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**Program Description:** This program allows a user to “purchase” a set amount of a limited number of tickets. It is a mock program and therefore is not linked with a real payment system or database with tickets and their respective seats, but it simulates a primitive type of this system. It uses a text file from which it pulls the amount of tickets remaining, and adds 1 to the buyer count each time a “transaction” goes through.

**FUNCTIONS USED:**

1. create\_file():

**Description:** Creates a new data file for the program to read from. Only called if the file does not exists, or during devreset

**Variables:** f: the data.txt file

**Logical Steps:**  Checks if the file exists, removes it, then creates a new one.

1. update\_file():

**Description:** Updates the file with new data if the transaction goes through

**Parameters:** (f: the file that was opened before, such that it can be interacted with)

(tickets: the new ticket total)

**Variables:**

1. Buyers: the amount of buyers stored in the data file
2. fwrite: a new instance of the file such that it can be written in

**Logical Steps:** Gets the count of buyers from file, adds 1, then updates the new total for each, overwriting the file.

3. out\_of\_stock():

**Description:**  If there are no tickets left to buy, displays the number of buyers, and allows for a devreset, clearing all data from the file.

**Variables:** f: a read instance of the data.txt file.  
 Buyers: the buyer count from the data file

**Logical Steps:** sends everything, then tells the user to press ENTER to return. In actuality, it is an input variable, which, if “devreset,” creates a new data file.

4. main():

**Description:** The main function which is called initially. It handles the initial creation of the data.txt file, and the input of tickets wanted.

**Variables:**

1. F: the data.txt read instance
2. Tickets: the available tickets from the data file
3. Wanted: the amount of tickets a customer would like to purchase

**Logical Steps:**

1. Check if the data.txt file exists. If not, create one
2. Get the current amount of tickets in the file.
3. Get the amount of tickets the user would like to buy
4. If there are enough tickets, the amount is less than or equal to 4, and greater than 0, allow the purchase.
5. Update the data file with new information
6. Close the file and loop the function (for ease of access to you)