package org.moflon.demo.leitnersbox;

import java.io.File;

import java.io.IOException;

import org.eclipse.emf.common.util.URI;

import org.eclipse.emf.ecore.EObject;

import org.eclipse.emf.ecore.resource.Resource;

import org.eclipse.emf.ecore.resource.ResourceSet;

import org.eclipse.emf.ecore.resource.impl.ResourceFactoryRegistryImpl;

import org.eclipse.emf.ecore.resource.impl.ResourceSetImpl;

import org.eclipse.emf.ecore.xmi.impl.XMIResourceFactoryImpl;

import LearningBoxLanguage.Box;

import LearningBoxLanguage.Card;

import LearningBoxLanguage.LearningBoxLanguagePackage;

import LearningBoxLanguage.Partition;

public class LeitnersBoxController {

private LeitnersBoxView view;

private ResourceSet resSet;

private Box box;

Resource resource;

public LeitnersBoxController()

{

resSet = new ResourceSetImpl();

resSet.getResourceFactoryRegistry().getExtensionToFactoryMap().put(ResourceFactoryRegistryImpl.DEFAULT\_EXTENSION, new XMIResourceFactoryImpl());

// initialize the LearningBoxLanguage

LearningBoxLanguagePackage.eINSTANCE.getClass();

}

public void setView(LeitnersBoxView view) {

this.view = view;

}

private String partitionToString(Partition partition)

{

if (partition == null)

return "";

return "Partition " + partition.getIndex();

}

public void loadXmiFile()

{

// TODO: Change this statement if you did not persist your instance file in 'instances'

File file = new File("instances/Box.xmi");

if(!file.exists()){

file = new File("instances/BoxSample.xmi");

}

resource = resSet.createResource(URI.createFileURI(file.getAbsolutePath()));

try

{

resource.load(null);

EObject loadedObject = resource.getContents().get(0);

box = (Box) loadedObject;

// Read instance file and generate all partitions + cards

createPartitions(box);

} catch (IOException e)

{

e.printStackTrace();

}

}

public void createTheBox() {

view.createBox(box.getName());

}

public void createPartitions(Box box)

{

int partitionIndex = 0;

for (Partition part : box.getContainedPartition())

{

view.createPartition(partitionToString(part), partitionIndex);

createCardsForPartition(part, partitionIndex++);

}

}

private void createCardsForPartition(Partition partition, int partIndex)

{

int cardIndex = 0;

for (Card card : partition.getCard())

{

view.createCard(partitionToString(partition), card.getBack(), partIndex, cardIndex++);

}

}

public void doActionRemoveCard(int partIndex, int cardIndex)

{

// 'Grab' cards selected in the JFrame

Partition containerPartion = box.getContainedPartition().get(partIndex);

Card toBeRemoved = box.getContainedPartition().get(partIndex).getCard().get(cardIndex);

// Part II; User function implemented with injections

containerPartion.removeCard(toBeRemoved);

// Save box.xmi instance and refresh GUI

view.refreshGUI();

}

public void doActionCheckCard(int partIndex, int cardIndex)

{

// Grab specific card selected in JFrame

Partition containerPartition = box.getContainedPartition().get(partIndex);

Card cardToBeChecked = box.getContainedPartition().get(partIndex).getCard().get(cardIndex);

// Prompt user for guess against card

String guess = view.getUserGuess();

System.out.println("Your guess: " + guess);

// TODO: Part III; User function implemented with SDMs. Uncomment the statement below to activate

containerPartition.check(guess, cardToBeChecked);

// Save box.xmi instance and refresh GUI

view.refreshGUI();

}

public void doActionEmpty(int partitionIndex) {

Partition containerPartition = box.getContainedPartition().get(partitionIndex);

containerPartition.empty();

view.refreshGUI();

}

public void doActionGrow() {

box.grow();

view.refreshGUI();

}

public void doActionInvertCard(int partIndex, int cardIndex) {

// TODO Auto-generated method stub

// Grab specific card selected in JFrame

Partition containerPartition = box.getContainedPartition().get(partIndex);

Card cardToBeInverted = box.getContainedPartition().get(partIndex).getCard().get(cardIndex);

cardToBeInverted.invert();

// Save box.xmi instance and refresh GUI

view.refreshGUI();

}

public void doActionToString(String name) {

// TODO Auto-generated method stub

String toBePrinted =box.toString();

System.out.println("The Box's String is " + toBePrinted );

view.refreshGUI();

}

}