

# **Team Suprised Pikachu Backend**

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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 indicated 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 indicated 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 possible actions (create, delete, buy, sell, addcredit and refund).*

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

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

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## Detailed Description

Definition at line 16 of file Controller.java.

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## Member Function Documentation

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

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

### Parameters:

in	<i>trn</i>	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 <b>User</b> Accounts File
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### 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:**

<i>trn</i>	transaction string containing the event data.
<i>events</i>	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:**

<i>trn</i>	transaction string containing the user data.
<i>users</i>	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:**

<i>trn</i>	transaction string containing data to delete.
<i>events</i>	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:**

<i>trn</i>	transaction string containing data to delete.
<i>users</i>	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 possible actions (create, delete, buy, sell, addcredit and refund).

**Parameters:**

<i>in</i>	<i>id</i>	Identifies each transaction line based on either types of transactions.
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**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 safety checks are met and also calls all necessary functions that result in modification of two files (user accounts & available tickets).

**Parameters:**

in	<i>args</i>	Contains the supplied command-line-arguments, if any as an array of String objects.
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**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:**

<i>fileName</i>	file name of file to parse.
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**Returns:**

ArrayList&lt;Event&gt; 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:**

<i>fileName</i>	file name of file to parse.
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**Returns:**

ArrayList&lt;User&gt; 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 indicated by the transaction string of a current user.

**Parameters:**

in	<i>trn</i>	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 <b>User</b> Accounts File
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**Returns:**

void

Definition at line 181 of file Controller.java.

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**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

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### Detailed Description

A class to manipulate **Event** objects.

**Author:**

Stephanie Phung

**Version:**

1.1

Definition at line 8 of file Event.java.

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### Constructor & Destructor Documentation

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

Creates an event using a string transaction.

**Parameters:**

<i>trn</i>	the transaction string container all event data.
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Definition at line 20 of file Event.java.

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### 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:**

<i>num</i>	the new number of tickets for sale.
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Definition at line 52 of file Event.java.

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**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"

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## 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.

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## Member Function Documentation

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

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

### Parameters:

<i>dataType</i>	unique key of the type of data.
<i>value</i>	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:

<i>trn</i>	transaction string of the data.
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<i>removeWhitespace</i>	true if we need to remove whitespace.
<i>offset</i>	the beginning of the string value in the transaction string.
<i>end</i>	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.

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**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

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### 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.

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### Constructor & Destructor Documentation

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

Creates a user using a string transaction.

**Parameters:**

<i>trn</i>	the transaction string container all user data.
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Definition at line 18 of file User.java.

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### 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:**

<i>credit</i>	the new credit amount.
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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.

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

User.java

