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Research Collaboration Management System: Directions File

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What Programs to Run

1. “researchCollabDB.sql” contains the database schema we created and used. **Source this before running the main method.**
2. Run the main method from “PresentationLayer.java”.
3. “DataLayer.java” contains all the database methods and all of the other necessary methods needed.

Mock Data

At the end of our schema file, we have inserted mock data for the user to work with and source. Below is an example screenshot of some of the account types and accounts we have populated for use.

```
SELECT * FROM account
-----
+-----+-----+-----+-----+
| accountID | username | passwordHash | role |
+-----+-----+-----+-----+
| 1 | prof1 | 1ba1686f07204bd77171a5cba4483d303728e89f | Professor |
| 2 | prof2 | 7f5efff265de03981ac88c6c89d139ebe1ee4632 | Professor |
| 3 | stud1 | 20ba9a3547ea8eb6cc11ec0eb1e0be2381ff9485 | Student |
| 4 | stud2 | d1010cb90d3f1ad1cf651cdfd5d77381d4a46fd | Student |
| 5 | pub1 | a3fe6b10087dfb146138e222dd184ef9bb4dbb20 | Public |
| 6 | pub2 | a3dfbc242fb67484ed6a3ceeab7bc88571a17216 | Public |
+-----+-----+-----+-----+
-- Accounts for Professors (role='Professor')
INSERT INTO Account (username, passwordHash, role) VALUES
('prof1', SHA1('Prof1pass'), 'Professor'),
('prof2', SHA1('Prof2pass'), 'Professor');

-- Accounts for Students (role='Student')
INSERT INTO Account (username, passwordHash, role) VALUES
('stud1', SHA1('Stud1pass'), 'Student'),
('stud2', SHA1('Stud2pass'), 'Student');

-- Accounts for Public users (role='Public')
INSERT INTO Account (username, passwordHash, role) VALUES
('pub1', SHA1('Public1pass'), 'Public'),
('pub2', SHA1('Public2pass'), 'Public');
```

Main Menu

==== Main Menu ===

MAIN MENU

- 1) Login
- 2) Register
- 3) Exit

Enter choice: |

Enter your choice of one of the following options:

- 1. Login as a student, professor or a public user
- 2. Register a new account for a student, professor or public user
- 3. Exit the program

Register Menu

==== REGISTER ===

- 1) Register Professor
- 2) Register Student
- 3) Register Public User
- 4) Back
- 5) Exit

Enter choice:

Enter a choice of the following:

- 1. Start the registration process for a professor
- 2. Start the registration process for a student
- 3. Start the registration process for a public user
- 4. Go back to the Main Menu
- 5. Exit the program

Register as a Professor

--- Register Professor ---

Username: bjohnson

Password: Arlington1

First name: Bob

Last name: Johnson

Building code: GOL

Office number: 2700

Email: bjohnson@rit.edu

Phone(format 555-555-5555): 585-283-1948

Professor account created!

1. Enter the professor's username to be used in login. Should be between 4-20 characters long.
2. Enter the professor's password to be used in login. Should be between 4-20 characters long.
3. Enter the professor's first name.
4. Enter the professor's last name.
5. Enter the professor's building code (typically abbreviation of where their office resides).
6. Enter the professor's office number.
7. Enter the professor's email address.
8. Enter the professor's phone number (format must be 555-555-5555).

A confirmation message will return if the professor's account was successfully created. It will take the user back to the registration page where they can go back to the main menu and login to their account.

Register as a Student

---- Register Student ----

Username: **jf4826**

Password: **Houstonstar5**

First name: **Jane**

Last name: **Franklin**

Major: **CIT**

Email: **jf4826@rit.edu**

Phone: **315-576-9485**

Student account created!

1. Enter the student's username to be used in login. Should be between 4-20 characters long.
2. Enter the student's password to be used in login. Should be between 4-20 characters long.
3. Enter the student's first name.
4. Enter the student's last name.
5. Enter the student's email address.
6. Enter the student's phone number (format must be 555-555-5555).

A confirmation message will return if the student's account was successfully created. It will take the user back to the registration page where they can go back to the main menu and login to their account.

Register as a Public User

---- Register Public User ----

Username: maxfish5

Password: TrollKing2

First name: Max

Last name: Fisher

Organization: Fisher Property Inc.

Email: maxfish5@gmail.com

Guest account created!

1. Enter the user's username to be used in login. Should be between 4-20 characters long.
2. Enter the user's password to be used in login. Should be between 4-20 characters long.
3. Enter the user's first name.
4. Enter the user's last name.
5. Enter the user's organization name.
6. Enter the user's email address.
7. Enter the user's phone number (format must be 555-555-5555).

A confirmation message will return if the user's account was successfully created. It will take the user back to the registration page where they can go back to the main menu and login to their account.

Login Menu

Login for a Professor

```
==== LOGIN ====
Username: bjohnson
Password: Arlington1
Login successful. Role: Professor
```

1. Enter the username that was created at the registration page.
2. Enter the password that was created at the registration page.

If credentials are correct a successful login message will appear along with the role of that account type.

Login for a Student

```
==== LOGIN ====
Username: jf4826
Password: Houstonstar5
Login successful. Role: Student
```

1. Enter the username that was created at the registration page.
2. Enter the password that was created at the registration page.

If credentials are correct a successful login message will appear along with the role of that account type.

Login for a Public User

```
==== LOGIN ====
Username: maxfish5
Password: TrollKing2
Login successful. Role: Public
```

1. Enter the username that was created at the registration page.
2. Enter the password that was created at the registration page.

If credentials are correct a successful login message will appear along with the role of that account type.

Professor Menu

==== PROFESSOR MENU ====

- 1) Add Abstract
- 2) Update Abstract
- 3) Delete Abstract
- 4) Add Interests
- 5) Search Students by Interest
- 6) Logout
- 7) Exit

Enter choice: |

Enter a choice of the following:

- 1. Add an abstract.

Enter choice: 1

Title: BOOKS DATABASE

Abstract text: The project is based on a book database system pertaining to various

File path (optional):

Abstract added with id: 5

- a. Enter in the title of the abstract
- b. Enter the text of the abstract
- c. Can add a file path if needed

Will return a confirmation message along with the abstract ID number.

- 2. Update an abstract.

Abstract ID to update: 5

New Title: BOOKS DATABASE by Professor Johnson

New Text: The project is based on a book database system pert

Abstract updated.

- a. Enter the abstract ID
 - i. Will only update an abstract that is associated with that professors account
- b. Update the Title of the abstract
- c. Update the Text of the abstract

Will return a confirmation message saying the abstract was updated.

3. Delete an abstract.

Enter choice: 3

Abstract ID to delete: 5

Abstract deleted.

a. Enter the ID number of the abstract you want to delete.

i. Will only delete an abstract that is associated with that professor's account

Will return a confirmation message saying the abstract was deleted.

4. Add interests.

Enter choice: 4

Enter an interest (1-3 words): Java

Interest added.

a. Enter a topic that is 1-3 words.

Will return a confirmation message that your interest was added.

5. Search for students by their interests.

Enter choice: 5

Enter interest to search students for (exact match): Python

Jane Franklin | Major: CIT | Email: jf4826@rit.edu

a. Enter an interest topic

Will return the student's name, major and email address.

6. Logout of account and back to the main menu.

7. Exit the program.

Student Menu

==== STUDENT MENU ====

- 1) Add Your Interests
- 2) Modify Your Interests
- 3) View Your Interests
- 4) View All Professor Abstracts
- 5) Find Professors By Mutual Interests
- 6) Search Professors By Interests
- 7) Search Professors By Abstract Text
- 8) Logout
- 9) Exit

Enter choice:

Enter a choice of the following:

1. Add interests.

Enter choice: **1**

Enter topic (1-3 words): **java**

Topic added.

- a. Enter a topic that is 1 -3 words.

Will return a confirmation message that your interest was added.

2. Modify any of your existing interests

Enter choice: **2**

Enter interest to remove (exact text): **C#**

Interest removed from your profile.

- a. Enter an interest you would like to remove from your account.

Will return a confirmation message that your interest was deleted.

3. View all of your interests.

Enter choice: **3**

java

C++

python

Will return a list of all your interests.

4. View all of the professor abstracts.

Abstract ID: 1

Title: Deep Learning for Time Series

Text: Short abstract about DL and time series.

Abstract ID: 2

Title: Secure Systems Design

Text: Abstract about security best practices in system design.

5. Search for a professor based on your mutual interests.

Enter choice: 5

Bob Johnson | Building GOL | Office 2700 | bjohnson@rit.edu

- a. Will search the database for professors with the same interest

Will return the Professor's name, office info and email address.

6. Search for a professor based on their interests.

Enter choice: 6

Enter keyword to search a professor: database

Bob Brown | Building B2 | Office 202 | bob.brown@rit.edu

- a. Enter an interest topic

Will return the Professor's name, office info and email address.

7. Search for a professor by abstract text.

Enter choice: 7

Enter text to search abstracts: design

Professor: Bob Brown

Email: bob.brown@rit.edu

Abstract ID: 2

Title: Secure Systems Design

Text: Abstract about security best practices in system design.

- a. Enter a keyword from a professor's abstract to get their information

Will return the Professor's name, office info and email address.

8. Logout of account and back to the main menu.

9. Exit the program.

Guest Menu

==== PUBLIC USER MENU ====

- 1) Add Your Interests
- 2) Modify Your Interests
- 3) View Your Interests
- 4) Search Professors By Interests
- 5) Search Professors By Abstract Text
- 6) View Professor Abstracts (All)
- 7) Logout
- 8) Exit

Enter choice:

Enter a choice of the following:

1. Add interests.

Enter choice: **1**

Enter an interest (1–3 words): **database**

Interest added.

- a. Enter your interest

Will return a confirmation message that your interest was added.

2. Modify your interests.

Enter choice: **2**

Enter the exact interest to remove: **java**

Interest removed.

- a. Enter the interest you want to remove from your account.

Will return a confirmation message that your interest was deleted.

3. View your interests.

Enter choice: **3**

database

Will return a list of all your interests.

4. Search professors by their interests.

```
Enter choice: 4
Enter interest: database
Bob Brown | Building B2 | Office 202 | bob.brown@rit.edu
```

- a. Enter an interest topic

Will return the Professor's name, office info and email address.

5. Search professors by abstracts text.

```
Enter choice: 5
Enter text to search abstracts: design
Bob Brown | Building B2 | Office 202 | bob.brown@rit.edu
```

- a. Enter a keyword from a professor's abstract to get their information

Will return the Professor's name, office info and email address.

6. View all professors' abstracts.

```
Enter choice: 6
Abstract ID: 1
Title: Deep Learning for Time Series
Text: Short abstract about DL and time series.
-----
Abstract ID: 2
Title: Secure Systems Design
Text: Abstract about security best practices in system design.
```

7. Logout of account and back to the main menu.

8. Exit the program.

ER Diagram

