**Friday 1:00pm for zoom meeting**

**1. Header**

**A-Team group number:** A142

**Project name:** Milk Weights

**Team members**

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**Project description:**

**2. Class Summary**

|  |  |  |
| --- | --- | --- |
| **enum, interface, class, abstract class** | **Name of the type** | **Description of use or purpose of this type** |
| Interface | Stat | Abstract methods for necessary steps in generating reports: generateByID, generateByMonth.. |
| class | MilkStat | Main class to initial the GUI and store all DataStructure to store data  (storage, farms, monthArray, farmMap), it has method to export statistics for specified farm or specified month or for full year |
| class | Milk | Represents a single milk product instance  (date, farmID, weight) |
| class | Farm | Represents a single farm instance with a unique ID  (ID, Milk) |

**3. Class Diagrams**

**Stat Interface**

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| **Stat** |
| **Field:** |
|  |
| **Method:**  **void** readSingleFile();  **void** readMultipleFile();  **void** showByFarmID();  **void** showByMonth();  **void** showByFullYear();  File exportReport(); |

**Milk Class**

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| **Milk** |
| **Field:**   * date : Date * farmID: String * weight: int |
| **Construct method:**  Milk (date, farmID, weight) |
| **Method:** |

**Farm Class**

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| **Farm** |
| **Field:**   * ID : String * List <Milk> |
| **Construct method:**  Farm (ID, List<Milk>) |
| **Methotd:**   * add (milk) * remove (milk) |

**MilkStat Class**

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| --- |
| **MilkStat** |
| **Field:**   * storage : List <Milk> * farms: List <Farm> * monthMap: Map <Interger,List<Milk>> * farmMap: Map <String,Farm> |
| **Construct method:**  MilkStat () |
| **Method:**   * readSingleFile (String fileSource) * readMultipleFile (String fileSource) * showStatByFarmID (String farmID) * showStatByMonth (Int month) ---month from 1 to 12 * showStatForFullYear () * saveAsCSV () |

### DataStructure may be used for used in MilkStat :

a. storage: List<Milk>, to store all milk information

### b. farms: List <Farm>, to store all farms information

c. monthMap: total 12 (12 months) monthMap.get(0) = List <Milk>..

### d. farmMap: Map <String,Farm>, easy for test whether one farm is already created4. Object Diagram

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### 5. GUI Layout Sketch





