



Group9  
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### **Application Info**

This is a JAVA SWING application designed for healthcare providers to keep track of scheduling, billing, and patient and doctor info. For this version of the program, we have decided to include the primary functions needed for healthcare providers. These are:

1. Show invoices due within the next 10 days
2. Show patient information given name
3. Add patient
4. Show all patients in database
5. Add physician – In case new physicians are hired
6. Show all physicians in database
7. Add appointment
8. View Patient Notes

### **Database**

HealthLink uses queries/views from an Amazon cloud database “**Group9Database.**” The database is stored online to help with efficiency and security. The database is also provided to you via a dump file: **milestone3dump.sql** It can be imported to MySQL.

### **Setup**

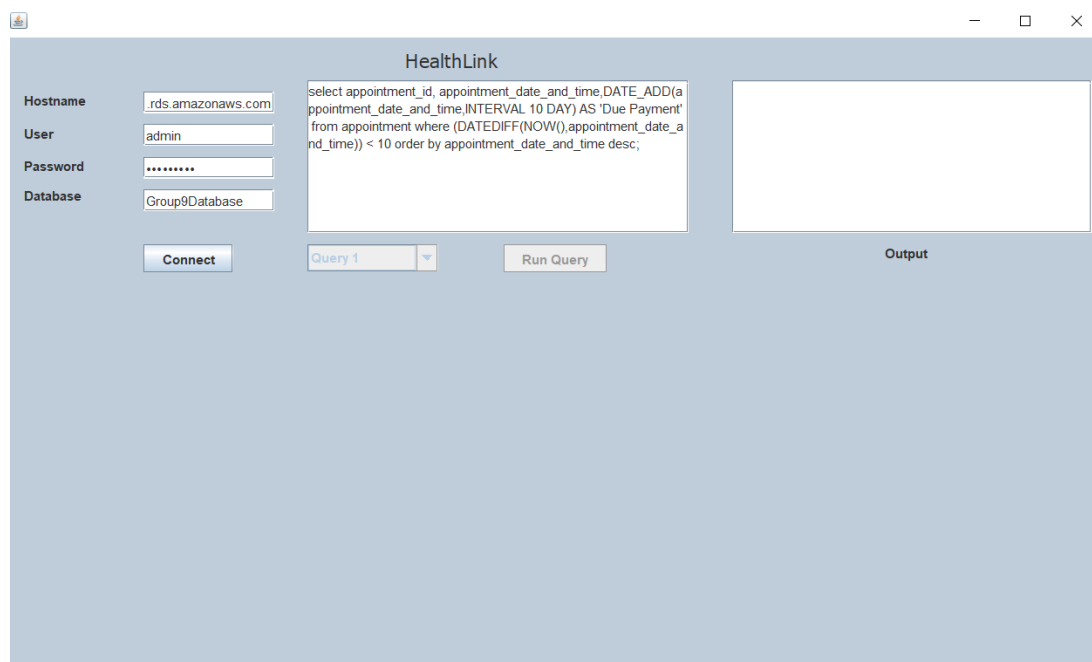
1. To get the application running, download the Milestone3Group9 file and unzip it to your computer.
2. The file includes:
  - a. Application Folder (QueryRunner.zip) – Includes code for application and runnable HealthLink.jar file that can open the application.
  - b. ER Diagram – Contains ER diagrams and mwb file.
  - c. HealthLink Dump File – Contains database data
  - d. HealthLink Instructions – This file
  - e. HealthLink PowerPoint – Presentation on the application

## Application

- Run the application HealthLink.jar



- Log in to app:
  - **Username:** name
  - **Password:** password
- Connect to database (This information should already be filled in):
  - **Hostname:** group9database.cu9gfg998ag1.us-east-1.rds.amazonaws.com
  - **User:** admin
  - **Password:** AWSg9db!!
  - **Database:** Group9Database
- Click **Connect** to connect to the database.



These are the available functions:

1. Query 1: Show invoices due within the next 10 days
2. Query 2: Show patient information given the name
3. Query 3: Add patient
4. Query 4: Show all patients in database
5. Query 5: Add physician
6. Query 6: Show all physicians in database
7. Query 7: Add appointment
8. Query 8: View patient notes

### 1. Query 1: Show invoices due within the next 10 days

This query will show you the upcoming appointments in the next 10 days and when the invoices are due for the patients.

The screenshot shows a web application titled "HealthLink". On the left, there are input fields for "Hostname" (rds.amazonaws.com), "User" (admin), "Password" (masked with dots), and "Database" (Group9Database). Below these is a "Disconnect" button. In the center, there is a text area containing a SQL query: "select appointment\_id, appointment\_date\_and\_time, DATE\_ADD(appointment\_date\_and\_time, INTERVAL 10 DAY) AS 'Due Payment' from appointment where (DATEDIFF(NOW(), appointment\_date\_and\_time)) < 10 order by appointment\_date\_and\_time desc;". Below the text area is a dropdown menu showing "Query 1" and a "Run Query" button. To the right of the text area is a large empty box labeled "Output". Below the "Run Query" button, a table displays the results of the query. The table has three columns: "appointment\_id", "appointment\_date\_and\_time", and "Due Payment". It contains three rows of data.

appointment_id	appointment_date_and_time	Due Payment
404	2020-11-12 12:43:17	2020-11-22 12:43:17
403	2020-11-12 02:39:58	2020-11-22 02:39:58
402	2020-11-10 08:22:20	2020-11-20 08:22:20

## 2. Query 2: Show patient information given the name

This query will let you search for specific patients and see when they have appointments and payments due.

The screenshot shows the HealthLink application window. On the left, there are input fields for Hostname (.rds.amazonaws.com), User (admin), Password (masked with dots), and Database (Group9Database). Below these are buttons for Disconnect and Run Query. A dropdown menu is set to 'Query 2'. A 'Patient Name' field contains 'Kristy'. The SQL query in the central text area is: `SELECT p.patient_id, CONCAT(patient_fname, ' ', patient_lname) AS Name, appointment_id, appointment_date_and_time, DATE_ADD(appointment_date_and_time, INTERVAL 10 DAY) AS 'Due Payment' FROM patient p JOIN appointment a ON p.patient_id = a.patient_id where patient_fname = ?;`. The 'Output' section on the right displays a table with the following data:

patient_id	Name	appointment_id	appointment_date_and_time	Due Payment
1	Kristy Thorold	35	2018-12-01 20:18:25	2018-12-11 20:18:25

## 3. Query 3: Add patient

This query lets you add a new patient to the database. Once a patient is added, an appointment can be created for the patient.

The screenshot shows the HealthLink application window for Query 3. The left sidebar has the same database connection fields as Query 2. The central SQL query area contains: `insert into patient (patient_id, patient_fname, patient_lname, patient_address, patient_city, patient_state, patient_zipcode, patient_phone, patient_email, patient_birthdate) values (?,?,?,?,?,?,?,?,?,?)`. Below the query area are input fields for Patient ID, First Name, Last Name, Address, City, State, Zipcode, Phone, and Birthdate. A 'Run Query' button is present. The 'Output' section on the right is currently empty.

#### 4. Query 4: Show all patients in the database

This query lets you see all of the registered patients in the HealthLink system.

The screenshot shows the HealthLink application window. On the left, there are input fields for Hostname (.rds.amazonaws.com), User (admin), Password (masked), and Database (Group9Database). Below these are buttons for Disconnect, Query 4 (selected), and Run Query. The main area contains a text box with the SQL query "Select \* from patient" and an empty Output box. Below the interface is a table of patient data.

patient_id	patient_fname	patient_lname	patient_address	patient_city	patient_state	patient_zipcode	patient_phone	patient_email	patient_birthdate
1	Kristy	Thorold	6217 Oxford Way	Houston	Texas	77020	281-306-09	kthorold0@hug...	1983-08-22
2	Euell	Henderson	3664 Green Rid...	Reno	Nevada	89505	775-314-89	ehenderson1@h...	2003-04-14
3	Reggie	Gleadle	06739 6th Pass	Pensacola	Florida	32526	850-665-74	rgleadle2@1und...	2008-12-28
4	Petronia	Flannery	79330 Tennyson...	Shreveport	Louisiana	71151	318-896-45	pflannery3@2i.jp	1971-03-01
5	Roldan	McNay	77007 Hooker Tr...	Inglewood	California	90305	310-494-05	rmcnay4@goodr...	1964-11-14
6	Lindsey	Gawkroge	8 Sauthoff Park	Pittsburgh	Pennsylvania	15274	412-850-48	lgawkroge5@ad...	1959-02-26
7	Sayers	Billsberry	6 Westport Drive	Salt Lake City	Utah	84152	801-733-74	sbillsberry6@ad...	1955-02-22
8	Page	Freestone	1309 Miller Plaza	Peoria	Illinois	61614	309-501-75	pfreestone7@w...	1956-11-08
9	Jeremy	Lugden	048 Burrows Te...	Kansas City	Missouri	64144	816-182-83	jlugden8@reverb...	2002-10-09
10	Rhett	Grugerr	46863 Schurz P...	Chesapeake	Virginia	23324	757-611-16	rgrugerr9@list...	2018-07-31
11	Agatha	Corley	9301 Prentice St...	Tampa	Florida	33647	813-791-06	acorleya@netwo...	1966-10-22
12	Cloris	Close	1883 Linden Way	Miami	Florida	33124	786-690-16	ccloseb@whiteh...	1980-07-30
13	Cherilyn	Hopewell	83405 Vidon Ter...	Springfield	Illinois	62794	217-361-36	chopewellc@gra...	1963-02-26
14	Averell	Cochar	97 Mandrake Te...	Duluth	Georgia	30195	404-401-01	acochar1@fann...	2012-06-07

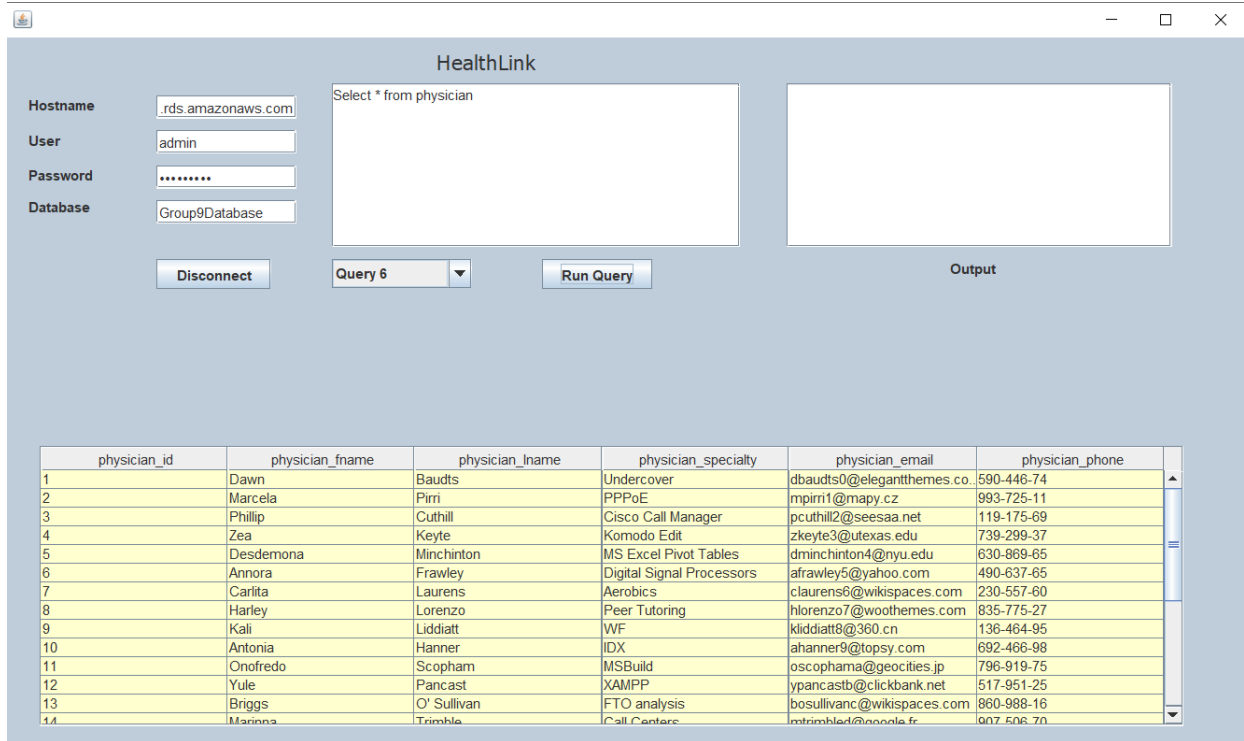
#### 5. Query 5: Add physician

This query lets you add a new physician to the database once they are hired. Once added to the database, we can create appointments for them.

The screenshot shows the HealthLink application window. On the left, there are input fields for Hostname (.rds.amazonaws.com), User (admin), Password (masked), and Database (Group9Database). Below these are buttons for Disconnect, Query 5 (selected), and Run Query. The main area contains a text box with the SQL query "insert into physician (physician\_id, physician\_fname, physician\_lname, physician\_specialty, physician\_email, physician\_phone) values (?, ?, ?, ?, ?, ?)". Below the interface are input fields for Physician ID, Specialty, First Name, Email, Last Name, and Phone, and an empty Output box.

## 6. Query 6: Show all physicians in database

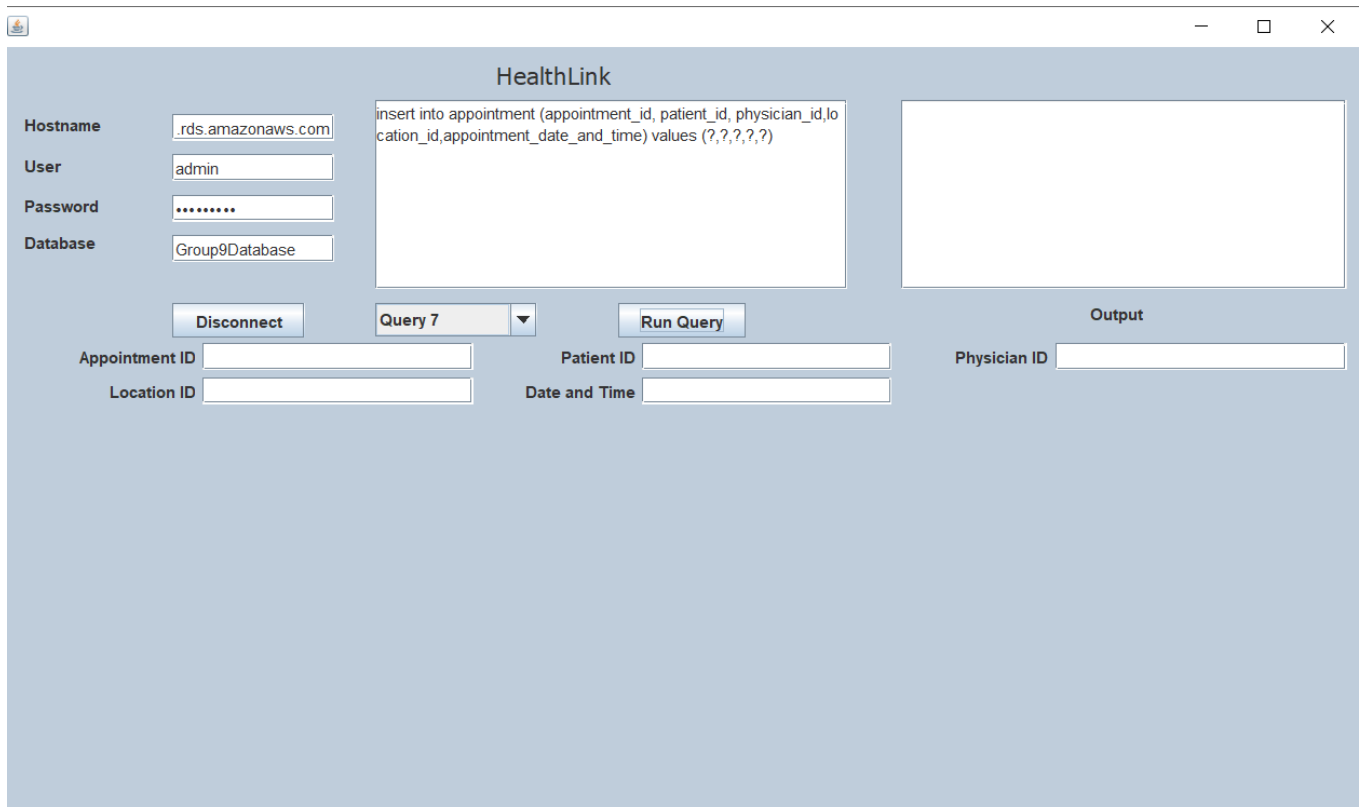
This query allows you to see all of the current physicians in the database. When a client wants to create an appointment, you can choose which doctor they would need to see based on their specialty.



physician_id	physician_fname	physician_lname	physician_specialty	physician_email	physician_phone
1	Dawn	Baudts	Undercover	dbaudts0@elegantthemes.co	590-446-74
2	Marcela	Pirri	PPPoE	mpirri1@mapy.cz	993-725-11
3	Phillip	Cuthill	Cisco Call Manager	pcuthill2@seesaa.net	119-175-69
4	Zea	Keyte	Komodo Edit	zkeyte3@utexas.edu	739-299-37
5	Desdemona	Minchinton	MS Excel Pivot Tables	dminchinton4@myu.edu	630-869-65
6	Annora	Frawley	Digital Signal Processors	afrawley5@yahoo.com	490-637-65
7	Carlita	Laurens	Aerobics	claurens6@wikispaces.com	230-557-60
8	Harley	Lorenzo	Peer Tutoring	hlorenzo7@woothemes.com	835-775-27
9	Kali	Liddiatt	WF	kliddiatt8@360.cn	136-464-95
10	Antonia	Hanner	IDX	ahanner9@topsy.com	692-466-98
11	Onofredo	Scopham	MSBuild	oscophama@geocities.jp	796-919-75
12	Yule	Pancast	XAMPP	ypancastb@clickbank.net	517-951-25
13	Briggs	O' Sullivan	FTO analysis	bosullivanc@wikispaces.com	860-988-16
14	Marinna	Trimble	Call Centers	mtrimbled@conote.fr	607-506-70

## 7. Query 7: Add appointment

This query lets you create a new appointment for a patient.



Appointment ID	Patient ID	Location ID	Date and Time	Physician ID
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## 8. Query 8: View Patient Notes

This query lets a doctor see a patient's prior appointments and the notes that previous doctors left.

HealthLink

Hostname:

User:

Password:

Database:

Disconnect

Query 8

Run Query

Output

Patient ID

appointment_id	patient_id	physician_id	location_id	appointment_date	patient_note_id	appointment_id	patient_note_app..	procedure_id	prescription_id
166	3	10	1	2018-07-09 13:3...	238	166	Donec diam neq...	2	568
166	3	10	1	2018-07-09 13:3...	274	166	Nullam portitor l...	8	332
166	3	10	1	2018-07-09 13:3...	404	166	Vivamus in felis ...	9	23
166	3	10	1	2018-07-09 13:3...	735	166	Mauris enim leo, ...	21	484
367	3	18	9	2019-01-04 22:2...	270	367	Nulla ut erat id m...	25	99
367	3	18	9	2019-01-04 22:2...	881	367	Aliquam non ma...	13	12
367	3	18	9	2019-01-04 22:2...	932	367	Proin eu mi. Null...	3	418

### Improvements

1. Added extra input boxes. There were originally 8, and we had to increase it to 10, because Add Patient requires 10 fields.
2. Created Log-In window that makes sure user is using correct username and password
3. Changed the color of the application window
4. Logo created using <https://hatchful.shopify.com/>