

**HACETTEPE UNIVERSITY DEPARTMENT OF COMPUTER
ENGINEERING
BBM104**



**Prepared by Burak YILMAZ
Number : 21627868
E-Mail : burak040898@gmail.com
Subject : Assignment 2**

MAIN GOAL

In this assignment, our main goal is using basic Java skills like file reading and writing basic loops, string operations and also learning how to comply a Java code.

PROBLEM

In this problem we need to write a Java code that calculates the calories by considering taken and burned calories during the day for the healthy life of the people. We will consider three constant input files(people.txt,sport.txt,food.txt) and one command.txt for the commands to implement. Finally we should write our results to a txt. File which is called monitoring.txt.

SOLUTION

At the beginning I did not know how to read a Java file so I searched on the internet then I find a way to read. After that I make six classes for people,sport,food,main,command operations and writing operations. Later that I began to write the Java code.

CLASSES

I use six different classes. First class is people class which is for the people in the people.txt. In people class I read the people.txt and an override method "toString" to write the people object when it needed.

My second class is sport class. In sport class I read the sport.txt and calculating the burning calories as a method.

Third class is food class. In food class I read the food.txt and calculating the taken calories as a method.

Fourth class is command class. In command class I read the command.txt and for each command.

My fifth class is writer class. I used writer class for writing the correct output to monitoring.txt.

Last class is main class. In main class actually, I did not do any specific things. I just only create a few objects and arrays also my main class consist of less than 15 lines.

ALGORITHM

Firstly, I read constant three input files. After reading I store the data in related object arrays. After that I wrote the methods for each class roughly. I moved on with reading command.txt for each command then I implemented each command. While implementing commands I properly designed and developed my classes. Finally, I did a few corrections and put my Java code into final form.

METHODS

`public String toString() : (people class method)`

-This is an override method and it returns the people object as a string to write.

`public void reader_people(): (people class method)`

-This method reads the people.txt and put the values on each line into an object after that put the objects to an array. And also it calculates the required calorie for each person in the people.txt. It takes people class array as an argument

`public void reader_sport(): (sport class method)`

-This method reads the sport.txt and put the values on each line into an object after that put the objects to an array. It takes sport class array as an argument

`public void sport_duration(): (sport class method)`

-It compares the id of the people with the command id and calculate the calories burned for given id. It takes 6 arguments (three int ,one array from sport class, one array from people class and one object from writer class).

`public void reader_food(): (food class method)`

-This method reads the food.txt and put the values on each line into an object after that put the objects to an array. It takes food class array as an argument.

`public void portion_calories(): (food class method)`

-It compares the id of the people with the command id and calculate the calories taken for given id. It takes 6 arguments (three int ,one array from food class, one array from people class and one object from writer class).

`public void cm_reader(): (command class method)`

-It reads the command.txt and for each command it determines which method will going to use. It takes 5 arguments (one array from sport class, one array from people class and one object from writer class, one array from food class and String object)

`public void check_empty(): (writer class method)`

-It checks if the monitoring.txt has a content or it is empty. If it has got a content it deletes the content.

`public void writer_sport(): (writer class method)`

-It writes the sport duration method output into monitoring.txt. It takes only one argument(String class object)

`public void writer_food(): (writer class method)`

-It writes the portion calories method output into monitoring.txt. It takes only one argument(String class object)

`public void writer_people(): (writer class method)`

-It writes the command "Print(id)" for the correct id to the monitoring.txt. It takes only one argument(String class object)

`public void writer_stars(): (writer class method)`

-It writes exactly 15 stars after each command not include the last command.

`public void writer_object(): (writer class method)`

-It calls toString method from people class and write the return statement of toString method to monitoring.txt. It takes only one argument (an object from people class)

COMMENTS

-Thanks to this assignment I learnt a lot of Java skills and developed my Java knowledge also It was very enjoyable for me. I understand objects and methods and classes more. Besides this assignment was a good practice to implement my knowledge about Java. I exactly like Java more than C.