**Data File Loader**

//Reads a Comma Separated Value file and copies its contents to an array.

//Saves the the array the file.

import java.io.\*;

import java.util.\*;

public class DataFileLoader {

// This needs to be changed depending on who's running it and where they

// have the file saved

String file = "C:\\Users\\Administrator\\Dropbox\\Case Study\\";

public ArrayList<Customer> getCustomers() throws Exception {

BufferedReader customerFile = new BufferedReader(new FileReader(file

+ "Customer.txt"));

ArrayList<Customer> customers = new ArrayList<Customer>();

Customer aCustomer;

String dataRow = customerFile.readLine(); // Read first line.

// The while checks to see if the data is null. If

// it is, we've hit the end of the file. If not,

// process the data.

while (dataRow != null) {

String[] dataArray = dataRow.split("\t");

aCustomer = new Customer();

aCustomer.setCustomerId(dataArray[0]);

aCustomer.setFirstName(dataArray[1]);

aCustomer.setLastName(dataArray[2]);

aCustomer.setTelephoneNumber(dataArray[3]);

aCustomer.setDateOfBirth(dataArray[4]);

aCustomer.setInsuranceProvider(dataArray[5]);

aCustomer.setPolicyNumber(dataArray[6]);

customers.add(aCustomer);

dataRow = customerFile.readLine(); // Read next line of data.

}

// Reads the next line of data.

// Close the file once all data has been read.

customerFile.close();

return customers;

}

public void saveCustomers(ArrayList<Customer> aCustomers) throws Exception {

BufferedWriter customerFile = new BufferedWriter(new FileWriter(file

+ "Customer.txt"));

ArrayList<Customer> customers = aCustomers;

for (Customer customer : customers) {

String customerStr = "";

customerStr = customer.getCustomerId() + "\t"

+ customer.getFirstName() + "\t" + customer.getLastName()

+ "\t" + customer.getTelephoneNumber() + "\t"

+ customer.getDateOfBirth() + "\t"

+ customer.getInsuranceProvider() + "\t"

+ customer.getPolicyNumber();

customerFile.write(customerStr);

customerFile.newLine();

}

// Close the file once all data has been read.

customerFile.close();

}

public ArrayList<Prescription> getPrescriptions() throws Exception {

BufferedReader prescriptionFile = new BufferedReader(new FileReader(

file + "Presciption.txt"));

ArrayList<Prescription> prescriptions = new ArrayList<Prescription>();

Prescription aPrescription;

String dataRow = prescriptionFile.readLine(); // Read first line.

// The while checks to see if the data is null. If

// it is, we've hit the end of the file. If not,

// process the data.

while (dataRow != null) {

String[] dataArray = dataRow.split("\t");

aPrescription = new Prescription();

aPrescription.setPrescriptionId(dataArray[0]);

aPrescription.setCustomerId(dataArray[1]);

aPrescription.setMedicationName(dataArray[2]);

aPrescription.setPhysicianName(dataArray[3]);

aPrescription.setPhysicianPhone(dataArray[4]);

aPrescription.setDateOfIssue(dataArray[5]);

aPrescription.setExpirationDate(dataArray[6]);

aPrescription.setNumberRefills(Integer.parseInt(dataArray[7]));

aPrescription.setUnitsPerRefill(Integer.parseInt(dataArray[8]));

aPrescription.setGeneric(Boolean.parseBoolean(dataArray[9]));

prescriptions.add(aPrescription);

dataRow = prescriptionFile.readLine(); // Read next line of data.

}

// Close the file once all data has been read.

prescriptionFile.close();

return prescriptions;

}

public ArrayList<Generic> getGenerics() throws Exception {

BufferedReader genericFile = new BufferedReader(new FileReader(file

+ "Generic.txt"));

ArrayList<Generic> generics = new ArrayList<Generic>();

Generic aGeneric;

String dataRow = genericFile.readLine();

while (dataRow != null) {

String[] dataArray = dataRow.split("\t");

aGeneric = new Generic();

aGeneric.setMedicationId(dataArray[0]);

aGeneric.setMedicationName(dataArray[1]);

aGeneric.setUnitOfMeasurement(dataArray[2]);

for (int i = 3; i < dataArray.length; i++) {

aGeneric.addSideEffects(SideEffects.valueOf(dataArray[i]));

}

generics.add(aGeneric);

dataRow = genericFile.readLine();

}

genericFile.close();

return generics;

}

public ArrayList<Medication> getMedications(Generics generics)

throws Exception {

BufferedReader medicationFile = new BufferedReader(new FileReader(file

+ "Medication.txt"));

ArrayList<Medication> medications = new ArrayList<Medication>();

Medication aMedication;

String dataRow = medicationFile.readLine(); // Read first line.

// The while checks to see if the data is null. If

// it is, we've hit the end of the file. If not,

// process the data.

while (dataRow != null) {

String[] dataArray = dataRow.split("\t");

aMedication = new Medication();

aMedication.setMedicationId(dataArray[0]);

aMedication.setMedicationName(dataArray[1]);

aMedication.setUnitOfMeasurement(dataArray[2]);

aMedication

.setGenericsAvailable(Boolean.parseBoolean(dataArray[3]));

if (aMedication.getGenericsAvailable()) {

String[] genericsString = dataArray[4].split("|");

for (int x = 0; x < genericsString.length;) {

for (int k = 0; k < generics.size(); k++) {

if (generics.getId(k).equals(genericsString[x])) {

aMedication.addGeneric(generics.getGeneric(k));

}

}

x++;

}

for (int i = 5; i < dataArray.length; i++) {

aMedication.addSideEffects(SideEffects

.valueOf(dataArray[i]));

}

} else {

for (int i = 4; i < dataArray.length; i++) {

aMedication.addSideEffects(SideEffects

.valueOf(dataArray[i]));

}

}

medications.add(aMedication);

dataRow = medicationFile.readLine(); // Read next line of data.

}

// Close the file once all data has been read.

medicationFile.close();

return medications;

}

public void savePrescriptions(ArrayList<Prescription> aPrescriptions)

throws Exception {

BufferedWriter prescriptionFile = new BufferedWriter(new FileWriter(

file + "Presciption.txt"));

ArrayList<Prescription> prescriptions = aPrescriptions;

for (Prescription prescription : prescriptions) {

String prescriptionStr = "";

prescriptionStr = prescription.getPrescriptionId() + "\t"

+ prescription.getCustomerId() + "\t"

+ prescription.getMedicationName() + "\t"

+ prescription.getPhysicianName() + "\t"

+ prescription.getPhysicianPhone() + "\t"

+ prescription.getDateOfIssue() + "\t"

+ prescription.getExpirationDate() + "\t"

+ prescription.getNumberRefills() + "\t"

+ prescription.getUnitsPerRefill() + "\t"

+ prescription.getGeneric();

prescriptionFile.write(prescriptionStr);

prescriptionFile.newLine();

}

// Close the file once all data has been read.

prescriptionFile.close();

}

}