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### A Dark Forest

A dark forest begins with a simple save file. I created the text file to include important data that will load into the game. The magic begins in main.cpp. The main file imports all of the data from my .txt save file and populates a struct with all of that same data that resides in main. The loop uses getline to read the data and stops after every comma. I increment the index so that each piece of data goes into a new piece of the struct. Once the struct that shares the same type as the struct in my biggest class is filled, I call a function from main that takes the struct as an argument and sets all of the local struct values equal to the values received from main. Main only serves the purpose of receiving and send the initial save data and looping the menu for the user. The majority of data magic happens inside of my biggest class: GameFunctions. The user has the ability from the menu to call 6 different actions: 1. Village, 2. Builder, 3. Merchant, 4. Workshop, 5. End Day, 6. Reset, and 7. Exit. The village function takes all pertinent data from the data struct and presents it to the viewer in an easy-to-read manner. The builder class offers to the user to build some structures in his/her village. First, the user answers yes or no, then the user can build four different buildings. All of these buildings require wood to build; though, so he/she must earn enough wood by having a good amount of villagers who will collect it for the user. The Merchant function is only active every 5 in game days. If the merchant is active, the user can buy an upgraded cart that doubles the amount of wood that the villagers are able to bring back in

a day. The workshop function allows to user to build a giant statue at the cost of half of their villagers' lives. The user can unlock the workshop by purchasing it from the Builder menu. The End Day function is one of the most important; at the end of every day, the game adds a variable number of wood based upon how many villagers the user has and what type of cart they have. Also, as the user builds more huts, the capacity for people in the town increases. During the End Day function, there is about a %60 chance that a new villager will fill an open spot in one of the huts.

The reset function will reset all data back to as if the user had just loaded the game. Finally, the user may exit by selecting the last option in the menu.