

Design and Implement a complete drone delivery simulation program.

The program should first load the **drone_t** data from a database file named “**Drones.dro**”. The loaded data should be stored in a **linked list** of **drone_t** structures. The program should then load the **delivery_t** data from a database file named “**Deliveries.dro**”. The loaded data should be stored in a linked list of **delivery_t** structures. These structures should follow the following specifications:

drone_t: name top_speed acceleration max_load	delivery_t: name quantity weight_per_item destination_latitude destination_longitude
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Next, the program should display a menu system that allows the user to navigate through and execute the following options:

- Set Warehouse Location
- New Delivery
- Dispatch
- Exit
 - Save and exit
 - Exit without saving

The “Set Warehouse Location” should allow the user to set the latitude and longitude of the warehouse that the drones will be dispatched from.

The “New Delivery” option will prompt the user to enter details for a new **delivery_t** item to be added to the end of the linked list of queued deliveries.

The “Dispatch” option will process the next delivery. The user will be prompted to select an appropriate drone to make the delivery. The program will then calculate the total time taken for the delivery (as per workshop 3), output that value to the screen and save all relevant information about the delivery (drone name, delivery details, destination and time) in a file called “**Dispatch_Log.txt**”. After processing a delivery, it should be removed from the list. Deliveries should be dispatched in FIFO order (First In First Out). If no drone is capable of carrying the delivery, an error message should be printed and the user returned to the menu.

The exit command should give the user the choice to save the current delivery queue back to the “**Deliveries.csv**” so it can be loaded the next time the program is executed.

Additional Details:

- When the “Save and exit” option is selected, the delivery list should be saved in the “**Deliveries.dro**” file in the correct format to be reloaded.
- Sample .dro files will be provided on blackboard. These are only samples. You may modify them or provide your own so long as they remain in the same format.
- No example executable file will be provided