

A-Team Group Number: 58

Project name: Milk Weight

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Project Description

An interactive data visualizer program with a graphic user interface (GUI) to help a local farm analyze and report on the milk that has been sold to them by their farmers.

Class Summary

Class Type	Name	Brief description
Data type class	farmSociety	In this class, we will mirror the Farm society which contains all the farms in the society. Each of the farms will be stored in a hash table. Each node of the hash table is a farm of data type farm.
Data type class	farm	This is the helper class of farmSociety. An object of this data represents a farm in the society. It contains all the data related to that farm.
Runner Class	Main	Calls the GUI- calls the reader class- calls the output class
Input Class	Input	Calls the reader class-> parses through the .csv file and stores data in the form of farm objects.
GUI	graphic	Maintains the graphical interface, programming the different screens as methods and calling valid event handlers for the same.
Output Class	Output	Prints the data to a CSV if prompted by the user
JUnit Test Class	farmSocietyTest	Tests the working of the farmSociety data type along with its helper class (farm.java)
JUnit Test Class	I/O Test	Tests the input/output stream of the project

Class Diagram

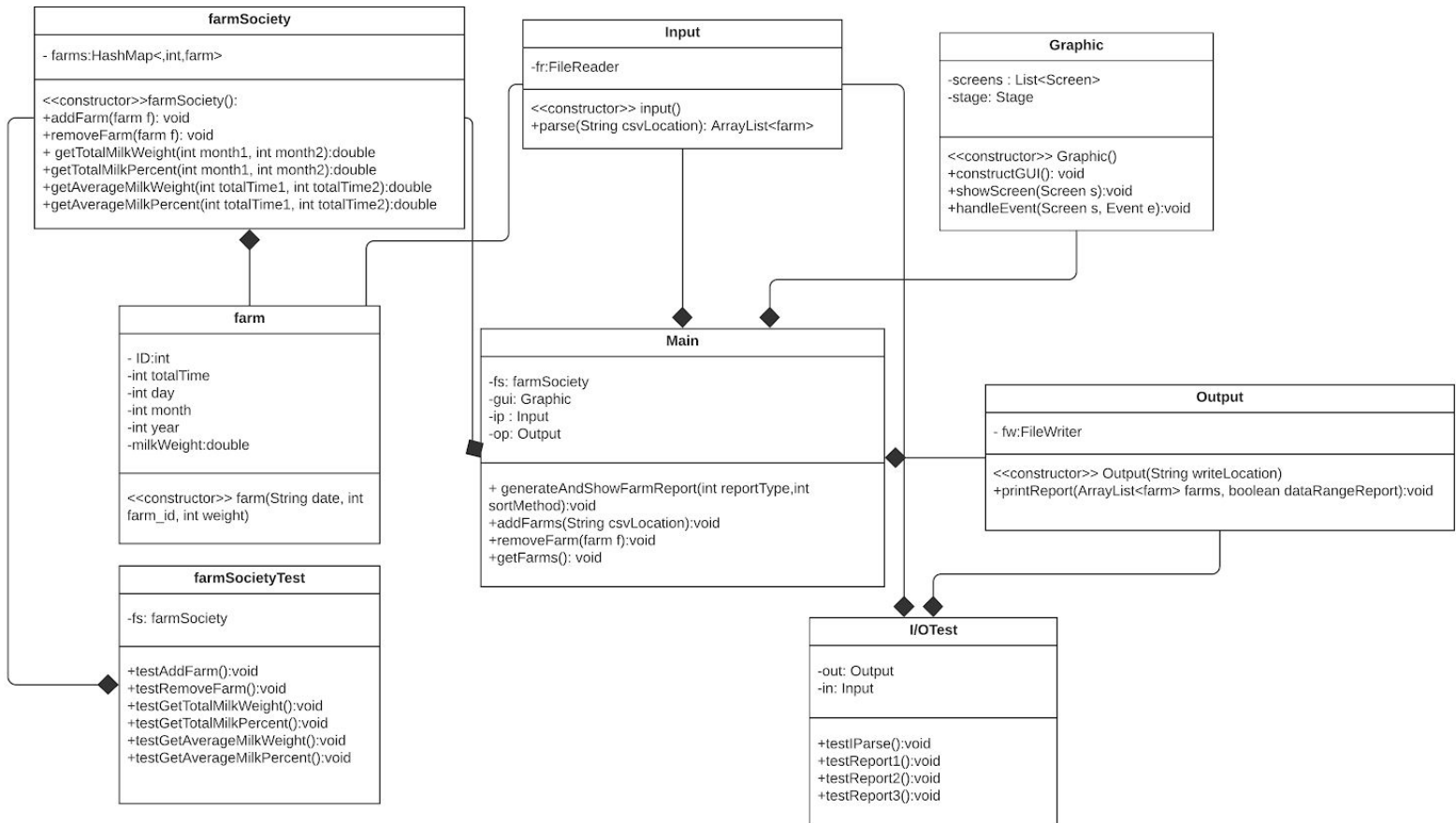


Figure 1: Class Diagram

Object Diagram

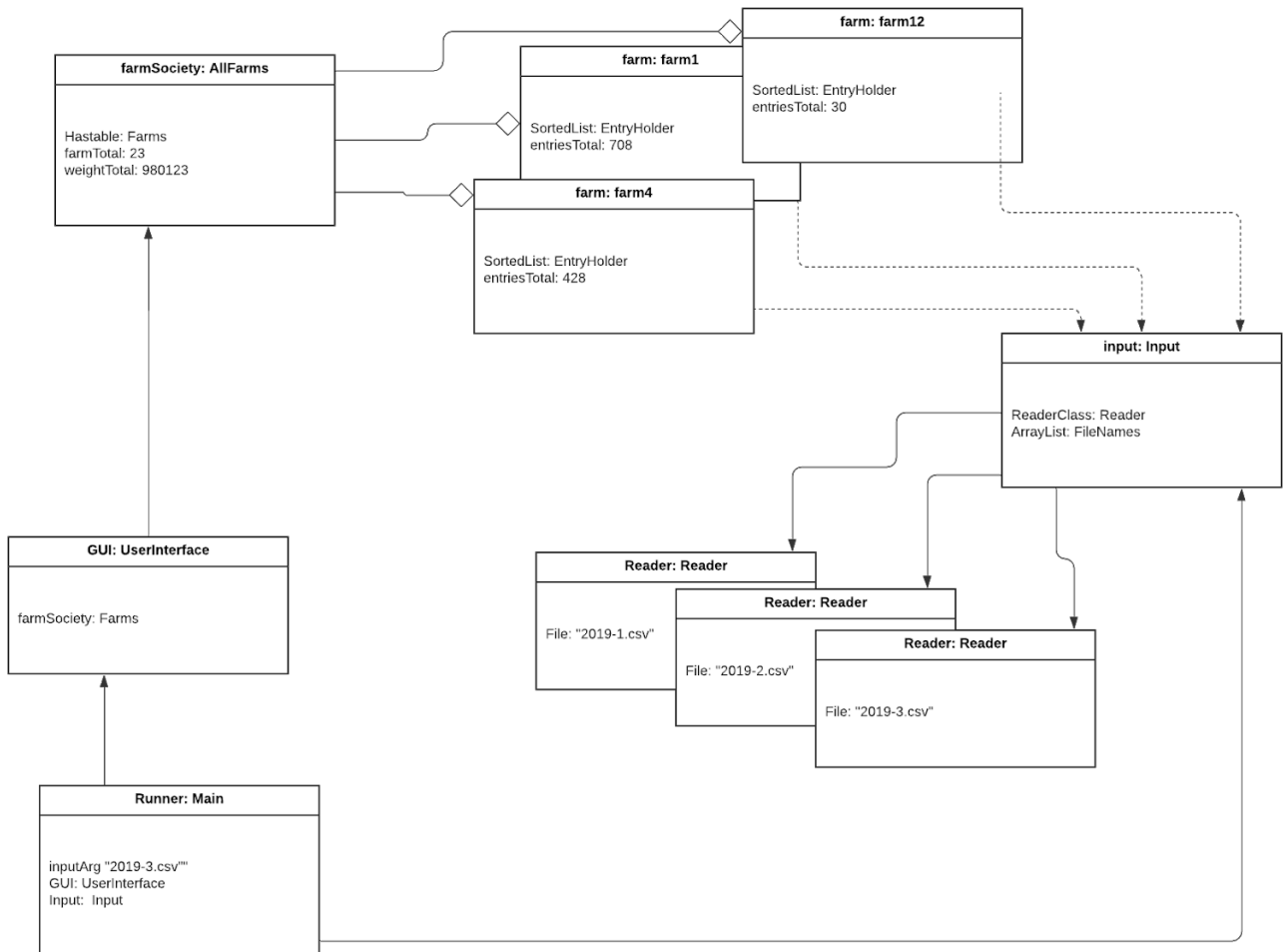


Figure 2: Object Diagram for Program Startup. The Main object runs the GUI which accesses the AllFarms object below it to satisfy the request from the user above it. The farm's objects accessed by the GUI are generated at startup via the Input object - referenced by the Main class. The Input class creates the farm objects by using reader objects to read the CSV data and convert that into a farm object. Farms are stored in a hashtable within AllFarms.

GUI Layout Sketch

Welcome to Milk Farm

What would you like to do?

Add new data	View Existing Data
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Add new data

For new farm	For existing farm
Attach the database added <input type="text"/> <input type="button" value="SUBMIT"/>	Enter the farm ID and data Farm ID: <input type="text"/> Data: <input type="text"/> <input type="button" value="SUBMIT"/>

View old data

Which type of report would you like to see

Farm Report	Annual Report
Date Range Report	Monthly Report

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Farm Report

Enter the farm ID and year

Farm ID:

Year:

↓

Total Weight: \$ \$

Percentage of Total milk produced: \$ \$

Month: Total Milk produced \$ %

Monthly Report

Please enter the year and the month

Year:

Month:

↓

Total Milk produced: \$ \$

Farm ID	Milk produced

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Annual Report

Please Enter the year

Year:

↓

Total Milk Produced: \$ \$

Farm ID	Milk Produced

Date Range Report

Enter the start and the end date in format: YYYY-MM-DD

Start Date:

End Date:

↓

Total Milk Produced: \$ \$

Farm ID	Milk Produced

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