Team Suprised Pikachu Backend

AUTHOR

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# Hierarchical Index

## Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Controller

Handler

Event

User

# Class Index

## Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

**Controller**

**Event**

**Handler**

**User**

# Class Documentation

## Controller Class Reference

### Public Member Functions

void **addCredit** (String trn, ArrayList< **User** > users)

*To update a current user's available credit based on the specified amount indiciated by the transaction string of a current user.*

void **refundCredit** (String trn, ArrayList< **User** > users)

*To update a buyer's available credit and seller's available credit based on the specified amount indiciated by the transaction string of a current user.*

### Static Public Member Functions

static ArrayList< **User** > **parseUsers** (String fileName)

static ArrayList< **Event** > **parseEvents** (String fileName)

static void **createUser** (String trn, ArrayList< **User** > users)

static void **deleteUser** (String trn, ArrayList< **User** > users)

static void **createEvent** (String trn, ArrayList< **Event** > events)

static void **deleteEvent** (String trn, ArrayList< **Event** > events)

static void **enforceRules** (String id)

*Applies the changes based on the id from each transaction line. Invokes necessary methods for each matched possble actions (create, delete, buy, sell, addcredit and refund).*

static void **main** (String[] args)

*This is the main program logic. Also ensures standard saftey checks are met and also calls all necessary functions that result in modification of two files (user accounts & available tickets).*

### Detailed Description

Definition at line 16 of file Controller.java.

### Member Function Documentation

#### void Controller.addCredit (String *trn*, ArrayList< User > *users*)

To update a current user's available credit based on the specified amount indiciated by the transaction string of a current user.

##### Parameters:

|  |  |  |
| --- | --- | --- |
| in | *trn* | A string representation of a transaction from the merged Daily transaction File (DTF) users An ArrayList object that contains all the user's on the Current **User** Accounts File |

##### Returns:

void

Definition at line 146 of file Controller.java.

#### static void Controller.createEvent (String *trn*, ArrayList< Event > *events*)[static]

Creates an event and adds it to the ArrayList.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | transaction string containing the event data. |
| *events* | the array list to add to. |

Definition at line 117 of file Controller.java.

#### static void Controller.createUser (String *trn*, ArrayList< User > *users*)[static]

Creates a user and adds it to the ArrayList.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | transaction string containing the user data. |
| *users* | the array list to add to. |

Definition at line 89 of file Controller.java.

#### static void Controller.deleteEvent (String *trn*, ArrayList< Event > *events*)[static]

Deletes the object that matches the given transaction string.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | transaction string containing data to delete. |
| *events* | search through this array list and delete the right object. |

Definition at line 128 of file Controller.java.

#### static void Controller.deleteUser (String *trn*, ArrayList< User > *users*)[static]

Deletes the object that matches the given transaction string.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | transaction string containing data to delete. |
| *users* | search through this array list and delete the right object. |

Definition at line 100 of file Controller.java.

#### static void Controller.enforceRules (String *id*)[static]

Applies the changes based on the id from each transaction line. Invokes necessary methods for each matched possble actions (create, delete, buy, sell, addcredit and refund).

##### Parameters:

|  |  |  |
| --- | --- | --- |
| in | *id* | Identifies each transaction line based on either types of transactions. |

##### Returns:

void

Definition at line 220 of file Controller.java.

#### static void Controller.main (String [] *args*)[static]

This is the main program logic. Also ensures standard saftey checks are met and also calls all necessary functions that result in modification of two files (user accounts & available tickets).

##### Parameters:

|  |  |  |
| --- | --- | --- |
| in | *args* | Contains the supplied command-line-arguments, if any as an array of String objects. |

##### Returns:

void

Definition at line 260 of file Controller.java.

#### static ArrayList<Event> Controller.parseEvents (String *fileName*)[static]

Parses the tickets file and returns an ArrayList containing all the events.

##### Parameters:

|  |  |
| --- | --- |
| *fileName* | file name of file to parse. |

##### Returns:

ArrayList<Event> contains all the events found in the file.

Definition at line 60 of file Controller.java.

#### static ArrayList<User> Controller.parseUsers (String *fileName*)[static]

Parses the current user accounts file and returns an ArrayList containing all the users.

##### Parameters:

|  |  |
| --- | --- |
| *fileName* | file name of file to parse. |

##### Returns:

ArrayList<User> contains all the users in the file.

Definition at line 30 of file Controller.java.

#### void Controller.refundCredit (String *trn*, ArrayList< User > *users*)

To update a buyer's available credit and seller's available credit based on the specified amount indiciated by the transaction string of a current user.

##### Parameters:

|  |  |  |
| --- | --- | --- |
| in | *trn* | A string representation of a transaction from the merged Daily transaction File (DTF) users An ArrayList object that contains all the user's on the Current **User** Accounts File |

##### Returns:

void

Definition at line 181 of file Controller.java.

#### The documentation for this class was generated from the following file:

Controller.java

## Event Class Reference

Inherits **Handler**.

### Public Member Functions

**Event** (String trn)

String **getName** ()

int **getTickets** ()

void **updateTickets** (int num)

String **toTRN** ()

### Additional Inherited Members

### Detailed Description

A class to manipulate **Event** objects.

##### Author:

Stephanie Phung

##### Version:

1.1

Definition at line 8 of file Event.java.

### Constructor & Destructor Documentation

#### Event.Event (String *trn*)

Creates an event using a string transaction.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | the transaction string container all event data. |

Definition at line 20 of file Event.java.

### Member Function Documentation

#### String Event.getName ()

Returns the name of the event.

##### Returns:

String the name of the event.

Definition at line 34 of file Event.java.

#### int Event.getTickets ()

Returns the number of tickets available.

##### Returns:

int the number of available tickets.

Definition at line 43 of file Event.java.

#### String Event.toTRN ()

Returns the details of the current event in the form of a transaction. Format: E\_S\_T\_P where E is the event title, S is the seller's username, T is the number of tickets, and P is the price per ticket, with spaces between the values.

Definition at line 62 of file Event.java.

#### void Event.updateTickets (int *num*)

Sets number of tickets.

##### Parameters:

|  |  |
| --- | --- |
| *num* | the new number of tickets for sale. |

Definition at line 52 of file Event.java.

#### The documentation for this class was generated from the following file:

Event.java

## Handler Class Reference

Inherited by **Event**, and **User**.

### Protected Member Functions

String **parseValue** (String trn, boolean removeWhitespace, int offset, int end)

String **paddSpaces** (int dataType, String value)

### Static Protected Attributes

static final int **LENGTH\_USER** = 15

static final int **LENGTH\_TYPE** = 2

static final int **LENGTH\_CRED** = 9

static final int **LENGTH\_EVENT** = 25

static final int **LENGTH\_TICKET** = 3

static final int **LENGTH\_PRICE** = 6

static final int **KEY\_USER** = 1

static final int **KEY\_TYPE** = 2

static final int **KEY\_CRED** = 3

static final int **KEY\_EVENT** = 4

static final int **KEY\_TICKET** = 5

static final int **KEY\_PRICE** = 6

static final String **KEY\_END** = "END"

### Detailed Description

An abstract handler class containing useful functions to help manipulate data.

##### Author:

Stephanie Phung

##### Version:

1.1

Definition at line 9 of file Handler.java.

### Member Function Documentation

#### String Handler.paddSpaces (int *dataType*, String *value*)[protected]

Adds spaces or zeroes as padding to data, as necessary.

##### Parameters:

|  |  |
| --- | --- |
| *dataType* | unique key of the type of data. |
| *value* | the value of the data to padd. |

##### Returns:

String the padded data.

Definition at line 55 of file Handler.java.

#### String Handler.parseValue (String *trn*, boolean *removeWhitespace*, int *offset*, int *end*)[protected]

Returns a value with whitespace removed if necessary.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | transaction string of the data. |
| *removeWhitespace* | true if we need to remove whitespace. |
| *offset* | the beginning of the string value in the transaction string. |
| *end* | points to the end of the string value in the transaction string. |

##### Returns:

String the trimmed value.

Definition at line 34 of file Handler.java.

#### The documentation for this class was generated from the following file:

Handler.java

## User Class Reference

Inherits **Handler**.

### Public Member Functions

**User** (String trn)

String **getName** ()

String **getType** ()

double **getCredit** ()

void **setCredit** (double credit)

String **toTRN** ()

### Additional Inherited Members

### Detailed Description

A class to create and store all details for a **User** object.

##### Author:

Stephanie Phung

##### Version:

1.1

Definition at line 7 of file User.java.

### Constructor & Destructor Documentation

#### User.User (String *trn*)

Creates a user using a string transaction.

##### Parameters:

|  |  |
| --- | --- |
| *trn* | the transaction string container all user data. |

Definition at line 18 of file User.java.

### Member Function Documentation

#### double User.getCredit ()

Returns the total credit of a user.

##### Returns:

double the total credit.

Definition at line 49 of file User.java.

#### String User.getName ()

Returns the name of the user.

##### Returns:

String the name of the user.

Definition at line 31 of file User.java.

#### String User.getType ()

Returns the type of user.

##### Returns:

String type of user.

Definition at line 40 of file User.java.

#### void User.setCredit (double *credit*)

Sets the total credit of a user.

##### Parameters:

|  |  |
| --- | --- |
| *credit* | the new credit amount. |

Definition at line 58 of file User.java.

#### String User.toTRN ()

Returns the details of the current user in the form of a transaction. Format: U\_T\_C where U is the username, T is the account type, and C is the credit, all separated with spaces.

##### Returns:

String the transaction string of the user data.

Definition at line 69 of file User.java.

#### The documentation for this class was generated from the following file:

User.java