

Final Project

Salon Client Appointment Tracking System
For
Magnolia Waxing and Skin Care

By
Rajrupa (Bonny) Bakshi

CSCI E-60
Developing Web-based Database Applications
December 16, 2015

Table of Contents

<u>Access Information</u>	1
<u>Statement of the problem and Purpose of the project</u>	1
Scope	2
Login Page	2
Admin Home Page	2
Manage Client	2
Manage Appointment	2
Manage Services	3
Manage Invoice.....	3
<u>Full Data Model</u>	4
ER Diagram.....	4
Record Diagram.....	5
<u>Special Features</u>	7
<u>Trigger</u>	9
<u>Transaction</u>	9
<u>Queries</u>	10
<u>Screen Shots</u>	12
Login	12
Administrator Home Page	13
Manage Client	14
Manage Appointment.....	15
Manage Services.....	16
Manage Invoice.....	17

TITLE

Development of web-based application for Magnolia waxing and Skin Care

ACCESS INFORMATION

Application url: <http://cscie60.dce.harvard.edu/~rbakshi/fp/login.cfm>

Administrator Login: admin

Administrator Password: 60admin

(Website has one account with Administrator privilege)

STATEMENT OF THE PROBLEM AND PURPOSE OF THE PROJECT

My web-based database application is a Salon Client Appointment Tracking System for Magnolia Waxing and Skincare. The goal of this project is to create a web-based database application for a salon owner that allows him/her to track client details, appointments, scheduling, as well as menu and rate card of various services offered. This application will be a key tool in tracking appointments for each client individually and will replace the manual process of scheduling in single-table spreadsheet. Using this application, clients will be able to book appointments themselves via a web-based interface. However, my project will focus on admin (for the time being salon owner) privileges only. I shall be developing client privileges in due time.

Scope: The application will include forms and reports to both enter information in the database and to allow reporting of various metrics.

The following is the flow of information:

Login Page

Administrator must login with correct username and password to view home page

Admin Home page Index

Manage Client:

The Administrator can view all his/her clients, as well as go a level deeper and select an individual client to view Client Appointment History. Admin can also delete a client from the database if required. However, by doing so all information, and records about that client will be permanently erased from the database.

Flow of information:

Select a Client by clicking Client Name →

For the selected Client → Show appointment report & [Delete option] to delete client → Once a client is deleted all corresponding appointments and invoice will also get deleted.

Manage Appointment:

The Administrator can select an individual client to view his Appointment history and update appointment status

Flow of information:

Select Client by clicking Client Name →

For the selected client → Show appointment [Report]

Select appointment to [update] → update Appointment status field from the

dropdown list after every client visit.

Appointment status options [Dropdown List]:

Completed

Missed

Pending

Manage Service:

The Administrator can select an active service to view Appointments. He/She can also take a quick look at the number of appointments each service has. The Administrator can also add a new service to the database by filling up the new service form.

Flow of information:

Select service by selecting service type →

Option to create new service [Form]

Appointment and Client [Report] for the selected service →

Manage Invoice:

The Administrator can select an individual client to view Invoices. He/she can enter an price amount to view a list of clients who spend more than the entered amount.

Flow of information:

Select client from list by clicking client Name →

Invoice [Report] for selected client.

Enter amount to [Report] a list of client who spend more than amount .

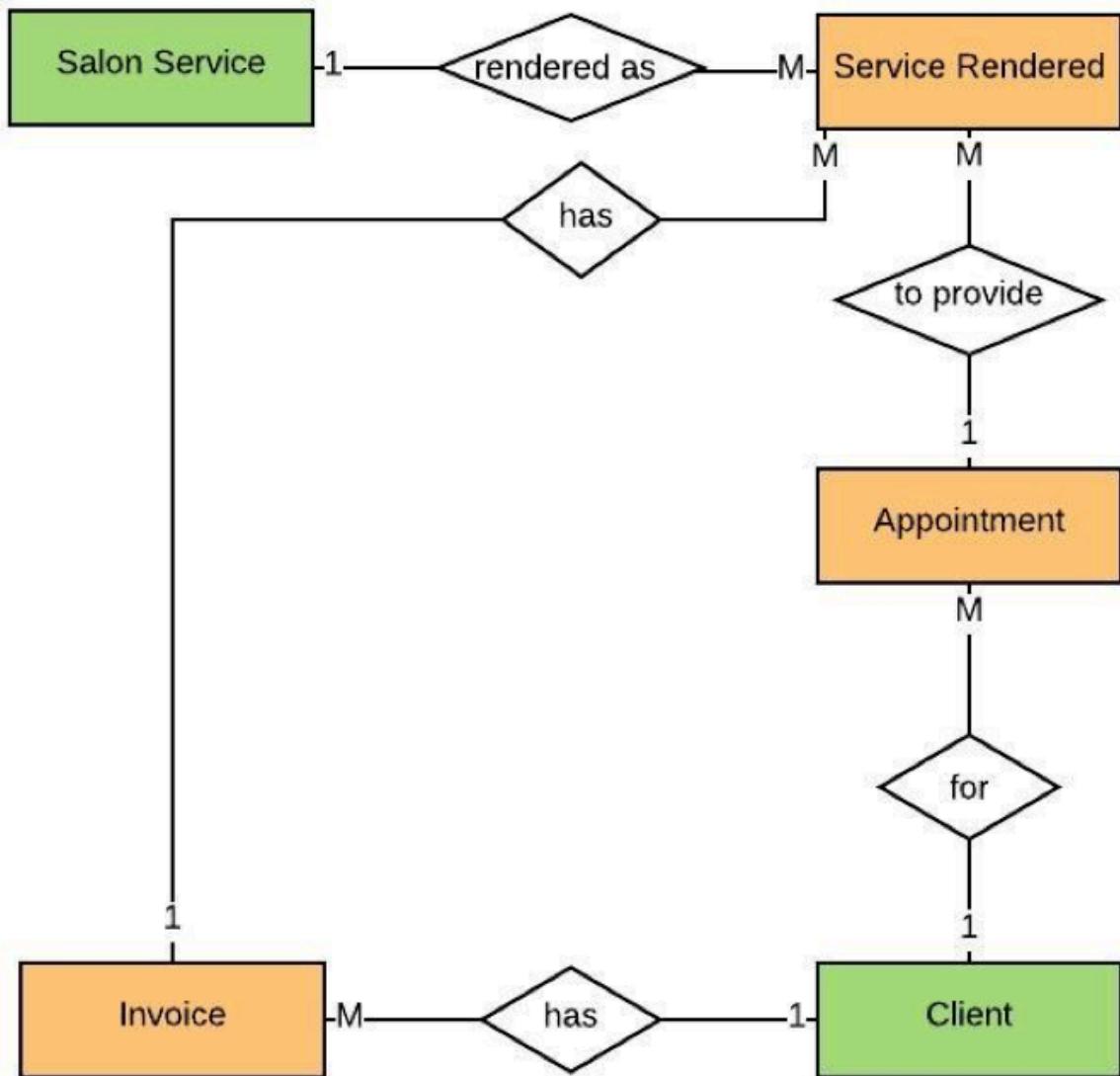
The data used for this project is fictional, but based on real requirements.

ORIGINAL WORK

I hereby certify that this project was prepared only for this course, and that this or a similar version has not been submitted to any other course.

Enclosed with this report is the full data model and the accompanying record diagrams.

FULL DATA MODEL



RECORD DIAGRAMS

Client Entity

(PK)	clientId	name	phone	email
	not null	not null	not null	null
1	Jessica Smith	714-222-3333	jessica.s@gmail.com	
2	Abbie Vincent	543-333-2222	abbie.v@gmail.com	
3	Dana Jones	777-444-5555	dana.j@gmail.com	
4	Tina Miller	333-888-8888	tina.m@gmail.com	
5	Pamela Davis	223-432-3454	p.davis@gmail.com	
6	Nancy Taylor	718-324-5434	nancy.t@gmail.com	

Service Entity

(PK)	serviceId	serviceType	serviceDescr	serviceDuration	ServicePrice
	not null	not null	not null	null	not null
1	facials	custom blend	60	95	
2	facials	acne clearing	60	95	
3	facials	calming	60	95	
4	facials	revitalizing	60	100	
5	waxing face	brow		20	
6	waxing face	lip		12	
7	waxing face	chin		12	
8	waxing face	side of face		25	
9	waxing body	under arm		20	
10	waxing body	full arm	30	42	
11	waxing body	back	30	50	
12	waxing body	chest	20	50	
13	waxing body	shoulders	15	20	
14	waxing body	neck	15	20	
15	waxing body	full legs	45	60	

Appointment Entity

(PK)	appointmentNo	visitDate(mm/dd/yyyy)	visitTime	visitedConfirmation	(FK)
	not null	not null	not null	not null	clientId
1	9/4/2015	3:00	complete	1	
2	9/4/2015	4:30	complete	2	
3	9/4/2015	6:00	complete	3	
4	9/5/2015	2:00	pending	4	
5	9/5/2015	4:00	missed	5	
6	9/5/2015	5:00	complete	6	
7	10/7/2015	5:00	complete	6	
8	11/10/2015	5:00	complete	6	
9	12/22/2015	2:00	pending	6	

Invoice Entity

(PK)				(FK)
invoiceNo	paymentDate(mm/dd/yyyy)	paymentAmount	paymentMethod	clientId
not null	not null	not null	null	null
1	9/4/15	115	card	1
2	9/4/15	95	cash	2
3	9/4/15	50	cash	3
4	9/5/15	92	cash	4
5	9/5/15	95	card	6
6	10/7/15	95	cash	6
7	11/10/15	95	cash	6

Service Rendered Entity

(PK)	(FK)	(FK)		(FK)
renderedNo	ServiceId	appointmentNo	servicePrice	invoiceNo
not null	not null	not null	not null	null
1	3	1	95	1
2	5	1	20	1
3	2	2	95	2
4	11	3	50	3
5	10	4	42	4
6	11	4	50	4
7	3	5	95	null
8	2	6	95	5
9	2	7	95	6
10	2	8	95	7
11	2	9	95	null

SPECIAL FEATURES

1. CfSlider

URL: <http://cscie60.dce.harvard.edu/~rbakshi/fp/addservice.cfm>

I have used a slider control, for selecting a numeric value from a range, in 'Add a Service' form. The slider moves horizontally over the slider groove. As the user moves the slider, the current value displays in the text box above the slider. The text box is read only, thus, one can only view the numeric values.

2. Auto-Suggest

URL: <http://cscie60.dce.harvard.edu/~rbakshi/fp/addservice.cfm>

File: suggestName.cfc

I have used an auto suggest in Service Type text box, giving users the freedom to type what they want, while at the same time giving them suggestions of existing service types.

The screenshot shows a web browser window with the URL <http://cscie60.dce.harvard.edu/~rbakshi/fp/addservice.cfm>. The page title is "Add Services". The header includes "Home", "Logout", and "Back" links. The main content area has a red header bar with the text "Magnolia Waxing and Skin Care". Below this, the form is titled "Add a new Service". It contains several input fields: "Service Type:" with a dropdown menu showing "fa" and "facials" (the latter highlighted with a blue selection bar), "Service Description:" (a text area), "Service Duration: 0 minutes" (with a slider bar and a text input field), "Service Price:" (a text input field), and "Add Service" and "Clear" buttons. Two arrows point from the "Cfslider" and "Auto-Suggest" labels to the respective "Service Duration" and "Service Type" input areas. At the bottom of the page, a red footer bar states "Developed by Rajrupa Bakshi for CSCIE-60 Final Project.".

Cfslider

Auto-Suggest

3. Tablesorter

URL: <http://cscie60.dce.harvard.edu/~rbakshi/fp/manageclient.cfm>

I have used a tablesorter plugin for all tables. Initially tablesorter sorts the first column in ascending order. The user can further sort any column in ascending or descending order by clicking the column header.

The screenshot shows a web browser window for 'Manage Appointment' at the URL 'cscie60.dce.harvard.edu/~rbakshi/fp/manageappointment.cfm'. The page title is 'Magnolia Waxing and Skin Care'. It features a red header bar with the company name. Below it, there are navigation links for 'Home' and 'Logout'. The main content area is titled 'Manage Client Appointments' and contains a section for 'List of Clients'. A note says 'Click on client's name to manage Appointment (click on column headers to sort list)'. A table lists six clients with columns for Client ID, Client Name, Client Phone, and Client Email. An arrow points from a callout box below the table to the 'Client ID' header, indicating it is the current sort key. The table data is as follows:

Client ID	Client Name	Client Phone	Client Email
1	Jessica Smith	714-222-3333	jessica.s@gmail.com
2	Abbie Vincent	543-333-2222	abbie.v@gmail.com
3	Dana Jones	777-4444-5555	dana.j@gmail.com
4	Tina Miller	333-888-9999	tina.m@gmail.com
5	Pamela Davis	233-243-3434	p.davis@gmail.com
6	Nancy Taylor	718-324-5434	nancy.t@gmail.com

Click on header to sort table in ascending and descending order

4. Cftry / Cfcatch

URL: <http://cscie60.dce.harvard.edu/~rbakshi/fp/manageclient.cfm>

URL: <http://cscie60.dce.harvard.edu/~rbakshi/fp/manageinvoice.cfm>

I have used cftry together with cfcatch tags to process exceptions in ColdFusion pages.

TRIGGER

This Trigger is to increment appointmentNo by 1 every time data is inserted

```
CREATE or REPLACE trigger TR_new_appointment_IN
before insert on tbAppointment
for each row
/* trigger executes before an insert into the appointment table */
begin
    SELECT seq_appointment.nextval
    into :new.appointmentNo
    FROM dual;
end TR_new_appointment_IN;
/
```

This Trigger is to increment clientId by 1 every time client is added

```
CREATE or REPLACE trigger TR_new_client_IN
before insert on tbClient
for each row
/* trigger executes before an insert into the tbClient */
begin
    SELECT seq_client.nextval
    into :new.clientId
    FROM dual;
end TR_new_client_IN;
/
```

TRANSACTION

This Transaction commits appointment status after update

URL: <http://cscie60.dce.harvard.edu/~rbakshi/fp/updateappointment.cfm>

```
<cfif IsDefined("Form.update")>
<!-- ### Update Action Code Starts Here --->
<cftransaction>
<cftry>
<cfquery name="updateAppointment"
    datasource="#Request.DSN#"
    username="#Request.username#"
    password="#Request.password#">
    update tbAppointment
    set
        status = '#Form.status#'
        where appointmentNo = <cfqueryparam
            cfsqldate="CF_SQL_VARCHAR" value="#Form.appointmentNo#">
```

```

        and clientId = <cfqueryparam cfsqltype="CF_SQL_VARCHAR"
value="#Form.clientId#">
    </cfquery>
    <cftransaction action="commit" />
<cfoutput>
    <cflocation url="manageappointment.cfm?clientId=#Form.clientId#">
</cfoutput>

<cfcatch type = "any">
    <cftransaction action="rollback" />
<cfoutput>
    <h4>
        There has been a type = #CFCATCH.TYPE# Error.<br />
        <p>Please report to the following information to your System Administrator:<br />
#cfcatch.message#</p>
    </h4>
</cfoutput>
    <h4>
        <a href="manageappointment.cfm"> Choose Another Client</a> |<br />
        <a href="index.cfm"> Back to Home Page</a>
    </h4>

</cfcatch>
<cftry>
    <cftransaction>

```

QUERIES

This query displays services currently being used by clients
and show the number of appointment associated with each of those services

```

SELECT s.servicId,
       s.serviceType,
       s.serviceDescr,
       s.serviceDuration,
       s.servicePrice,
       COUNT (a.appointmentNo) as "aptCount"
FROM tbAppointment a,
     tbService s, tbServiceRendered sr
WHERE a.appointmentNo = sr.appointmentNo
      and s.servicId = sr.servicId
GROUP BY s.servicId, s.serviceType, s.serviceDescr,s.serviceDuration,s.servicePrice
ORDER BY 6 DESC

```

Output

Service Type	Service Description	Service Duration	Service Price	Number of Appointments
Facials	acne clearing	60	\$ 95.00	5
Facials	calming	60	\$ 95.00	2
waxing body	back	30	\$ 42.00	2
waxing body	full arm	30	\$ 20.00	1
waxing face	brow		\$ 20.00	1

This query displays list of all clients who spend more than the selected amount

```
SELECT c.name, i.paymentMethod ,i.paymentAmt
      FROM tbClient c, tbInvoice i
     WHERE c.clientId = i.clientId
       and i.paymentAmt > #Selected amount #
```

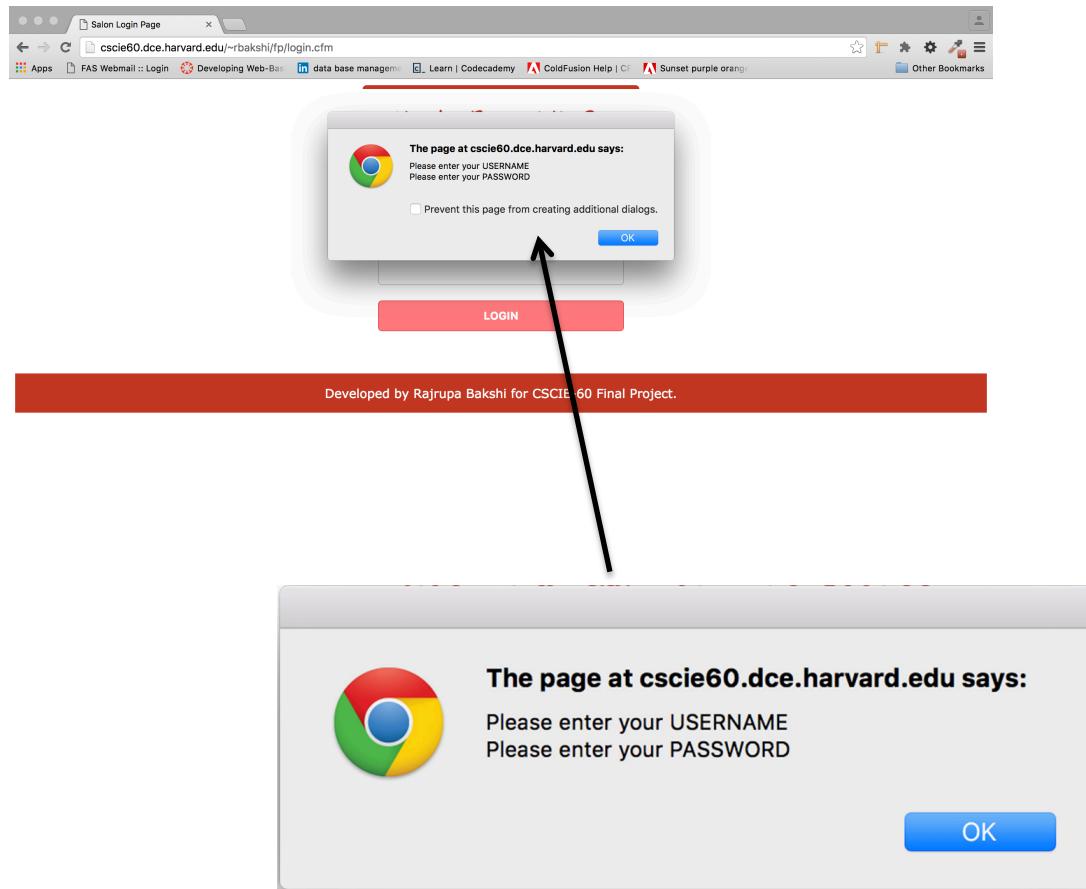
The screenshot shows a web-based application interface for managing client invoices. At the top, there's a navigation bar with links for 'Home' and 'Logout'. Below it, a red header bar displays the text 'Magnolia Waxing and Skin Care'. The main content area is titled 'Manage Client Invoice' and contains a section titled 'List of Clients'. It includes a note: 'Click on clients Name to view Invoice' and 'click on column headers to sort list'. A table lists six clients with columns for Client ID, Client Name, Client Phone, and Client Email. At the bottom of the page, there's a note: 'Show all clients who spend more than the Entered Amount' followed by an input field labeled 'Enter Amount:' and a button labeled 'Show Client'. A footer at the bottom states: 'Developed by Rajrupa Bakshi for CSCIE-60 Final Project.'

SCREEN SHOTS

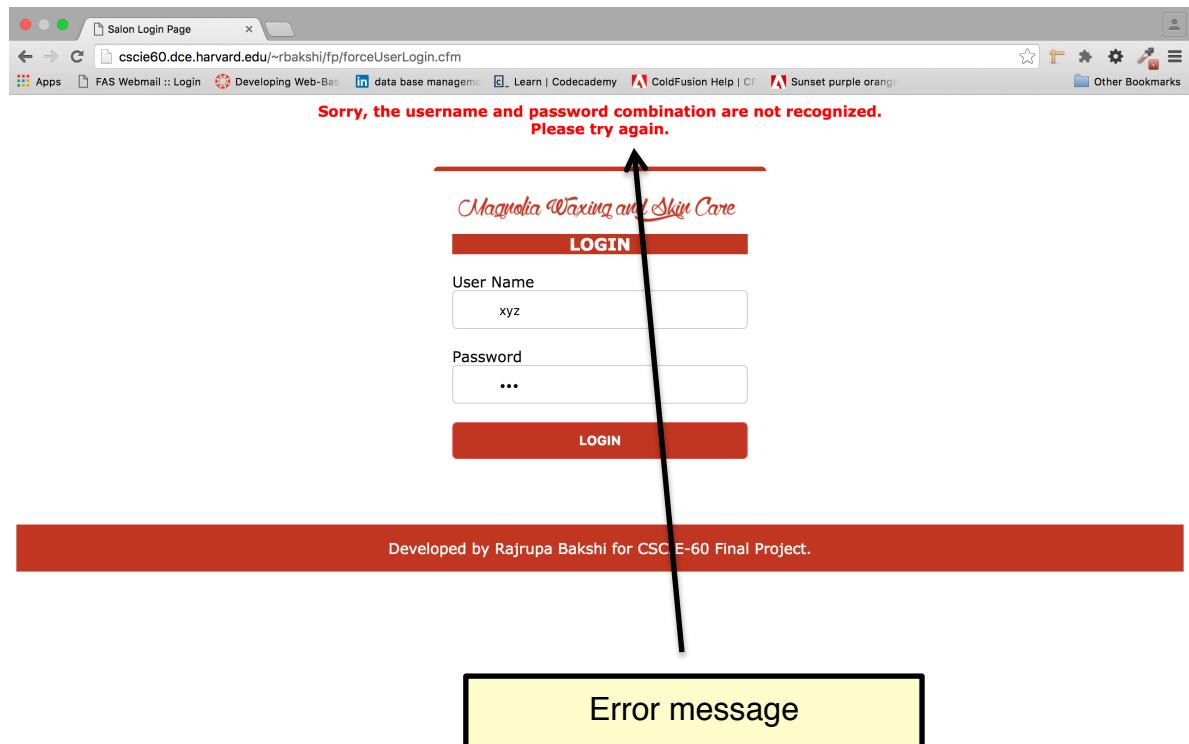
LOGIN PAGE

The screenshot shows a web browser window with the URL cscie60.dce.harvard.edu/~rbakshi/fp/login.cfm. The page title is "Magnolia Waxing and Skin Care". A red "LOGIN" button is at the top. Below it are two input fields: "User Name" and "Password", both currently empty. A red "LOGIN" button is below the password field. At the bottom of the page is a red banner with the text "Developed by Rajrupa Bakshi for CSCIE-60 Final Project."

If login button is clicked without a username and password input



If wrong username and password is entered an error message is shown on the screen



ADMINISTRATOR HOME PAGE

A screenshot of a web browser window titled "Home Page". The URL in the address bar is "cscie60.dce.harvard.edu/~rbakshi/fp/index.cfm". The page content is as follows:

Magnolia Waxing and Skin Care

Home Logout

Welcome lisa

Manage Client Manage Appointment Manage Services Manage Invoice

Developed by Rajrupa Bakshi for CSCIE-60 Final Project.

An arrow points from the text "Options for Administrator to access the website and manage client, appointment and service database" in a yellow box to the "Manage Client" button. Another arrow points from the text "Welcome message will include the name of the logged in user" in a yellow box to the "Welcome lisa" message.

Options for Administrator to access the website and manage client, appointment and service database

Welcome message will include the name of the logged in user

MANAGE CLIENT

The screenshot shows a web browser window titled "Manage Clients". The URL is "cscie60.dce.harvard.edu/~rbakshi/fp/manageclient.cfm". The page has a red header with the text "Magnolia Waxing and Skin Care". Below the header, there are links for "Home" and "Logout". A section titled "Manage Clients" contains a heading "List of Clients" and a note: "Click on client's Name to view Client's Appointment History (click on column headers to sort list)". A table lists six clients with columns for Client ID, Client Name, Client Phone, and Client Email. An arrow points from a callout box to the "Client Name" column of the client "Nancy Taylor". The callout box contains the text: "Click on the client name to view Appointment history". A red double-headed arrow is positioned below the callout box.

Client ID	Client Name	Client Phone	Client Email
1	Jessica Smith	714-222-3333	jessica.s@gmail.com
2	Abbie Vincent	543-333-2222	abbie.v@gmail.com
3	Dana Jones	777-444-5555	dana.j@gmail.com
4	Tina Miller	333-888-9999	tina.m@gmail.com
5	Pamela Davis	233-243-3434	p.davis@gmail.com
6	Nancy Taylor	718-324-5434	nancy.t@gmail.com

Developed by Rajrupa Bakshi for CSCIE-60 Final Project.

Click on the client name to view Appointment history

REPORT

The screenshot shows a web browser window titled "Manage Clients". The URL is "cscie60.dce.harvard.edu/~rbakshi/fp/manageclient.cfm?clientId=6". The page has a red header with the text "Magnolia Waxing and Skin Care". Below the header, there are links for "Home", "Logout", and "Back". A section titled "Appointment for Nancy Taylor" displays a table of appointments with columns for Visit Date, Visit Time, Service Type, Service Description, and Appointment Status. A "Delete Client" button is located at the bottom left. A warning message at the bottom states: "Warning! Deleting will permanently remove all information about this client." A red double-headed arrow is positioned below the warning message.

Visit Date	Visit Time	Service Type	Service Description	Appointment Status
09/05/2015	5:00	facials	acne clearing	complete
10/07/2015	5:00	facials	acne clearing	complete
11/10/2015	5:00	facials	acne clearing	complete
12/22/2015	2:00	facials	acne clearing	pending

Delete Client

Warning! Deleting will permanently remove all information about this client.

Developed by Rajrupa Bakshi for CSCIE-60 Final Project.

MANAGE APPOINTMENT



Magnolia Waxing and Skin Care

Home Logout Back

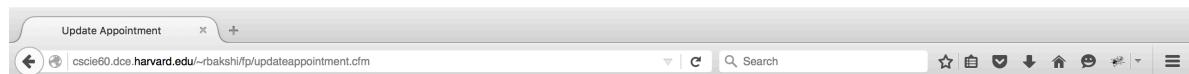
Client: Abbie Vincent

This client has only 1 appointment.

Visit Date	Visit Time	Appointment Status	Update appointment
09/04/2015	4:30	complete	<input type="button" value="Update"/>

Developed by Rajrupa Bakshi for CSCIE-60 Final Project.

Click on update button to update
Appointment status



Magnolia Waxing and Skin Care

Home Logout Back

Client Name: Abbie Vincent

Visit Date: 09/04/2015

Visit Time: 4:30

Update Appointment Status:

complete
missed
pending

[Choose another Client](#)

Developed by Rajrupa Bakshi for CSCIE-60 Final Project.

Select an option from the dropdown
list and click update button to update
Appointment status

MANAGE SERVICES

The screenshot shows the 'Manage Services' page. At the top, there are 'Home' and 'Logout' links. Below that is a section titled 'Manage Services' with the instruction: 'Click on Service Type to view Appointments (click on column headers to sort list)'. A table displays service details:

Service Type	Service Description	Service Duration	Service Price	Number of Appointments
facials	acne clearing	60	\$ 95.00	5
facials	calming	60	\$ 95.00	2
waxing body	back	30	\$ 42.00	2
waxing body	full arm	30	\$ 20.00	1
waxing face	brow		\$ 20.00	1

Below this is a section titled 'List of Salon Services' with an 'ADD SERVICE' button. Another table lists services with columns: Service Number, Service Type, Service Description, Service Duration, and Service Price.

Click button to add a new service to the database

Click on Service Type to view Appointments

FORM

The screenshot shows the 'Add Services' page. At the top, there are 'Home', 'Logout', and 'Back' links. Below that is a section titled 'Add a new Service' with the instruction: 'Developed by Rajrupa Bakshi for CSCIE-60 Final Project.' The form fields include:

- Service Type:
- Service Description:
- Service Duration: 0 minutes
- Service Price:
- Add Service
- Clear

Move the slider to select a numeric value for service duration. Current value is displayed in the text box
Default value is 0

Displays current slider value

MANAGE INVOICE

Magnolia Waxing and Skin Care

Home Logout

Manage Client Invoice

List of Clients

Click on clients Name to view Invoice
(click on column headers to sort list)

Client ID	Client Name	Client Phone	Client Email
1	Jessica Smith	714-222-3333	jessica.s@gmail.com
2	Abbie Vincent	543-333-2222	abbie.v@gmail.com
3	Dana Jones	777-4444-5555	dana.j@gmail.com
4	Tina Miller	333-888-9999	tina.m@gmail.com
5	Pamela Davis	233-243-3434	p.davis@gmail.com
6	Nancy Taylor	718-324-5434	nancy.t@gmail.com

Show all clients who spend more than the Entered Amount

Enter Amount:

Show Client Clear

Enter an amount to view client report

Click on client Name to view Invoice

Client Report

Magnolia Waxing and Skin Care

Home Logout Back

List of all clients who spend more than \$ 90.0

Client Name	Payment Method	paymentAmt
Jessica Smith	card	115.00
Abbie Vincent	cash	95.00
Tina Miller	cash	92.00
Nancy Taylor	card	95.00
Nancy Taylor	card	95.00
Nancy Taylor	card	95.00

Developed by Rajrupa Bakshi for CSCIE-60 Final Project.