AD HOC INNOVATIONS

Dog Walker Database

Final Portfolio

11/29/17

Alex Decknadel Steven Jewkes Nicholas Orr

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Ad Hoc Innovations

We here at Ad Hoc Innovations strive to produce quality database solutions for our clients. In the scope of this course, Ad Hoc Innovations is a small team that consists of three members working together to produce a database solution. We aim to create a database solution that is not only functional but professional and easy to use.

Our mission statement is:

Ad Hoc Innovations aims to provide our clients with a design and development environment that fosters creativity without sacrificing efficiency.

Team Member Biographies

Alex Decknadel: Alex Decknadel is a 2nd year CIS student at Chemeketa Community College. He has a background in web development, experience with Microsoft Access, and knowledge on database structures and SQL gained through the Oracle Academy.

Steven Jewkes: Steven Jewkes is a 2nd year CIS student at Chemeketa Community College. He is proficient in Microsoft Office, has experience in HTML, JavaScript, CSS, PHP, and Visual Basic, and primarily has worked on hardware systems implementation and repair for over 10 years.

Nicholas Orr: Nicholas Orr is a 2nd year CIS student at Chemeketa Community College. He has two years professional experience with troubleshooting software and hardware issues in Windows, is familiar with HTML, CSS3, and basic programming concepts such as loops, tables, and variables.

Task Delegation

Alex Decknadel: This member was responsible for designing the logical model through the Toad Data Modeler, and creating the DDL used to generate the database in Access and the queries, forms, and reports used to retrieve and store data in the database. He also worked on the conceptual design and its refinement as well as write the description of the database for this portfolio.

Steven Jewkes: This member was responsible for designing the logical model through the DeZign Data Modeler program. He also designed the forms and reports in the working database to be identical, and contributed to the conceptual design and its refinement through the various ERD programs and transition between conceptual to logical to the physical.

Nicholas Orr: This member was responsible for designing the conceptual model through the Oracle Data Modeler and the conversion of the logical model into IDEF1X format. He also contributed to the conceptual design and refinement process, collaboration of the business rules and glossary. This member was also responsible for designing and implementing the Switchboard form used to navigate the database and the User Manual which describes how to use that Switchboard.

Executive Summary

On a trip to New York City, two friends noticed the same people walking different dogs in Central Park. After speaking with one of the walkers, they discovered a recently released app that would allow customers to schedule walks for their dogs. Given the two have heard on multiple occasions about the desire for a service like this in their own city, they realized it would be an opportunity to start a similar business.

In order for the two to appeal to investors, they decided to hire Ad Hoc Innovations to create a database for the business that could represent the sort of data, information and functionality required to get up and running.

Through initial meetings with the two founders, we were told they would like the app to capture a customer's information, their dog's information and a scheduled time for their walk. They also issued certain business rules that would help shape the database, such as walkers needing to be Insured and Bonded before they can begin working and be paid. Eventually the app will include GPS functionality, however this will not be implemented until after the prototype database is completed.

We began with a conceptual model that included six tables; one for customer information, one for employee information, one for dog information, one for scheduling, one for behavior notes and finally one for transactions. Through additional meetings with the two founders of the company, we were able to refine the conceptual design to fold both the scheduling and behavior notes tables into a single entity called Appointment.

Upon presenting our initial conceptual design to the founders, we were told that transactions would not be necessary for the prototype database and would be something included in later iterations; therefore, we removed the Transaction entity entirely, leaving our final design with four entities, Customer, Dog, Employee and Appointment.

During the course of the design process, we converted our model into a logical model which was then refined into a physical model. This portfolio details the design process of Ad Hoc Innovations while building this database. It shows the different Entity-Relationship Diagrams Ad Hoc designed for our data model, and the business rules that were considered in designing the data model.

Through further discussions with the founders, we discovered the need for a form to capture both customer and appointment information which can later be amended by users to add future scheduled walks. We also discovered that the database should use certain queries to retrieve data which can be compiled into reports and forms.

These queries should include information on which walkers are uninsured, which customers request the most walking time for their dogs, money earned by the walkers, a walker's availability, which walkers will walk old dogs and which ones can walk large dogs, as well as other data.

The founders also expressed that customers should be able to see which walkers spend the most time with their dogs simply by providing a dog's name.

Included in this report is a comprehensive breakdown of the database as well as the design process we utilized throughout this project. The breakdown includes screenshots of the data models and the data model programs we utilized to create them. We also provide the most recently discussed list of business rules that can be modeled or programmed from what we obtained through meetings with the founders.

At the end of the portfolio, we include the most recent glossary that reflects terms used to describe the database, the DDL we used to construct the structure of the database, the DML for the queries we created to retrieve data from the database, and a user manual for how to use the database's switchboard to access reports and forms as well as enter in data.

Dog Walker Database

The Take Me Out database is a database for an upstart dog walking business. The goal is to have a functional database that collects information about customers, walkers, dogs, and appointments. The database uses this data to generate information regarding how many hours each walker walks and how many times a customer schedules a walk for their dog(s).

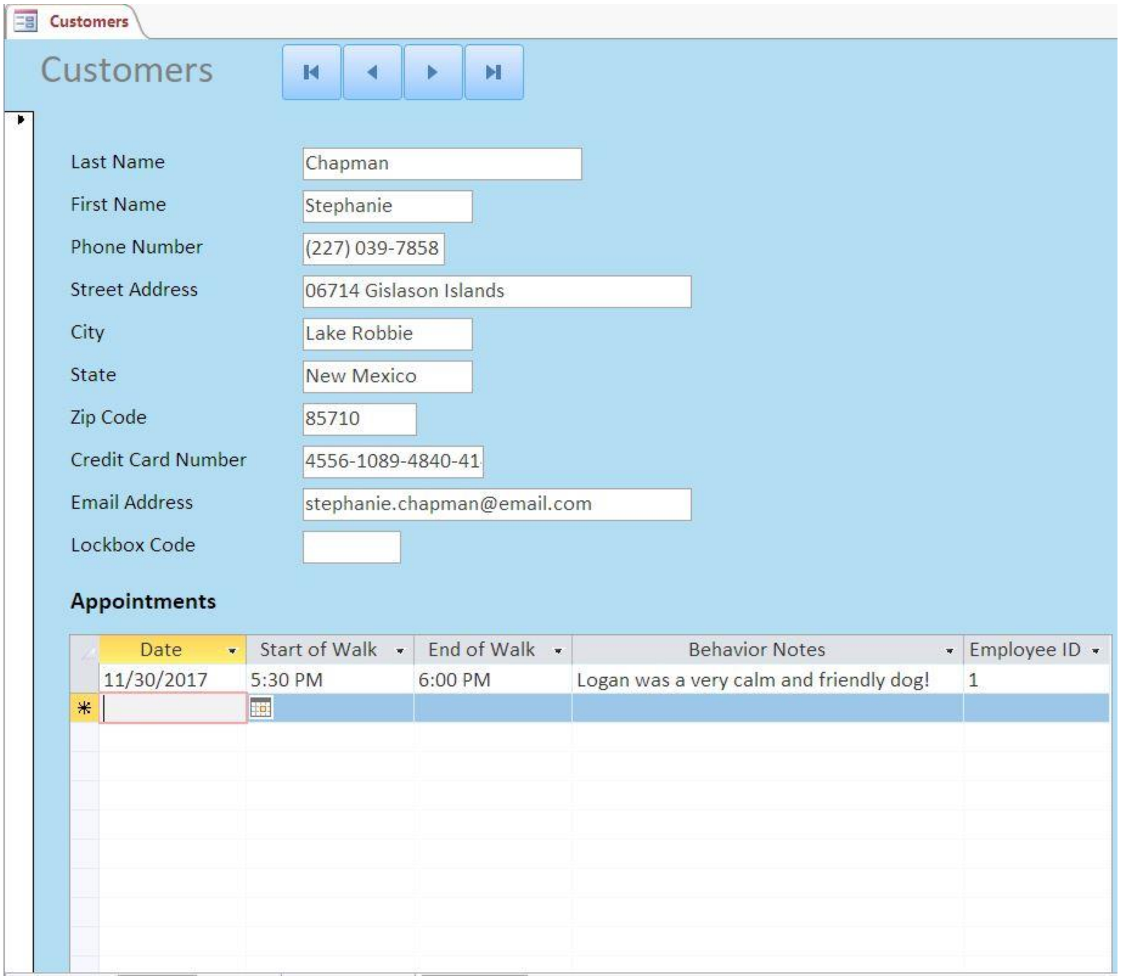
In the database, we have four relations (tables or entities) that make up the database structure at this time. They are: CUSTOMER, EMPLOYEE, DOG, and APPOINTMENT. Each relation has a set of attributes (columns) that describe each one, as listed in the following.

- CUSTOMER (Customer ID[1], First Name, Last Name, Credit Card Number, Street Address, City, State, Zip Code, Email Address, Phone Number, Lockbox)
- EMPLOYEE (Employee ID, First Name, Last Name, Phone Number, Email Address, Insured and Bonded, Hire Date, Rate of Pay, Availability, Old Dogs, Large Dogs)
- DOG (Dog ID, Name, Customer Name, Weight, Breed, Gender, Age, Social, Special Needs)
- SCHEDULE (Schedule Number, Employee ID, Customer ID, Dog ID, Date, Start of Walk, End of Walk)

To retrieve this data, we created a number of queries and reports to organize data into information. We also created forms to organize data as well as store data inside the database.

The first form we created was the Customers form, with a subform called Appointments. The Customers form displays attributes of the CUSTOMER relation. This form also displays the Appointments subform, allowing users to enter a scheduled walk into the APPOINTMENT relation. The form is shown below.

[1] Underlined attributes are primary keys for each relation, meaning this value is unique to each tuple (row).



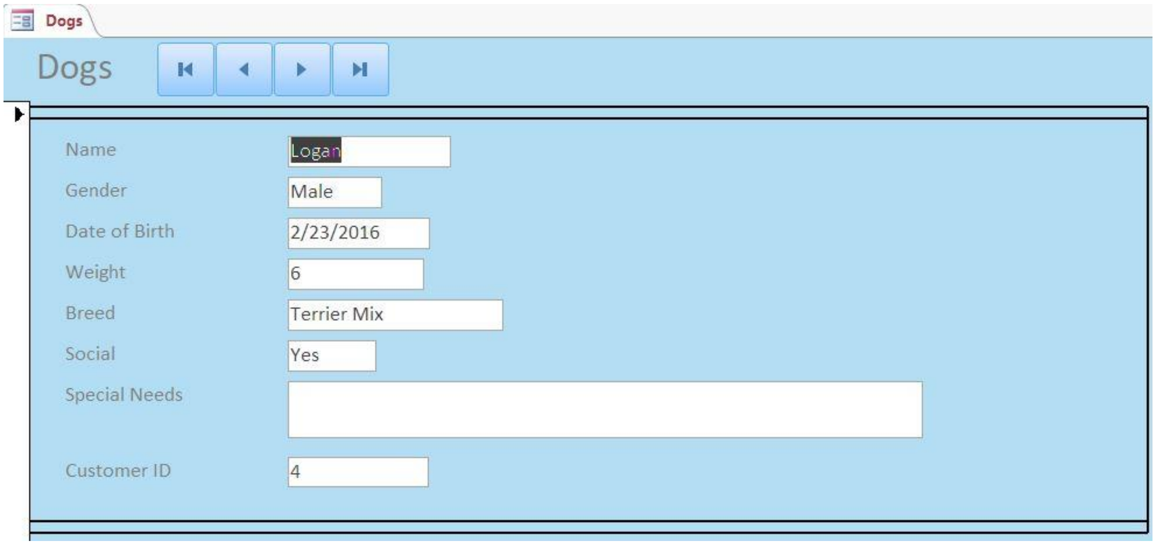
Customers

Last Name	Chapman
First Name	Stephanie
Phone Number	(227) 039-7858
Street Address	06714 Gislason Islands
City	Lake Robbie
State	New Mexico
Zip Code	85710
Credit Card Number	4556-1089-4840-41
Email Address	stephanie.chapman@email.com
Lockbox Code	

Appointments

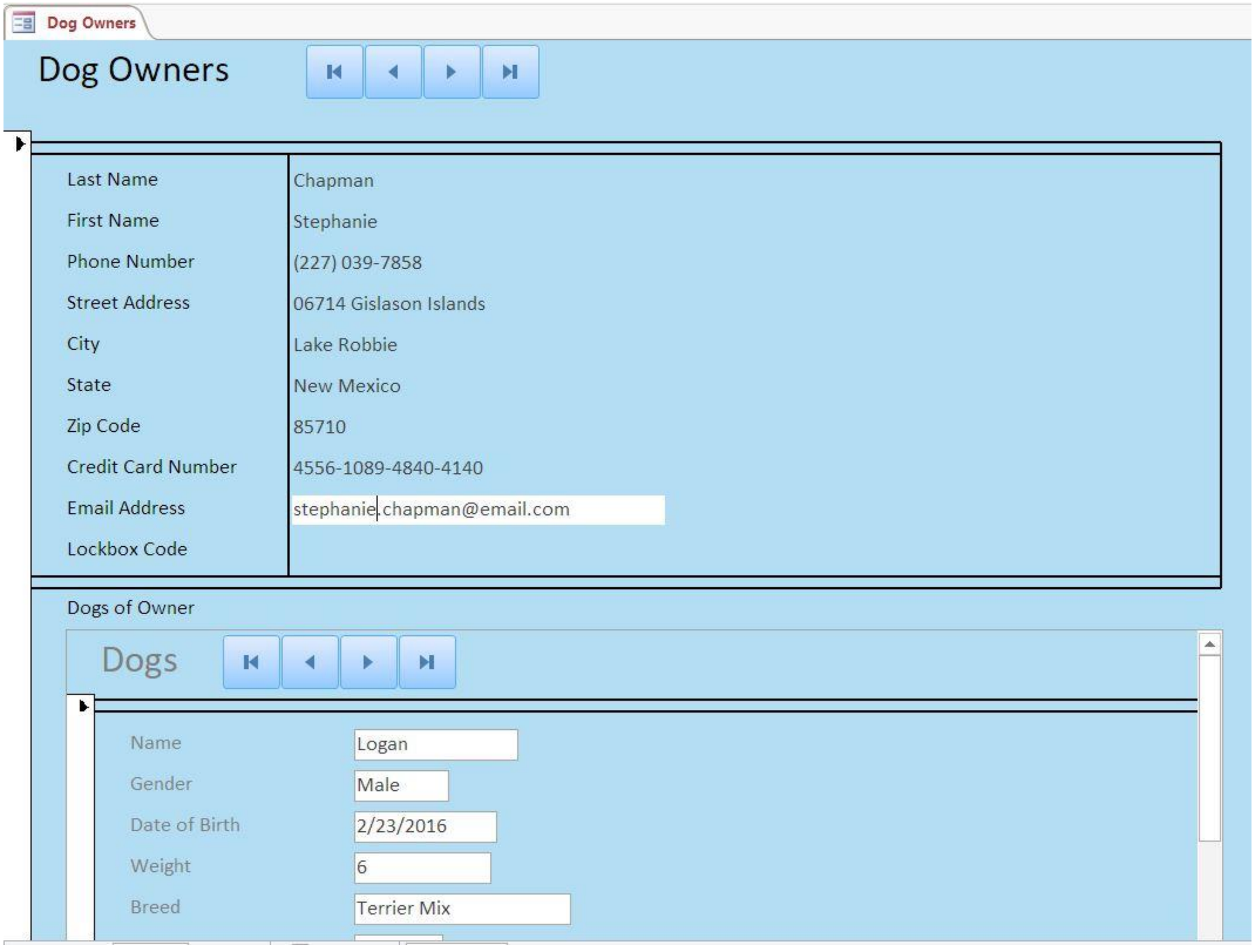
Date	Start of Walk	End of Walk	Behavior Notes	Employee ID
11/30/2017	5:30 PM	6:00 PM	Logan was a very calm and friendly dog!	1

After these were created, we created a form called Dogs. This form allows users to add dogs into the database. This is also used a subform for Dog Owners, where users can add customers and dogs as seen in the following screenshots.



Dogs

Name	Logan
Gender	Male
Date of Birth	2/23/2016
Weight	6
Breed	Terrier Mix
Social	Yes
Special Needs	
Customer ID	4



Dog Owners

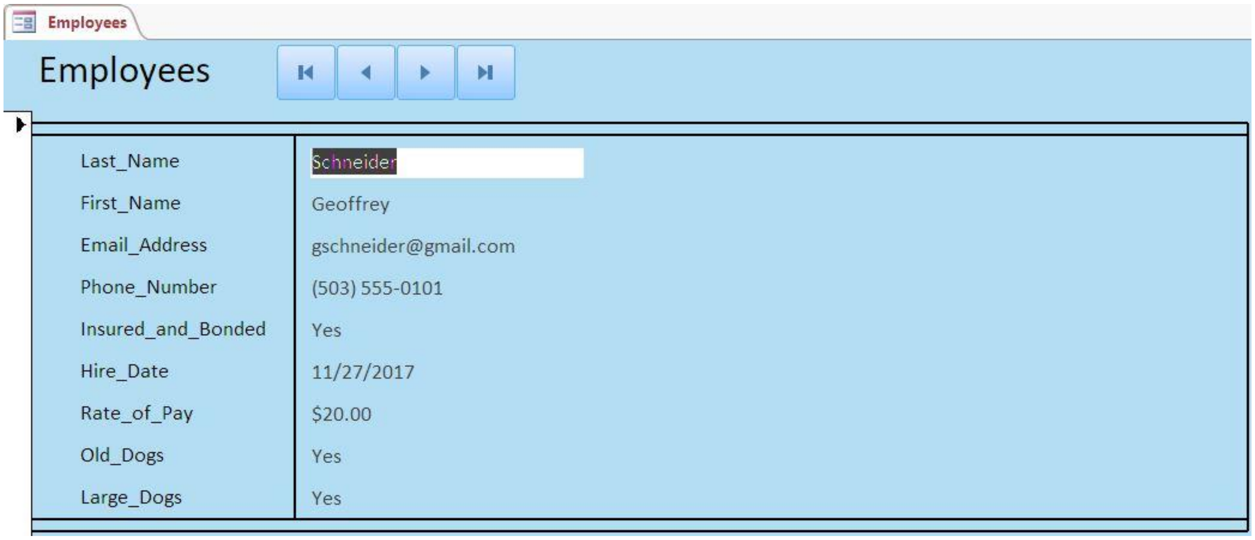
Last Name	Chapman
First Name	Stephanie
Phone Number	(227) 039-7858
Street Address	06714 Gislason Islands
City	Lake Robbie
State	New Mexico
Zip Code	85710
Credit Card Number	4556-1089-4840-4140
Email Address	stephanie.chapman@email.com
Lockbox Code	

Dogs of Owner

Dogs

Name	Logan
Gender	Male
Date of Birth	2/23/2016
Weight	6
Breed	Terrier Mix

After these forms were created, we created the Employees form. This form displays information about each walker and allows users to add more walkers into the database. We show this form in the following screenshot.



Employees

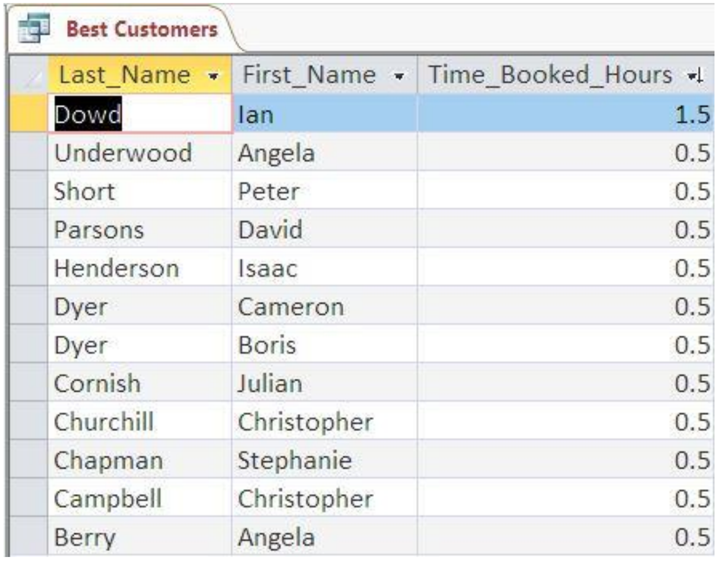
Last_Name	Schneider
First_Name	Geoffrey
Email_Address	gschneider@gmail.com
Phone_Number	(503) 555-0101
Insured_and_Bonded	Yes
Hire_Date	11/27/2017
Rate_of_Pay	$20.00
Old_Dogs	Yes
Large_Dogs	Yes

After the forms were created, we wrote some queries that would retrieve data and generate information for us.

These queries are:

- Best Customers
- Money Earned by Walkers
- Specific Walker Schedule
- Walkers
- Walkers and Times by Dog
- Walkers of Big Dogs
- Walkers of Old Dogs
- Walkers who are not Insured

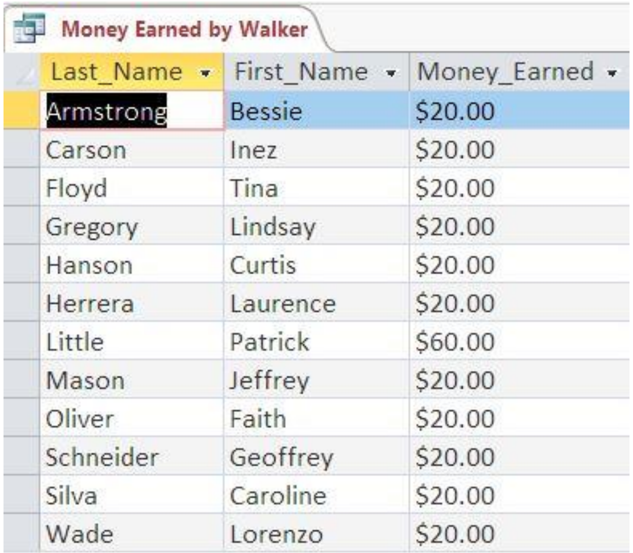
Starting at the top, the Best Customers query generates information about how much total time each customer schedules over all of the walks they've scheduled. This is shown in the following screenshot.



Best Customers

Last_Name	First_Name	Time_Booked_Hours
Dowd	Ian	1.5
Underwood	Angela	0.5
Short	Peter	0.5
Parsons	David	0.5
Henderson	Isaac	0.5
Dyer	Cameron	0.5
Dyer	Boris	0.5
Cornish	Julian	0.5
Churchill	Christopher	0.5
Chapman	Stephanie	0.5
Campbell	Christopher	0.5
Berry	Angela	0.5

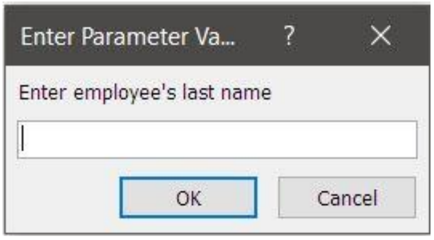
The next query, Money Earned by Walkers, generates information about how much money each walker earns based off how much time they walk. This is shown below.



Money Earned by Walker

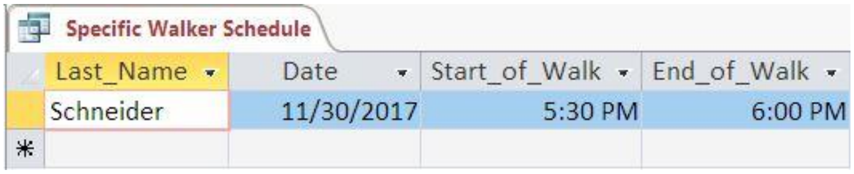
Last_Name	First_Name	Money_Earned
Armstrong	Bessie	$20.00
Carson	Inez	$20.00
Floyd	Tina	$20.00
Gregory	Lindsay	$20.00
Hanson	Curtis	$20.00
Herrera	Laurence	$20.00
Little	Patrick	$60.00
Mason	Jeffrey	$20.00
Oliver	Faith	$20.00
Schneider	Geoffrey	$20.00
Silva	Caroline	$20.00
Wade	Lorenzo	$20.00

Specific Walker Schedule is query that allows users to enter in an Employee's name to see the walks they have scheduled. We can see below the parameter that asks users to enter in an employee's last name and what is generated from entering Schneider, the last name of a walker.



Enter Parameter Va...

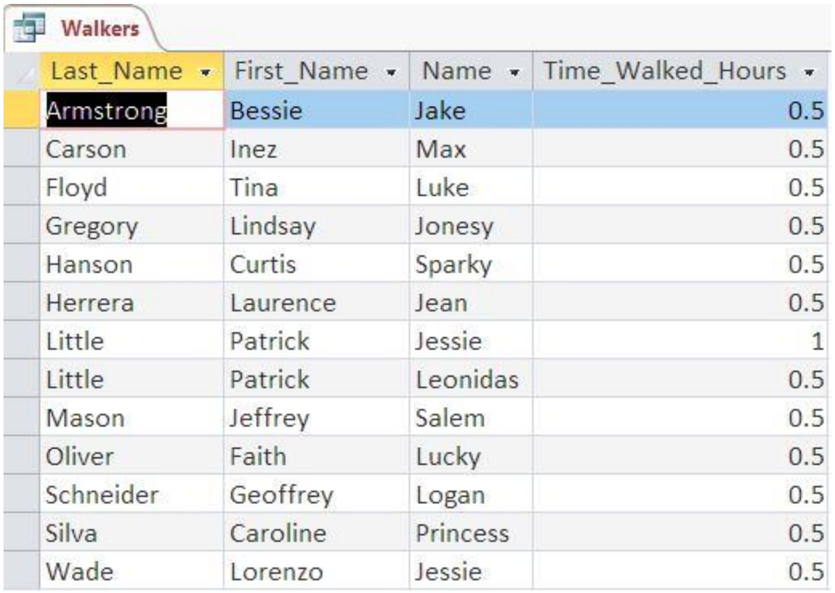
Enter employee's last name



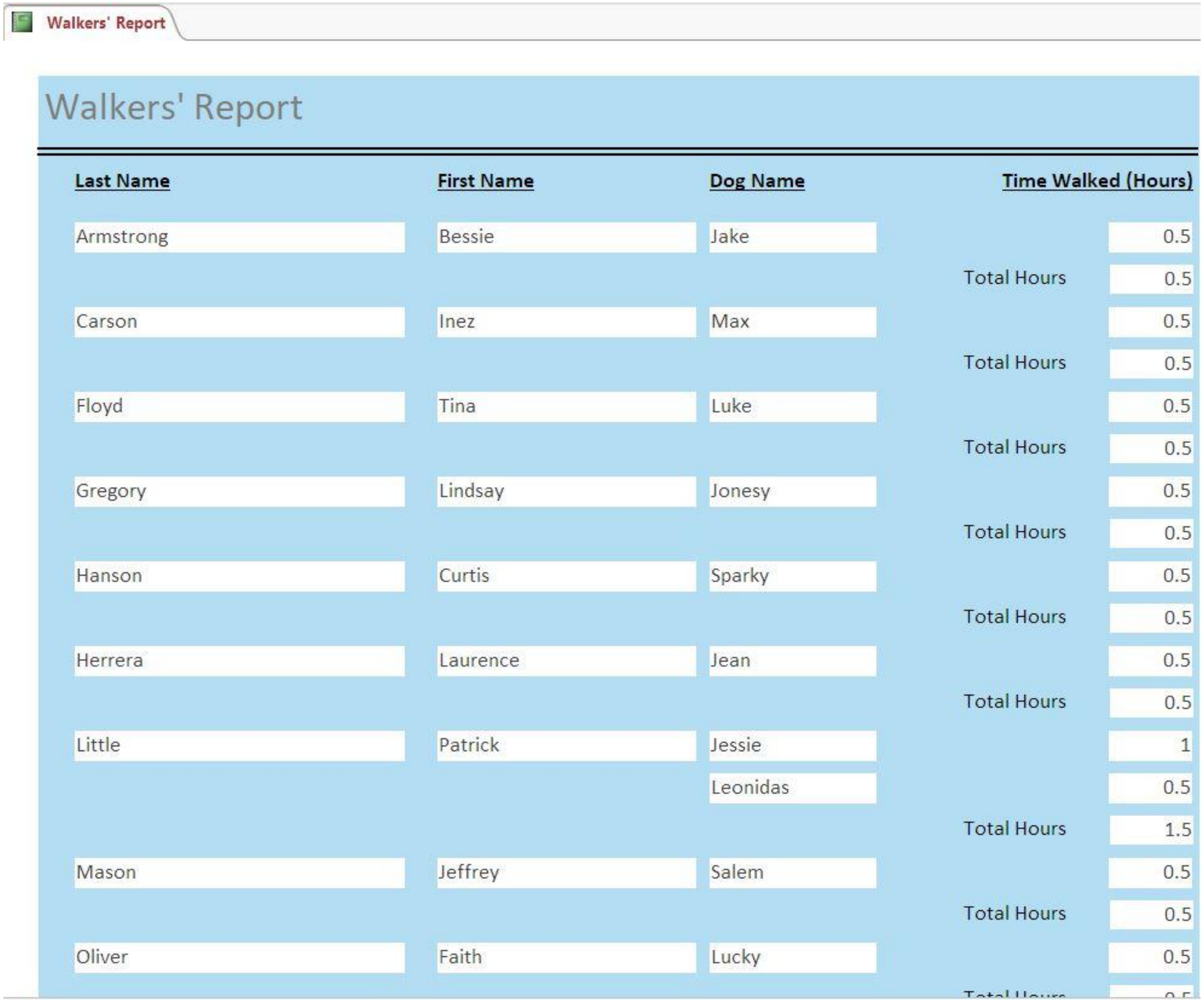
Specific Walker Schedule

Last_Name	Date	Start_of_Walk	End_of_Walk
Schneider	11/30/2017	5:30 PM	6:00 PM
*			

The Walkers query is a query we created to use for creating the Walker's Report. Because we wanted to track the total time each walker has walked across all of the walks they've attended, we needed to calculate a field to put into the report. And this is best done through a query first, which we can then put into the report. Both the query and the report are shown below.



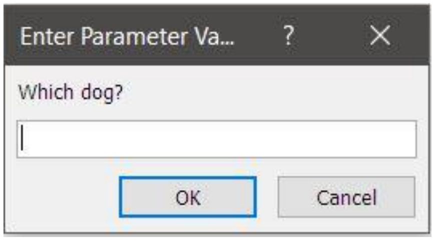
Last_Name	First_Name	Name	Time_Walked_Hours
Armstrong	Bessie	Jake	0.5
Carson	Inez	Max	0.5
Floyd	Tina	Luke	0.5
Gregory	Lindsay	Jonesy	0.5
Hanson	Curtis	Sparky	0.5
Herrera	Laurence	Jean	0.5
Little	Patrick	Jessie	1
Little	Patrick	Leonidas	0.5
Mason	Jeffrey	Salem	0.5
Oliver	Faith	Lucky	0.5
Schneider	Geoffrey	Logan	0.5
Silva	Caroline	Princess	0.5
Wade	Lorenzo	Jessie	0.5



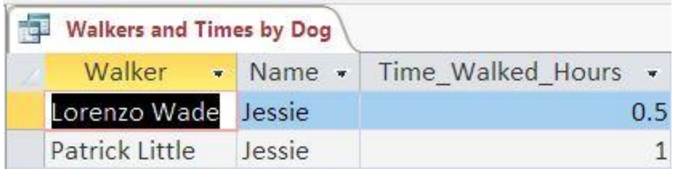
Walkers' Report

Last Name	First Name	Dog Name		Time Walked (Hours)
Armstrong	Bessie	Jake		0.5
			Total Hours	0.5
Carson	Inez	Max		0.5
			Total Hours	0.5
Floyd	Tina	Luke		0.5
			Total Hours	0.5
Gregory	Lindsay	Jonesy		0.5
			Total Hours	0.5
Hanson	Curtis	Sparky		0.5
			Total Hours	0.5
Herrera	Laurence	Jean		0.5
			Total Hours	0.5
Little	Patrick	Jessie		1
		Leonidas		0.5
			Total Hours	1.5
Mason	Jeffrey	Salem		0.5
			Total Hours	0.5
Oliver	Faith	Lucky		0.5
			Total Hours	0.5

Moving on, the Walkers and Times by Dog query has a parameter that allows users to search which dog has been walked by who. The following shows the parameter that allows users to enter in a dog's name and the query generated from entering the name Jessie.



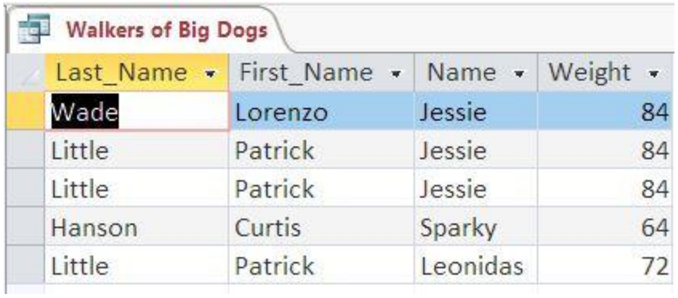
Which dog?



Walkers and Times by Dog

Walker	Name	Time_Walked_Hours
Lorenzo Wade	Jessie	0.5
Patrick Little	Jessie	1

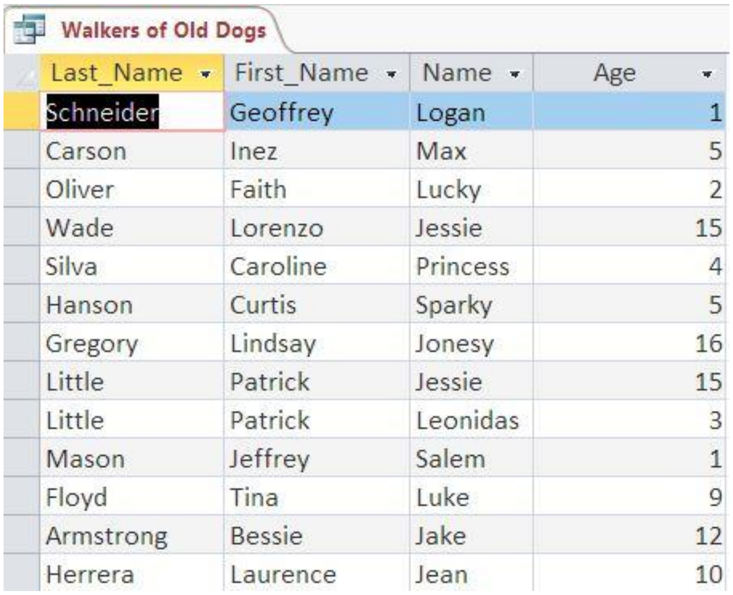
The Walkers of Big Dogs query is a query that generates a list of walkers who have walked dogs that weigh over 60 pounds. We show this in the following screenshot.



Walkers of Big Dogs

Last_Name	First_Name	Name	Weight
Wade	Lorenzo	Jessie	84
Little	Patrick	Jessie	84
Little	Patrick	Jessie	84
Hanson	Curtis	Sparky	64
Little	Patrick	Leonidas	72

The last query, Walkers of Old Dogs, is a query that creates a list of walkers who walk dogs that are over 8 years old. The query is shown below.

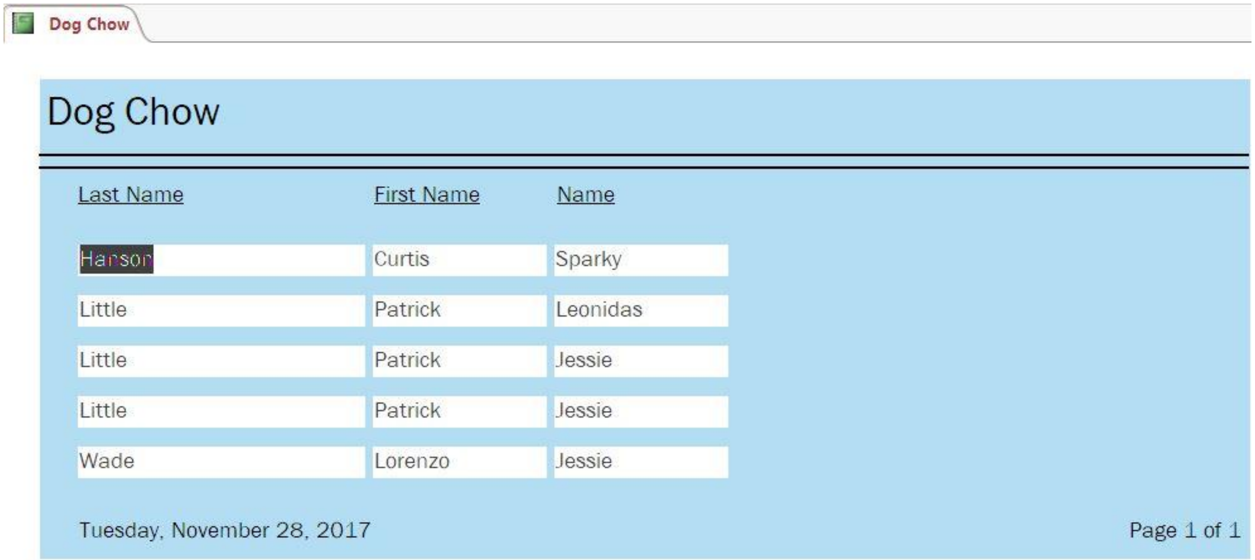


Walkers of Old Dogs

Last_Name	First_Name	Name	Age
Schneider	Geoffrey	Logan	1
Carson	Inez	Max	5
Oliver	Faith	Lucky	2
Wade	Lorenzo	Jessie	15
Silva	Caroline	Princess	4
Hanson	Curtis	Sparky	5
Gregory	Lindsay	Jonesy	16
Little	Patrick	Jessie	15
Little	Patrick	Leonidas	3
Mason	Jeffrey	Salem	1
Floyd	Tina	Luke	9
Armstrong	Bessie	Jake	12
Herrera	Laurence	Jean	10

Moving onto the rest of the reports, these organize information about which walkers are uninsured, which walkers walk large dogs, and which walkers walk old dogs.

The Dog Chow report is the report that shows which walkers walk large dogs and which large dogs they walk. The following image shows the report based off the current data in the Take Me Out database.



Dog Chow

Dog Chow

Last Name	First Name	Name
Hanson	Curtis	Sparky
Little	Patrick	Leonidas
Little	Patrick	Jessie
Little	Patrick	Jessie
Wade	Lorenzo	Jessie

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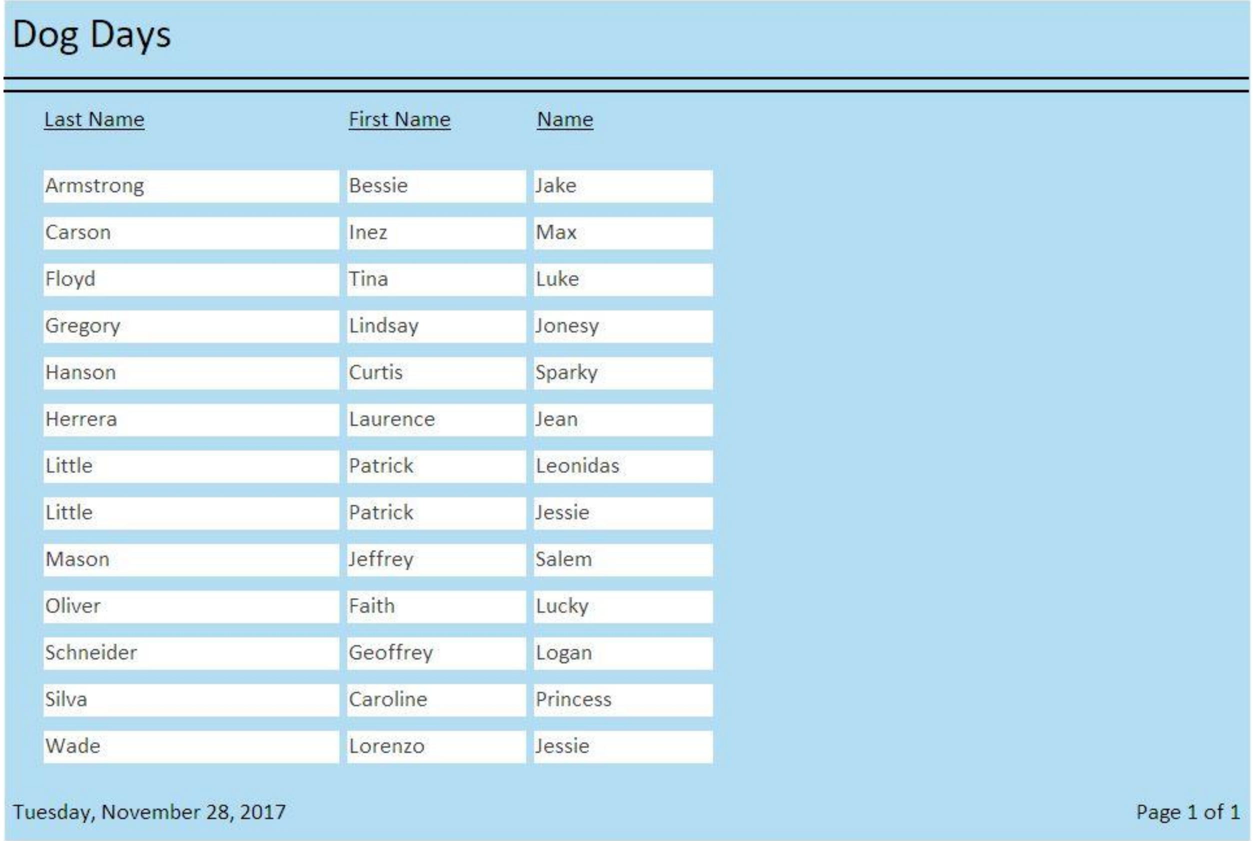
Dog Days is the report that shows which walkers walk old dogs and which old dogs they walk. The following image shows the report based on the current data inside the database.



Dog Days

Last Name	First Name	Name
Armstrong	Bessie	Jake
Carson	Inez	Max
Floyd	Tina	Luke
Gregory	Lindsay	Jonesy
Hanson	Curtis	Sparky
Herrera	Laurence	Jean
Little	Patrick	Leonidas
Little	Patrick	Jessie
Mason	Jeffrey	Salem
Oliver	Faith	Lucky
Schneider	Geoffrey	Logan
Silva	Caroline	Princess
Wade	Lorenzo	Jessie

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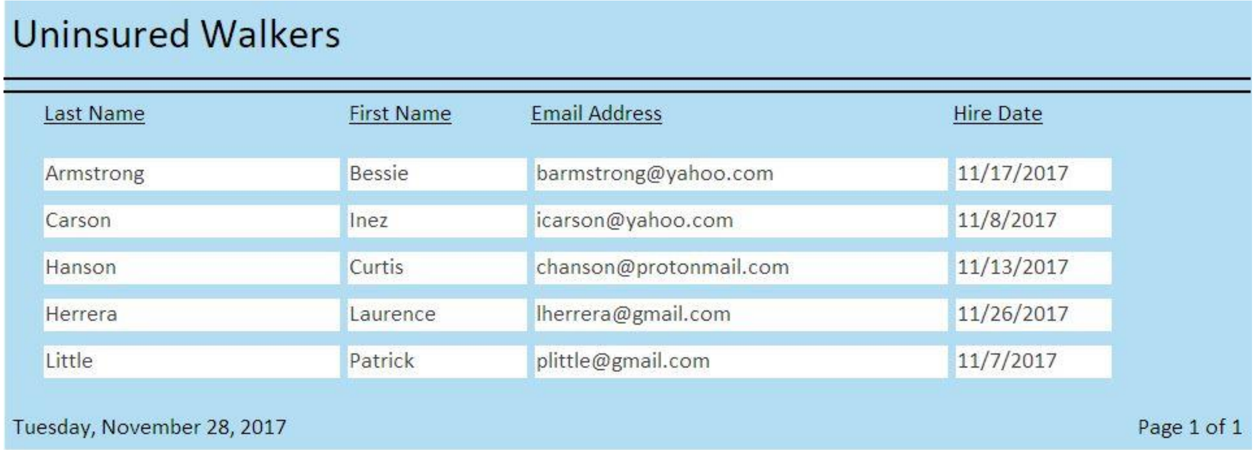
The last report, Uninsured Walkers, is the report that tracks the walkers who are not yet insured and bonded. It is useful for business owners to keep track of these walkers as they need to be insured and bonded so they can be paid. The following image shows a report from the current data.



Uninsured Walkers

Last Name	First Name	Email Address	Hire Date
Armstrong	Bessie	barmstrong@yahoo.com	11/17/2017
Carson	Inez	icarson@yahoo.com	11/8/2017
Hanson	Curtis	chanson@protonmail.com	11/13/2017
Herrera	Laurence	lherrera@gmail.com	11/26/2017
Little	Patrick	plittle@gmail.com	11/7/2017

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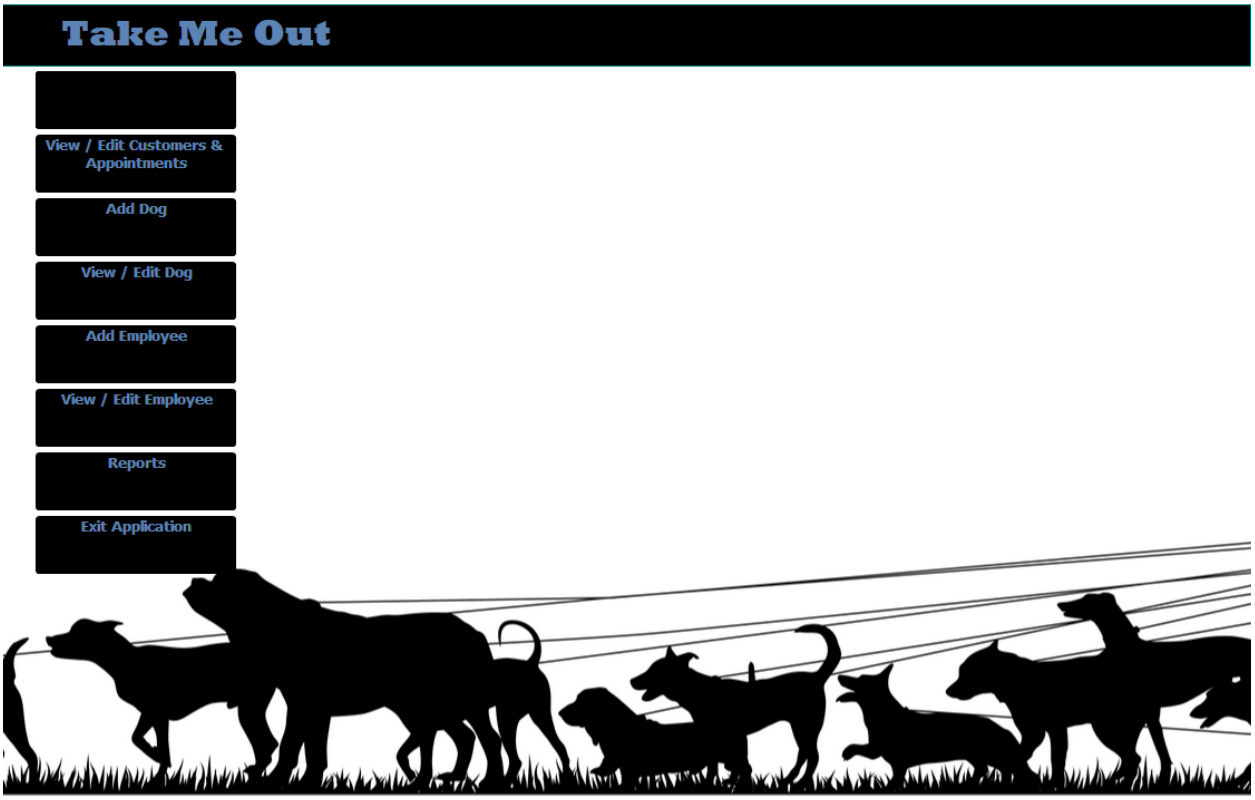
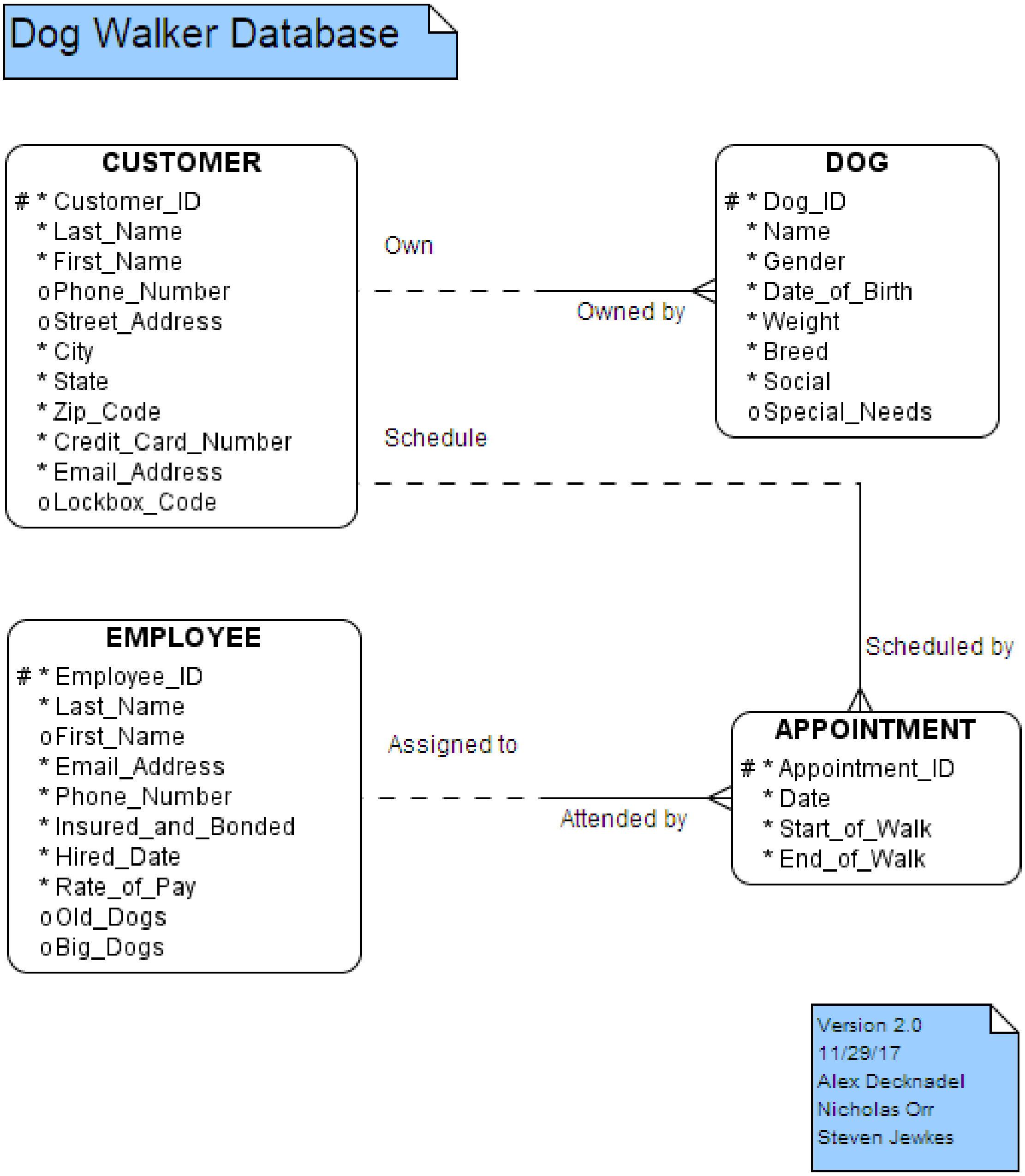
After all of those were created, Ad Hoc Innovations worked on a switchboard that users could use to easily navigate to these forms and reports to add data or pull information from the database. The following image is a screenshot of the switchboard we designed for the Take Me Out database.



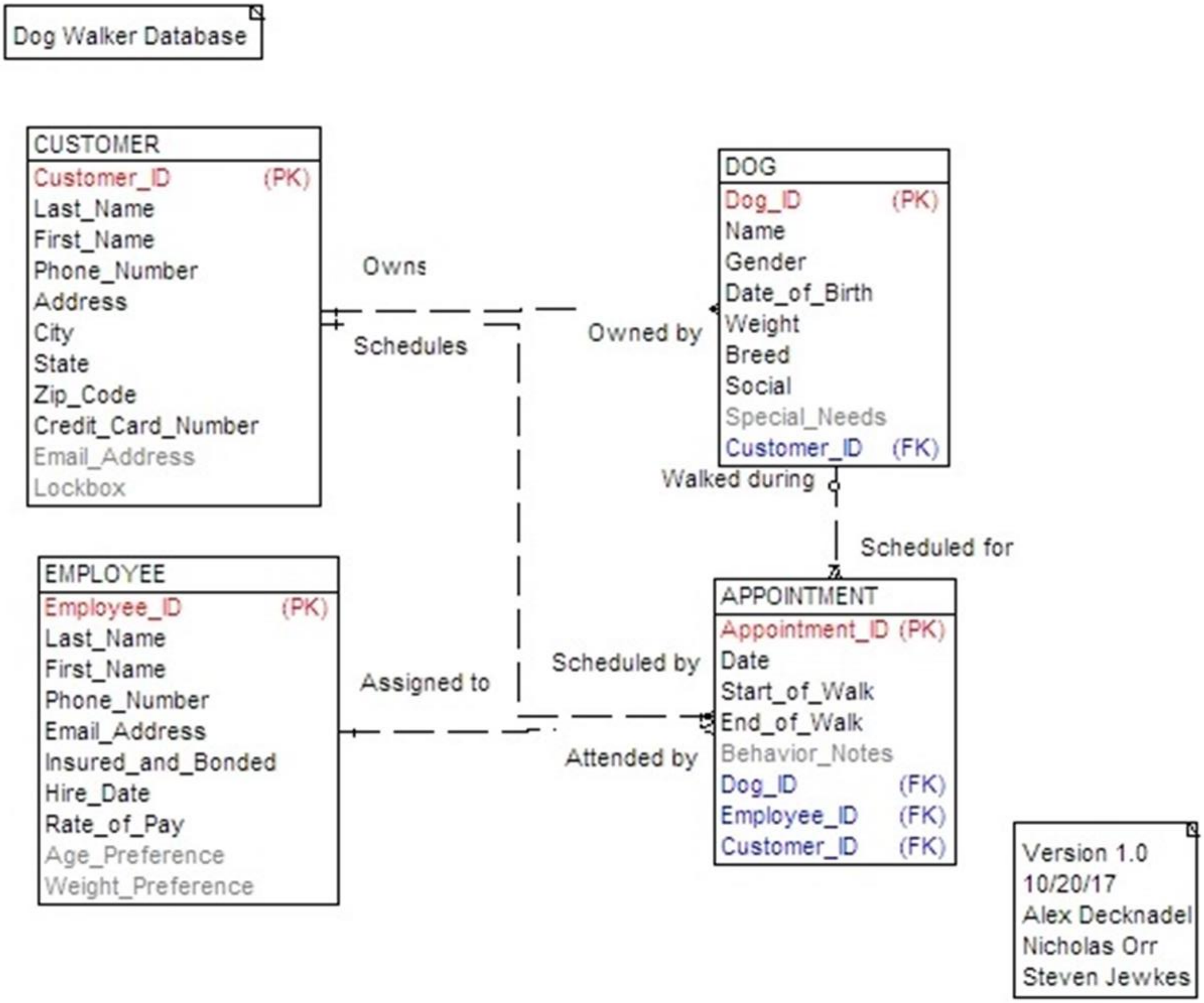
Oracle ER Diagram

This ER diagram is a conceptual model designed through Oracle Data Modeler from Oracle. It uses Crow's foot notation. This is the first ER Diagram that Ad Hoc Innovations designed during the design stages.



Toad ER Diagram

This diagram is the first logical model that was designed with Toad Data Modeler from Quest Software. It uses Crow's foot notation. This is the second ER Diagram that Ad Hoc Innovations designed.



Dog Walker Database

CUSTOMER
Customer_ID (PK)
Last_Name
First_Name
Phone_Number
Address
City
State
Zip_Code
Credit_Card_Number
Email_Address
Lockbox

DOG
Dog_ID (PK)
Name
Gender
Date_of_Birth
Weight
Breed
Social
Special_Needs
Customer_ID (FK)

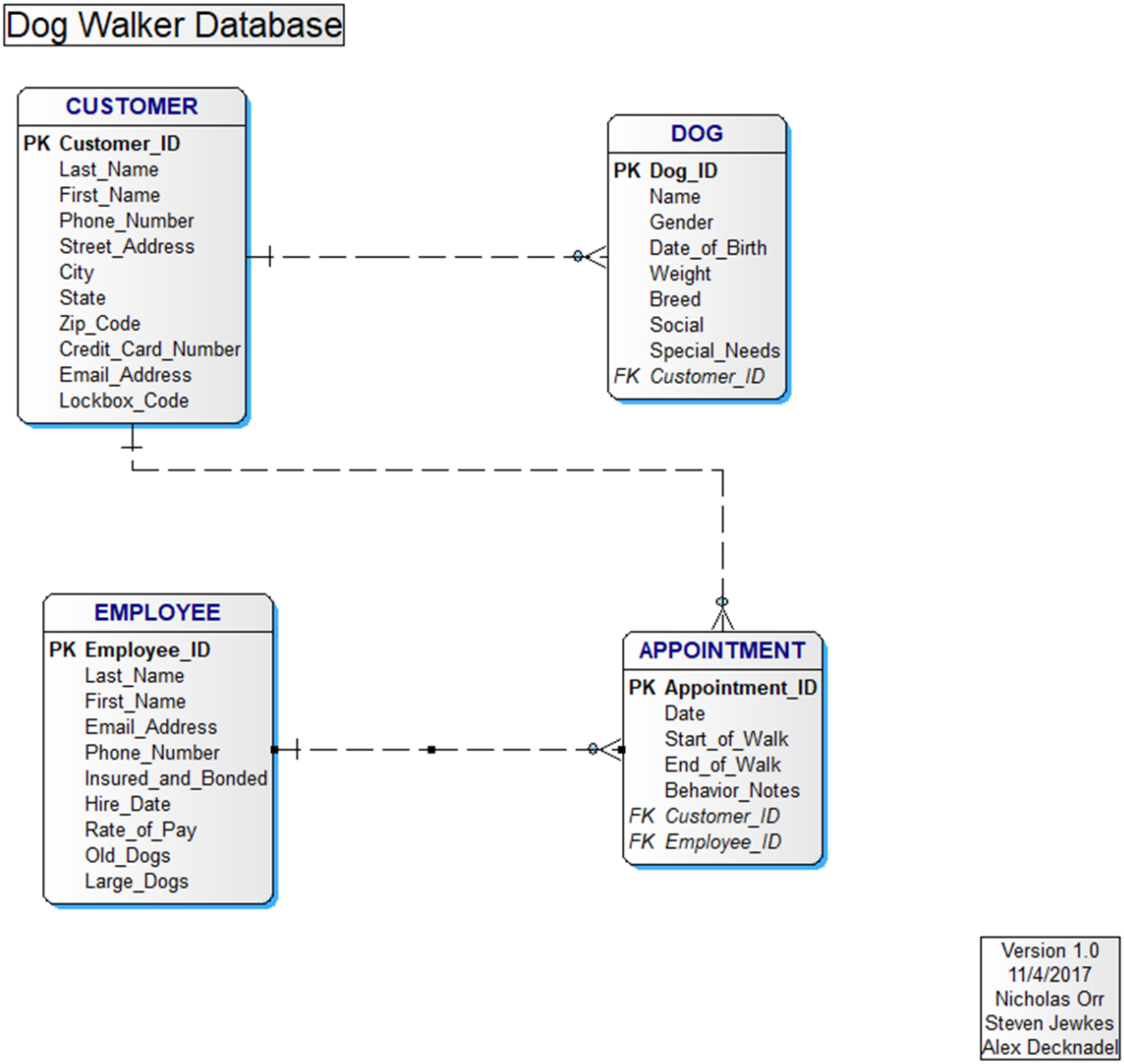
EMPLOYEE
Employee_ID (PK)
Last_Name
First_Name
Phone_Number
Email_Address
Insured_and_Bonded
Hire_Date
Rate_of_Pay
Age_Preference
Weight_Preference

APPOINTMENT
Appointment_ID (PK)
Date
Start_of_Walk
End_of_Walk
Behavior_Notes
Dog_ID (FK)
Employee_ID (FK)
Customer_ID (FK)

Version 1.0
10/20/17
Alex Decknadel
Nicholas Orr
Steven Jewkes

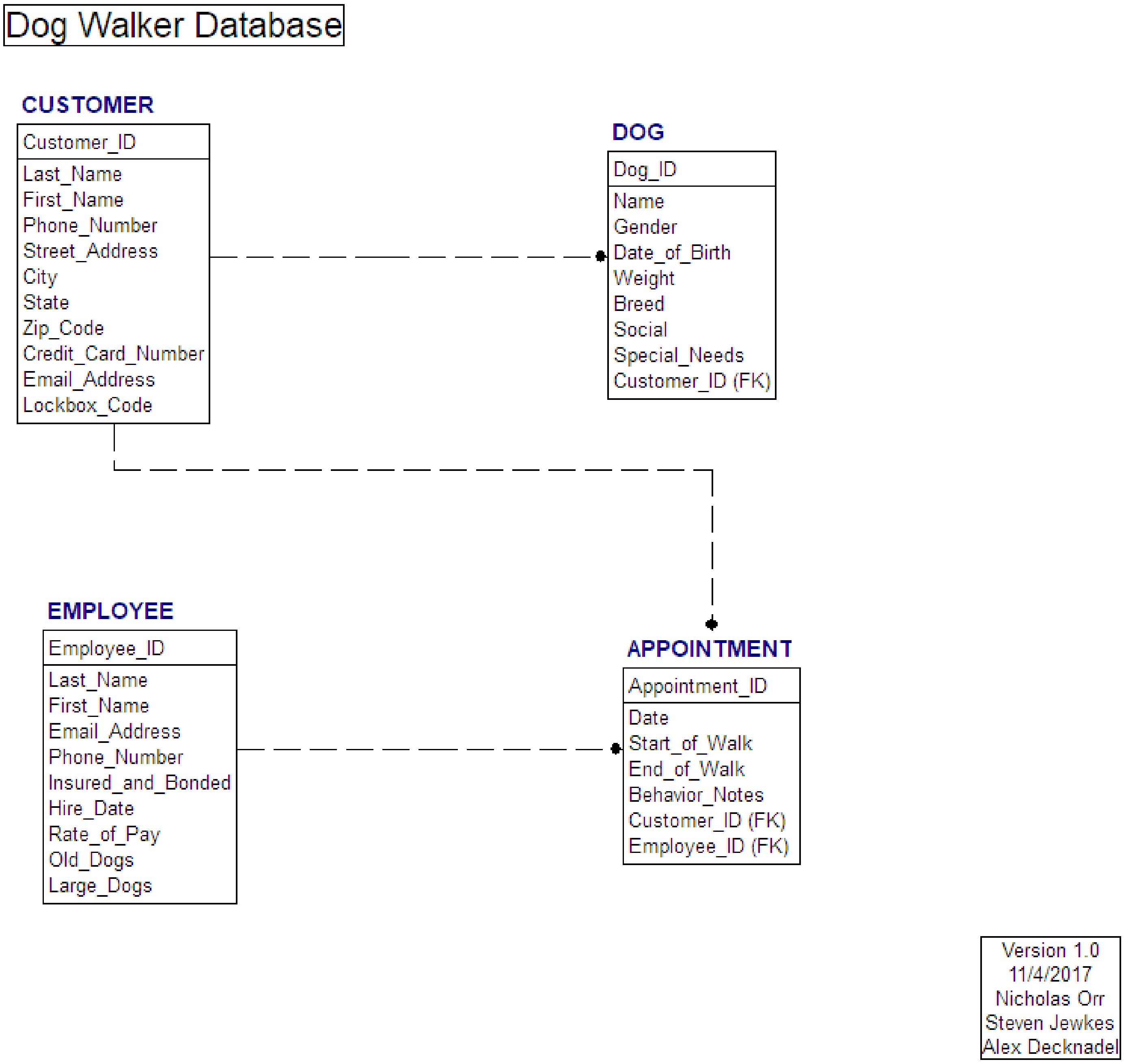
DeZign ER Diagram

The third ER Diagram for the Dog Walker database is another logical model designed with DeZign for Databases from Datanamic. It also uses Crow's foot notation.



IDEF1X ER Diagram

The fourth diagram in this portfolio is a logical model using the IDEF1X notation. It was designed using DeZign, like the previous diagram.



Business Rules

1. Customers must request their walk no later than one hour before the scheduled time.
2. No customer can request walks between 10:00 PM and 5:00 AM (PST).
3. A customer may own multiple dogs, but each dog must be owned by a single customer.
4. Dog walkers who are insured and bonded earn twenty dollars every half-hour.
5. A customer may have a preferred dog walker and can check if the dog walker is available for the time they want their dog walked. If the dog walker is available, then the customer can request them to walk their dog(s).
6. All customers must provide up-to-date payment information when registering, including first name, last name, complete address and credit card number, as well as a phone number and valid email address.
7. Dog walkers must provide contact information when requesting employment, including first name, last name, phone number and email address.
8. Customers must provide information about their dogs; such details include name, age, weight, breed, and gender. They may also provide any special provisions their dogs might need.
9. All dog walkers must be Insured & Bonded before they can accept appointments. Customers may request a list that shows which walkers are or are not Insured & Bonded.
10. Investors should be able to monitor how much each dog walker earns, as well as how much the company earns, given a range of time.
11. Customers may have a lockbox that provides entry to their home and if so, must provide a PIN. If they live in an apartment that has a doorman, a lockbox is not needed.
12. The app will have a GPS function that will track dog walkers on their walks. These can be viewed by customers to see where dog walkers take their dogs on walks.

13. Customers may set up routine walks for their dogs. Should a customer wish to cancel routine walks, they must do so at least 24 hours prior to the next routine walk to avoid being charged.

14. Investors should be able to retrieve a list of customers who frequently use the service for their dogs.

15. Dog walkers must provide a report about each dog's behavior after each walk.

16. Customers can call in and ask for information about how many hours each dog walker spends with their dog by providing their dog's name.

17. Dog walkers must indicate whether they are willing to walk older dogs (dogs that are at least 8 years old) and larger dogs (dogs that weigh at least 60 lbs).

Conclusion

This portfolio reflects the development of the Dog Walker database that Ad Hoc Innovations designed. We introduced the members of Ad Hoc Innovations that were responsible for the design and development of the Dog Walker database.

In this portfolio, we discussed why we designed and developed this database as well as how users will be able to add data into the database through a switchboard. The portfolio also showcased the different ER diagrams we designed to model the data we stored inside the database.

We also listed the business rules that we incorporated into the design and development of the Dog Walker database. Attached to the end of this portfolio is a glossary, the DDL we used to generate the database in Access, and the User Manual for the switchboard we designed for the database.

While the members of Ad Hoc Innovations are satisfied with this project, the database can be further built upon for future needs. If there are any further questions, feel free to contact us.

Glossary

- **Appointment:** A date and time to walk a dog, requested by the customer.
- **Appointment_ID:** A unique numeric identifier for an appointment.
- **Availability:** The dates and times in which an individual employee is available to work.
- **Behavior_Notes:** A brief record about a dog's behavior during a walk.
- **Breed:** A specific subgroup within the dog species that defines certain characteristics about that subgroup.
- **City:** A defined geographical location within a state.
- **Credit_Card_Number:** The unique account number for any given credit card.
- **Customer:** A person who requires dog-walking services.
- **Customer_ID:** A unique numeric identifier for a customer.
- **Date:** The day of a month or year, identified by a number.
- **Date of Birth (DOB):** The day, month and year a specific dog was born; formatted as day/month/year.
- **Dog:** The pet that needs to be walked.
- **Dog_ID:** A unique numeric identifier for each dog to be walked.
- **Email_Address:** An email address for either a customer or an employee.
- **Employee:** A company associate who is paid to walk dogs.
- **Employee_ID:** A unique numeric identifier for each employee.
- **End_of_Walk:** The time when a walk ends.
- **First_Name:** A first or given name for a person.
- **Gender:** The sex of a dog.

- **Hire_Date:** The date that an employee begins working for the company.
- **Insured_and_Bonded:** Certifications obtained by an employee in order to protect the company from certain financial concerns, such as injury on the job.
- **Large_Dogs:** A dog to be walked that weighs 60lbs or more.
- **Last_Name:** The second or surname of a person.
- **Lockbox:** A small, secure container used to store a key to a person's home or apartment.
- **Old_Dogs:** A dog to be walked that is 8 years of age or older.
- **Phone_Number:** A generally unique string of ten numeric digits used to initiate communication between customers and employees.
- **Rate_of_Pay:** How much an employee is paid to walk dogs; in this case, that rate is $20 per half hour of service.
- **Social:** The state of a dog regarding interaction with other dogs or persons.
- **Special_Needs:** A unique circumstance(s) in which special attention or protocol is required to successfully walk a dog.
- **Start_of_Walk:** The time when a walk begins.
- **State:** A defined geographical region within a country.
- **Street Address:** The numeric location of a public or private road within a town or city.
- **Weight:** A measurement to determine how heavy a dog is, it is recorded as the number of pounds (lbs.).
- **Zip_Code:** A five-digit number assigned to a geographical location in order to assist with the delivery of mail.

Dog Walker DDL

```
CREATE TABLE [CUSTOMER] (
    [Customer_ID] INTEGER NOT NULL,
    [Last_Name] VARCHAR(25) NOT NULL,
    [First_Name] VARCHAR(15) NOT NULL,
    [Phone_Number] VARCHAR(10) NOT NULL,
    [Street_Address] VARCHAR(35) NOT NULL,
    [City] VARCHAR(15) NOT NULL,
    [State] VARCHAR(15) NOT NULL,
    [Zip_Code] VARCHAR(5) NOT NULL,
    [Credit_Card_Number] VARCHAR(16) NOT NULL,
    [Email_Address] VARCHAR(35),
    [Lockbox_Code] VARCHAR(6),
    CONSTRAINT [PK_CUSTOMER] PRIMARY KEY ([Customer_ID])
);

CREATE TABLE [EMPLOYEE] (
    [Employee_ID] INTEGER NOT NULL,
    [Last_Name] VARCHAR(25) NOT NULL,
    [First_Name] VARCHAR(15) NOT NULL,
    [Email_Address] VARCHAR(35) NOT NULL,
    [Phone_Number] VARCHAR(10) NOT NULL,
    [Insured_and_Bonded] YESNO NOT NULL,
    [Hire_Date] DATE NOT NULL,
    [Rate_of_Pay] DECIMAL NOT NULL,
    [Old_Dogs] YESNO,
    [Large_Dogs] YESNO,
    CONSTRAINT [PK_EMPLOYEE] PRIMARY KEY ([Employee_ID])
);

CREATE TABLE [DOG] (
    [Dog_ID] INTEGER NOT NULL,
    [Name] VARCHAR(15) NOT NULL,
    [Gender] VARCHAR(6) NOT NULL,
    [Date_of_Birth] DATE NOT NULL,
    [Weight] INTEGER NOT NULL,
    [Breed] VARCHAR(20) NOT NULL,
    [Social] YESNO NOT NULL,
    [Special_Needs] TEXT,
    [Customer_ID] INTEGER NOT NULL,
    CONSTRAINT [PK_DOG] PRIMARY KEY ([Dog_ID]),
    CONSTRAINT [Customer_Dog]
             FOREIGN KEY ([Customer_ID]) REFERENCES [CUSTOMER]
([Customer_ID])
);
```

```
CREATE TABLE [APPOINTMENT] (
   [Appointment_ID] INTEGER NOT NULL,
   [Date] DATE NOT NULL,
   [Start_of_Walk] TIME NOT NULL,
   [End_of_Walk] TIME NOT NULL,
   [Behavior_Notes] TEXT,
   [Customer_ID] INTEGER NOT NULL,
   [Employee_ID] INTEGER NOT NULL,
   CONSTRAINT [PK_APPOINTMENT] PRIMARY KEY ([Appointment_ID]),
   CONSTRAINT [Customer_Appointment]
          FOREIGN KEY ([Customer_ID]) REFERENCES [CUSTOMER]
([Customer_ID]),
   CONSTRAINT [Employee_Appointment]
          FOREIGN KEY ([Employee_ID]) REFERENCES [EMPLOYEE]
([Employee_ID])
);
```

Query DML

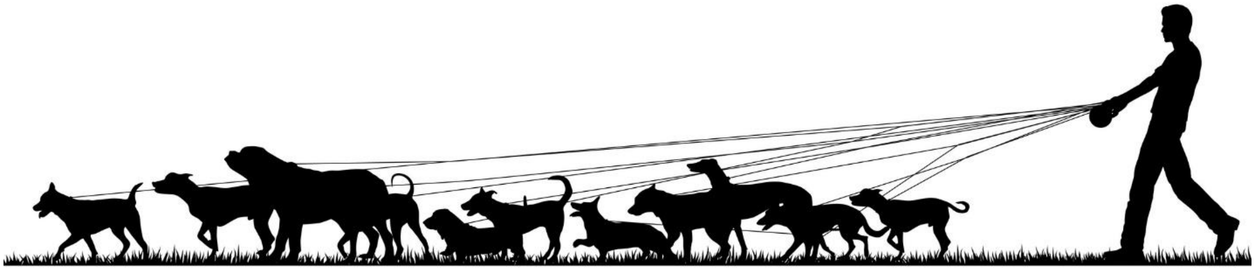
```
-- This creates the Best Customers query

SELECT CUSTOMER.Last_Name, CUSTOMER.First_Name,
Sum(FormatNumber(DateDiff("n",[APPOINTMENT].[Start_of_Walk],[APPOINTMEN
T].[End_of_Walk])/60)) AS Time_Booked_Hours

FROM CUSTOMER INNER JOIN APPOINTMENT ON CUSTOMER.Customer_ID =
APPOINTMENT.Customer_ID

GROUP BY CUSTOMER.Last_Name, CUSTOMER.First_Name;

-- This creates the Money Earned by Walkers query

SELECT EMPLOYEE.Last_Name, EMPLOYEE.First_Name,
FormatCurrency(20*Sum(FormatNumber(DateDiff("n",[APPOINTMENT].[Start_of_
Walk],[APPOINTMENT].[End_of_Walk])/30))) AS Money_Earned

FROM EMPLOYEE INNER JOIN ((CUSTOMER INNER JOIN APPOINTMENT ON
CUSTOMER.Customer_ID = APPOINTMENT.Customer_ID) INNER JOIN DOG ON
CUSTOMER.Customer_ID = DOG.Customer_ID) ON EMPLOYEE.Employee_ID =
APPOINTMENT.Employee_ID

GROUP BY EMPLOYEE.Last_Name, EMPLOYEE.First_Name;

-- This creates the Specific Walker Schedule query

SELECT EMPLOYEE.Last_Name, APPOINTMENT.Date,
APPOINTMENT.Start_of_Walk, APPOINTMENT.End_of_Walk

FROM EMPLOYEE INNER JOIN APPOINTMENT ON EMPLOYEE.[Employee_ID] =
APPOINTMENT.[Employee_ID]

WHERE (((EMPLOYEE.Last_Name)=[Enter employee's last name]));

-- This creates the Walkers query

SELECT EMPLOYEE.Last_Name, EMPLOYEE.First_Name, DOG.Name,
Sum(FormatNumber(DateDiff("n",[APPOINTMENT].[Start_of_Walk],[APPOINTMEN
T].[End_of_Walk])/60)) AS Time_Walked_Hours

FROM (CUSTOMER INNER JOIN (EMPLOYEE INNER JOIN APPOINTMENT ON
EMPLOYEE.[Employee_ID] = APPOINTMENT.[Employee_ID]) ON
CUSTOMER.[Customer_ID] = APPOINTMENT.[Customer_ID]) INNER JOIN DOG
ON CUSTOMER.[Customer_ID] = DOG.[Customer_ID]
```

```
GROUP BY EMPLOYEE.Last_Name, EMPLOYEE.First_Name, DOG.Name;

-- This creates the Walkers and Times by Dog query

SELECT [EMPLOYEE].[First_Name]+" "+[EMPLOYEE].[Last_Name] AS Walker,
DOG.Name,
Sum(FormatNumber(DateDiff("n",[APPOINTMENT].[Start_of_Walk],[APPOINTMEN
T].[End_of_Walk])/60)) AS Time_Walked_Hours

FROM (CUSTOMER INNER JOIN (EMPLOYEE INNER JOIN APPOINTMENT ON
EMPLOYEE.[Employee_ID] = APPOINTMENT.[Employee_ID]) ON
CUSTOMER.[Customer_ID] = APPOINTMENT.[Customer_ID]) INNER JOIN DOG
ON CUSTOMER.[Customer_ID] = DOG.[Customer_ID]

GROUP BY [EMPLOYEE].[First_Name]+" "+[EMPLOYEE].[Last_Name], DOG.Name
HAVING (((DOG.Name)=[Which dog?]));

-- This creates the Walkers of Big Dogs query
SELECT DISTINCTROW EMPLOYEE.Last_Name, EMPLOYEE.First_Name,
DOG.Name, DOG.Weight

FROM (CUSTOMER INNER JOIN (EMPLOYEE INNER JOIN APPOINTMENT ON
EMPLOYEE.[Employee_ID] = APPOINTMENT.[Employee_ID]) ON
CUSTOMER.[Customer_ID] = APPOINTMENT.[Customer_ID]) INNER JOIN DOG
ON CUSTOMER.[Customer_ID] = DOG.[Customer_ID]

WHERE (((DOG.Weight)>=60));

-- This creates the Walkers of Old Dogs query

SELECT DISTINCTROW EMPLOYEE.Last_Name, EMPLOYEE.First_Name,
DOG.Name, CInt(DateDiff("yyyy",[DOG].[Date_of_Birth],Date())) AS Age

FROM (CUSTOMER INNER JOIN (EMPLOYEE INNER JOIN APPOINTMENT ON
EMPLOYEE.[Employee_ID] = APPOINTMENT.[Employee_ID]) ON
CUSTOMER.[Customer_ID] = APPOINTMENT.[Customer_ID]) INNER JOIN DOG
ON CUSTOMER.[Customer_ID] = DOG.[Customer_ID]

WHERE (((CInt(DateDiff("yyyy",[DOG].[Date_of_Birth],Date())))>=8));

-- This creates the Walkers who are not Insured query

SELECT EMPLOYEE.Last_Name, EMPLOYEE.First_Name,
EMPLOYEE.Email_Address, EMPLOYEE.Hire_Date
FROM EMPLOYEE
WHERE (((EMPLOYEE.Insured_and_Bonded)=False));
```

AD HOC

INNOVATIONS

“Take Me Out”
Database User Manual



INSTALLATION

Please be advised that Microsoft Access version 2016 or later may be required to properly run your database.

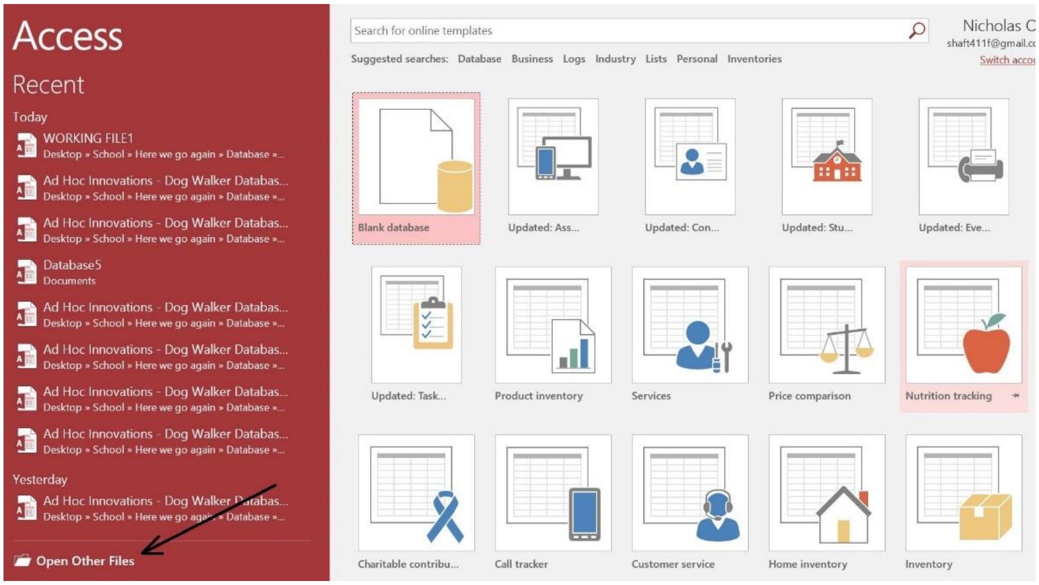
Option 1)

Navigate to the location of database files (if removable media such as CD or USB drive were supplied, insert media into appropriate drive and navigate to their default location) and simply double click on the Ad Hoc Innovations – Dog Walker Database.accdb file to open the database.

Option 2)

Navigate to and open Microsoft Access 2016 (or later).

Click on Open Other Files

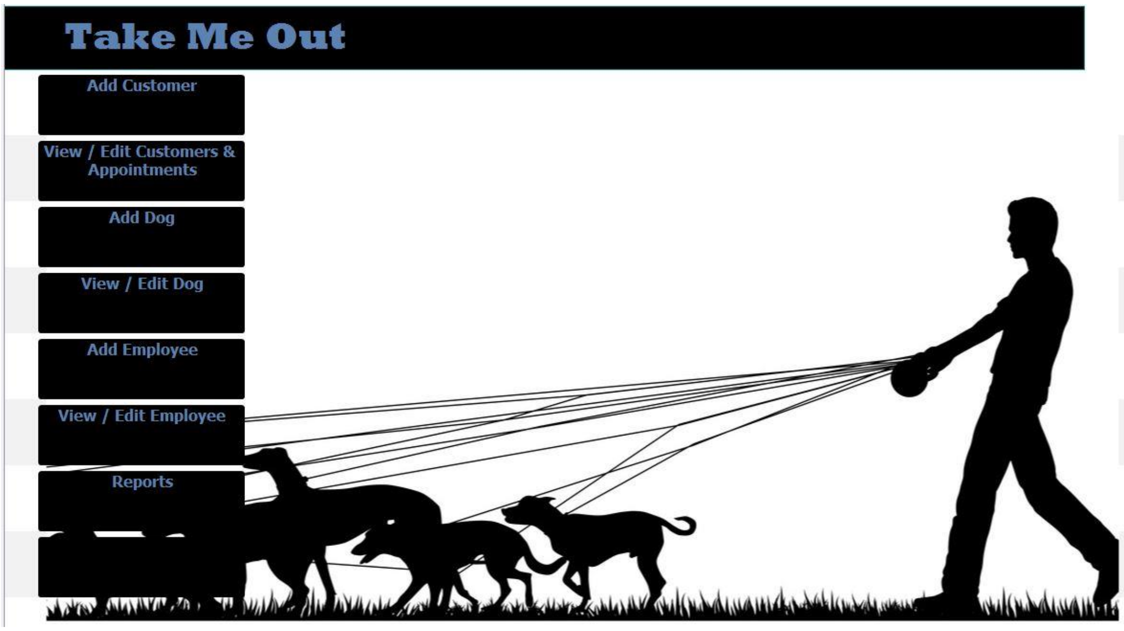

Access
Recent
Today
WORKING FILE1
Desktop » School » Here we go again » Database »...
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Database5
Documents
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Yesterday
Ad Hoc Innovations - Dog Walker Databas...
Desktop » School » Here we go again » Database »...
Open Other Files
Search for online templates
Suggested searches: Database Business Logs Industry Lists Personal Inventories
Nicholas C
shaft411f@gmail.c
Switch accou
Blank database
Updated: Ass...
Updated: Con...
Updated: Stu...
Updated: Eve...
Updated: Task...
Product inventory
Services
Price comparison
Nutrition tracking
Charitable contribu...
Call tracker
Customer service
Home inventory
Inventory

Then navigate to the stored location of your database file and select Ad Hoc Innovations – Dog Walker Database.accdb – you can either double click the file name in the navigation window or single click to highlight the file name and click Open

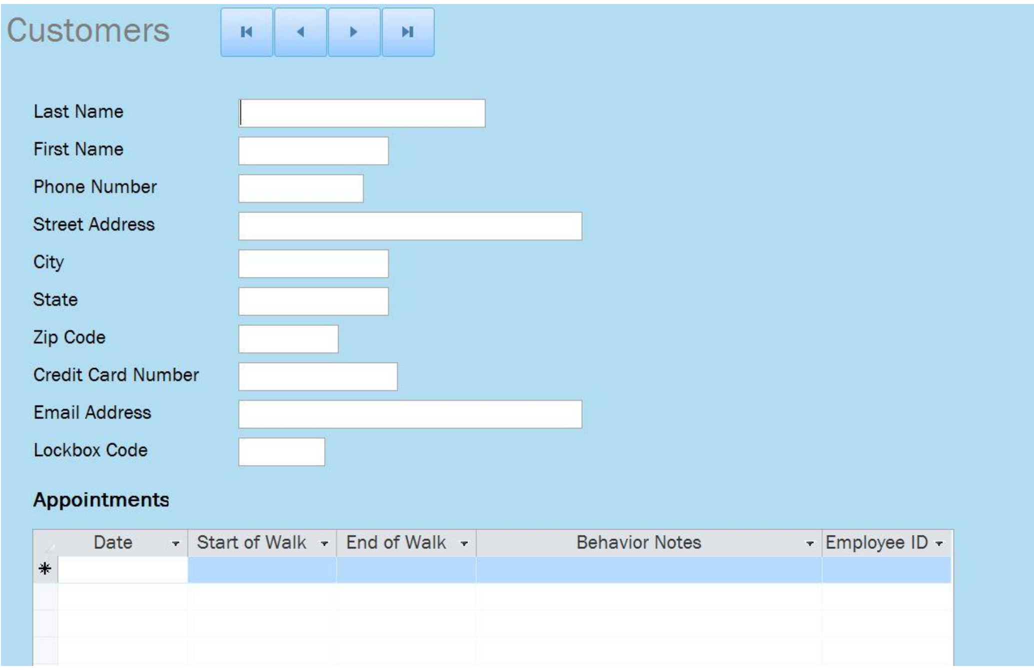
NAVIGATION

Upon opening your database, you will be presented with the Main Menu of your Switchboard.

It is from here that you will be able to perform a variety of actions on your database through a user-friendly graphical interface.



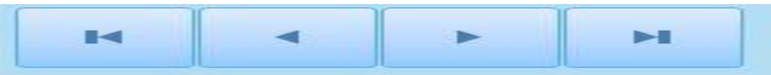
Click on Add Customer to open a form that will allow you to add new customers to your database.



Appointments

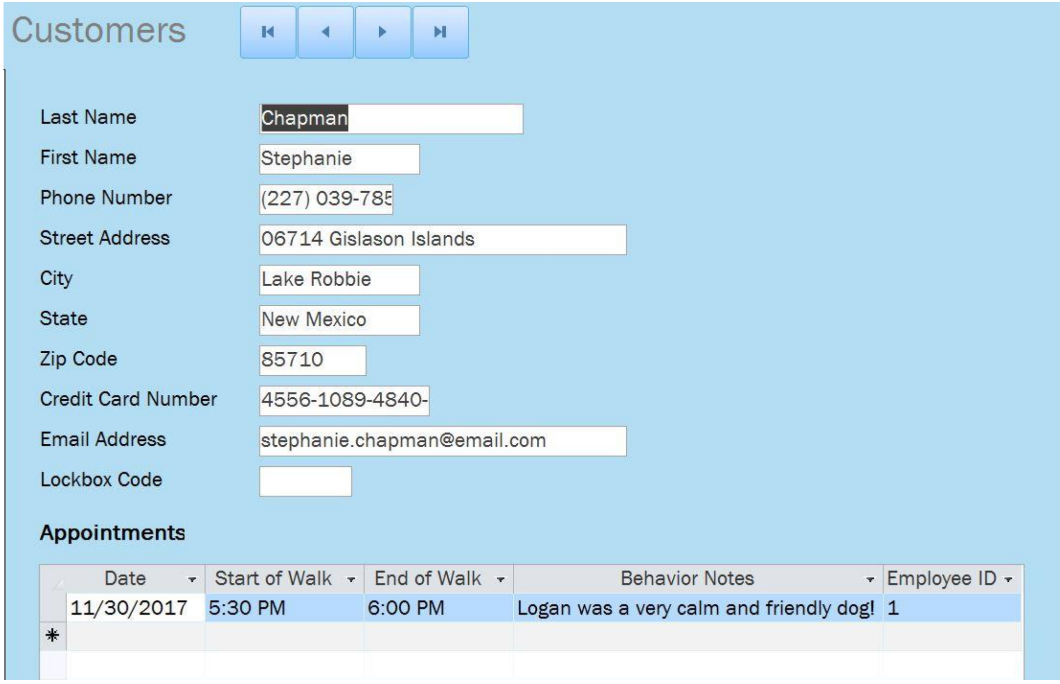
	Date	Start of Walk	End of Walk	Behavior Notes	Employee ID
*					

You'll notice some additional buttons displayed at the top of the form – these are for navigation within that form and will allow you to:



Return to first record	Move back one record	Move forward one record	Proceed to last record

Click on View / Edit Customers & Appointments if you would like to make changes to current customers and appointments or simply view records.



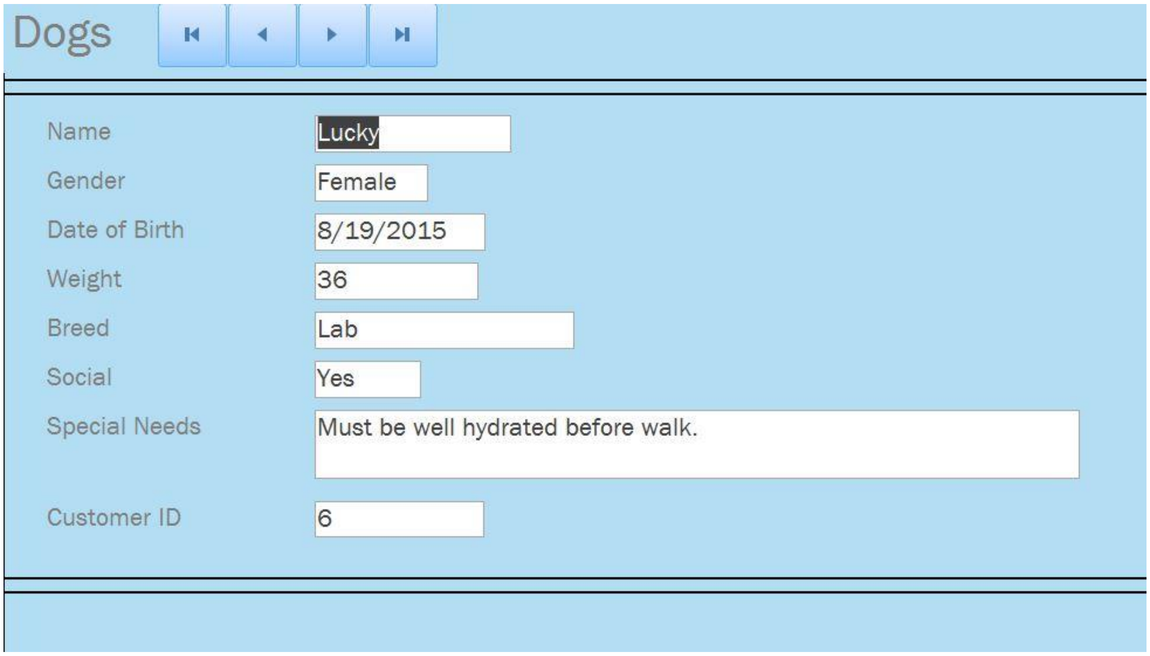
Customers

Last Name	Chapman
First Name	Stephanie
Phone Number	(227) 039-785
Street Address	06714 Gislason Islands
City	Lake Robbie
State	New Mexico
Zip Code	85710
Credit Card Number	4556-1089-4840-
Email Address	stephanie.chapman@email.com
Lockbox Code	

Appointments

	Date	Start of Walk	End of Walk	Behavior Notes	Employee ID
	11/30/2017	5:30 PM	6:00 PM	Logan was a very calm and friendly dog!	1
*					

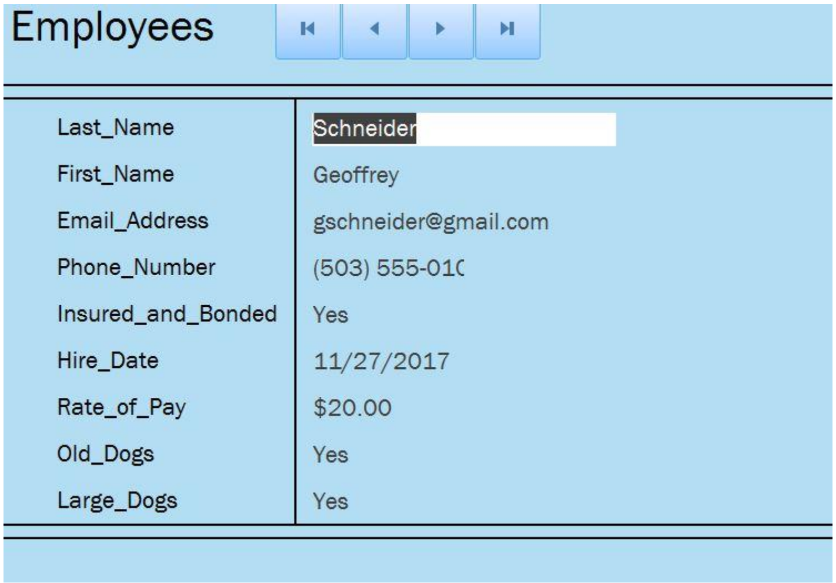
Like the function of the Customer options, there are Dog options as well. Click on Add Dog to assign a new pet to an established customer. Or if you would like to make changes to a current pet, such as updating their special needs, click on View / Edit Dog.



Dogs

Name	Lucky
Gender	Female
Date of Birth	8/19/2015
Weight	36
Breed	Lab
Social	Yes
Special Needs	Must be well hydrated before walk.
Customer ID	6

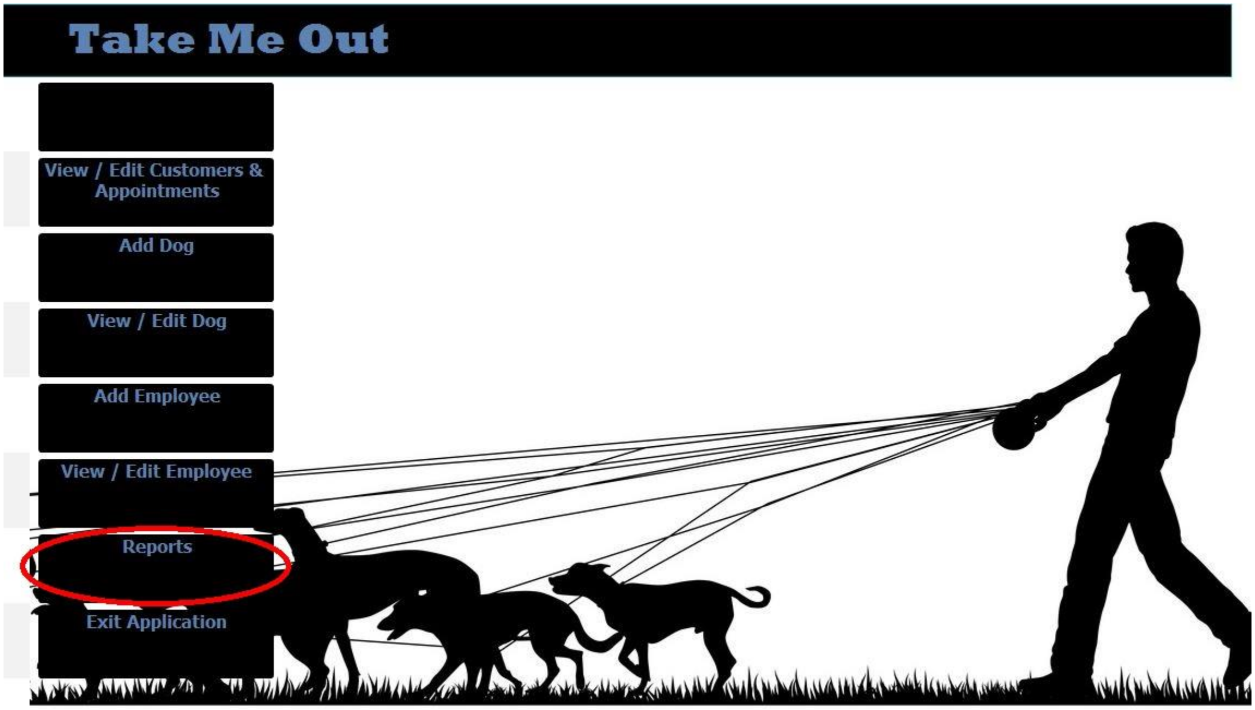
In addition to the Customer and Dog forms available, there are similar Employee forms accessible through the main menu. Click on Add Employee to enter new walker information into the database or click on View / Edit Employee to navigate through current employee records or make adjustments to a certain employee, such as updating their Insured & Bonded status.



Employees

Last_Name	Schneider
First_Name	Geoffrey
Email_Address	gschneider@gmail.com
Phone_Number	(503) 555-01(
Insured_and_Bonded	Yes
Hire_Date	11/27/2017
Rate_of_Pay	$20.00
Old_Dogs	Yes
Large_Dogs	Yes

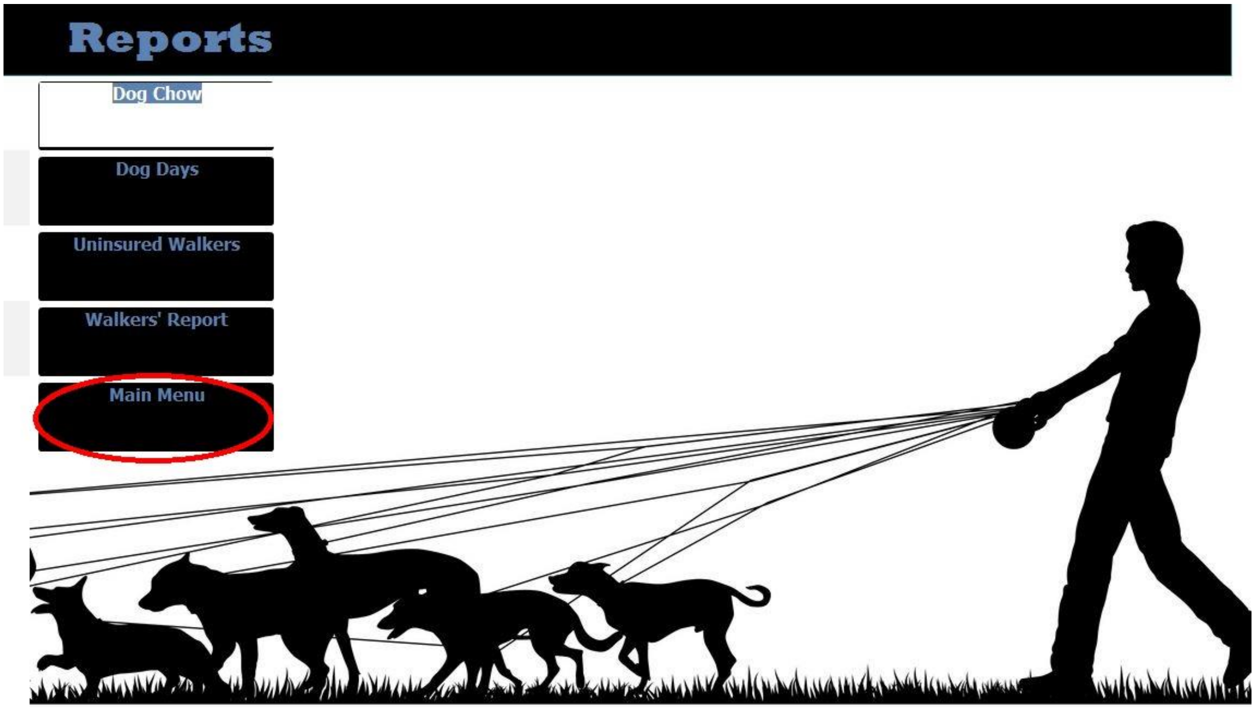
Your new database is not only capable of keeping records up-to-date and easily accessible, but of providing useful, valuable information to you about your business. This information is presented via Reports that you can access through the Switchboard user interface.



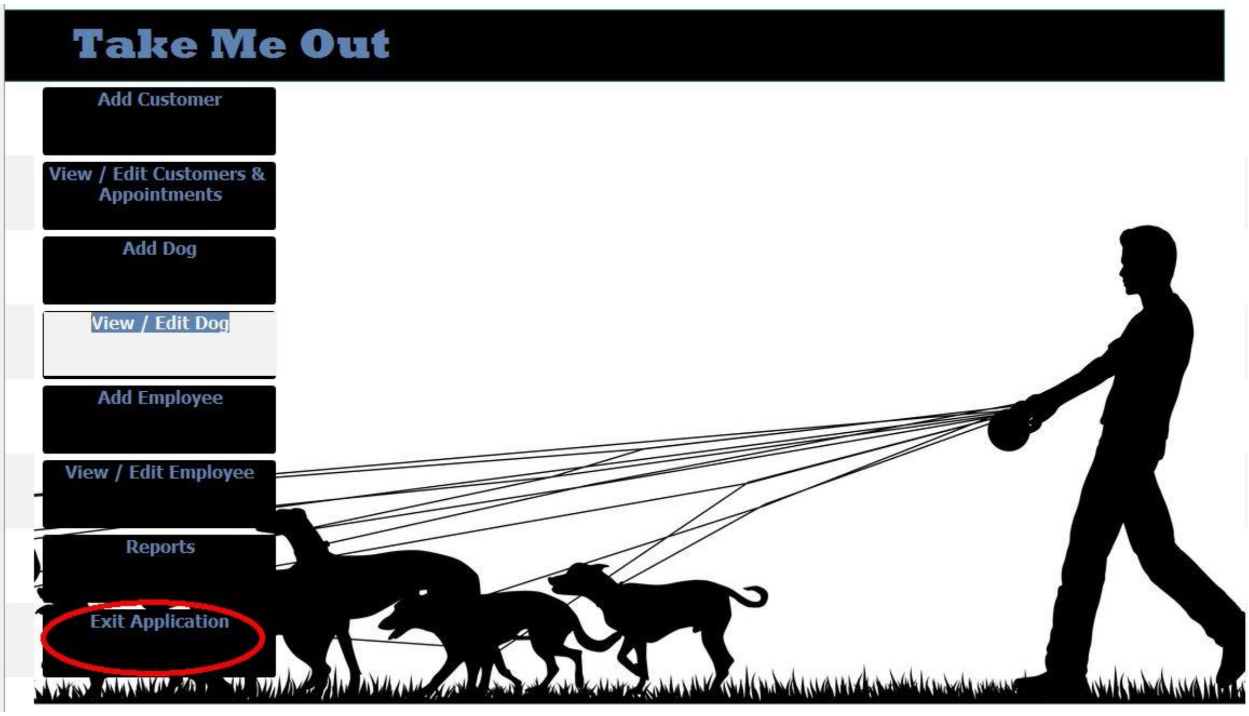
Click on the Reports button to open the Reports menu.

From this menu, you can select a variety of different reports that each provide valuable insight into business trends and beyond. Your database manager will easily be able to update and even add new reports to your switchboard, with minimal overhead.

Click on Main Menu to return to the Main Menu.



When you are finished working with your database for the time being, simply navigate back to the Main Menu and click on the Exit Application button to close the database.


Take Me Out
Add Customer
View / Edit Customers & Appointments
Add Dog
View / Edit Dog
Add Employee
View / Edit Employee
Reports
Exit Application