District 36 Chatbot Java

By Ryan Capron

Data: What data is available and what is retrieved from the program?

- All information on representative's profile is dynamically pulled on runtime except for sponsored house bills and their voting record.

- Sponsored house bills and representative's voting record has been staticky loaded for processing.

- If the system is offline, it will load the most recent statically saved HTML txt file on file.

Code Organization: anything significant to highlight
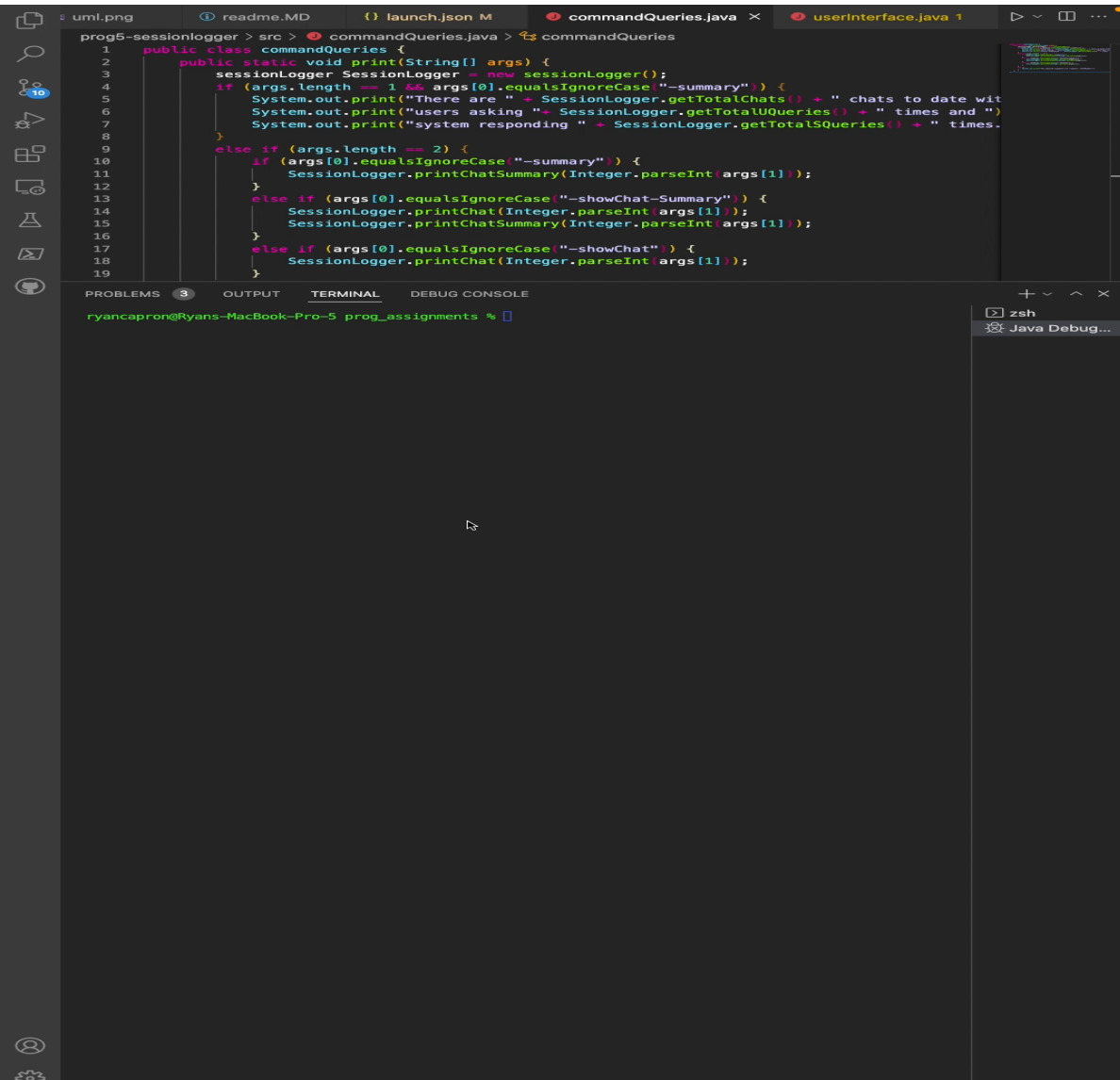
- PA1:
  - Utilizes a try-catch block to check if user's system is connected to internet
  - Removes all HTML up to first instance of Representative information
- PA2: Regex to sort through all html information to allow for multiple districts
- PA3: Returns relevant information based on if if chains. E.G. if query contains "where" and "live" versus solely "where".
- PA4: Runs through same decision chain as program 3 to find number of keywords in query. This is then used to calculate statistics.
- PA5:
  - Uses the initial constructor to start timer. Close() method is used to stop timer and write statistics.
  - Returns time in HH:MM:SS format.
- PA6: My program1 was reused by Alden Partridge. All code used in my chatbot is of my own creation.

Queries Snapshot

Left column:

CodeDetailsInExceptionMessages -cp "/Users/ryancapron/Library/Application Support/Code/User/workspaceStorage/91df6c0f
d3077fd1ba89675c2e91/redhat.java/jdt_ws/prog_assignments_fce0a828/bin" userInterface
rieving District Representative Data
aning up representative data
come to the SC Congress District 36 Chatbot!
t would you like to know about the Representative Merita A. "Rita" Allison?
 can also type quit or q to quit!
t
e a great day!
sion logger successfully closed and record was written
ancapron@Ryans-MacBook-Pro-5 prog_assignments % cd "/Users/ryancapron/Documents/USC/Spring 2022/Advanced Programming
niques/GitHub Repository/CSCE240 prog_assignments" ; /usr/bin/env /Users/ryancapron/Library/Java/JavaVirtualMachines/
jdk-16.0.2/Contents/Home/bin/java -agentlib:jdwp=transport=dt_socket,server=y,suspend=y,address=localhost:55396 -XX:+
CodeDetailsInExceptionMessages -cp "/Users/ryancapron/Library/Application Support/Code/User/workspaceStorage/91df6c0f
d3077fd1ba89675c2e91/redhat.java/jdt_ws/prog_assignments_fce0a828/bin" userInterface
rieving District Representative Data
aning up representative data
come to the SC Congress District 36 Chatbot!
t would you like to know about the Representative Merita A. "Rita" Allison?
 can also type quit or q to quit!
l me about the representative
resentative Merita A. "Rita" Allison's personal information is as follows:
munications & Legislator
n February 19 in Spartanburg County
ghter of Raymond A. Nichols and Jessie Estell Caldwell
es F. Byrnes High School, 1958
n Robert Powers School of Fashion Merchandising
ruary 14, 1959 married William Ronald Allison, 1 child, Katina Allison Degler
standing Young Women of America, 1972
rd member, R.D. Anderson Vocational School, 1991-92
sident, South Carolina Jaycee Auxiliary, 1968-69
th Carolina PTA of the Year, 1985
ted States Jaycee life member, 1978
rd member, Miss South Carolina Scholarship Program, 1968-08
dle Tyger Chamber of Commerce
e Ribbon Task Force for Higher Education Funding
isory Board, Lyman First Citizens Bank
sident, lifetime member, PTA
s South Carolina Hall of Fame
thern Hospitality Club Officer
dle Tyger Civitans
irman, General Assembly Women's Caucus, 1994-96
e Chairman, Operation and Management Committee, 1994-96
nt Legislative Committee on Children and Families
te Tax Ad Hoc Study Committee, 1998
S Com. Legislative Study Committee
irement Investment Equity Conference Committee, 1998
Comm. Center Board, 1998-99
irman, Greer J. Verne Smith Human Resource Center Board, 1996-99
an of Achievement, Piedmont Girl Scouts, 1997
tims Advocate Legislator of the Year, 1997
BA Legislator of the Year, 1999
nder and Chairman, GOP Women's Caucus, 1999
se Budget Committee Conferee, 1999
Legislator of the Year, 2000
Assistant Majority Leader, 1999-00
dle Tyger Chamber Citizen of the Year
an of Achievement, Miss D/L/W Prog.
cation Advisor for Governor Mark Sanford, 2003-05
islative Advisor for Governor Mark Sanford, 2006-07
rations and Management, 2010
e Education and Public Works Committee, 2008-10
se Ways and Means Committee, 2011-
ber, Wellford Baptist Church
of the user query contains keywords
ratio of keywords to query words is 3 : 2
t would you like to know about the Representative Merita A. "Rita" Allison?
 can also type quit or q to quit!
re does the rep live
resentative Merita A. "Rita" Allison's home address is:
. Box 93
an 29365
of the user query contains keywords
ratio of keywords to query words is 2 : 3
t would you like to know about the Representative Merita A. "Rita" Allison?
 can also type quit or q to quit!
do i contact my rep
resentative Merita A. "Rita" Allison's Columbia Phone number is (803) 734-3053
resentative Merita A. "Rita" Allison's Business address is 429 Blatt Bldg. Columbia 29201
of the user query contains keywords

Middle column:

d=y,address=localhost:56001 -XX:+S
howCodeDetailsInExceptionMessages -cp "/Users/ryancapron/Library/Application Support/Co
de/User/workspaceStorage/91df6c0fb
f42d3077fd1ba89675c2e91/redhat.java/jdt_ws/prog_assignments_fce0a828/bin" userInterface

Retrieving District Representative Data
Cleaning up representative data
Welcome to the SC Congress District 36 Chatbot!
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
What committees is my repo on
Representative Merita A. "Rita" Allison's Committee Assignments are:
Education and Public Works, Chairman
16% of the user query contains keywords
the ratio of keywords to query words is 1 : 5
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
Tell me everything
Representative Merita A. "Rita" Allison
Representative Merita A. "Rita" Allison is a Republican
Greenville and Spartanburg
Representative Merita A. "Rita" Allison's Business address is 429 Blatt Bldg. Columbia
29201
Representative Merita A. "Rita" Allison's Columbia Phone number is (803) 734-3053
Representative Merita A. "Rita" Allison's Committee Assignments are:
Education and Public Works, Chairman
33% of the user query contains keywords
the ratio of keywords to query words is 1 : 2
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
What district do you support for Q/A
Representative Merita A. "Rita" Allison is a member of District 36 representing Greenvi
lle and Spartanburg
14% of the user query contains keywords
the ratio of keywords to query words is 1 : 6
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
Hi
Hi, thank you for using this chatbot!
100% of the user query contains keywords
the ratio of keywords to query words is 1 : 0
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
What is her favorite color?
I'm sorry I do not know how to answer that.

0% of the user query contains keywords
the ratio of keywords to query words is 0 : 5
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
What is chat summary of chat 2
#user_utterance: 4
#system_utterance: 4
Chat duration: 0:0:17

14% of the user query contains keywords
the ratio of keywords to query words is 1 : 6
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
show the chat of chat 4
User: whats her address
System: Representative Merita A. "Rita" Allison's Business address is 429 Blatt Bldg. C
olumbia 29201
User: test
System: I'm sorry I do not know how to answer that.

33% of the user query contains keywords
the ratio of keywords to query words is 2 : 4
What would you like to know about the Representative Merita A. "Rita" Allison?
You can also type quit or q to quit!
quit
Have a great day!
Session logger successfully closed and record was written
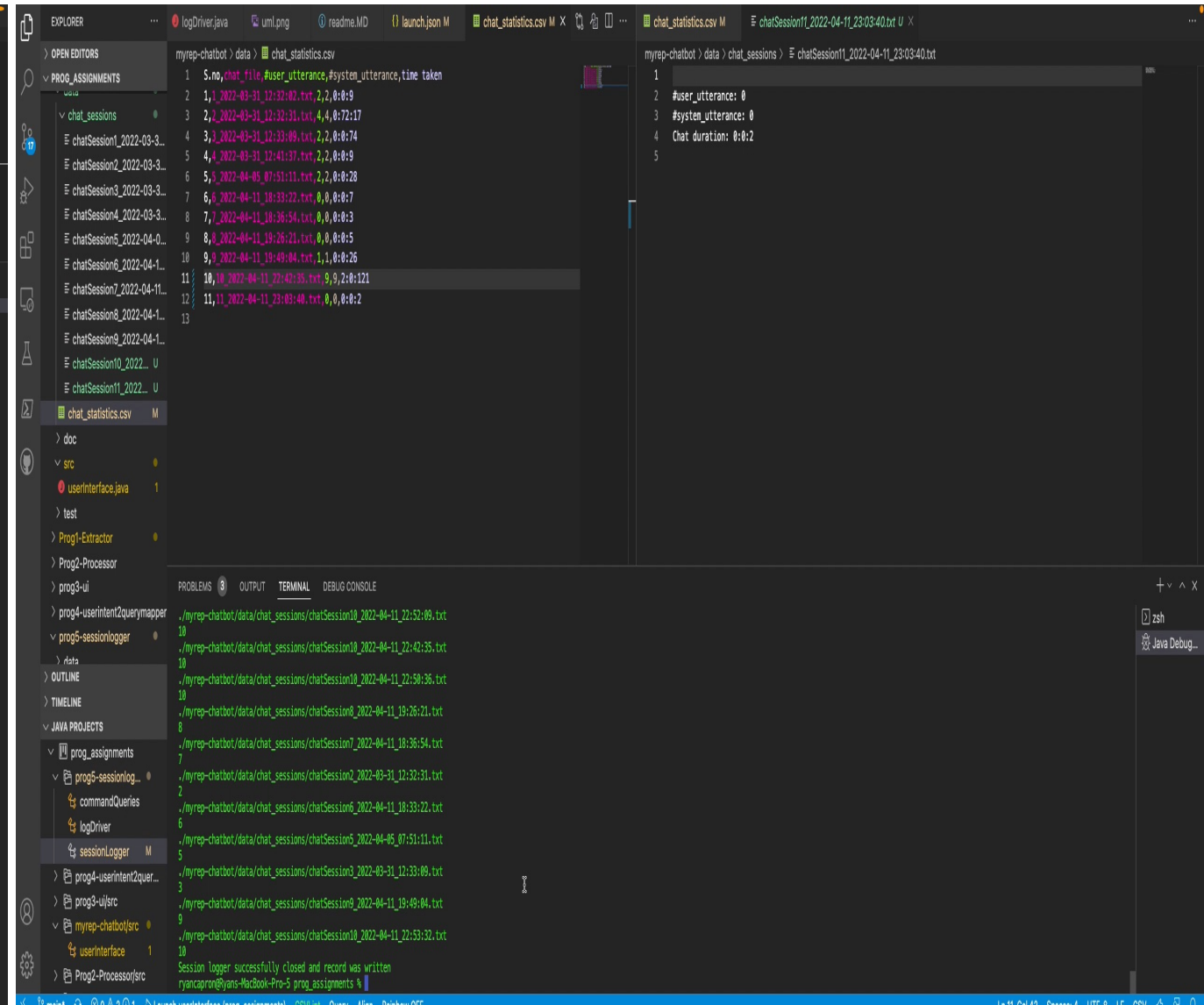ryancapron@Ryans-MacBook-Pro-5 prog_assignments %

Right column:

ryancapron@Ryans-MacBook-Pro-5 prog_assignments % cd "/Users/ryancapron/Documents/USC/Spring 2022/Advanced Programming T
echniques/GitHub Repository/CSCE240/prog_assignments" ; /usr/bin/env /Users/ryancapron/Library/Java/JavaVirtualMachines/o
penjdk-16.0.2/Contents/Home/bi
n/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52005 -XX:+ShowCodeDetailsInExceptionMessa
ges -cp "/Users/ryancapron/Library/Application Support/Code/User/workspaceStorage/91df6c0fbf42d3077fd1ba89675c2e91/redhat
.java/jdt_ws/prog_assignments_
fce0a828/bin" userInterface -summary
There are 7 chats to date with users asking 12 times and system responding 12 times. Total Duration is 1:14:27 HH:MM:SS.

ryancapron@Ryans-MacBook-Pro-5 prog_assignments % cd "/Users/ryancapron/Documents/USC/Spring 2022/Advanced Programming T
echniques/GitHub Repository/CSCE240/prog_assignments" ; /usr/bin/env /Users/ryancapron/Library/Java/JavaVirtualMachines/o
penjdk-16.0.2/Contents/Home/bi
n/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52023 -XX:+ShowCodeDetailsInExceptionMessa
ges -cp "/Users/ryancapron/Library/Application Support/Code/User/workspaceStorage/91df6c0fbf42d3077fd1ba89675c2e91/redhat
.java/jdt_ws/prog_assignments_
fce0a828/bin" userInterface -showchat-summary 2
User: everything
System: test
User: committee
System: I'm sorry I do not know how to answer that.
User: committees
System: Representative Merita A. "Rita" Allison's Committee Assignments are:
Education and Public Works, Chairman
User: public
System: -Spartanburg County District Five School Board, 1986 - 1992
-House of Representatives, 1993 - 2002, 2009 - Present
#user_utterance: 4
#system_utterance: 4
Chat duration: 0:0:17
ryancapron@Ryans-MacBook-Pro-5 prog_assignments % cd "/Users/ryancapron/Documents/USC/Spring 2022/Advanced Programming T
echniques/GitHub Repository/CSCE240/prog_assignments" ; /usr/bin/env /Users/ryancapron/Library/Java/JavaVirtualMachines/o
penjdk-16.0.2/Contents/Home/bi
n/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52043 -XX:+ShowCodeDetailsInExceptionMessa
ges -cp "/Users/ryancapron/Library/Application Support/Code/User/workspaceStorage/91df6c0fbf42d3077fd1ba89675c2e91/redhat
.java/jdt_ws/prog_assignments_
fce0a828/bin" userInterface -showchat 2
User: everything
System: test
User: committee
System: I'm sorry I do not know how to answer that.
User: committees
System: Representative Merita A. "Rita" Allison's Committee Assignments are:
Education and Public Works, Chairman
User: public
System: -Spartanburg County District Five School Board, 1986 - 1992
-House of Representatives, 1993 - 2002, 2009 - Present
ryancapron@Ryans-MacBook-Pro-5 prog_assignments % cd "/Users/ryancapron/Documents/USC/Spring 2022/Advanced Programming T
echniques/GitHub Repository/CSCE240/prog_assignments" ; /usr/bin/env /Users/ryancapron/Library/Java/JavaVirtualMachines/o
penjdk-16.0.2/Contents/Home/bi
n/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52068 -XX:+ShowCodeDetailsInExceptionMessa
ges -cp "/Users/ryancapron/Library/Application Support/Code/User/workspaceStorage/91df6c0fbf42d3077fd1ba89675c2e91/redhat
.java/jdt_ws/prog_assignments_
fce0a828/bin" userInterface -showchat 200
ERROR: there are only 7 chat sessions. Please choose a valid number.
ryancapron@Ryans-MacBook-Pro-5 prog_assignments %

Queries Video

Experience implementing the chatbot

- Throughout the development I made sure that the program had a workable user interface. This created a situation where I had to assure that the future UI driver would properly implement the systems set in place by the previous driver. I chose to do this for testing and documentation purposes.