

Project 5

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IntelliJ Ultimate 2017.1.3

Windows 10

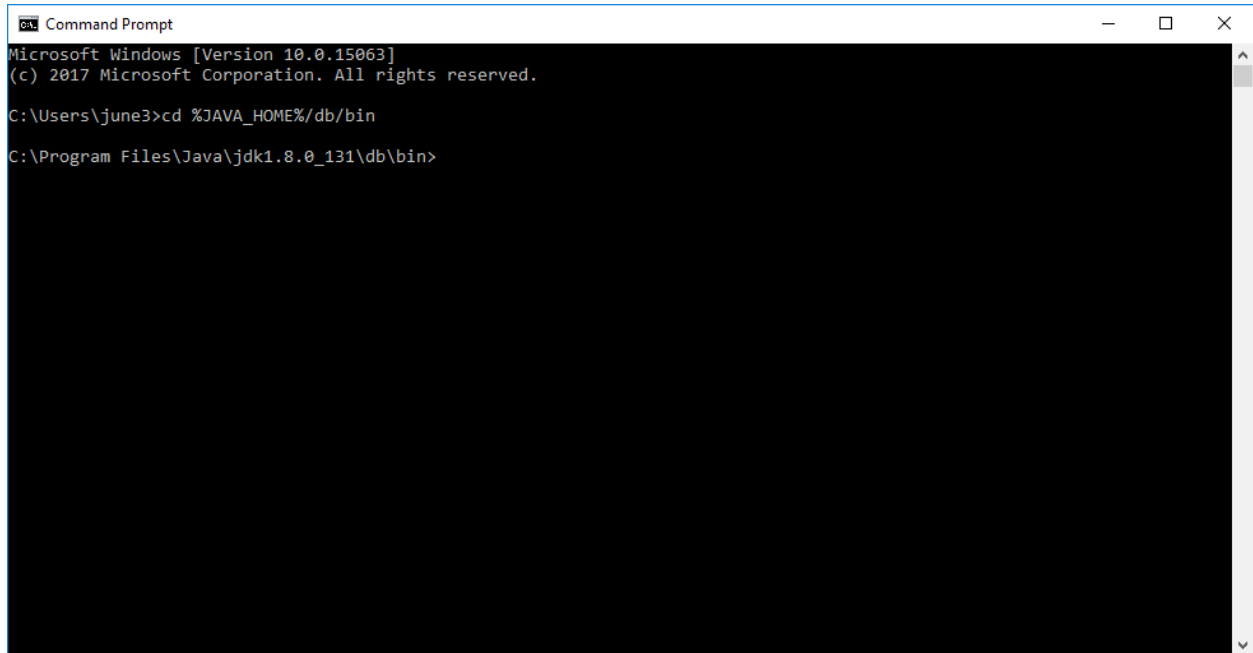
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Setup

To run this Project, simply unzip and import the main project directory “Project 5” into your IDE. Then, ensure you have the server configured to deploy the “Project 5:war exploded” artifact at launch.

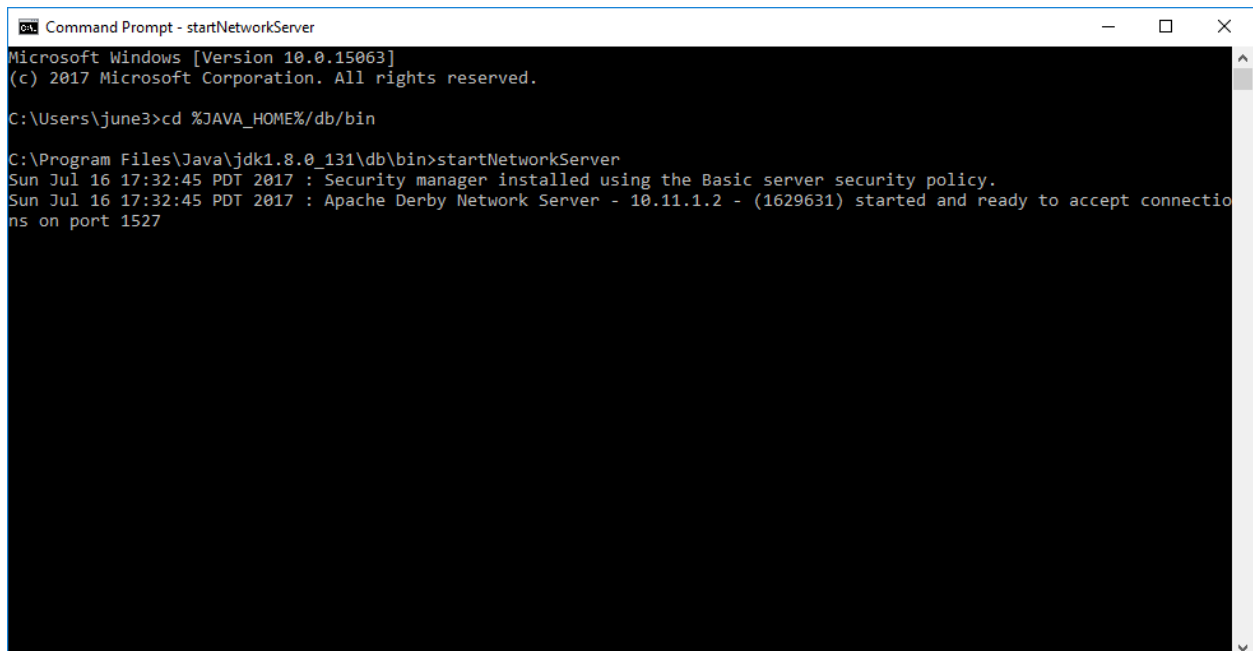
Before launching Project 5, we must ensure that the TalentedMusicians Database is setup! To do this, we will need to first, open command prompt and type in the following command.



```
Command Prompt
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\june3>cd %JAVA_HOME%/db/bin
C:\Program Files\Java\jdk1.8.0_131\db\bin>
```

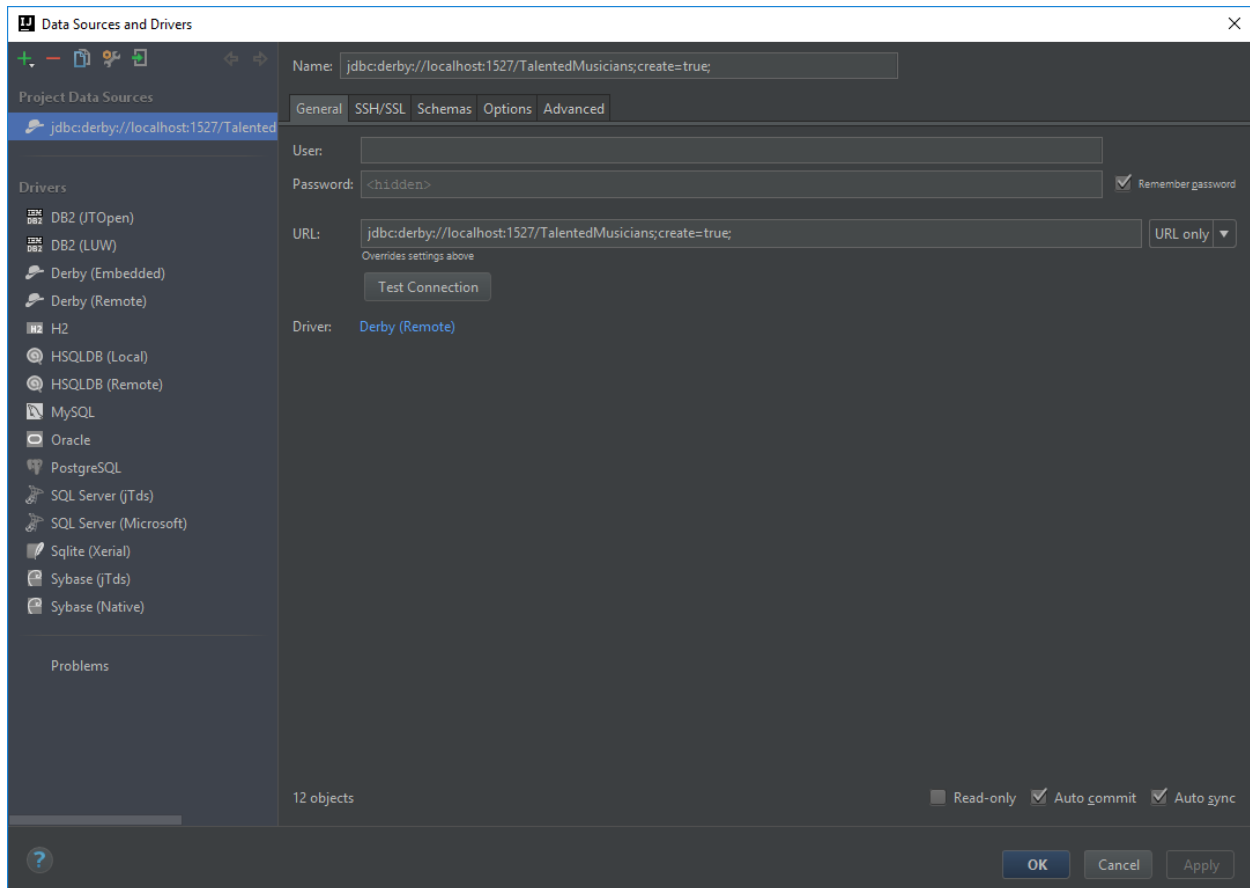
Then, we will start up our derby network server by entering this command.



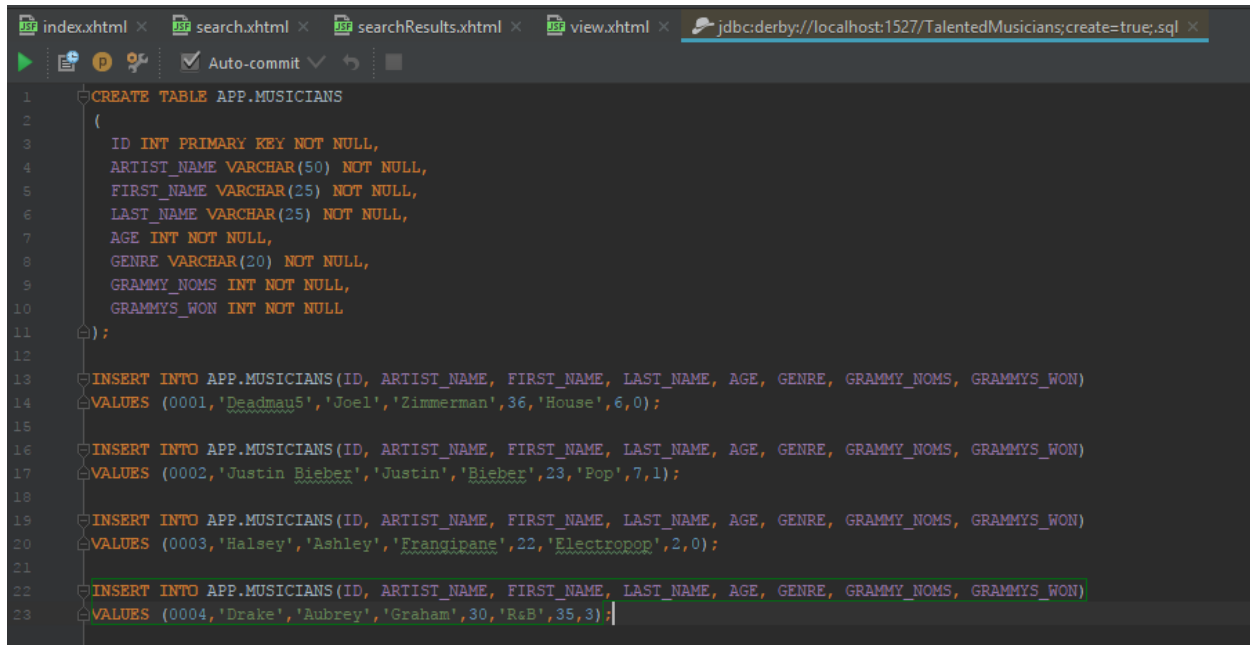
```
Command Prompt - startNetworkServer
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\june3>cd %JAVA_HOME%/db/bin
C:\Program Files\Java\jdk1.8.0_131\db\bin>startNetworkServer
Sun Jul 16 17:32:45 PDT 2017 : Security manager installed using the Basic server security policy.
Sun Jul 16 17:32:45 PDT 2017 : Apache Derby Network Server - 10.11.1.2 - (1629631) started and ready to accept connections on port 1527
```

After we've done this, we can then go over to our Project. We then need to setup a Derby(Remote) Data Source with the following url. ("jdbc:derby://localhost:1527/TalentedMusicians;create=true;")



Lastly, all we need to do, is run the “setup.sql” in the console of our Data Source. I have put it in the “web/resources/scripts/” directory of the project.

A screenshot of a web browser window with multiple tabs. The active tab is titled 'jdbc:derby://localhost:1527/TalentedMusicians;create=true;sql'. The browser's address bar shows the same URL. The main content area displays a SQL script in a dark-themed editor. The script starts with a 'CREATE TABLE' statement for 'APP.MUSICIANS' with columns: ID (INT PRIMARY KEY NOT NULL), ARTIST_NAME (VARCHAR(50) NOT NULL), FIRST_NAME (VARCHAR(25) NOT NULL), LAST_NAME (VARCHAR(25) NOT NULL), AGE (INT NOT NULL), GENRE (VARCHAR(20) NOT NULL), GRAMMY_NOMS (INT NOT NULL), and GRAMMYS_WON (INT NOT NULL). This is followed by four 'INSERT INTO' statements for the same table, each with a unique ID and artist details. The last line of the script is highlighted with a green background. The browser's top bar shows 'Auto-commit' is checked.

```
1 CREATE TABLE APP.MUSICIANS
2 (
3     ID INT PRIMARY KEY NOT NULL,
4     ARTIST_NAME VARCHAR(50) NOT NULL,
5     FIRST_NAME VARCHAR(25) NOT NULL,
6     LAST_NAME VARCHAR(25) NOT NULL,
7     AGE INT NOT NULL,
8     GENRE VARCHAR(20) NOT NULL,
9     GRAMMY_NOMS INT NOT NULL,
10    GRAMMYS_WON INT NOT NULL
11 );
12
13 INSERT INTO APP.MUSICIANS(ID, ARTIST_NAME, FIRST_NAME, LAST_NAME, AGE, GENRE, GRAMMY_NOMS, GRAMMYS_WON)
14 VALUES (0001, 'Deadmau5', 'Joel', 'Zimmerman', 36, 'House', 6, 0);
15
16 INSERT INTO APP.MUSICIANS(ID, ARTIST_NAME, FIRST_NAME, LAST_NAME, AGE, GENRE, GRAMMY_NOMS, GRAMMYS_WON)
17 VALUES (0002, 'Justin Bieber', 'Justin', 'Bieber', 23, 'Pop', 7, 1);
18
19 INSERT INTO APP.MUSICIANS(ID, ARTIST_NAME, FIRST_NAME, LAST_NAME, AGE, GENRE, GRAMMY_NOMS, GRAMMYS_WON)
20 VALUES (0003, 'Halsey', 'Ashley', 'Frangipane', 22, 'Electropop', 2, 0);
21
22 INSERT INTO APP.MUSICIANS(ID, ARTIST_NAME, FIRST_NAME, LAST_NAME, AGE, GENRE, GRAMMY_NOMS, GRAMMYS_WON)
23 VALUES (0004, 'Drake', 'Aubrey', 'Graham', 30, 'R&B', 35, 3);
```

You are now ready to launch the “Project 5” Web Application.

Final Product

Upon launching the web application, we will see this page, the “Add Page”.

Add Page	Search Page	View Page
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Talented Musicians Web Application



Add a Record

Fill in all the fields below and click the Add Record button. To view any records you've added, go to the View Page.

ID:	0
Artist Name:	
First Name:	
Last Name:	
Age:	0
Genre:	
Grammy_Noms:	0
Grammys_Won:	0

Add Record	Clear
------------	-------

This is the page that allows us to add our records to the database. Before we do that, however, we will first view what the database currently looks like. To do this, we simply click the “View Page” button at the top. We will then be approached by the following page.

Add Page	Search Page	View Page
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Talented Musicians Web Application

Talented Musicians DB

Below is the Talented Musicians DB

ID	ARTIST_NAME	FIRST_NAME	LAST_NAME	AGE	GENRE	GRAMMY_NOMS	GRAMMYS_WON
1	Deadmau5	Joel	Zimmerman	36	House	6	0
2	Justin Bieber	Justin	Bieber	23	Pop	7	1
3	Halsey	Ashley	Frangipane	22	Electropop	2	0
4	Drake	Aubrey	Graham	30	R&B	35	3

As you can see, we already have four records in the database. Next, we will go back to the “Add Page” to add a new record. We do this by clicking the “Add Page” button at the top of the page. Once, we are back at the “Add Page” we can then enter information into the text fields like so.

Add Page	Search Page	View Page
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Talented Musicians Web Application



Add a Record

Fill in all the fields below and click the Add Record button. To view any records you've added, go to the View Page.

ID:	5
Artist Name:	Anderson .Paak
First Name:	Brandon
Last Name:	Anderson
Age:	31
Genre:	Funk
Grammy_Noms:	2
Grammys_Won:	0

Add Record	Clear
------------	-------

After entering the data, we can then click the “Add Record” Button. If no error messages occur, the record will be added. We can then go back to the “View Page” to ensure that it has been added to the database.

Add Page	Search Page	View Page
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Talented Musicians Web Application

Talented Musicians DB

Below is the Talented Musicians DB

ID	ARTIST_NAME	FIRST_NAME	LAST_NAME	AGE	GENRE	GRAMMY_NOMS	GRAMMYS_WON
1	Deadmau5	Joel	Zimmerman	36	House	6	0
2	Justin Bieber	Justin	Bieber	23	Pop	7	1
3	Halsey	Ashley	Frangipane	22	Electropop	2	0
4	Drake	Aubrey	Graham	30	R&B	35	3
5	Anderson .Paak	Brandon	Anderson	31	Funk	2	0

Lastly, we can also search the database for various records, either by ID or by ARTIST_NAME. In order to do this, we must first go to the “Search Page” by clicking the corresponding button at the top of the page.

Add Page	Search Page	View Page
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Talented Musicians Web Application

Search for a Record

Search by ID's or by an Artist's Name

ID:	<input type="text" value="0"/>
-----	--------------------------------

Search ID	Clear
---------------------------	-----------------------

Artist Name:	<input type="text"/>
--------------	----------------------

Search Artist	Clear
-------------------------------	-----------------------

To search by an ID, we enter data into the ID field and then click “Search ID”.

Add Page	Search Page	View Page
--------------------------	-----------------------------	---------------------------

Talented Musicians Web Application

Search for a Record

Search by ID's or by an Artist's Name

ID:	<input type="text" value="3"/>
-----	--------------------------------

Search ID	Clear
---------------------------	-----------------------

Artist Name:	<input type="text"/>
--------------	----------------------

Search Artist	Clear
-------------------------------	-----------------------

Add Page

Search Page

View Page

Talented Musicians Web Application

Search Results

Simply fill in any combination of fields below and click the Search button

ID	ARTIST_NAME	FIRST_NAME	LAST_NAME	AGE	GENRE	GRAMMY_NOMS	GRAMMYS_WON
3	Halsey	Ashley	Frangipane	22	Electropop	2	0

Search Again

We can then click the “Search Again” button to be taken back to the “Search Page”.

To search by an ARTIST_NAME, we enter data into the ARTIST_NAME field and then click “Search Artist”.

Add Page

Search Page

View Page

Talented Musicians Web Application

Search for a Record

Search by ID's or by an Artist's Name

ID:

Search ID

Clear

Artist Name:

Search Artist

Clear

Add Page

Search Page

View Page

Talented Musicians Web Application

Search Results

Simply fill in any combination of fields below and click the Search button

ID	ARTIST_NAME	FIRST_NAME	LAST_NAME	AGE	GENRE	GRAMMY_NOMS	GRAMMYS_WON
5	Anderson .Paak	Brandon	Anderson	31	Funk	2	0

Search Again

Lessons Learned

I thought this project was quite challenging! Honestly, my main issue was understanding how to properly set up a Database with derby. It took me a bit to figure out, but once I understood that I needed to launch “startNetworkServer” from the bin folder in the db directory of the jdk, I then could setup my Data Source correctly and start determining how to interact with the data from the database. I learned a lot more about using JSF pages alongside manipulating data when working on this project. Please, let me know if there’s anything I could improve upon. Thanks you for this semester! I learned a lot!