UNIVERSITY OF ONTARIO
INSTITUTE OF TECHNOLOGY
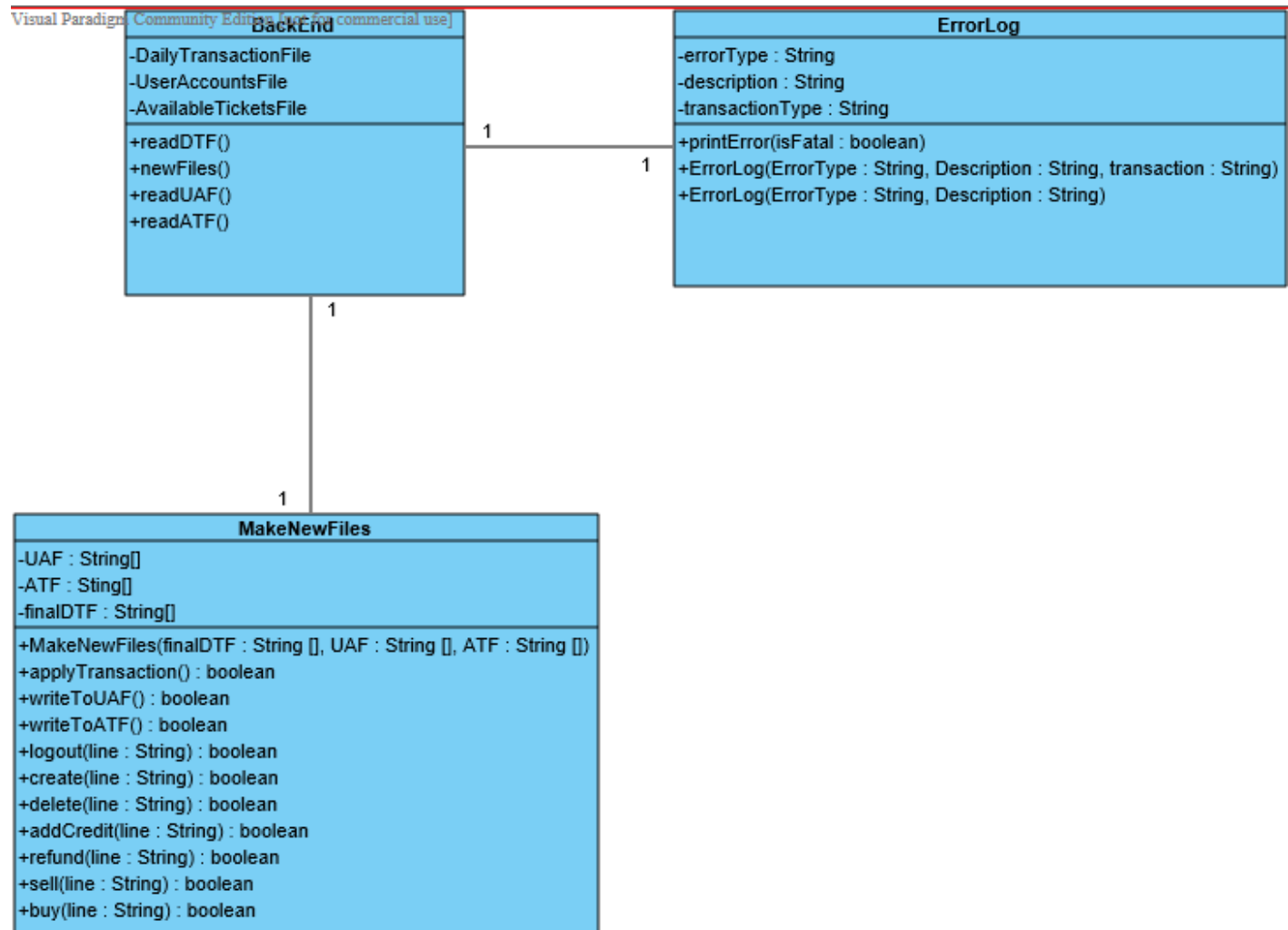
DESIGN DOCUMENT

Back End Rapid Prototype

Group: 1

Overall Structure

The backend architecture was designed in two parts, one named BackEnd does verification and management of the files ensuring realiability. The MakeNewFiles file creates the files from the backend of the system, generating the necessary logs that would be created upon various actions of account creation and ticket barter.

BackEnd

-DailyTransactionFile
-UserAccountsFile
-AvailableTicketsFile

+readDTF()
+newFiles()
+readUAF()
+readATF()

ErrorLog

-errorType : String
-description : String
-transactionType : String

+printError(isFatal : boolean)
+ErrorLog(ErrorType : String, Description : String, transaction : String)
+ErrorLog(ErrorType : String, Description : String)

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MakeNewFiles

-UAF : String[]
-ATF : Sting[]
-finalDTF : String[]

+MakeNewFiles(finalDTF : String [], UAF : String [], ATF : String [])
+applyTransaction() : boolean
+writeToUAF() : boolean
+writeToATF() : boolean
+logout(line : String) : boolean
+create(line : String) : boolean
+delete(line : String) : boolean
+addCredit(line : String) : boolean
+refund(line : String) : boolean
+sell(line : String) : boolean
+buy(line : String) : boolean

BackEnd.java

public static void newFiles	Initiated following the error checking, it invokes a new file.
public static boolean readDTF	Handles the reading for the Daily Transaction File, multiple DTF's are read sequentially.
public static boolean readATF	This method deals with reading the Available Tickets File.

MakeNewFiles.java

public static boolean applyTransactions	Method for applying transactions to the Daily Transaction File
public static boolean writeToUAF	Log new data into UAF
public static boolean writeToATF	Log new data into ATF
public static boolean logout	Handles the logout function, making sure to log all logouts, terminating the accessibility of user.
public static boolean create	Creates accounts when a new username is registered.
public static boolean delete	Parses the file to find the user, to delete the specific user.
public static boolean addCredit	Method handles the checking and ability to addCredit to specific users.
public static boolean refund	Refund operation is lengthy in that it locates seller and buyer and performs refund.
public static boolean sell	Handles the sales of tickets with accordance to event.
public static boolean buy	The purchase of tickets is done by invoking the above method.

ErrorLog.java

public ErrorLog	Same Method initiated twice, handles different error types
public static void printError	Prints the error to console