Software Ingeniaritza

2013-ko Maiatzak 24

1. ARIKETA (puntu 1)

Zer dira sofware diseinurako patroiak eta zertarako balio dute? Deskriba ezazu `Observer-Observable` patroia, bere funtzionamendua eta nola aplikatzen den adieraziz.

2. ARIKETA (2 puntu)

Jarraian, ***Liburutegiko*** klaseak beraien atributuekin, eta liburuaMailegatu metodoari dagozkion diagrama sekuentziak agertzen dira. Eskatzen da:

- **a)** Klase diagrama osatu egizu klase bakoitzeko eraikitzaile egokiak gehituz, irakasgaian ezarritako irizpideak jarraituz.
- **b)** Iruadian agertzen diren sekuentzia diagrametako metodoak dagozkien klaseetan gehitu, beharrezko sarrera eta irteera metodoekin.
- **c)** Zein metodoen inplementazioan erabili daiteke JGA librería? Adierazi zein klase eta método erabiliko litzateken.

3. ARIKETA (2 puntu)

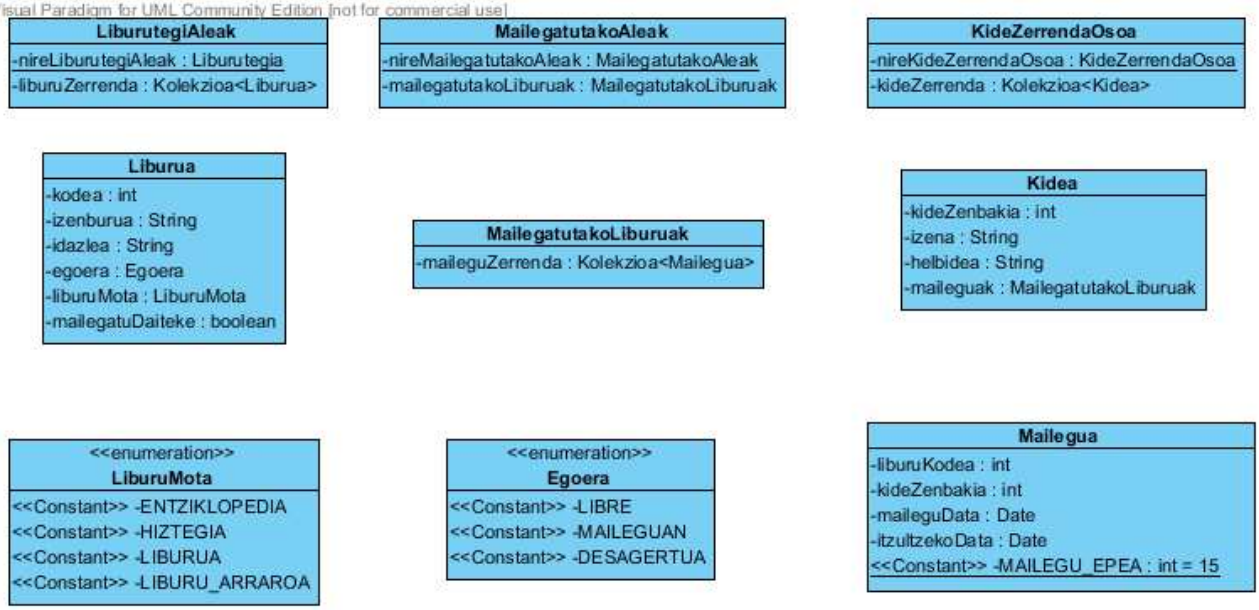
Aurreko ariketako diseinua luzatu ezazu kide berankorrak kudeatzeko metodoak gehituz. Kide bat berankorra da, behar zen datan liburu bat ITZULI EZ BADU. Kide berankor batek ezin du libururik maileguan hartu. Eskatzen da:

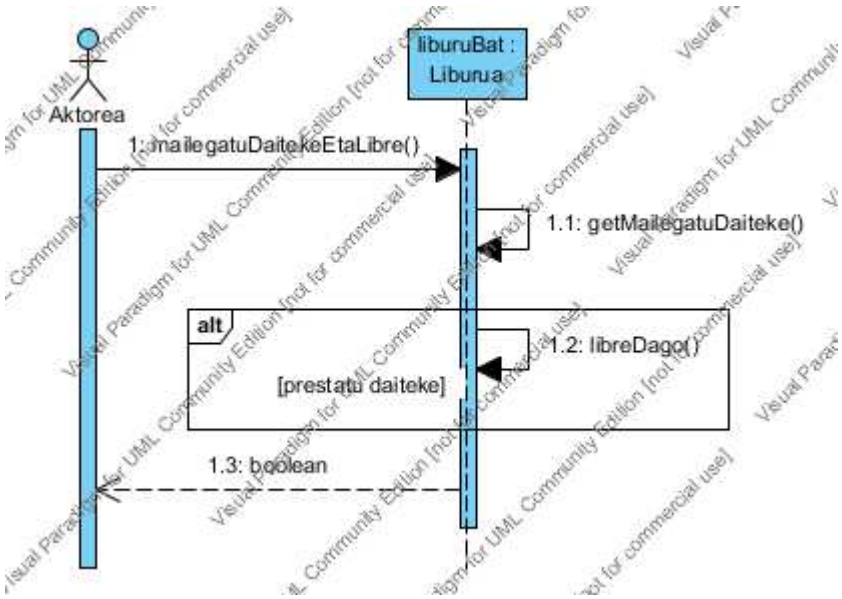
- **a)** Emandako diagrama sekuentziak aldatu luzapen hau gehitzeko.
- **b)** Behar diren metodoak klase egokietan definitu liburutegiko kide berankorren zerrenda eskuratzeko, liburua itzuli behar zuten dataren arabera ordenatuz.
- **c)** JGA librería erabiliz, aurreko atalean definitutako metodoak inplementatu.

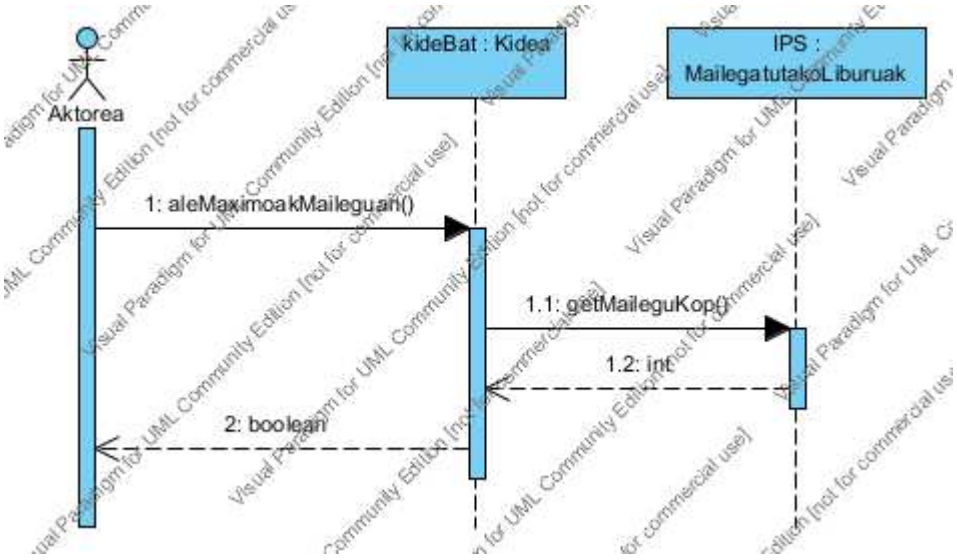
4. ARIKETA (puntu 1)

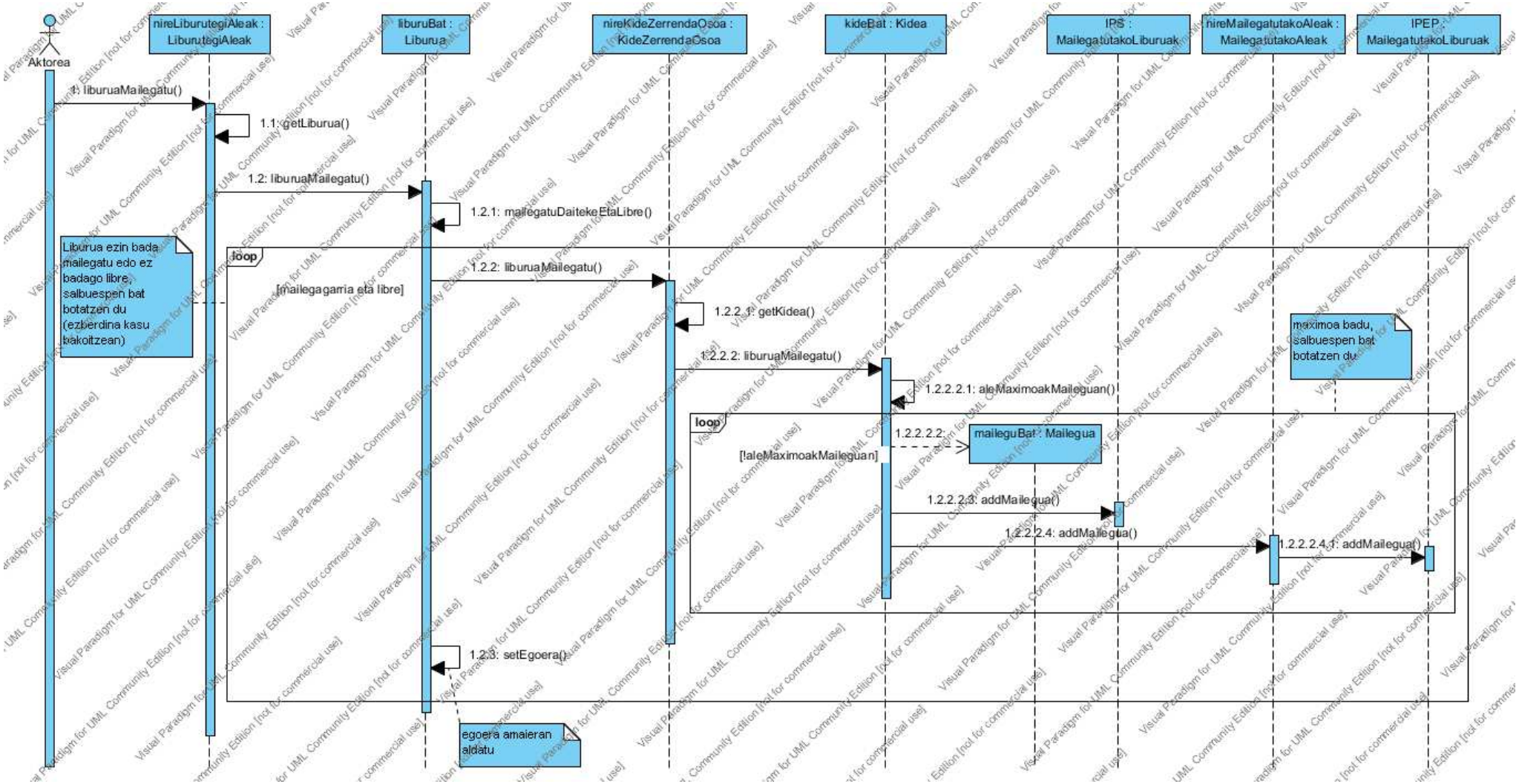
Irakasgaian egindako proiektuaren (ebentu musikalak edo futbol liga) lehio baten eskema marraztu eta osagai hierarkia adierazi, lehioko panel bakoitzean aplikatutako Layout-ak azalduz. Ahalik eta osagai klase ezberdin gehiago duen lehioa aukeratu ezazu. Lehioan maneiatu daiteken osagai bakoitzeko, adierazi ezazu zein ebentu kontrolatzen den eta inplementazioan erabilitako maneiatzaileak (Listener eta Adapter)

Interfaz maneiatzailea	Adapter	Metodo maneiatzailea
ActionListener		void actionPerformed (ActionEvent e)
ChangeListener		void stateChanged (ChangeEvent e)
ItemListener		void itemStateChanged (ItemEvent evt)
ListSelectionListener		void valueChanged (ListSelectionEvent evt)
MouseListener	MouseInputAdapter MouseAdapter	void mouseClicked(MouseEvent evt) void mouseEntered(MouseEvent evt) void mousePressed(MouseEvent evt) void mouseRelised(MouseEvent evt)
WindowListener	WindowAdapter	void windowClosed(WindowEvent evt) void windowClosing(WindowEvent evt) void windowActivated(WindowEvent evt) void windowOpened(WindowEvent evt)








Aktorea
nireLiburutegiAleak : LiburutegiAleak
liburuBat : Liburua
nireKideZerrendaOsoa : KideZerrendaOsoa
kideBat : Kidea
IPS : MailegatutakoLiburuak
nireMailegatutakoAleak : MailegatutakoAleak
IPEP : MailegatutakoLiburuak
1: liburuaMailegatu()
1.1: getLiburua()
1.2: liburuaMailegatu()
1.2.1: mailegatuDaitekeEtaLibre()
Liburua ezin bada mailegatu edo ez badago libre, salbuespen bat botatzen du (ezberdina kasu bakoitzean)
loop
[mailegagarria eta libre]
1.2.2: liburuaMailegatu()
1.2.2.1: getKidea()
1.2.2.2: liburuaMailegatu()
1.2.2.2.1: aleMaximoakMaileguan()
maximoa badu, salbuespen bat botatzen du
loop
1.2.2.2.2:
maileguBat : Mailegua
[!aleMaximoakMaileguan]
1.2.2.2.3: addMailegua()
1.2.2.2.4: addMailegua()
1.2.2.2.4.1: addMailegua()
1.2.3: setEgoera()
egoera amaieran aldatu

Sort - Class in net.sf.jga.algorithms
Adapts standard java Sort capabilities to the interfaces common to jga.
Sort() - Constructor for class net.sf.jga.algorithms.Sort
sort(T[]) - Static method in class net.sf.jga.algorithms.Sort
Returns an iterable object over the sorted contents of the array.
sort(T[], Comparator<? super T>) - Static method in class net.sf.jga.algorithms.Sort
Returns an iterable object over the sorted contents of the array, using the given comparator to determine ordering.
sort(Iterable<T>) - Static method in class net.sf.jga.algorithms.Sort
Returns an iterable object over the sorted contents of the input.
sort(Iterable<T>, Comparator<? super T>) - Static method in class net.sf.jga.algorithms.Sort
Returns an iterable object over the sorted contents of the input, using the given comparator to determine ordering.
sort(Iterator<T>) - Static method in class net.sf.jga.algorithms.Sort
Returns an iterator object over the sorted contents of the input.
sort(Iterator<T>, Comparator<? super T>) - Static method in class net.sf.jga.algorithms.Sort
Returns an iterator object over the sorted contents of the input, using the given comparator to determine ordering.
sort(Iterable<? extends T>, TCollection) - Static method in class net.sf.jga.algorithms.Sort
Appends the sorted contents of the input to the output.
sort(Iterable<T>, Comparator<? super T>, TCollection) - Static method in class net.sf.jga.algorithms.Sort
Appends the sorted contents of the input to the output, using the given comparator to determine ordering.

Filter - Class in net.sf.jga.algorithms
Algorithms that return a subset of its input.
Filter() - Constructor for class net.sf.jga.algorithms.Filter
filter(T[], UnaryFunctor<T, Boolean>) - Static method in class net.sf.jga.algorithms.Filter
Returns the elements of the array that meet the given selection criteria.
filter(Iterable<? extends T>, UnaryFunctor<T, Boolean>) - Static method in class net.sf.jga.algorithms.Filter
Returns the contents of the input that meet the given selection criteria.
filter(Iterator<? extends T>, UnaryFunctor<T, Boolean>) - Static method in class net.sf.jga.algorithms.Filter
Returns the contents of the iterator that meet the given selection criteria.
filter(Iterable<? extends T>, UnaryFunctor<T, Boolean>, TCollection) - Static method in class net.sf.jga.algorithms.Filter
Appends the contents of the input that meet the given selection criteria to the output.
filter(LT, UnaryFunctor<T, Boolean>) - Static method in class net.sf.jga.algorithms.ListAlgorithms
Removes all elements from the list that do not meet the given selection criteria.
Filter.FilterIterable<T> - Class in net.sf.jga.algorithms
Produces Iterators that only return elements that meet a given condition.
Filter.FilterIterable(Iterable<? extends T>, UnaryFunctor<T, Boolean>) - Constructor for class net.sf.jga.algorithms.Filter.FilterIterable
Builds a FilterIterator that will return only qualifying elements of the given iterable.
Filter.FilterIterator<T> - Class in net.sf.jga.algorithms
Iterator that only returns elements that meet the given selection criteria.
Filter.FilterIterator(Iterator<? extends T>, UnaryFunctor<T, Boolean>) - Constructor for class net.sf.jga.algorithms.Filter.FilterIterator
Builds a FilterIterator that will return only qualifying elements of the given iterator.