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Abstract. The main objective of my program is to create a to do list. The program will be able to accept to do list items from the user. It will then be able to print the list of items in a specific order and allow the user to delete them after they are completed.

Introduction. I was originally going to do a program that had to do with sports. I was with my mother at the grocery store and she was talking about everything we had to get done before my parents went back home. I thought a to do list simulator would be more fitting for this project since we already did a soccer match simulator in class. I believe this to do list uses many aspects of what we have learned in class, like writing and retrieving from a file, using array lists, and using inputs from the user to execute tasks with strings and lists. I still need to create the classes that incorporate the items as a container class. I also need to do the read from file class.

Detailed System Description. This system allows for a user to create a list of items they wish to get done. It would be used for people to have a reminder of everything they have to do in a certain time period. The user interacts with it through text and numerical values that represent the importance of each item. They will choose numbers depending on what action they want to attempt, that is add, delete, or rearrange. The

classes will all get data from original class on what the items entered for the to do list are. The file class will get the information from the items list and write it in a file to save.

WriteFile(IOException)
<div>-content : String</div> <div>-file : String</div> <div>-writer : BufferedWriter</div> <div>-todos : ArrayList<String></div>
<div>+ writeTodosToFile: (ArrayList<String> todo)</div>

ReadFile
<div>file : String</div>

+read: ArrayList <String>

+readTodosToFile: (ArrayList<String> todo)

TodoApp

-dateCreated : java.util.Date

-num : int

-td : ArrayList<String>

-n : int

- ran : Random

List

-task : String

-completed : boolean -dateCreated : String
+getT : String +isCompleted +getDateCreated : java.util.Date

Reward
String : rewards

Requirements. The system is addressing the problem of people forgetting what they have to do. It will allow people to have a continuous list of activities they have to do until they mark them as completed. It uses files to save information that the user can retrieve at a later time.

Literature Survey. There are some to do list works on stack overflow. They only use one class and only allow for the to do list to be printed from the inputs. The only options to execute are adding an item and printing the list. They do not use multiple classes or write to and retrieve data from a file. It simply creates a todo list that cannot be saved and read again.

User Manual. They will first choose a number for what they wish to do to the list whether it is adding, completing, or rearranging. The original output will have numbers with those operations for the user to choose from. The user will then specify which item they would like the change to happen to. The user can then view the to do list at any time and it will be retrieved from a file in which it is saved in and can make changes as they see fit.

Conclusion. The goal of the system is to allow the user to do specific tasks, adding, deleting, and rearranging items in a list. It is also to have to list saved to a file for the users benefit of retrieval.

References/Bibliography.

[https://stackoverflow.com/questions/31152539/how-to-make-a-functioning-to-do-list-in-j
ava](https://stackoverflow.com/questions/31152539/how-to-make-a-functioning-to-do-list-in-java)

- Stack overflow from literature survey

<https://stackoverflow.com/questions/18070629/how-to-read-from-users-input-in-java-and-write-it-to-a-file>

- I used this to help guide me on how to read something from a file with a scanner

Liang, Y. Daniel. *Introduction to Java Programming and Data Structures:*

Comprehensive Version. Pearson, 2019.