

EZRA

YOUR CORNELL TOOLKIT

Product Overview

We are proud to introduce our chatbot “Ezra”, named after our great co-founder of Cornell University, Ezra Cornell. Ezra is a perfect tool for fellow Cornellians who want to



search up specific information related to Cornell and our local area, Ithaca. It is specifically built to help the users to enjoy their Cornell experience to the fullest during their academic years. How annoying is it to search up “Cornell dining” in Google to scroll through like 20 different dining halls to get the menu for your dining hall, or to search up “Scheduler Spring 2020 Cornell” and log in with your netID to view your planned schedule? Instead of going through a bunch of different Cornell/Ithaca

related websites, you can now ask Ezra, who conveniently combines all the information and returns it to you. Our local cloud platform allows Ezra to remember the user information once you initiate the chatbot, so all the user has to do is simply tell the related commands.

Features

The features available for our Version 1.0.0 are:

- 1) Cornell Dining Eateries Tool
- 2) GPA / Transcript Manager
- 3) Local Restaurant Tool
- 4) Scheduler
- 5) Local Weather Viewer
- 6) Todo List Manager
- 7) Integer Calculator
- 8) Customized Display Settings
- 9) Chat With Ezra
- 10) Miscellaneous



Please read through the available commands and corresponding notes carefully to fully understand the functionality.

Cornell Dining Eateries Tool

Our Cornell Dining Eateries Tool uses Cornell's Dining API and allows the user to browse through today's menu of different eateries available at Cornell.

Commands

- [Eateries] will return a list of all dining halls at Cornell
- [Today x] returns the list of menu for different meal sessions at the eatery [x] for today
- [Location x] returns the location of the eatery [x]
- [About x] returns the description of the eatery [x]
- [Want y] returns the list of dining halls that offers a food item with [y]

Note :

- The eatery name [x] needs to exactly match the name found in Living at Cornell website, including capitalization. However, eateries with é (ex: café) have been coded so that typing a regular 'e' would suffice.
- Ezra will only consider the first word of [y].
- Capitalization of the commands themselves (e.g., Eateries, Today, Location) does not matter.

GPA/Transcript Manager

Our GPA/Transcript Manager uses Ezra's local cloud server to store the user's transcript data and allows the user to modify the grade information or calculate the cumulative GPA.

Commands

- [Add Credits Grade Class] adds the course with title [Class] to the user's transcript, where [Credits] is the number of credits of that course and [Grade] is the letter grade received
- [Delete Class] deletes a course whose title matches [Class] from the user's transcript
- [Display] displays the user's current transcript
- [GPA] calculates the user's cumulative GPA based on the transcript
- [Clear] clears the user's transcript

Note :

- When deleting, [Class] must exactly match the wanted course title in the transcript, including capitalization.
- Courses with SU, invalid letter grades, or non-integer number of credits are not included in GPA calculation.
- Capitalization of the commands themselves (e.g., Delete, Display, GPA) does not matter.

Local Restaurant Tool

Our Local Restaurant Tool uses Ithaca's restaurant data stored in local cloud server and allows the users to browse through different restaurants in Ithaca.

Commands

- [Categories] returns all the categories of Ithaca's restaurants
- [Restaurants] returns all the names of Ithaca's restaurants
- [Describe x] returns the description of the restaurant [x]
- [Category y] returns all the restaurants that falls under the category [y]
- [Price z] returns all the restaurants that are within the price range [z]
- [Distance q] returns all the restaurants whose distance from Cornell's clock tower is less than [q]
- [Category of x] returns the categories of the restaurant [x]
- [Price of x] returns the price range of the restaurant [x]
- [Distance of x] returns the distance from Cornell's clock tower of the restaurant [x]

Note :

- The restaurant name [x] must exactly match the name given in .json file, including capitalization. The list of the possible restaurants can be searched with [Restaurants] command.
- The price range [z] must be one of the following: low, medium, and high.
- Category [y] must exactly match the categories given in .json file. The list of the possible categories can be searched with [Categories] command.
- The distance [q] must be a float value.
- Capitalization of the commands themselves (e.g., Describe, Category, Price) does not matter.

Scheduler

Our Scheduler uses Cornell's Spring 2020 Scheduler API and allows the user to browse through courses of different subjects offered at Cornell.

Commands

Our scheduler will ask you to select a subject (e.g., MATH, ENGL, CS, etc.).

- [Classes] will allow you to go back and select another subject
- [Description x] gives a description of the class [x]
- [Class Number x] gives you the class number of the class whose course title matches [x]
- [Times x] gives you a list of sections and times for the class [x]
- [Level y] gives you a list of classes of a certain level [y]
- [Save Class x] saves class x into your schedule if it does not conflict with any other classes, and opens a graphical schedule. Here you can click on each class to see information about it and click exit to exit the interface.

Note :

- The course title [x] needs to exactly match the title given in the course roster, including capitalization.
- The class level [y] needs to be an integer input.
- Capitalization of the commands themselves (e.g., Classes, Description, Times) does not matter

Local WeatherTool

Our Local Weather Tool uses an open source weather API and allows the users to browse through different features about Ithaca's weather.

Commands

- [Today] returns the weather data for today in Ithaca
- [Tomorrow] returns the weather data for tomorrow in Ithaca
- [Week] returns the weather data for the next week in Ithaca
- [Snow] returns the amount of snow expected in the next week in Ithaca
- [Average Temperature] returns the average temperature in the next week in Ithaca

Note :

- Capitalization of the commands themselves (e.g., Today, Tomorrow, Week) does not matter.

Todo List Manager

Our Todo List Manager uses Ezra's local cloud server to store the user's Todo list and allows the users to display and modify the Todo list.

Commands

- [Display] displays your Todo list
- [Add task] adds the [task] to your Todo list
- [Checkoff task] checks off the task from your Todo list. If the task is not in the list, it will give you an option to add it
- [Delete task] deletes the [task] from your Todo list
- [Total] displays the task count in the list
- [Save file] saves the Todo list in [file]

Note :

- [file] should be an existing .csv file; else, the list will be saved in a new file in the current folder.
- [task] should match the task in the Todo list.
- You can also request the number of tasks completed or left by simply typing "how many tasks do I have left" or "Can you tell me the number of tasks I have completed today."
- Capitalization of the commands themselves (e.g., Display, Add, Total) does not matter.

Integer Calculator

Our Integer Calculator uses parser and lexer and allows the users to do simple calculations.

Commands

- Any arithmetic expression using plus [+], minus [-], times [*], and division [/]

Note :

- Only integer values are supported by the calculator. Float values with decimal points are not supported.

Customized Display Settings

Our Customized Display Settings allows the user to set themes, which will be stored in Ezra's local cloud server until the user requests to change it.

Commands

- Upon initializing Ezra, the user will be prompted to select a theme. If the user is a returning user, then the theme will be set to the one set by the user before
- [Theme] allows the user to change the theme
- If the user enters a theme that is not available, it will automatically be set to default.

Note :

- Available themes are: Big Red, USA, Military, Ocean, Berries, Christmas, and Default.

Chat With Ezra

Ezra recognizes some sentences and greetings used in spoken english, which you can use to have conversations with ezra. There are no specific commands for this feature, but ezra will reply to inputs with certain words in them. Here are some examples :

- "Hi Ezra"
- "How are doing ?"
- "I am hungry"
- "Life at cornell is so hard I am stressed" - If the command indicate that the user is sad, Ezra will either display a meme in a graphics window for display a textual joke. If Ezra displays a meme, Please click on the meme window, not the close window symbol, to close the meme and return to the chat bot.

This feature is not as advanced, so we can not guarantee that Ezra will reply to all commands.

Miscellaneous

Commands

- [Quit] quits Ezra
- [Back] allows the user to switch between chatbots
- In each chatbot, [Help] displays the list of possible commands
- Other than the commands listed above, the user can try to try simple conversations with Ezra, such as “Hi”, “How are you?”. “What is your name?”, and so forth. Ezra will also show you a cool meme if you tell him about how you are “stressed” or how “life” is “hard

Extra Notes

Thank you for reading through this User Manual. You are ready to use Ezra.

Please follow the instructions in the Install file - install.txt to install the chatbot.

To get a further insight on Ezra's implementation, please run [make docs] to get the documentation.

This project was developed by the following members as a CS 3110's final project. Please reach out to any member for more information.

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