Package model

Class Summary

Chore

This class is responsible for creating a Chore object.

ChoresAllocation

This class is responsible for creating a ChoresAllocation object.

ChoresList

This class is responsible for creating an object which can store a list of Chores.

Person

This class is responsible for creating a Person object.

Profile

This class is responsible for creating a Profile object.

ProfileData

This class is responsible for creating a ProfileData object.

---

model

Class Chore

```
java.lang.Object
    |
    +--model.Chore
```

All Implemented Interfaces:

java.lang.Comparable

< Fields > < Constructors > < Methods >

---

public class **Chore**
extends java.lang.Object
implements java.lang.Comparable

This class is responsible for creating a Chore object. Implements Comparable to allow elements to be compared.

Author:

Yashwant Rathor

Fields

choreName

```
private java.lang.String choreName
```
Name of the chore.

---

choreTime

```
private int choreTime
```
Time taken to complete chore.

Constructors

Chore

```
public  Chore(java.lang.String choreName,
              int averageChoreTime)
        throws java.lang.IllegalArgumentException
```

Custom constructor. Creates a Chore object with two input parameters.

Parameters:

choreName - Name of the chore.
averageChoreTime - Time taken to complete the chore.

Throws:

java.lang.IllegalArgumentException - If choreName is empty or null.

Methods

compareTo

```
public int compareTo(Chore other)
```

Compares two Chore objects with each other.

---

equals

```
public boolean equals(java.lang.Object obj)
```

Checks if two Chore objects have the same values.

Overrides:

equals in class java.lang.Object

---

getChoreName

`public java.lang.String **getChoreName**()`

Ensures that the choreName is returned with the correct formatting.

Returns:

returns choreName with every word capitalised.

---

getChoreTime

`public int **getChoreTime**()`

Allows the choreTime value to be accessed.

Returns:

returns the choreTime.

---

setChoreName

`public void **setChoreName**(java.lang.String s)`

Allows choreName to be assigned a valid value from an input parameter.

Parameters:

s - The String to be assigned to the {@link choreName} field, if s.trim() is not empty.

---

setChoreTime

`public void **setChoreTime**(int i)`

Allows choreTime to be assigned a value from an input parameter.

Parameters:

i - The int to be assigned to the {@link choreTime} field.

---

toString

`public java.lang.String **toString**()`

Overrides the default toString() representation of this class.

Overrides:

toString in class java.lang.Object

---

model

Class ChoresAllocation

```
java.lang.Object
    |
    +--model.ChoresAllocation
```

< Fields > < Constructors > < Methods >

---

public class **ChoresAllocation**
extends java.lang.Object

This class is responsible for creating a ChoresAllocation object. The object uses the TreeMap data structure to store a Chore object and an ArrayList[String].

Author:

Yashwant Rathor

Fields

tMap

```
private java.util.TreeMap tMap
```

TreeMap

Constructors

ChoresAllocation

```
public  ChoresAllocation()
```

Default Constructor. Creates an empty TreeMap.

Methods

addAllocation

```
public void addAllocation(Chore c,
                          java.util.ArrayList al)
```

Stores a Chore object and an ArrayList[String] to the TreeMap.

Parameters:

c - Chore to be added as key to the {@link tMap} field.
al - ArrayList[String] to be added as value linked to a key, to the {@link tMap} field.

---

getChores

`public java.util.Collection` **`getChores`**`()`

Returns a collection of TreeMap keys.

Returns:

returns all of the keys stored within the TreeMap.

---

getPeople

`public java.util.Collection` **`getPeople`**`()`

Returns a collection of TreeMap values.

Returns:

returns all of the values stored within the TreeMap.

---

returnIterator

`public java.util.Iterator` **`returnIterator`**`()`

Allows elements within the TreeMap to be iterated through.

Returns:

returns an iterator over the elements in this TreeMap's set.

---

toString

`public java.lang.String` **`toString`**`()`

Overrides the default toString() representation of this class.

Overrides:

toString in class java.lang.Object

---

model

Class ChoresList

```
java.lang.Object
    |
    +--model.ChoresList
```

All Implemented Interfaces:

java.lang.Iterable

< Fields > < Constructors > < Methods >

public class **ChoresList**
extends java.lang.Object
implements java.lang.Iterable

This class is responsible for creating an object which can store a list of Chores. Implements Iterable to allow elements to be iterated through.

Author:

Yashwant Rathor

Fields

choresList

`private java.util.ArrayList` **`choresList`**

List of chores.

Constructors

ChoresList

`public` **`ChoresList`**`()`

Default Constructor.

Methods

addChore

`public void` **`addChore`**`(Chore c)`

Adds a non-null Chore object to the list.

Parameters:

c - the Chore object to be added to {@link choresList} field.

---

choresListSize

`public int` **`choresListSize`**`()`

Allows the size of the choresList to be returned.

Returns:

returns the size of the list.

---

getChore

`public Chore getChore(int index)`

Allows a Chore object to be retrieved from the choresList.

Parameters:

index - the index to be accessed from the choresList.

Returns:

returns the Chore object located at the supplied index.

---

iterator

`public java.util.Iterator iterator()`

Allows elements within choresList to be iterated through.

---

toString

`public java.lang.String toString()`

Overrides the default toString() representation of this class.

Overrides:

toString in class java.lang.Object

---

model

Class Person

```
java.lang.Object
    |
    +--model.Person
```

All Implemented Interfaces:

java.lang.Comparable

< Fields > < Constructors > < Methods >

---

public class **Person**
extends java.lang.Object
implements java.lang.Comparable

This class is responsible for creating a Person object. Implements Comparable to allow elements to be compared.

Author:

Yashwant Rathor

Fields

ID

```
private int ID
```
An identification number unique to each person.

---

firstName

```
private java.lang.String firstName
```
A person's forename.

---

lastName

```
private java.lang.String lastName
```
A person's surname.

---

nickName

```
private java.lang.String nickName
```
A person's nickname.

Constructors

Person

```
public  Person(java.lang.String firstName,
               java.lang.String lastName,
               int ID)
        throws java.lang.IllegalArgumentException
```

Custom Constructor with no nickname field parameter.

Parameters:

firstName - Forename of a person.
lastName - Surname of a person.
ID - Identification number of a person.

Throws:

java.lang.IllegalArgumentException - If firstName or lastName parameters are empty or null.

Person

```
public  Person(java.lang.String firstName,
               java.lang.String lastName,
               java.lang.String nickName,
               int ID)
        throws java.lang.IllegalArgumentException
```

Custom Constructor 2 with nickname field parameter

Parameters:

firstName - Forename of a person.
lastName - Surname of a person
nickName - Nickname of a person.
ID - Identification number of a person.

Throws:

java.lang.IllegalArgumentException - If firstName, lastName or nickName parameters are empty or null.

Methods

compareTo

```
public int compareTo(Person other)
```

Compares two Person objects with each other.

---

equals

```
public boolean equals(java.lang.Object obj)
```

Checks if two Person objects have the same values.

Overrides:

equals in class java.lang.Object

---

getFirstName

```
public java.lang.String getFirstName()
```

Ensures that the firstName is returned with the correct formatting.

Returns:

returns firstName with every word capitalised.

---

getFullName

`public java.lang.String **getFullName**()`

Allows a full name String to be generated from a person's forename, surname and nickname.

Returns:

a combined String which represents a person's full name.

---

getID

`public int **getID**()`

Allows a person's ID number to be accessed.

Returns:

returns the unique ID value.

---

getLastName

`public java.lang.String **getLastName**()`

Ensures that the lastName is returned with the correct formatting.

Returns:

returns lastName with every word capitalised.

---

getNickName

`public java.lang.String **getNickName**()`

Ensures that the nickName is returned with the correct formatting.

Returns:

returns nickName with every word capitalised.

---

setFirstName

`public void **setFirstName**(java.lang.String f)`

Allows firstName to be assigned a valid value from an input parameter.

Parameters:

f - The String to be assigned to the {@link firstName} field.

---

setLastName

`public void setLastName(java.lang.String l)`

Allows lastName to be assigned a valid value from an input parameter.

Parameters:

l - The String to be assigned to the {@link lastName} field.

---

setNickName

`public void setNickName(java.lang.String n)`

Allows nickName to be assigned a valid value from an input parameter.

Parameters:

n - The String to be assigned to the {@link nickName} field.

---

toString

`public java.lang.String toString()`

Overrides the default toString() representation of this class.

Overrides:

toString in class java.lang.Object

---

model

Class Profile

```
java.lang.Object
    |
    +--model.Profile
```

< Fields > < Constructors > < Methods >

---

public class **Profile**
extends java.lang.Object

This class is responsible for creating a Profile object.

Author:

Yashwant Rathor

Fields

averageChoreTime

`private int` **`averageChoreTime`**
An int value to store the average time needed to complete a chore.

---

chores

`private` `ChoresList` **`chores`**
A ChoresList object.

---

currentDateLine

`private java.lang.String` **`currentDateLine`**
A String value to represent the current Date line for a text file.

---

filePath

`private java.lang.String` **`filePath`**
A String value to store the filepath to where the text file will be created and written to.

---

noOfChores

`private int` **`noOfChores`**
An int value to store the number of chores for each Profile.

---

person

`private` `Person` **`person`**
A Person object.

---

separator

`private java.lang.String` **`separator`**
A String value to represent a (-) division of a dynamic length.

---

separator2

`private java.lang.String` **`separator2`**
A String value to represent a (-) division of a fixed length.

---

titleLine

```
private java.lang.String titleLine
```
A String value to represent the title line for a text file.

---

totalChoreTime

```
private int totalChoreTime
```
An int value to store the combined time needed to complete all chores.

---

totalLine

```
private java.lang.String totalLine
```
A String value to represent the total line for a text file.

---

useNickName

```
private java.lang.Boolean useNickName
```
A Boolean value for whether a nickname is to be used or not.

---

wcDateLine

```
private java.lang.String wcDateLine
```
A String value to represent the week commencing Date line for a text file.

Constructors

Profile

```
public  Profile(Person person,
                java.lang.Boolean useNickName)
         throws java.lang.NullPointerException
```

Custom Constructor.

Parameters:

person - A Person object to be assigned to person.
useNickName - A Boolean value to be assigned to useNickName.

Throws:

java.lang.NullPointerException - If person or useNickname are null.

Methods

addChore

`public void **addChore**(Chore c)`

Adds a non-null Chore object to the list.

Parameters:

c - the Chore object to be added to {@link chores} field.

---

countChores

`public void **countChores**(int i)`

Stores the numbers of chores for a profile.

Parameters:

i - number of chores to be assigned to {@link noOfChores} field.

---

getAllChores

`public ChoresList **getAllChores**()`

Allows a list of chores to be accessed.

Returns:

returns a list of all chores for a profile.

---

getAverageChoreTimeOutput

`public java.lang.String **getAverageChoreTimeOutput**()`

Allows the average time required to complete a chore to be accessed.

Returns:

returns the String of the averageChoreTime in hours and minutes.

---

getCurrentDateLine

`public java.lang.String **getCurrentDateLine**()`

Allows a profile's current Date line to be accessed.

Returns:

returns the String for the currentDateLine to be inputed in profile's text file.

---

getFilePath

`public java.lang.String` **`getFilePath`**`()`

Allows a profile's filepath to be accessed.

Returns:

returns the String of the filepath to store data for a profile.

---

getPerson

`public` `Person` **`getPerson`**`()`

Allows person's details to be accessed.

Returns:

returns a Person object.

---

getSeparator

`public java.lang.String` **`getSeparator`**`()`

Allows the separator String value to be accessed.

Returns:

returns a String with a length dependent on the length of the titleLine.

---

getTitle

`public java.lang.String` **`getTitle`**`()`

Allows a profile's title line to be accessed.

Returns:

returns the String for the titleLine to be inputed in the profile's text file.

---

getTotalChoreTimeOutput

`public java.lang.String` **`getTotalChoreTimeOutput`**`()`

Allows the total time required to complete all chores to be accessed.

Returns:

returns the String of the totalChoreTime in hours and minutes.

---

getTotalLine

`public java.lang.String` **`getTotalLine`**`()`

Allows a profile's total line to be accessed.

Returns:

returns the String for the totalLine to be inputed in profile's text file.

---

getWCDateLine

`public java.lang.String` **`getWCDateLine`**`()`

Allows a profile's week commencing Date line to be accessed.

Returns:

returns the String for the wcDateLine to be inputed in profile's text file.

---

toString

`public java.lang.String` **`toString`**`()`

Overrides the default toString() representation of this class.

Overrides:

toString in class java.lang.Object

---

model

Class ProfileData

```
java.lang.Object
    |
    +--model.ProfileData
```

All Implemented Interfaces:

java.lang.Iterable

< Fields > < Constructors > < Methods >

---

public class **ProfileData**
extends java.lang.Object
implements java.lang.Iterable

This class is responsible for creating a ProfileData object. Implements Iterable to allow elements to be iterated through.

Author:

Yashwant Rathor

Fields

choresAllocation

`private ChoresAllocation choresAllocation`
A ChoresAllocation object.

---

profiles

`private java.util.ArrayList profiles`
An object that contains an ArrayList of profiles.

Constructors

ProfileData

`public ProfileData()`

Default Constructor.

Methods

addProfile

`public void addProfile(Profile p)`

Allows the profiles list to be populated with a single profile.

Parameters:

p - Profile object to be added to the {@link profiles} field.

---

addProfiles

`public void addProfiles(java.util.Collection cp)`

Allows the profiles list to be populated with multiple profiles.

Parameters:

cp - A collection of Profile objects to be added to the {@link profiles} field.

---

getChoresAllocation

`public ChoresAllocation getChoresAllocation()`

Allows the allocation of chores to be accessed.

Returns:

returns the choresAllocation object.

---

getProfile

`public Profile getProfile(int index)`

Allows a profile to be accessed using a index position.

Parameters:

index - The index of the Profile object to be accessed.

Returns:

returns the Profile object located at the index supplied in the parameter.

---

getProfiles

`public java.util.ArrayList getProfiles()`

Allows all profiles stored within the ArrayList to be accessed.

Returns:

returns all Profile objects stored within the ArrayList.

---

iterator

`public java.util.Iterator iterator()`

Allows elements within profiles to be iterated through.

---

removeDuplicates

`public void removeDuplicates(java.util.ArrayList list)`

Removes any duplicate Profile objects from the ArrayList.

Parameters:

list - filtered ArrayList of Profile objects to the {@link profiles} field..

---

setChoresAllocation

`public void` **`setChoresAllocation`**`(ChoresAllocation c)`

Populates the allocation of chores.

Parameters:

c - ChoresAllocation object to be assigned to the {@link choresAllocation} field.

---

toString

`public java.lang.String` **`toString`**`()`

Overrides the default toString() representation of this class.

Overrides:

toString in class java.lang.Object