jesica@agent.com
Natalia	07543682649	12 Crounbook Park	natalia@agent.com
Robert	07047583467	76 Archibal Street	robert@agent.com
Ron	07846583648	67 Tredegar Road	ron@agent.com
Will	07452947850	9 Eleanor Street	will@agent.com

05 January 2020 Page 1 of 1

Properties Report:

Properties			
Property_Type	Property_Name	Property_Price	Offer_Price
Multi	Brandon's	£365,000	£190,000
	Stone House	£546,000	£236,000
Single	Beach House	£565,000	£472,000
	Ebby	£865,000	£768,000
	Fabian Bell Tower	£256,000	£145,000
	Flat Broke	£321,000	£219,000
	Hhoneysuckle House	£493,000	£457,000

05 January 2020 Page 1 of 1

Evidence of SQL

QueryBranchEastAgent

```
SELECT Branch.Branch_Name, [East Agent].EastAgent_Name, [East Agent].EastAgent_Address  
FROM Branch INNER JOIN [East Agent] ON Branch.Branch_ID = [East Agent].Branch_ID;
```

QueryDeals

```
SELECT Buyers.Buyers_Name, Buyers.Buyers_Phone, Properties.Property_Type, Properties.Property_Price, Offer.Offer_Price  
FROM Properties INNER JOIN (Buyers INNER JOIN Offer ON Buyers.Buyers_ID = Offer.Buyers_ID) ON Properties.Property_ID = Offer.Property_ID;
```

QueryEastAgent

```
SELECT [East Agent].EastAgent_Name, [East Agent].EastAgent_Phone, [East Agent].EastAgent_Email  
FROM [East Agent];
```

QueryProperties

```
SELECT Properties.Property_Type, Properties.Property_Name, Properties.Property_Price  
FROM Properties;
```

QueryPropertiesOffer

```
SELECT Properties.Property_Price, Properties.Property_Type, Properties.Property_Name, Offer.Offer_Price  
FROM Properties INNER JOIN Offer ON Properties.Property_ID = Offer.Property_ID;
```

QuerySaleProperty

```
SELECT Sale.Sale_Data, Properties.Property_Type, Properties.Property_Address, Properties.Property_Price  
FROM Properties INNER JOIN Sale ON Properties.Property_ID = Sale.Property_ID;
```

Brief User Guide

The database is working with three types of users: admin, user, and agent. We assume that an admin is logged in.

The main actions that can be done are:

- View the list of branches
- View the list of buyers
- View all the details about the agent
- The details about the vendor
- The list of offers
- See the dates when purchases happen
- Add a new buyer and new vendor
- Add a new property
- Search all properties

To search for a Property, you must click the "Property Search" button.

