**DOCUMENTATION**

This program has 3 tasks, and the 2nd and 3rd tasks are built on the 1st one. So the function that will be used in the 1st task will be used in 2nd and 3rd as well, similarly functions used in task 2 will be used in task 3.

* **In task 1**, there are 2 functions, main() and welcome(). The main() function is ran as the program starts and calls the welcome function, whereas the welcome() function asks user for his first name and last name and welcomes the user.
* **In task 2**, the welcome function is used in the same way and does the same thing. The user\_inputs() function asks user to enter an amount of gasoline, and has a try except block to handle incorrect/ invalid input(string value) for gallons of gas and asks user to enter another valid input for gasoline of gas. In order to perform conversion, it calls conversion() function which takes one argument. The conversion() function performs 5 conversion with the gallons of gas. The conversion() function calls the show\_menu() function that displays conversion options to the user. The main() function calls all these functions in the order: welcome(), user\_inputs() and then user\_inputs() call conversion() which calls the show\_menu() function.
* **In task 3**, we are implementing everything we did in tasks 1 and 2. The only difference is in the user\_inputs() function. Task 3, is asking user for an option to decide which conversion does he want to perform with the gallons of gas, unlike task 2 which performed all 5 conversions. User\_inputs() asks user after each iteration if he wants to perform another conversion on same value of gallons of gas. If user wants to do another conversion, then conversion() function is called which askes user for a choice and then the program does that conversion. The conversion() function calls the show\_menu() function which shows the available option to the user. In the user\_inputs() function if the user selects no, then the program gracefully exits printing the exit message.

This is how the program holistically performs, and all the functions used have been explained.

* Now, this program can be used in a lot of different scenarios. Since, this program takes gallons of gas as input and performs different conversions with this input. So the same program can be used to perform conversion with different types of input, like perform similar conversion with kgs of beef, or any other similar situation. The only difference would be to change to conversion coefficients.
* Another situation where it can be used is to convert time in seconds to hours, minutes. So in general, any program where we need to do conversion is where we can use this program.