

**CS 251**  
**Project 1**  
**Conversation Bot**  
**Due 02-20-23**  
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## Project Description

You are tasked with creating a conversation bot that has a finite set of valid inputs and must produce the corresponding output. These input output pairs are given in the Responses.csv file in the documents directory of the project starter. The user input must exactly match the input string given in that file in order for the conversation bot to respond. This means that if they do not have the same capitalization or punctuation your conversation bot should respond with "I do not recognize that, please try again." There also must be a special command, "EXIT", which when entered causes your program to gracefully exit.

Your bot must also have a MATH mode. If the user inputs MATH then your conversation bot must transform into a MATH bot! In MATH mode the user can enter any of the following commands:

- ADD <int> <int>
- MUL <int> <int>
- SUB <int> <int>
- DIV <int> <int>

For example they might enter *ADD 1 2* and your bot would have to print out *3*. The numbers entered can be assumed to be positive whole numbers (Natural numbers) and fit into an int. If the user types EXIT in MATH mode then you must exit back to conversation mode **NOT** exit entirely. If the user enters invalid input then you must print out the same error message as conversation mode namely: "I do not recognize that, please try again.". MATH mode is completely separate from conversation mode and thus valid inputs in conversation mode are not valid in MATH mode and vice versa.

This project is designed to get you reacquainted with Java and the concepts you learned in 152 or a similar class. It will test your knowledge of the following concepts:

- If statements
- Loops
- I/O

## Project Requirements

- Correctly handles all input output pairs given in Responses.csv
- Correctly rejects invalid user input with "I do not recognize that, please try again."
- Correctly exits when the "EXIT" command is given in conversation mode

- Correctly enters MATH mode when user inputs "MATH" in conversation mode
- Correctly computes math expressions in MATH mode
- Correctly exits MATH mode back to conversation mode

## Project Starter

I have uploaded a project starter alongside this PDF on learn.

## Submitting Your Project

You must submit a zip file of your code onto canvas. The zip file should only contain your Java source files, **NO** folders. It should not include any other extraneous files.