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Data Model Documentation

Data Model Detail

This document provides an overview of the data model. For simpler and more focused reports, simply copy this initial template and turn off the sections not required.

Model

Type: [Package](#)
Package:
Detail: Created on 10/15/2014. Last modified on 10/15/2014.
Notes:

Domain Model

Type: [Package](#)
Package: Model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Domain Model

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version: 1.0

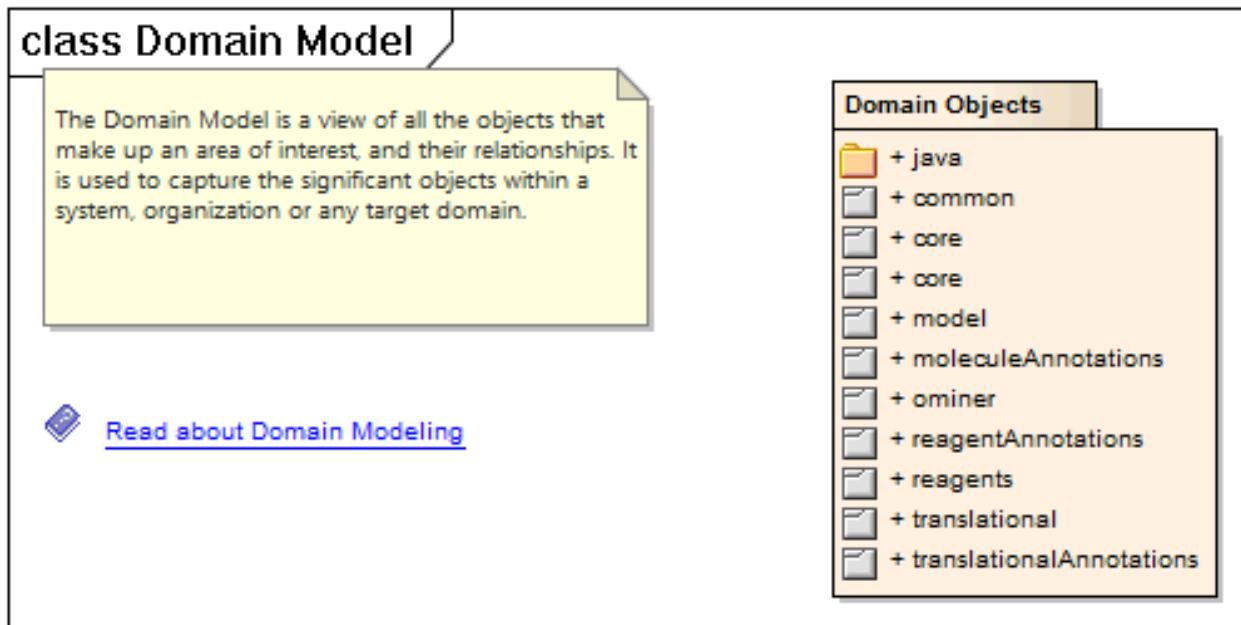


Figure: 1

Domain Objects

Type: [Package](#)
Package: Domain Model
Detail: Created on 11/19/2005. Last modified on 1/18/2006.

Notes:**Domain Objects**

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

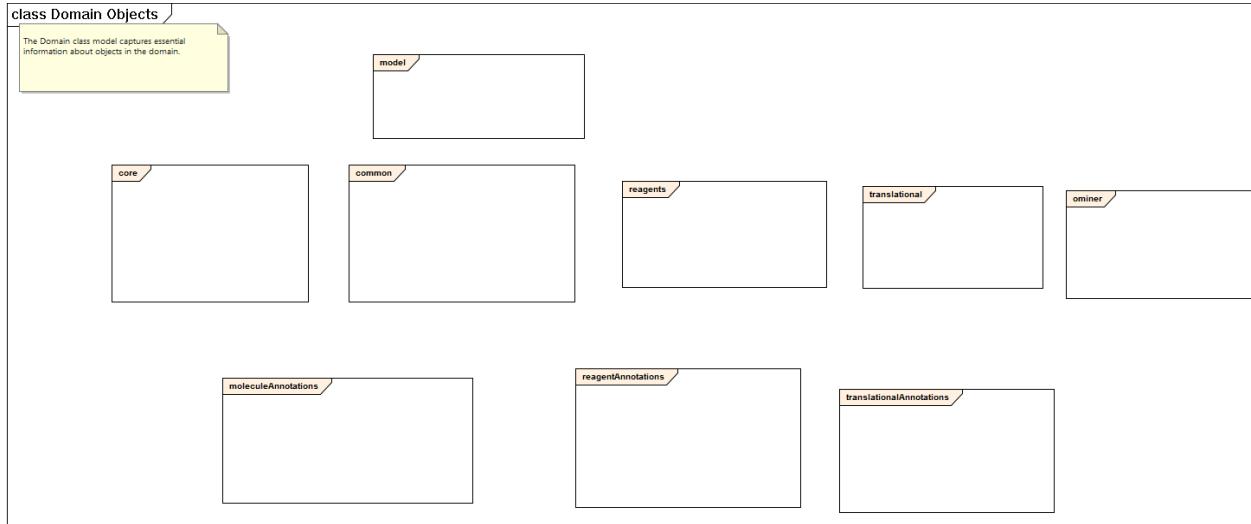


Figure: 2

common

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

core

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

core

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

model

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

moleculeAnnotations

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.

*Notes:**ominer*

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

reagentAnnotations

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

reagents

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

translational

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

translationalAnnotations

Database: <none>, *Stereotype:* , *Package:* Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

java

Type: **Package**
Package: Domain Objects
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

java

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

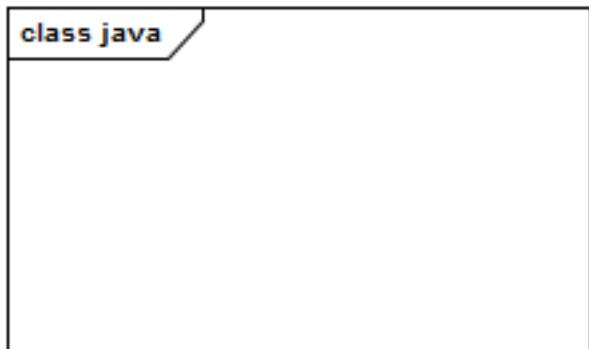


Figure: 3

edu

Type:

Package:

Detail:

Notes:

Package

java

Created on 9/11/2014. Last modified on 9/11/2014.

edu

Created By:

apollo mcowiti on 9/11/2014

Last Modified:

9/11/2014, Version:1.0



Figure: 4

bcm

Type:

Package:

Detail:

Notes:

Package

edu

Created on 9/11/2014. Last modified on 9/11/2014.

bcm

Created By:

apollo mcowiti on 9/11/2014

Last Modified:

9/11/2014, Version:1.0



Figure: 5

dldcc

Type: [Package](#)
Package: bcm
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

dldcc

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version:1.0

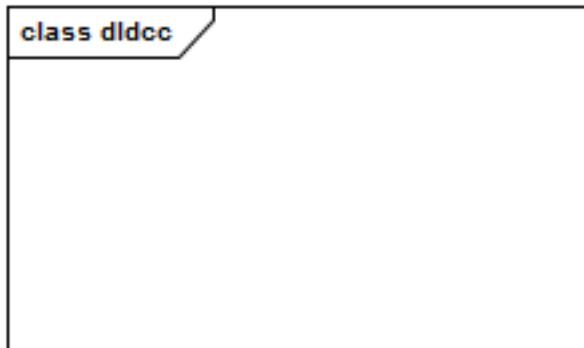


Figure: 6

big

Type: [Package](#)
Package: dldcc
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

big

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version:1.0

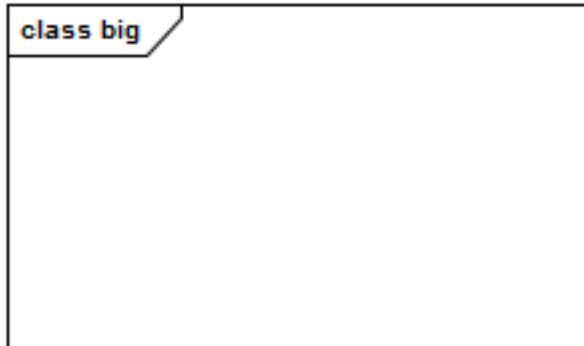


Figure: 7

nursa

Type:

Package:

Detail:

Notes:

Package

big

Created on 9/11/2014. Last modified on 9/11/2014.

nursa

Created By:

apollo mcowiti on 9/11/2014

Last Modified:

9/11/2014, Version:1.0

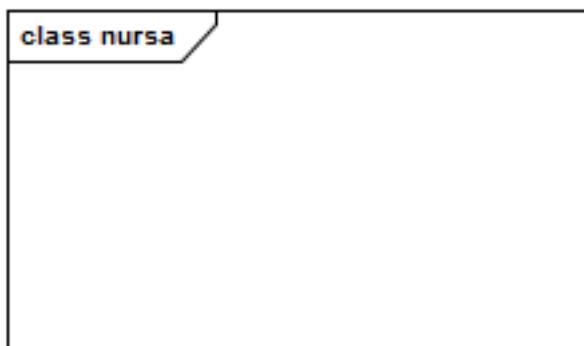


Figure: 8

controller

Type:

Package:

Detail:

Notes:

Package

nursa

Created on 9/11/2014. Last modified on 9/11/2014.

controller

Created By:

apollo mcowiti on 9/11/2014

Last Modified:

9/11/2014, Version:1.0

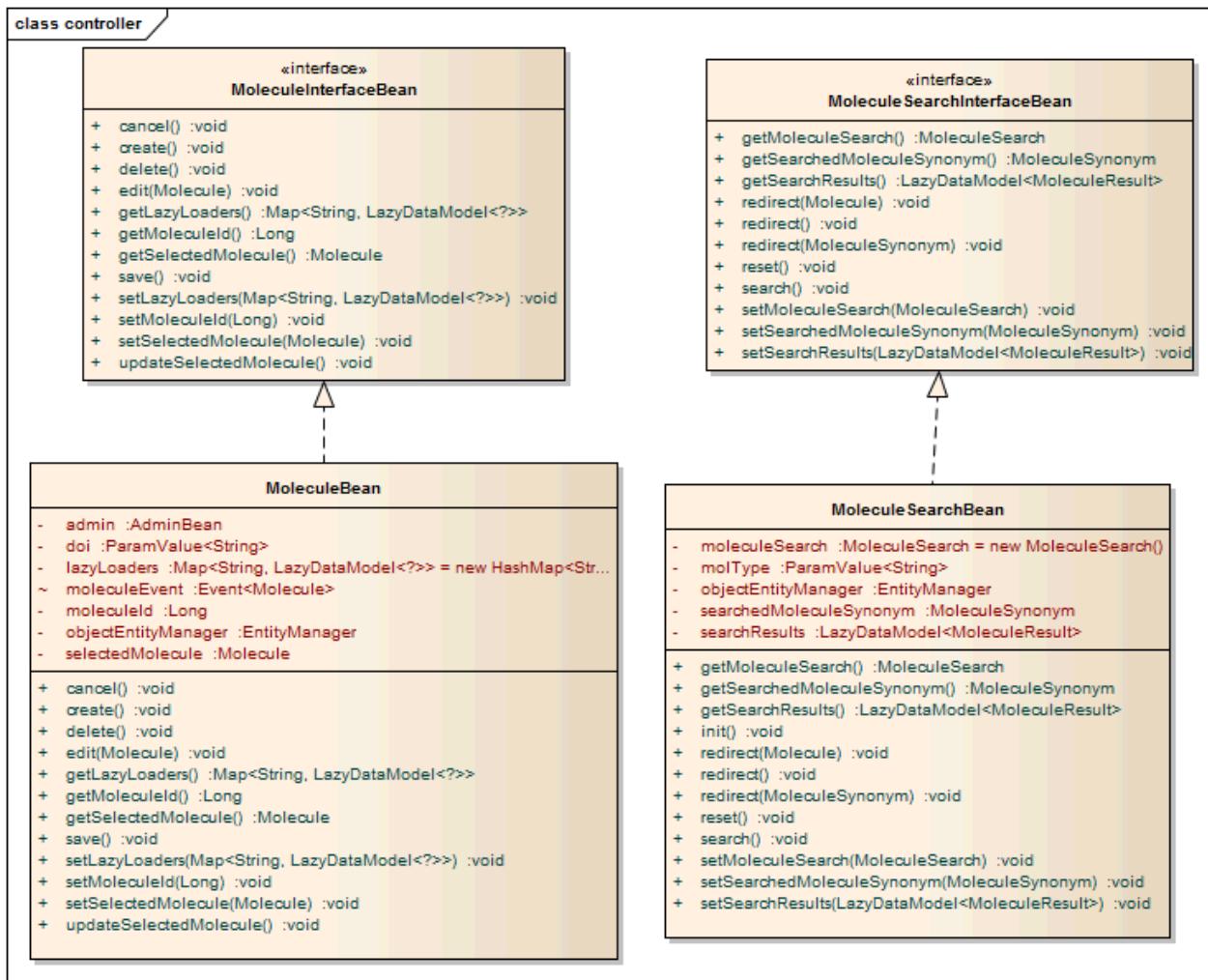


Figure: 9

MoleculeBean

Database: Java, *Stereotype:* , *Package:* controller

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: The implementation of the {@link MoleculeInterfaceBean}.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	admin	AdminBe an			0				
	doi	ParamVa lue<Strin g>			0				passed DOI
	lazyLoaders	Map<Stri ng, LazyData Model<? >>			0			new HashM ap<Str ing, LazyD ataMo	

							del<?>>()	
	moleculeEvent	Event<Molecule>		0				
	moleculeId	Long		0				
	objectEntityManager	EntityManager		0				
	selectedMolecule	Molecule		0				

Constraints

Name	Type	Columns	Initial Code	Notes
cancel	Public			
create	Public			
delete	Public			
edit	Public	molecule		
getLazyLoaders	Public			
getMoleculeId	Public			
getSelectedMolecule	Public			SETTER AND GETTERS
save	Public			
setLazyLoaders	Public	lazyLoaders		
setMoleculeId	Public	moleculeId		
setSelectedMolecule	Public	selectedMolecule		
updateSelectedMolecule	Public			updates the selected molecule based on a passed DOI

Relationships

Columns	Association	Notes
	MoleculeBean. AdminBean.admin	
	MoleculeBean. Molecule.selectedMolecule	
	MoleculeBean. MoleculeInterfaceBean.	

MoleculeSearchBean

Database: Java, *Stereotype:* , *Package:* controller
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	moleculeSearch	Molecule Search			0			new MoleculeSearch()	
	molType	ParamValue<String>			0				
	objectEntityManager	EntityMa			0				

	r	nager							
	searchedMoleculeSynonym	Molecule Synonym		0					
	searchResults	LazyData Model< Molecule Result>		0					

Constraints

Name	Type	Columns	Initial Code	Notes
getMoleculeSearch	Public			
getSearchedMoleculeSynonym	Public			
getSearchResults	Public			
init	Public			
redirect	Public	mol		
redirect	Public			
redirect	Public	synonym		
reset	Public			
search	Public			
setMoleculeSearch	Public	moleculeSearch		
setSearchedMoleculeSynonym	Public	searchedMoleculeSynonym		
setSearchResults	Public	searchResults		

Relationships

Columns	Association	Notes
	MoleculeSearchBean. MoleculeSearch.moleculeSearch	
	MoleculeSearchBean. MoleculeSynonym.searchedMoleculeSynonym	
	MoleculeSearchBean. MoleculeSearchInterfaceBean.	

MoleculeInterfaceBean*Database:* Java, *Stereotype:* , *Package:* controller*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:* The interface for the molecule bean. Provides a framework for the implementation layer and allows further decoupling later on.**Constraints**

Name	Type	Columns	Initial Code	Notes
cancel	Public			A stub method for later implementation of a method that cancels any changes made to a molecule and rolls back the db

Name	Type	Columns	Initial Code	Notes
create	Public			A stub method for later implementation to create a new Molecule
delete	Public			A stub method for later implementation of a method to delete the selected molecule
edit	Public	molecule		A stub method for later implementation to pass a molecule that will be edited
getLazyLoaders	Public			
getMoleculeId	Public			Gets the id of the molecule id parameter that has been passed to it @return The passed molecule id
getSelectedMolecule	Public			Returns the molecule that has been selected @return The selected molecule
save	Public			A stub method for later implementation to merge or persist a molecule
setLazyLoaders	Public	lazyLoaders		
setMoleculeId	Public	moleculeId		Sets the id of the molecule id parameter that has been passed to it.
setSelectedMolecule	Public	selectedMolecule		Sets the molecule that has been selected
updateSelectedMolecule	Public			Starts a conversation and then retrieves a molecule from the database based on the moleculeId

Relationships

Columns	Association	Notes
	MoleculeBean. MoleculeInterfaceBean.	

MoleculeSearchInterfaceBean

Database: Java, *Stereotype:* , *Package:* controller

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: The molecule search interface bean provides a framework for the implementation layer and

allows for further decoupling later on.

Constraints

Name	Type	Columns	Initial Code	Notes
getMoleculeSearch	Public			Gets the molecule search object which contains all the search parameters. @return The molecule search object.
getSearchedMoleculeSynonym	Public			Returns the searchMolecule synonym object @return The searchMoleculeSynonym
getSearchResults	Public			Returns a list of molecules that are the result of the search @return A list of search results as molecules.
redirect	Public	mol		Sends a redirect to the browser that will bring them to the correct page.
redirect	Public			Redirects the user to the searchMolecule page
redirect	Public	synonym		Redirects the user to the molecule attached to that synonym
reset	Public			Resets the molecule search and returns a full list for search
search	Public			Runs a search against the database using the information in the moleculeSearch object. It stores that information in the searchResults object.
setMoleculeSearch	Public	moleculeSearch		Sets the molecule search object which contains all the search parameters.
setSearchedMoleculeSynonym	Public	searchedMoleculeSynonym		Sets the searchMolecule synonym object
setSearchResults	Public	searchResults		Sets the list of

Name	Type	Columns	Initial Code	Notes
				molecules that are the results of a search

Relationships

Columns	Association	Notes
	MoleculeSearchBean. MoleculeSearchInterfaceBean.	

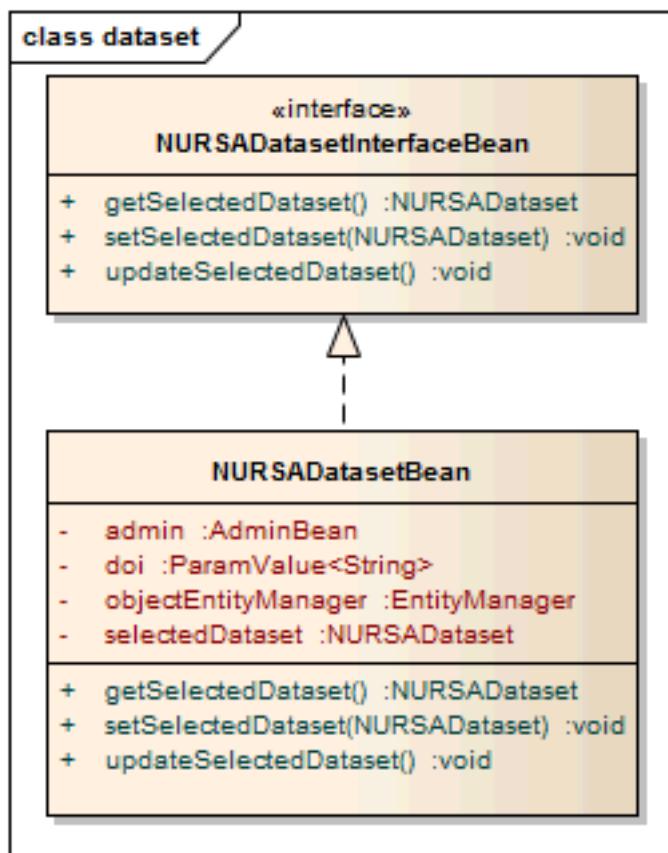
dataset*Type:* **Package***Package:* controller*Detail:* *Created on 9/11/2014. Last modified on 9/11/2014.**Notes:***dataset***Created By:* apollo mcowiti on 9/11/2014*Last Modified:* 9/11/2014, *Version:*1.0

Figure: 10

NURSADatasetBean*Database:* Java, *Stereotype:* , *Package:* dataset*Detail:* *Created on 9/11/2014. Last modified on 9/11/2014.**Notes:*

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	admin	AdminBean			0				
	doi	ParamValue<String>			0				passed DOI
	objectEntityManager	EntityManager			0				
	selectedDataset	NURSA Dataset			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getSelectedDataset	Public			
setSelectedDataset	Public	selectedDataset		
updateSelectedDataset	Public			

Relationships

Columns	Association	Notes
	NURSA Dataset Bean. AdminBean.admin	
	NURSA Dataset Bean. NURSA Dataset.selectedDataset	
	NURSA Dataset Bean. NURSA Dataset Interface Bean.	

NURSA Dataset Interface Bean

Database: Java, *Stereotype:* , *Package:* dataset
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
getSelectedDataset	Public			
setSelectedDataset	Public	selectedDataset		
updateSelectedDataset	Public			

Relationships

Columns	Association	Notes
	NURSA Dataset Bean. NURSA Dataset Interface Bean.	

layout

Type: **Package**
Package: controller
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

layout

Created By: apollo mcowitz on 9/11/2014

Last Modified: 9/11/2014, Version: 1.0

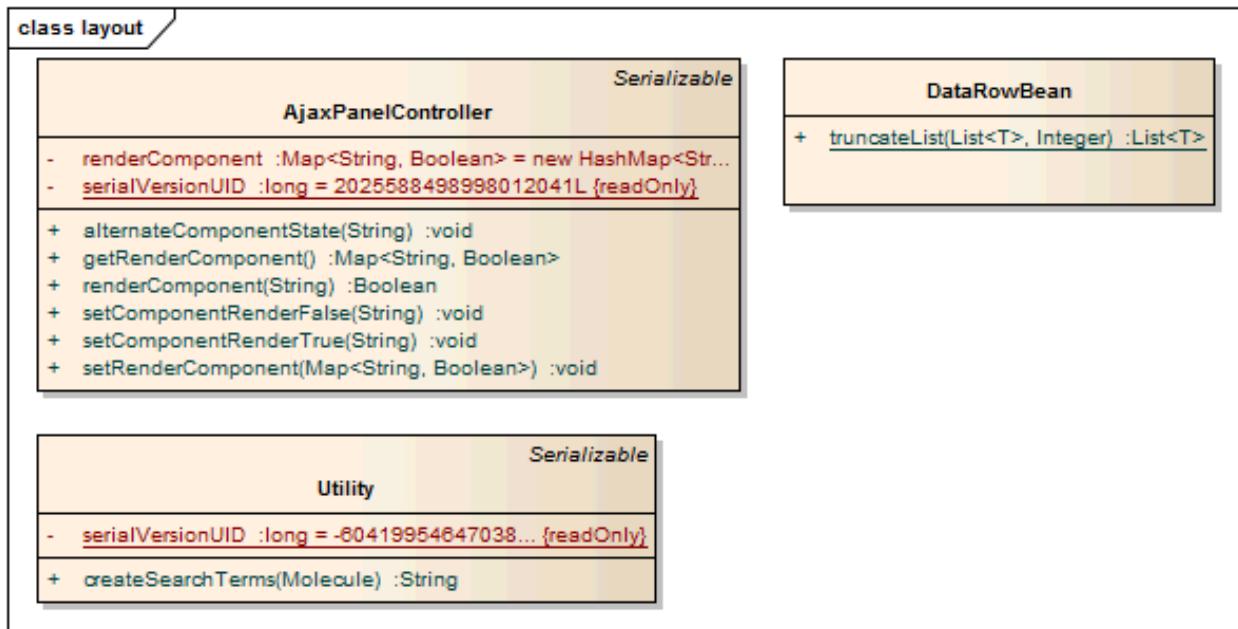


Figure: 11

AjaxPanelController

Database: Java, **Stereotype:** , **Package:** layout
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	renderComponent	Map<String, Boolean>			0			new HashMap<String, Boolean>()	
	serialVersionUID	long			0			2025588498998012041L	

Constraints

Name	Type	Columns	Initial Code	Notes
alternateComponentState	Public	componentId		
getRenderComponent	Public			
renderComponent	Public	componentId		
setComponentRenderFalse	Public	componentId		
setComponentRenderTrue	Public	componentId		
setRenderComponent	Public	renderComponent		

Name	Type	Columns	Initial Code	Notes

DataRowBean

Database: Java, *Stereotype:* , *Package:* layout
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
truncateList	Public	theList maxItems		truncate a list to an arbitrary length and avoid IndexOutOfBoundsException exceptions

Utility

Database: Java, *Stereotype:* , *Package:* layout
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-60419 95464 70381 1263L	

Constraints

Name	Type	Columns	Initial Code	Notes
createSearchTerms	Public	molecule		

reagents

Type: **Package**
Package: controller
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

reagents

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

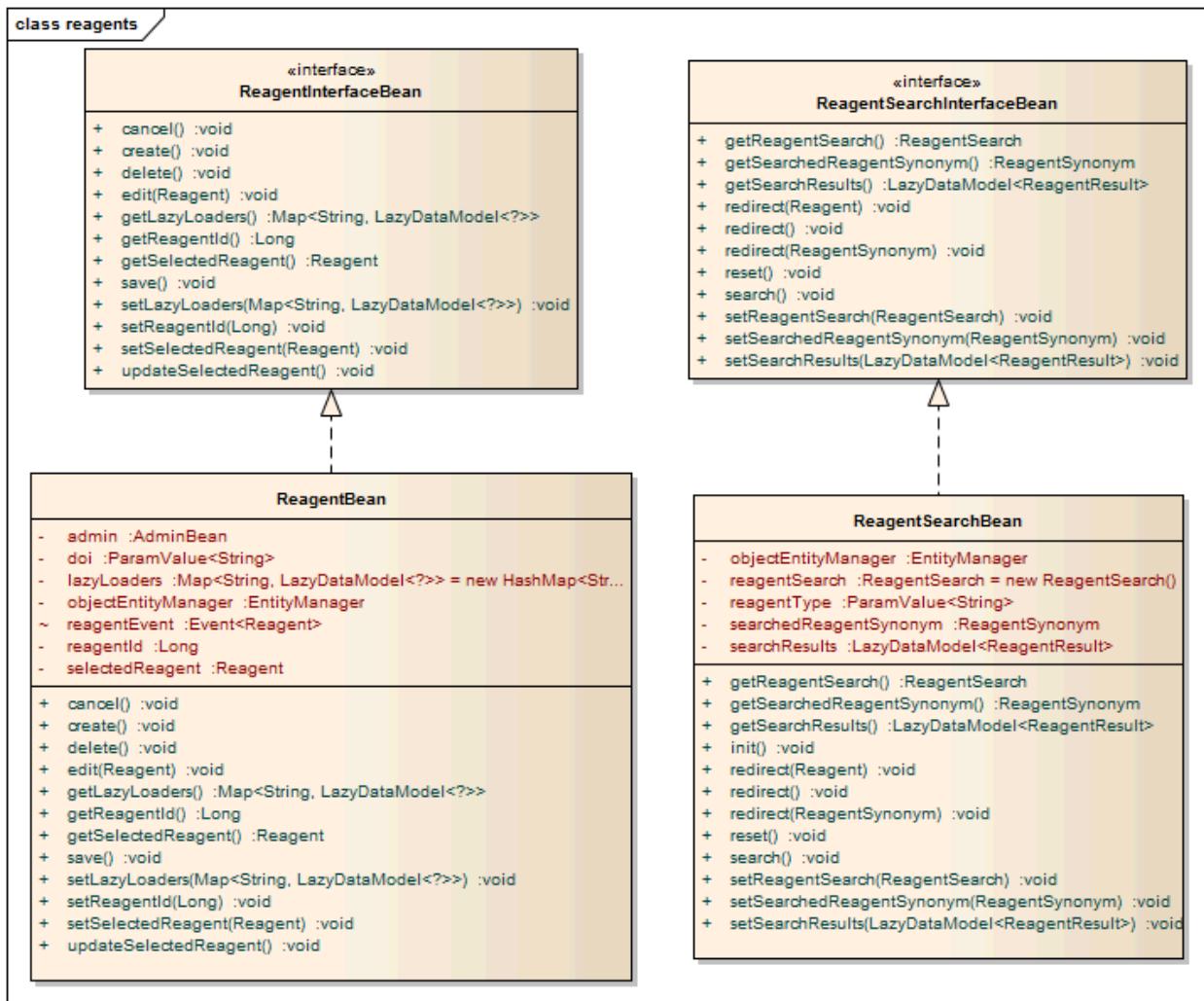


Figure: 12

ReagentBean

Database: Java, *Stereotype:* , *Package:* reagents

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	admin	AdminBe an			0				
	doi	ParamVa lue<Strin g>			0				passed DOI
	lazyLoaders	Map<Stri ng, LazyData Model<? >>			0			new HashM ap<Str ing, LazyD ataMo del<?>	

							>0	
	objectEntityManager	EntityManager		0				
	reagentEvent	Event<Reagent>		0				
	reagentId	Long		0				
	selectedReagent	Reagent		0				

Constraints

Name	Type	Columns	Initial Code	Notes
cancel	Public			
create	Public			
delete	Public			
edit	Public	reagent		
getLazyLoaders	Public			
getReagentId	Public			
getSelectedReagent	Public			
save	Public			
setLazyLoaders	Public	lazyLoaders		
setReagentId	Public	reagentId		
setSelectedReagent	Public	selectedReagent		
updateSelectedReagent	Public			

Relationships

Columns	Association	Notes
	ReagentBean. AdminBean.admin	
	ReagentBean. Reagent.selectedReagent	
	ReagentBean. ReagentInterfaceBean.	

ReagentSearchBean

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	reagentSearch	ReagentSearch			0			new ReagentSearch()	
	reagentType	ParamValue<String>			0				
	searchedReagentSynonym	ReagentSynonym			0				
	searchResults	LazyData			0				

		Model<ReagentResult>							
--	--	----------------------	--	--	--	--	--	--	--

Constraints

Name	Type	Columns	Initial Code	Notes
getReagentSearch	Public			
getSearchedReagentSynonym	Public			
getSearchResults	Public			
init	Public			
redirect	Public	reagent		
redirect	Public			
redirect	Public	synonym		
reset	Public			
search	Public			
setReagentSearch	Public	reagentSearch		
setSearchedReagentSynonym	Public	searchedReagentSynonym		
setSearchResults	Public	searchResults		

Relationships

Columns	Association	Notes
	ReagentSearchBean. ReagentSearch.reagentSearch	
	ReagentSearchBean. ReagentSynonym.searchedReagentSynonym	
	ReagentSearchBean. ReagentSearchInterfaceBean.	

ReagentInterfaceBean*Database:* Java, *Stereotype:* , *Package:* reagents*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:* The interface for the reagent bean. Provides a framework for the implementation layer and allows further decoupling later on.**Constraints**

Name	Type	Columns	Initial Code	Notes
cancel	Public			A stub method for later implementation of a method that cancels any changes made to a reagent and rolls back the db
create	Public			A stub method for later implementation to create a new Reagent
delete	Public			A stub method for

Name	Type	Columns	Initial Code	Notes
				later implementation of a method to delete the selected reagent
edit	Public	reagent		A stub method for later implementation to pass a reagent that will be edited
getLazyLoaders	Public			
getReagentId	Public			Gets the id of the reagent id parameter that has been passed to it @return The passed reagent id
getSelectedReagent	Public			Returns the reagent that has been selected @return The selected reagent
save	Public			A stub method for later implementation to merge or persist a reagent
setLazyLoaders	Public	lazyLoaders		
setReagentId	Public	reagentId		Sets the id of the reagent id parameter that has been passed to it.
setSelectedReagent	Public	selectedReagent		Sets the reagent that has been selected
updateSelectedReagent	Public			Starts a conversation and then retrieves a reagent from the database based on the reagentId

Relationships

Columns	Association	Notes
	ReagentBean. ReagentInterfaceBean.	

ReagentSearchInterfaceBean**Database:** Java, **Stereotype:** , **Package:** reagents**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:** The reagent search interface bean provides a framework for the implementation layer and allows for further decoupling later on.***Constraints***

Name	Type	Columns	Initial Code	Notes
getReagentSearch	Public			Gets the reagent

Name	Type	Columns	Initial Code	Notes
				search object which contains all the search parameters. @return The reagent search object.
getSearchedReagentSynonym	Public			Returns the searchReagent synonym object @return The searchReagentSynonym
getSearchResults	Public			Returns a list of reagents that are the result of the search @return A list of search results as reagents.
redirect	Public	reagent		Sends a redirect to the browser that will bring them to the correct page.
redirect	Public			Redirects the user to the searchReagent page
redirect	Public	synonym		Redirects the user to the reagent attached to that synonym
reset	Public			Resets the reagent search and returns a full list for search
search	Public			Runs a search against the database using the information in the reagentSearch object. It stores that information in the searchResults object.
setReagentSearch	Public	reagentSearch		Sets the reagent search object which contains all the search parameters.
setSearchedReagentSynonym	Public	searchedReagentSynonym		Sets the searchReagent synonym object
setSearchResults	Public	searchResults		Sets the list of reagents that are the results of a search

Relationships

Columns	Association	Notes
	ReagentSearchBean. ReagentSearchInterfaceBean.	

translational

Type: Package
Package: controller
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

translational

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, **Version:**1.0

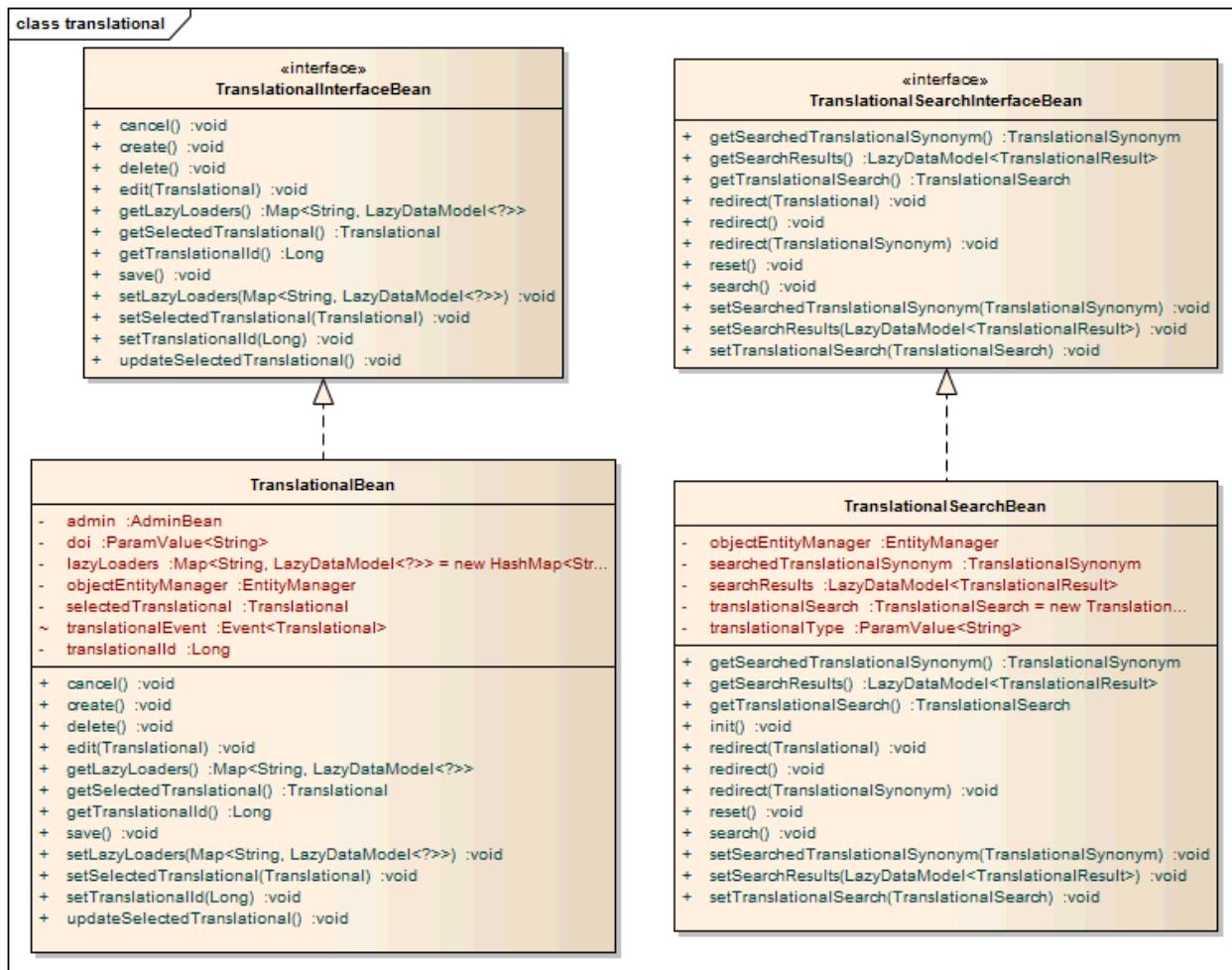


Figure: 13

TranslationalBean

Database: Java, **Stereotype:** , **Package:** translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	admin	AdminBe an			0				

	doi	ParamValue<String>		0				passed DOI
	lazyLoaders	Map<String, LazyDataModel<?>>		0			new HashMap<String, LazyDataModel<?>>()	
	objectEntityManager	EntityManager		0				
	selectedTranslational1	Translational		0				
	translationalEvent	Event<Translational>		0				
	translationalId	Long		0				

Constraints

Name	Type	Columns	Initial Code	Notes
cancel	Public			
create	Public			
delete	Public			
edit	Public	translational		
getLazyLoaders	Public			
getSelectedTranslational	Public			
getTranslationalId	Public			
save	Public			
setLazyLoaders	Public	lazyLoaders		
setSelectedTranslational	Public	selectedTranslational1		
setTranslationalId	Public	translationalId		
updateSelectedTranslational	Public			

Relationships

Columns	Association	Notes
	TranslationalBean. AdminBean.admin	
	TranslationalBean. Translational.selectedTranslational	
	TranslationalBean. TranslationalInterfaceBean.	

TranslationalSearchBean*Database:* Java, *Stereotype:* , *Package:* translational*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	searchedTranslationalSynonym	TranslationalSynonym			0				
	searchResults	LazyDataModel<TranslationalResult>			0				
	translationalSearch	TranslationalSearch			0			new TranslationalSearch()	
	translationalType	ParamValue<String>			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getSearchedTranslationalSynonym	Public			
getSearchResults	Public			
getTranslationalSearch	Public			
init	Public			
redirect	Public	translational		
redirect	Public			
redirect	Public	synonym		
reset	Public			
search	Public			
setSearchedTranslationalSynonym	Public	searchedTranslationalSynonym		
setSearchResults	Public	searchResults		
setTranslationalSearch	Public	translationalSearch		

Relationships

Columns	Association	Notes
	TranslationalSearchBean.	
	TranslationalSynonym.searchedTranslationalSynonym	
	TranslationalSearchBean. TranslationalSearch.translationalSearch	
	TranslationalSearchBean. TranslationalSearchInterfaceBean.	

TranslationalInterfaceBean

Database: Java, Stereotype: , Package: translational

Detail: *Created on 9/11/2014. Last modified on 9/11/2014.*

Notes: The interface for the translational bean. Provides a framework for the implementation layer and allows further decoupling later on.

Constraints

Name	Type	Columns	Initial Code	Notes
cancel	Public			A stub method for later implementation of a method that cancels any changes made to a translational and rolls back the db
create	Public			A stub method for later implementation to create a new Translational
delete	Public			A stub method for later implementation of a method to delete the selected translational
edit	Public	translational		A stub method for later implementation to pass a translational that will be edited
getLazyLoaders	Public			
getSelectedTranslational	Public			Returns the translational that has been selected @return The selected translational
getTranslationalId	Public			Gets the id of the translational id parameter that has been passed to it @return The passed translational id
save	Public			A stub method for later implementation to merge or persist a translational
setLazyLoaders	Public	lazyLoaders		
setSelectedTranslational	Public	selectedTranslational		Sets the translational that has been selected
setTranslationalId	Public	translationalId		Sets the id of the translational id parameter that has been passed to it.
updateSelectedTranslational	Public			Starts a

Name	Type	Columns	Initial Code	Notes
				conversation and then retrieves a translational from the database based on the translationalId

Relationships

Columns	Association	Notes
	TranslationalBean. TranslationalInterfaceBean.	

TranslationalSearchInterfaceBean**Database:** Java, **Stereotype:** , **Package:** translational**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:** The translational search interface bean provides a framework for the implementation layer and allows for further decoupling later on.***Constraints***

Name	Type	Columns	Initial Code	Notes
getSearchedTranslationalSynonym	Public			Returns the searchTranslational synonym object @return The searchTranslational Synonym
getSearchResults	Public			Returns a list of translationals that are the result of the search @return A list of search results as translationals.
getTranslationalSearch	Public			Gets the translational search object which contains all the search parameters. @return The translational search object.
redirect	Public	translational		Sends a redirect to the browser that will bring them to the correct page.
redirect	Public			Redirects the user to the searchTranslational page
redirect	Public	synonym		Redirects the user to the translational attached to that synonym

Name	Type	Columns	Initial Code	Notes
reset	Public			Resets the translational search and returns a full list for search
search	Public			Runs a search against the database using the information in the translationalSearch object. It stores that information in the searchResults object.
setSearchedTranslationalSynonym	Public	searchedTranslationalSynonym		Sets the searchTranslational synonym object
setSearchResults	Public	searchResults		Sets the list of translational that are the results of a search
setTranslationalSearch	Public	translationalSearch		Sets the translational search object which contains all the search parameters.

Relationships

Columns	Association	Notes
	TranslationalSearchBean. TranslationalSearchInterfaceBean.	

user

Type: **Package**
Package: controller
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

user

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

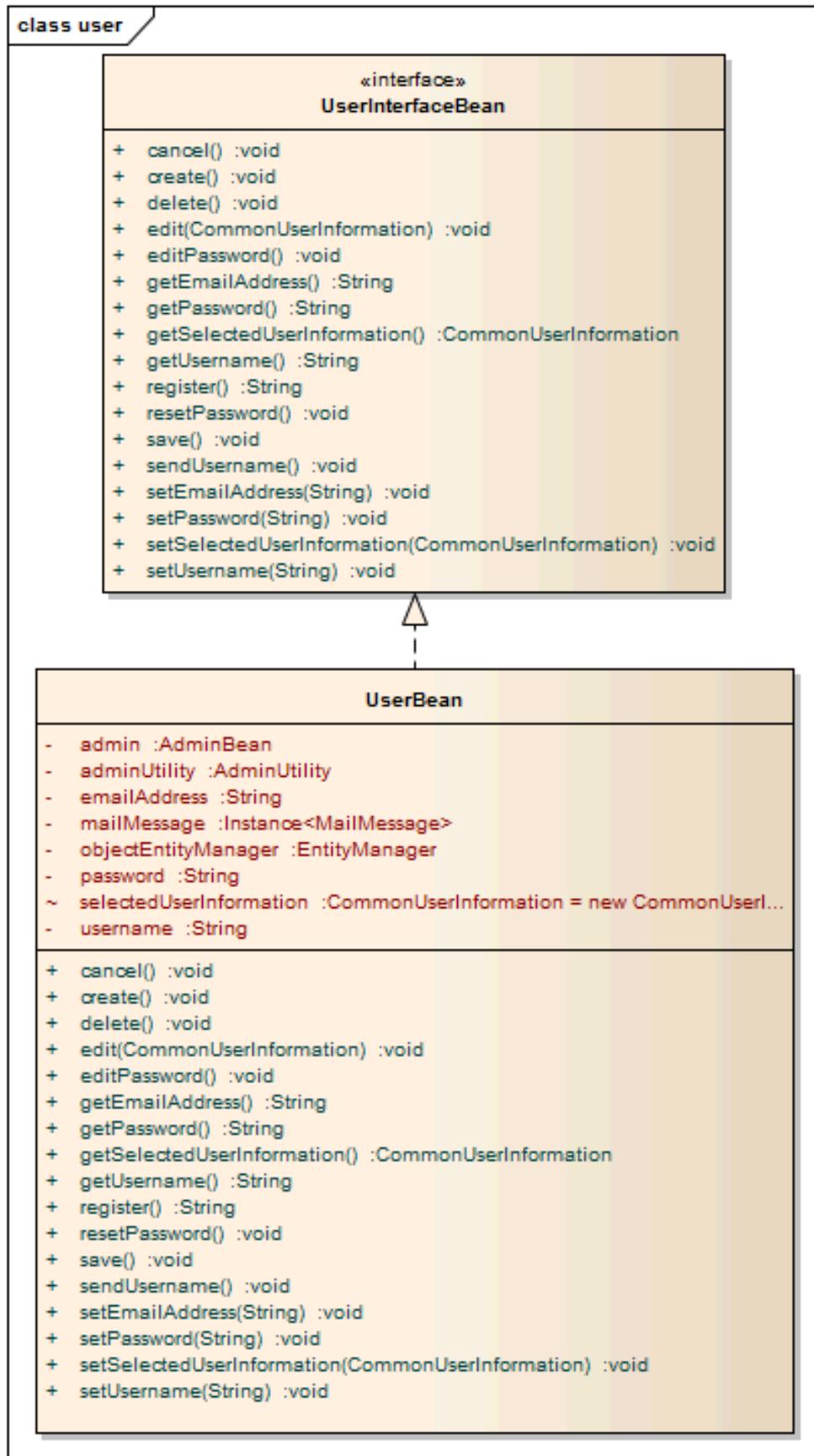


Figure: 14

UserBean

Database: Java, *Stereotype:* , *Package:* user
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	admin	AdminBean			0				
	adminUtility	AdminUtility			0				
	emailAddress	String			0				
	mailMessage	Instance<MailMessage>			0				
	objectEntityManager	EntityManager			0				
	password	String			0				
	selectedUserInformation	CommonUserInformation			0			new CommonUserInformation()	
	username	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
cancel	Public			
create	Public			
delete	Public			
edit	Public	userInformation		
editPassword	Public			
getEmailAddress	Public			
getPassword	Public			
getSelectedUserInformation	Public			
getUsername	Public			
register	Public			
resetPassword	Public			
save	Public			
sendUsername	Public			
setEmailAddress	Public	emailAddress		
setPassword	Public	password		
setSelectedUserInformation	Public	selectedUserInformation		
setUsername	Public	username		

Relationships

Columns	Association	Notes
	UserBean. AdminBean.admin	
	UserBean. CommonUserInformation.selectedUserInformation	
	UserBean. UserInterfaceBean.	

UserInterfaceBean

Database: Java, *Stereotype:* , *Package:* user

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: The interface for the user bean provides a framework for the implementation layer and further decoupling later. Note: All user passwords are salted before saving

Constraints

Name	Type	Columns	Initial Code	Notes
cancel	Public			Cancels any edits being made to a user
create	Public			Creates a new User object.
delete	Public			Deletes a user permanently from the database
edit	Public	userInformation		Designates a User information that is to be edited
editPassword	Public			Update the selected users password
getEmailAddress	Public			
getPassword	Public			Returns the password string @return The password
getSelectedUserInformation	Public			Returns the selected User Information object @return The selected User
getUsername	Public			Returns the username string @return The username
register	Public			Registers a new user with whatever information is in the selectedUserInformation
resetPassword	Public			Reset the password to a new randomly generated one and sends it to the account holder
save	Public			Saves or updates a

Name	Type	Columns	Initial Code	Notes
				user information object
sendUsername	Public			Sent the users name to the email address account holder
setEmailAddress	Public	emailAddress		
setPassword	Public	password		Sets the password string
setSelectedUserInformation	Public	selectedUserInformation		Sets the selected User Information
setUsername	Public	username		Sets the username string

Relationships

Columns	Association	Notes
	UserBean. UserInterfaceBean.	

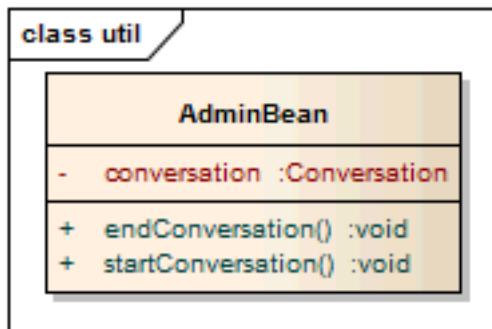
util**Type:** Package**Package:** controller**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****util****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:** 1.0

Figure: 15

AdminBean**Database:** Java, **Stereotype:** , **Package:** util**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:*****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	conversation	Conversation			0				

Constraints

Name	Type	Columns	Initial Code	Notes
endConversation	Public			
startConversation	Public			

Relationships

Columns	Association	Notes
	NURSADatasetBean. AdminBean.admin	
	ReagentBean. AdminBean.admin	
	TranslationalBean. AdminBean.admin	
	UserBean. AdminBean.admin	
	MoleculeBean. AdminBean.admin	

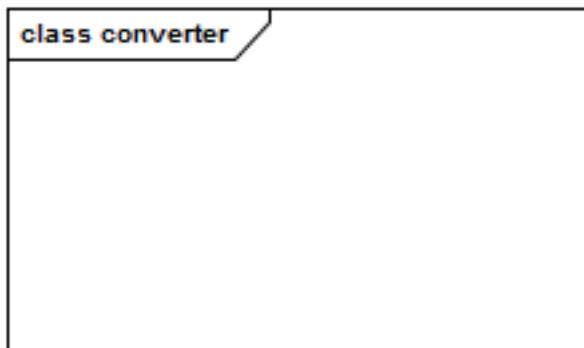
converter**Type:****Package:****Detail:** *Created on 9/11/2014. Last modified on 9/11/2014.***Notes:****converter****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:**1.0

Figure: 16

common**Type:****Package:****Detail:** *Created on 9/11/2014. Last modified on 9/11/2014.***Notes:****common****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:**1.0

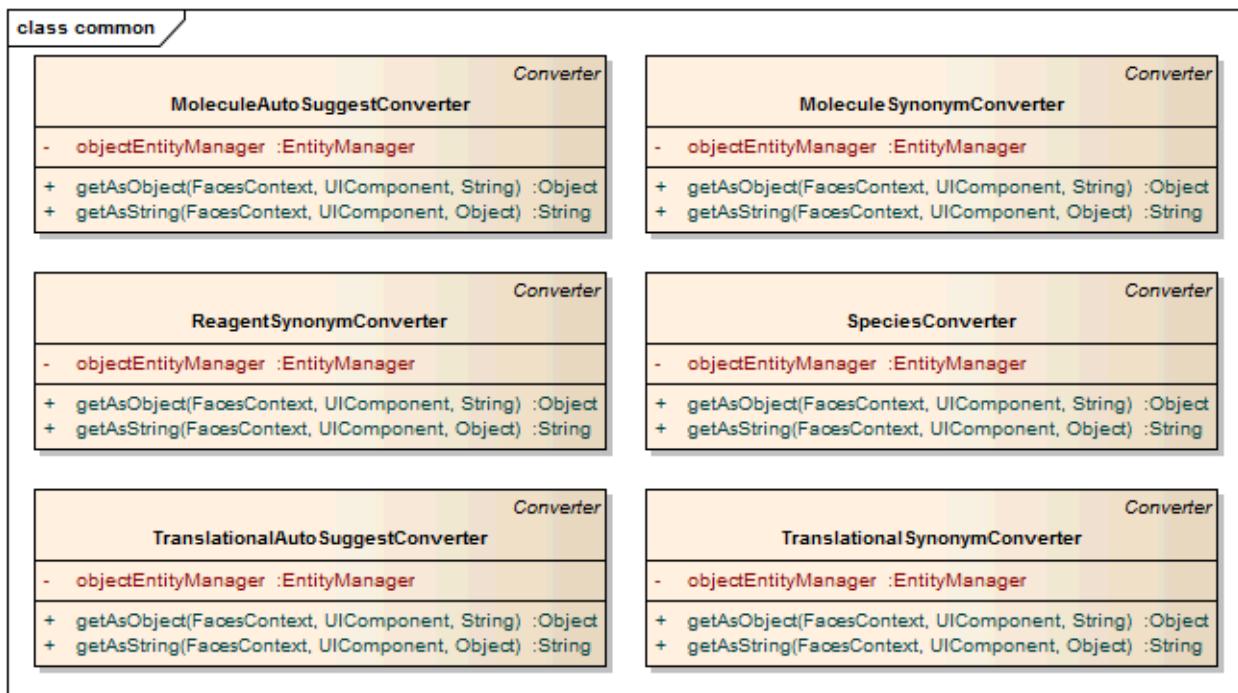


Figure: 17

MoleculeAutoSuggestConverter

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

MoleculeSynonymConverter

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

	r	nager							
--	---	-------	--	--	--	--	--	--	--

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

ReagentSynonymConverter*Database:* Java, *Stereotype:* , *Package:* common*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

SpeciesConverter*Database:* Java, *Stereotype:* , *Package:* common*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

TranslationalAutoSuggestConverter

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

TranslationalSynonymConverter

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

core

Type: **Package**
Package: converter
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

core

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

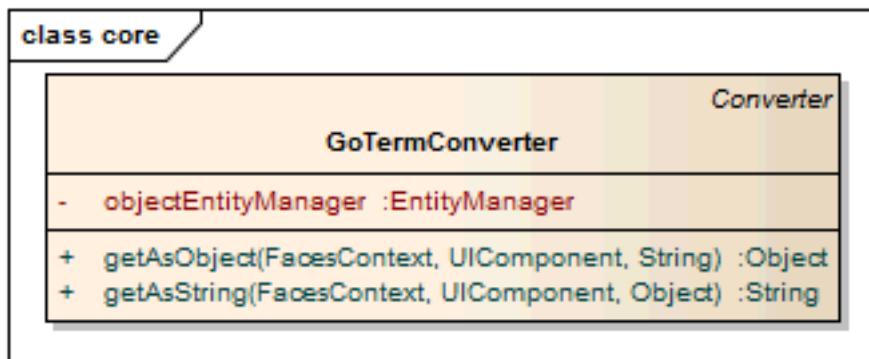


Figure: 18

GoTermConverter

Type: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	Entity Manager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

dataset

Type: **Package**
Package: converter
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

dataset

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

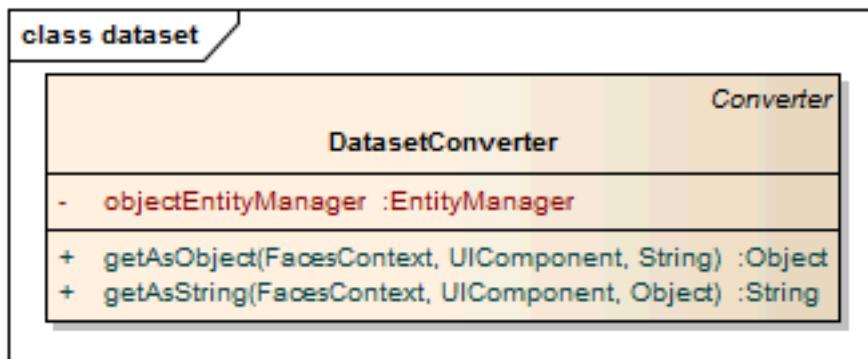


Figure: 19

DatasetConverter

Type: Java, *Stereotype:* , *Package:* dataset
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

reagents

Type: **Package**
Package: converter
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

reagents

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

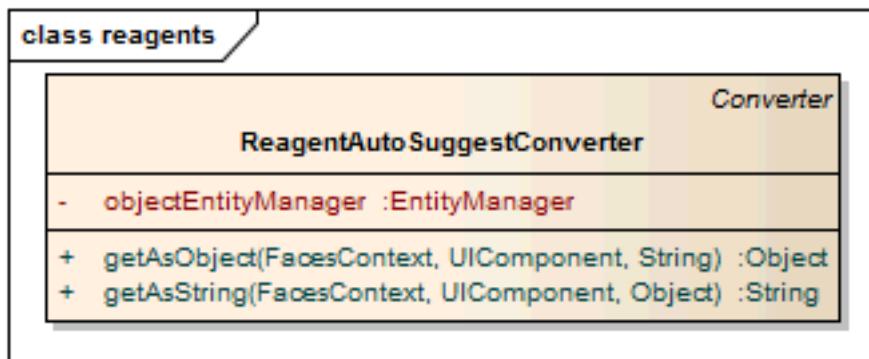


Figure: 20

ReagentAutoSuggestConverter

Type: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

translational

Type: **Package**
Package: converter
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

translational

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

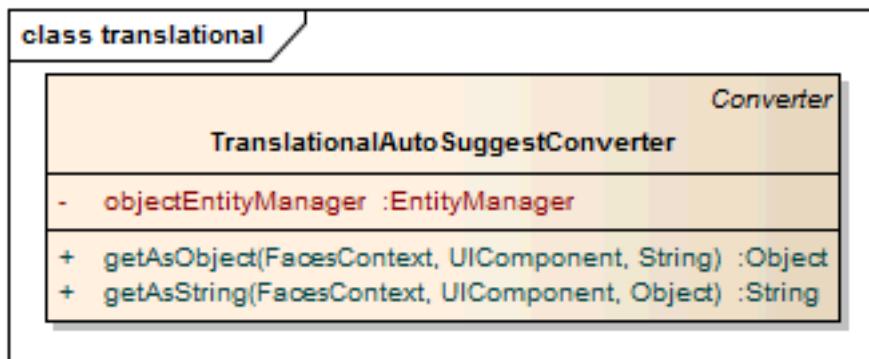


Figure: 21

TranslationalAutoSuggestConverter

Database: Java, **Stereotype:** , **Package:** translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAsObject	Public	context component value		
getAsString	Public	context component value		

data

Type: **Package:**
Package: nursa
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

data

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, **Version:**1.0

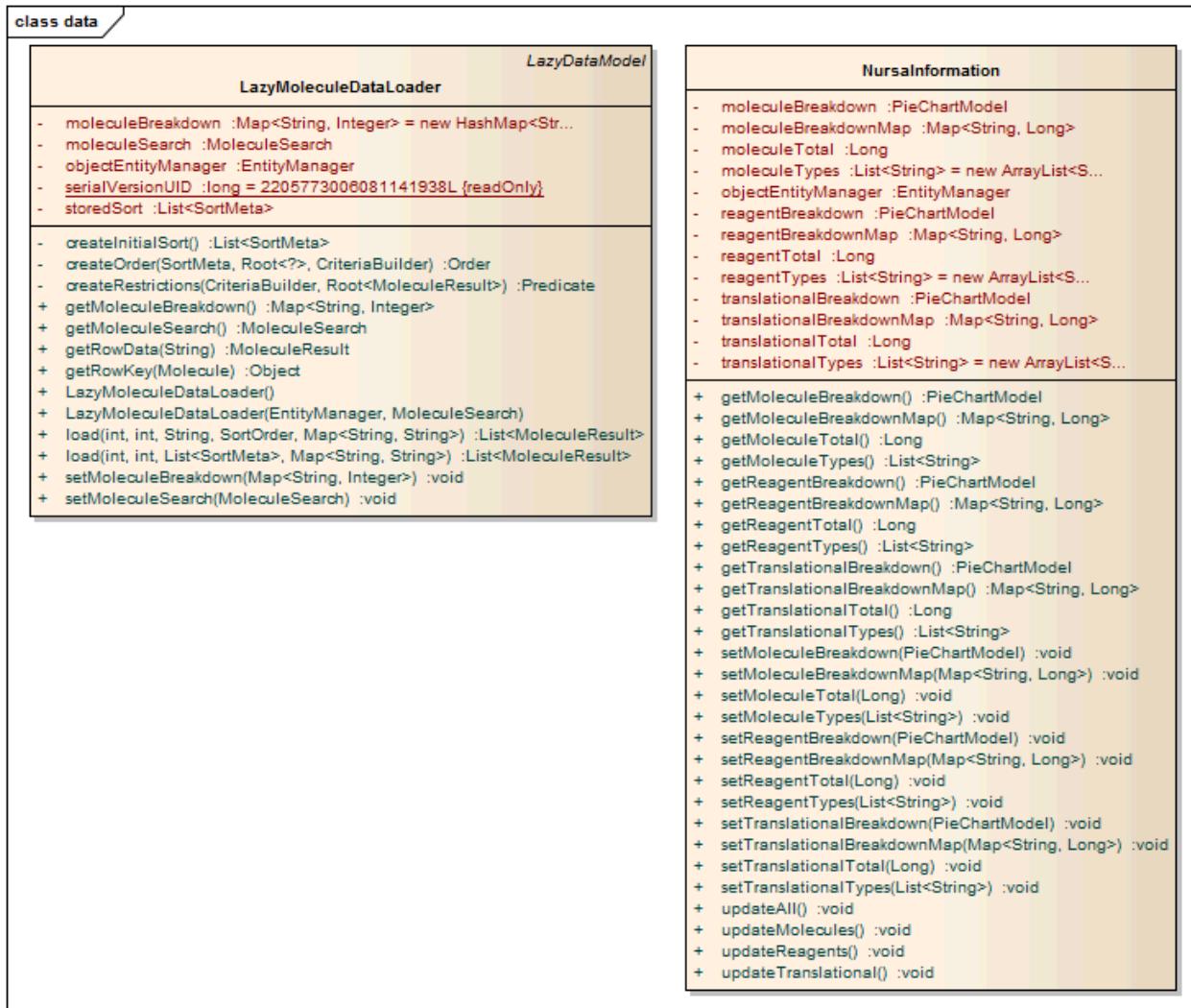


Figure: 22

LazyMoleculeDataLoader

Database: Java, **Stereotype:** , **Package:** data

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	moleculeBreakdown	Map<String, Integer>			0			new HashMap<String, Integer>()	
	moleculeSearch	Molecule Search			0				
	objectEntityManager	Entity Manager			0				
	serialVersionUID	long			0			2205773006081141937	

							73006 08114 1938L	
	storedSort	List<Sort Meta>		0				

Constraints

Name	Type	Columns	Initial Code	Notes
createInitialSort	Private			
createOrder	Private	sm root cb		
createRestrictions	Private	cb molRoot		
getMoleculeBreakdown	Public			
getMoleculeSearch	Public			
getRowData	Public	rowKey		
getRowKey	Public	object		
LazyMoleculeDataLoader	Public			
LazyMoleculeDataLoader	Public	objectEntityManage r moleculeSearch		
load	Public	first pageSize sortField sortOrder filters		
load	Public	first pageSize multiSortMeta filters		
setMoleculeBreakdown	Public	moleculeBreakdown		
setMoleculeSearch	Public	moleculeSearch		

Relationships

Columns	Association	Notes
	LazyMoleculeDataLoader. MoleculeSearch.moleculeSearch	

NursalInformation

Database: Java, Stereotype: , Package: data

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
----	------	------	----------	--------	-----	------	-------	------	-------

	moleculeBreakdown	PieChart Model			0				Pie Chart Models
	moleculeBreakdown Map	Map<String, Long>			0				map of mol breakdowns
	moleculeTotal	Long			0				total of mols
	moleculeTypes	List<String>			0			new ArrayList<String>()	Types
	objectEntityManager	EntityManager			0				
	reagentBreakdown	PieChart Model			0				
	reagentBreakdown Map	Map<String, Long>			0				
	reagentTotal	Long			0				
	reagentTypes	List<String>			0			new ArrayList<String>()	
	translationalBreakdown	PieChart Model			0				
	translationalBreakdownMap	Map<String, Long>			0				
	translationalTotal	Long			0				
	translationalTypes	List<String>			0			new ArrayList<String>()	

Constraints

Name	Type	Columns	Initial Code	Notes
getMoleculeBreakdown	Public			
getMoleculeBreakdownMap	Public			
getMoleculeTotal	Public			
getMoleculeTypes	Public			@return the moleculeTypes
getReagentBreakdown	Public			
getReagentBreakdownMap	Public			
getReagentTotal	Public			
getReagentTypes	Public			@return the reagentTypes
getTranslationalBreakdown	Public			
getTranslationalBreakdown Map	Public			
getTranslationalTotal	Public			@return the translationalTotal
getTranslationalTypes	Public			@return the translationalTypes
setMoleculeBreakdown	Public	moleculeBreakdown		
setMoleculeBreakdownMap	Public	moleculeBreakdown Map		

Name	Type	Columns	Initial Code	Notes
setMoleculeTotal	Public	moleculeTotal		
setMoleculeTypes	Public	moleculeTypes		
setReagentBreakdown	Public	reagentBreakdown		
setReagentBreakdownMap	Public	reagentBreakdown Map		
setReagentTotal	Public	reagentTotal		
setReagentTypes	Public	reagentTypes		
setTranslationalBreakdown	Public	translationalBreakd own		
setTranslationalBreakdown Map	Public	translationalBreakd ownMap		
setTranslationalTotal	Public	translationalTotal		
setTranslationalTypes	Public	translationalTypes		
updateAll	Public			
updateMolecules	Public			
updateReagents	Public			
updateTranslational	Public			

common*Type:* **Package***Package:* data*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***common***Created By:* apollo mcowiti on 9/11/2014*Last Modified:* 9/11/2014, *Version:*1.0

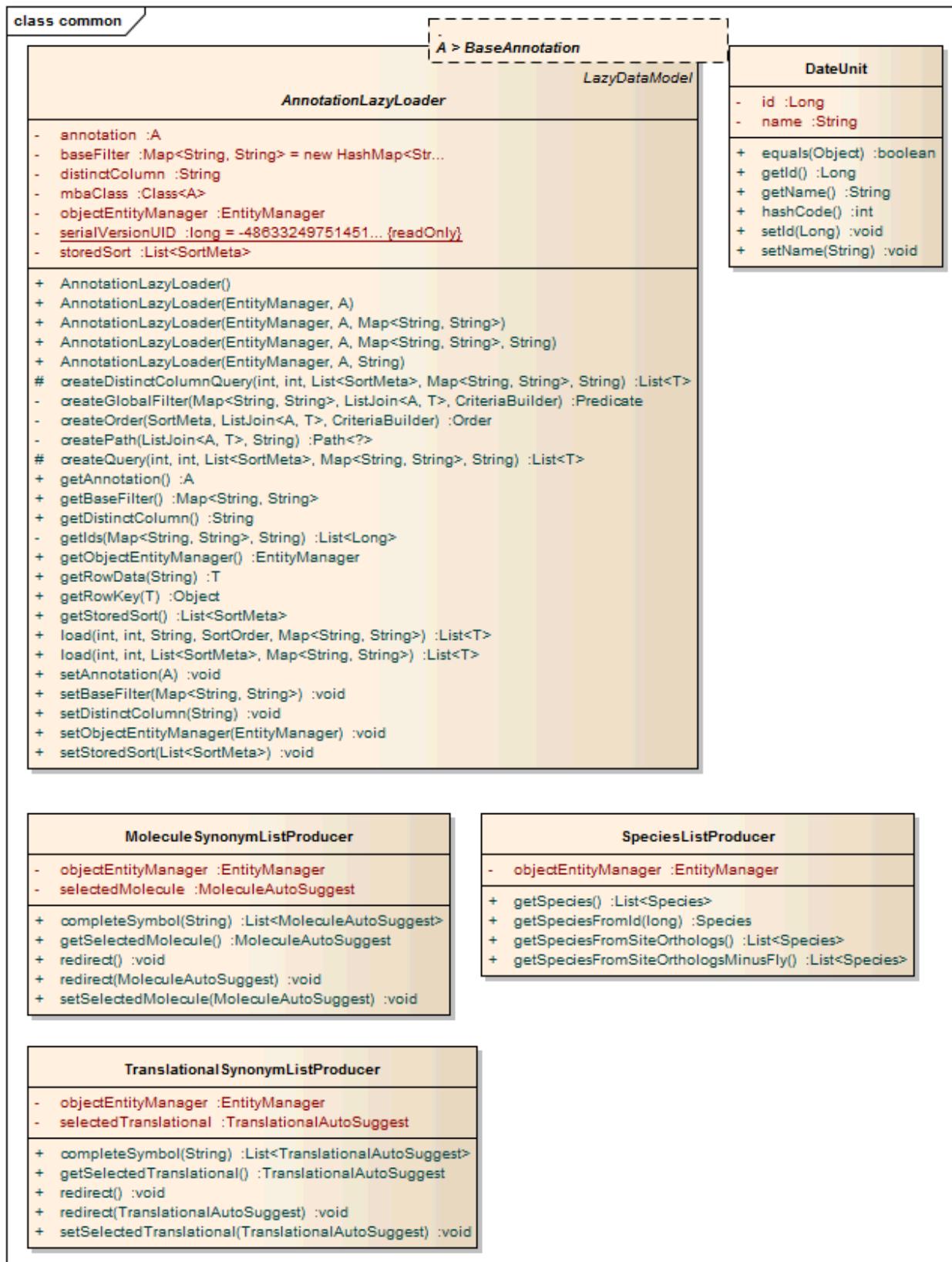


Figure: 23

AnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotation	A			0				
	baseFilter	Map<String, String>			0			new HashMap<String, String>()	
	distinctColumn	String			0				
	mbaClass	Class<A >			0				
	objectEntityManager	EntityManager			0				
	serialVersionUID	long			0			-48633 24975 14513 2743L	
	storedSort	List<Sort Meta>			0				

Constraints

Name	Type	Columns	Initial Code	Notes
AnnotationLazyLoader	Public			
AnnotationLazyLoader	Public	objectEntityManager annotation		constructor for non-specific data
AnnotationLazyLoader	Public	objectEntityManager annotation baseFilter		constructor for data with globally filtered results (not from the datatable; e.g., results for a particular organization) and/or unique resultset constraints
AnnotationLazyLoader	Public	objectEntityManager annotation baseFilter distinctColumn		
AnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
createDistinctColumnQuery	Protected	first		

Name	Type	Columns	Initial Code	Notes
		pageSize multiSortMeta filters joinField		
createGlobalFilter	Private	theFilters root cb		@author CW makes a list of Predicates that will be applied to every query run in order to filter results globally, e.g., a list of mRNAs for a particular Organization @return the restrictions
createOrder	Private	sm root cb		
createPath	Private	root stringPath		
createQuery	Protected	first pageSize multiSortMeta filters joinField		
getAnnotation	Public			
getBaseFilter	Public			
getDistinctColumn	Public			
getIds	Private	filters joinField		
getObjectEntityManager	Public			
getRowData	Public	rowKey		create any default
getRowKey	Public	object		
getStoredSort	Public			
load	Public	first pageSize sortField sortOrder filters		
load	Public	first pageSize multiSortMeta filters		
setAnnotation	Public	annotation		
setBaseFilter	Public	baseFilter		

Name	Type	Columns	Initial Code	Notes
setDistinctColumn	Public	distinctColumn		
setObjectEntityManager	Public	objectEntityManager		
setStoredSort	Public	storedSort		

Relationships

Columns	Association	Notes
	AnimalModelAnnotationLazyLoader. AnnotationLazyLoader.	
	ClinicalTrialAnnotationLazyLoader. AnnotationLazyLoader.	
	ComplexAnnotationLazyLoader. AnnotationLazyLoader.	
	CrystalStructureAnnotationLazyLoader. AnnotationLazyLoader.	
	DiseaseAssociationAnnotationLazyLoader. AnnotationLazyLoader.	
	DrugAnnotationLazyLoader. AnnotationLazyLoader.	
	GeneAnnotationLazyLoader. AnnotationLazyLoader.	
	GoTermAnnotationLazyLoader. AnnotationLazyLoader.	
	LigandAnnotationLazyLoader. AnnotationLazyLoader.	
	MiRNAAnnotationLazyLoader. AnnotationLazyLoader.	
	mRNAAnnotationLazyLoader. AnnotationLazyLoader.	
	PolypeptideAnnotationLazyLoader. AnnotationLazyLoader.	
	PolypeptideInteractionAnnotationLazyLoader. AnnotationLazyLoader.	
	PolypeptideModificationAnnotationLazyLoader. AnnotationLazyLoader.	
	PTMAnnotationLazyLoader. AnnotationLazyLoader.	
	ReagentAnnotationLazyLoader. AnnotationLazyLoader.	
	DatasetReagentAnnotationLazyLoader. AnnotationLazyLoader.	
	DatasetTranslationalAnnotationLazyLoader. AnnotationLazyLoader.	

DateUnit

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getId	Public			@return the id
getName	Public			@return the name
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. DateUnit.eligibilityMaximumAgeUnit	
	ClinicalTrial. DateUnit.eligibilityMinimumAgeUnit	

MoleculeSynonymListProducerDatabase: Java, *Stereotype:* , *Package:* common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	selectedMolecule	MoleculeAutoSuggest			0				

Constraints

Name	Type	Columns	Initial Code	Notes
completeSymbol	Public	query		
getSelectedMolecule	Public			
redirect	Public			
redirect	Public	mas		
setSelectedMolecule	Public	selectedMolecule		

Relationships

Columns	Association	Notes

Columns	Association	Notes
	MoleculeSynonymListProducer. MoleculeAutoSuggest.selectedMolecule	
	LazyNURSADataSetDataLoader. MoleculeSynonymListProducer.mslp	

SpeciesListProducer

Database: Java, *Stereotype:* , *Package:* common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getSpecies	Public			
getSpeciesFromId	Public	taxonomyID		
getSpeciesFromSiteOrthologs	Public			Need to refactor this and the next to be generic @param ignoreFly @return
getSpeciesFromSiteOrthologsMinusFly	Public			

TranslationalSynonymListProducer

Database: Java, *Stereotype:* , *Package:* common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	selectedTranslational	TranslationalAutoSuggest			0				

Constraints

Name	Type	Columns	Initial Code	Notes
completeSymbol	Public	query		
getSelectedTranslational	Public			
redirect	Public			
redirect	Public	mas		
setSelectedTranslational	Public	selectedTranslational		

Relationships

Columns	Association	Notes
	TranslationalSynonymListProducer. TranslationalAutoSuggest.selectedTranslational	

core**Type:** Package**Package:** data**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****core****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:**1.0

Figure: 24

GOTermListProducer**Database:** Java, **Stereotype:** , **Package:** core**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
completeGOTerm	Public	query		

dataset**Type:** Package**Package:** data**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****dataset****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:**1.0

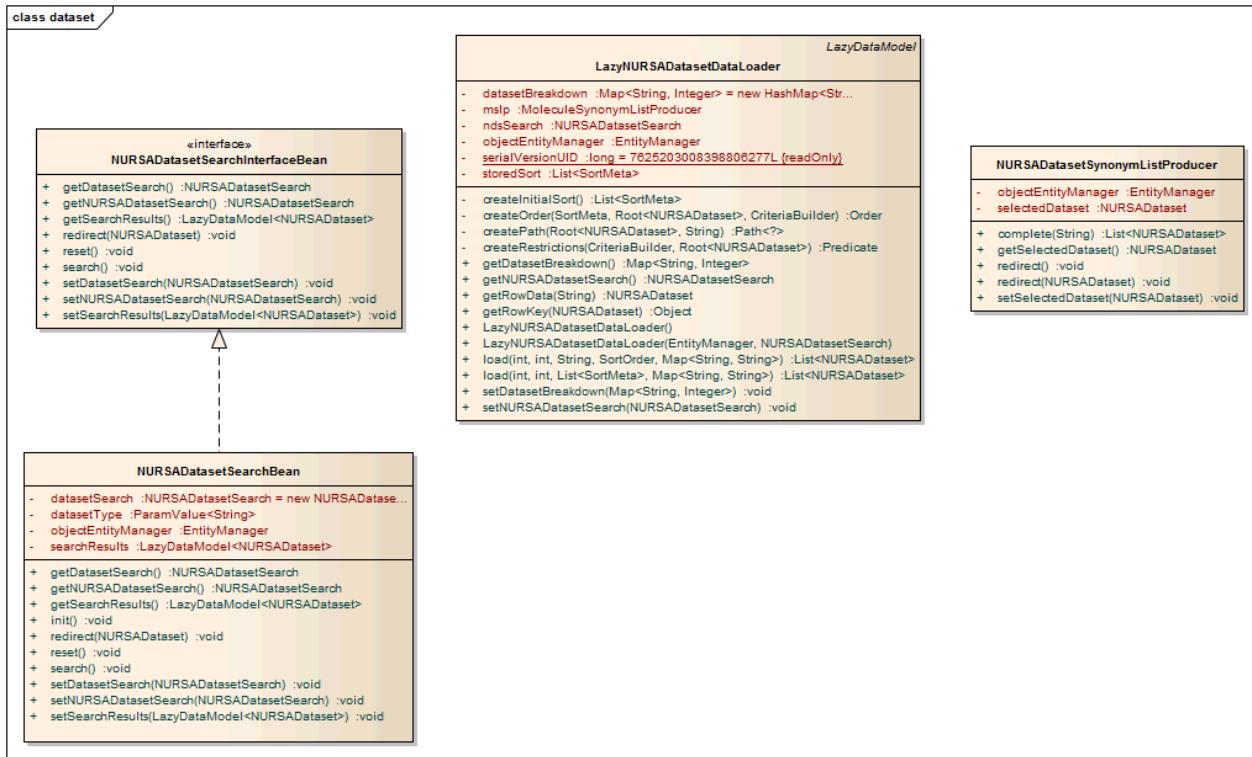


Figure: 25

LazyNURSADatasetDataLoader

Database: Java, *Stereotype:* , *Package:* dataset

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	datasetBreakdown	Map<String, Integer>			0			new HashMap<String, Integer>()	
	mslp	Molecule Synonym ListProducer			0				
	ndsSearch	NURSA DatasetSearch			0				
	objectEntityManager	EntityManager			0				
	serialVersionUID	long			0			7625203008398806277L	
	storedSort	List<Sort Meta>			0				

Constraints

Name	Type	Columns	Initial Code	Notes
createInitialSort	Private			
createOrder	Private	sm datasetRoot cb		
createPath	Private	root stringPath		
createRestrictions	Private	cb datasetRoot		
getDatasetBreakdown	Public			@return the datasetBreakdown
getNURSADatasetSearch	Public			
getRowData	Public	rowKey		
getRowKey	Public	object		
LazyNURSADatasetDataLoa der	Public			
LazyNURSADatasetDataLoa der	Public	objectEntityManage r ndsSearch		
load	Public	first pageSize sortField sortOrder filters		
load	Public	first pageSize multiSortMeta filters		
setDatasetBreakdown	Public	datasetBreakdown		
setNURSADatasetSearch	Public	ndsSearch		

Relationships

Columns	Association	Notes
	LazyNURSADatasetDataLoader. MoleculeSynonymListProducer.mslp	
	LazyNURSADatasetDataLoader. NURSADatasetSearch.ndsSearch	

NURSADatasetSearchBean

Database: Java, *Stereotype:* , *Package:* dataset

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	datasetSearch	NURSA DatasetSearch			0			new NURSAData setSearch()	
	datasetType	ParamValue<String>			0				
	objectEntityManager	EntityManager			0				
	searchResults	LazyData Model<NURSADataset>			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getDatasetSearch	Public			@return the datasetSearch
getNURSADatasetSearch	Public			
getSearchResults	Public			
init	Public			
redirect	Public	dataset		
reset	Public			
search	Public			
setDatasetSearch	Public	datasetSearch		
setNURSADatasetSearch	Public	datasetSearch		
setSearchResults	Public	searchResults		

Relationships

Columns	Association	Notes
	NURSADatasetSearchBean. NURSADatasetSearch.datasetSearch	
	NURSADatasetSearchBean. NURSADatasetSearchInterfaceBean.	

NURSADatasetSynonymListProducer

Database: Java, Stereotype: , Package: dataset

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	selectedDataset	NURSA Dataset			0				

Constraints

Name	Type	Columns	Initial Code	Notes
complete	Public	query		
getSelectedDataset	Public			@return the selectedDataset
redirect	Public			
redirect	Public	nds		
setSelectedDataset	Public	selectedDataset		

Relationships

Columns	Association	Notes
	NURSADataSetSynonymListProducer. NURSADataSet.selectedDataset	

NURSADataSetSearchInterfaceBean*Database:* Java, *Stereotype:* , *Package:* dataset*Detail:* *Created on 9/11/2014. Last modified on 9/11/2014.**Notes:* The dataset search interface bean provides a framework for the implementation layer and allows for further decoupling later on.***Constraints***

Name	Type	Columns	Initial Code	Notes
getDatasetSearch	Public			
getNURSADataSetSearch	Public			Gets the dataset search object which contains all the search parameters. @return The dataset search object.
getSearchResults	Public			Returns a list of datasets that are the result of the search @return A list of search results as datasets.
redirect	Public	dataset		Sends a redirect to the browser that will bring them to the correct page.
reset	Public			Resets the dataset search and returns a full list for search
search	Public			Runs a search against the database using the information in the datasetSearch object. It stores that information in the searchResults object.
setDatasetSearch	Public	datasetSearch		

Name	Type	Columns	Initial Code	Notes
setNURSADataSetSearch	Public	datasetSearch		Sets the dataset search object which contains all the search parameters.
setSearchResults	Public	searchResults		Sets the list of datasets that are the results of a search

Relationships

Columns	Association	Notes
	NURSADataSetSearchBean. NURSADataSetSearchInterfaceBean.	

moleculeAnnotations

Type: **AnnotationLazyLoader**

Package: **data**

Detail: *Created on 9/11/2014. Last modified on 9/11/2014.*

Notes:

moleculeAnnotations

Created By: apollo mcowitz on 9/11/2014

Last Modified: 9/11/2014, Version:1.0



Figure: 26

AnimalModelAnnotationLazyLoader

Database: Java, Stereotype: , Package: moleculeAnnotations

Detail: *Created on 9/11/2014. Last modified on 9/11/2014.*

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-32919 34965 70824 0381L	

Constraints

Name	Type	Columns	Initial Code	Notes
AnimalModelAnnotationLazyLoader	Public	objectEntityManager annotation		
AnimalModelAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
AnimalModelAnnotationLazyLoader	Public	objectEntityManager annotation filters		
AnimalModelAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	AnimalModelAnnotationLazyLoader. AnnotationLazyLoader.	

ClinicalTrialAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			25044 77305 68325 3913L	

Constraints

Name	Type	Columns	Initial Code	Notes
ClinicalTrialAnnotationLazyLoader	Public	objectEntityManager		

Name	Type	Columns	Initial Code	Notes
		annotation		
ClinicalTrialAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
ClinicalTrialAnnotationLazyLoader	Public	objectEntityManager annotation filters		
ClinicalTrialAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	ClinicalTrialAnnotationLazyLoader. AnnotationLazyLoader.	

ComplexAnnotationLazyLoader

Database: Java, Stereotype: , Package: moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-28016 11978 58560 5986L	

Constraints

Name	Type	Columns	Initial Code	Notes
ComplexAnnotationLazyLoader	Public	objectEntityManager annotation		
ComplexAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
ComplexAnnotationLazyLoader	Public	objectEntityManager		

Name	Type	Columns	Initial Code	Notes
		annotation filters		
ComplexAnnotationLazyLoa der	Public	objectEntityManage r annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	ComplexAnnotationLazyLoader. AnnotationLazyLoader.	

CrystalStructureAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-28016 11978 58560 5986L	

Constraints

Name	Type	Columns	Initial Code	Notes
CrystalStructureAnnotationL azyLoader	Public	objectEntityManage r annotation		
CrystalStructureAnnotationL azyLoader	Public	objectEntityManage r annotation distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	CrystalStructureAnnotationLazyLoader. AnnotationLazyLoader.	

DiseaseAssociationAnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-70587 65082 41001 9881L	

Constraints

Name	Type	Columns	Initial Code	Notes
DiseaseAssociationAnnotationLazyLoader	Public	objectEntityManager annotation		
DiseaseAssociationAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
DiseaseAssociationAnnotationLazyLoader	Public	objectEntityManager annotation filters		
DiseaseAssociationAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	DiseaseAssociationAnnotationLazyLoader. AnnotationLazyLoader.	

DrugAnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			49177 57780	

								61154 0007L	
--	--	--	--	--	--	--	--	----------------	--

Constraints

Name	Type	Columns	Initial Code	Notes
DrugAnnotationLazyLoader	Public	objectEntityManager annotation		
DrugAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
DrugAnnotationLazyLoader	Public	objectEntityManager annotation filters		
DrugAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	DrugAnnotationLazyLoader. AnnotationLazyLoader.	

GeneAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 69725 26082 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
GeneAnnotationLazyLoader	Public	objectEntityManager annotation		
GeneAnnotationLazyLoader	Public	objectEntityManager		

Name	Type	Columns	Initial Code	Notes
		r annotation distinctColumn		
GeneAnnotationLazyLoader	Public	objectEntityManager r annotation filters		
GeneAnnotationLazyLoader	Public	objectEntityManager r annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	GeneAnnotationLazyLoader. AnnotationLazyLoader.	

GoTermAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 69725 26082 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
GoTermAnnotationLazyLoader	Public	objectEntityManager r annotation		
GoTermAnnotationLazyLoader	Public	objectEntityManager r annotation distinctColumn		
GoTermAnnotationLazyLoader	Public	objectEntityManager r annotation filters		

Name	Type	Columns	Initial Code	Notes
GoTermAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	GoTermAnnotationLazyLoader. AnnotationLazyLoader.	

LigandAnnotationLazyLoaderDatabase: Java, *Stereotype*: , *Package*: moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-47069 35036 67989 1983L	

Constraints

Name	Type	Columns	Initial Code	Notes
LigandAnnotationLazyLoader	Public	objectEntityManager annotation		
LigandAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
LigandAnnotationLazyLoader	Public	objectEntityManager annotation filters		
LigandAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta		

Name	Type	Columns	Initial Code	Notes
		filters		

Relationships

Columns	Association	Notes
	LigandAnnotationLazyLoader. AnnotationLazyLoader.	

MRNAAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 69725 26082 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
MRNAAnnotationLazyLoade r	Public	objectEntityManage r annotation		
MRNAAnnotationLazyLoade r	Public	objectEntityManage r annotation distinctColumn		
MRNAAnnotationLazyLoade r	Public	objectEntityManage r annotation filters		
MRNAAnnotationLazyLoade r	Public	objectEntityManage r annotation filters distinctColumn		

Relationships

Columns	Association	Notes
	MRNAAnnotationLazyLoader. AnnotationLazyLoader.	

MiRNAAnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63252 60826 56972 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
MiRNAAnnotationLazyLoader	Public	objectEntityManager annotation		
MiRNAAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
MiRNAAnnotationLazyLoader	Public	objectEntityManager annotation filters		
MiRNAAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		

Relationships

Columns	Association	Notes
	MiRNAAnnotationLazyLoader. AnnotationLazyLoader.	

PTMAnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 69725 26082 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
PTMAnnotationLazyLoader	Public	objectEntityManage r annotation		
PTMAnnotationLazyLoader	Public	objectEntityManage r annotation distinctColumn		
PTMAnnotationLazyLoader	Public	objectEntityManage r annotation filters		
PTMAnnotationLazyLoader	Public	objectEntityManage r annotation filters distinctColumn		

Relationships

Columns	Association	Notes
	PTMAnnotationLazyLoader. AnnotationLazyLoader.	

PolyptideAnnotationLazyLoaderDatabase: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 69725 26082 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
PolyptideAnnotationLazyL oader	Public	objectEntityManage r		

Name	Type	Columns	Initial Code	Notes
		annotation		
PolypeptideAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
PolypeptideAnnotationLazyLoader	Public	objectEntityManager annotation filters		
PolypeptideAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		

Relationships

Columns	Association	Notes
	PolypeptideAnnotationLazyLoader. AnnotationLazyLoader.	

PolypeptideInteractionAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63252 60821 02656 9762L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
PolypeptideInteractionAnnotationLazyLoader	Public	objectEntityManager annotation		
PolypeptideInteractionAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
PolypeptideInteractionAnnotationLazyLoader	Public	objectEntityManager		

Name	Type	Columns	Initial Code	Notes
		annotation filters		
PolypeptideInteractionAnnotationLazyLoader	Public	objectEntityManage r annotation filters distinctColumn		

Relationships

Columns	Association	Notes
	PolypeptideInteractionAnnotationLazyLoader. AnnotationLazyLoader.	

PolypeptideModificationAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 69725 26082 1062L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
PolypeptideModificationAnnotationLazyLoader	Public	objectEntityManage r annotation		
PolypeptideModificationAnnotationLazyLoader	Public	objectEntityManage r annotation distinctColumn		

Relationships

Columns	Association	Notes
	PolypeptideModificationAnnotationLazyLoader. AnnotationLazyLoader.	

ReagentAnnotationLazyLoader*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:*

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			31165 42240 88471 4636L	

Constraints

Name	Type	Columns	Initial Code	Notes
load	Public	first pageSize multiSortMeta filters		
ReagentAnnotationLazyLoader	Public	objectEntityManager annotation		
ReagentAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
ReagentAnnotationLazyLoader	Public	objectEntityManager annotation filters		
ReagentAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		

Relationships

Columns	Association	Notes
	ReagentAnnotationLazyLoader. AnnotationLazyLoader.	

reagentAnnotations**Type:** Package**Package:** data**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****reagentAnnotations****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:**1.0

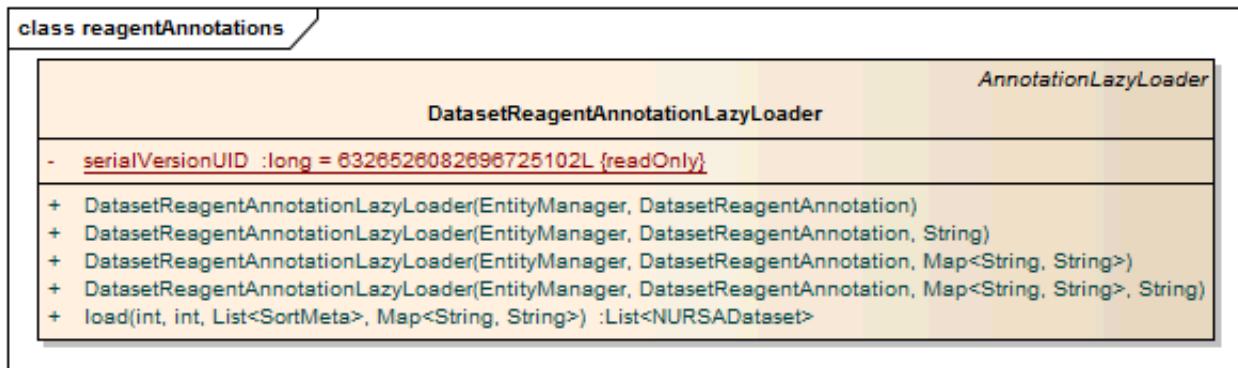


Figure: 27

DatasetReagentAnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* reagentAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			63265 26082 69672 5102L	

Constraints

Name	Type	Columns	Initial Code	Notes
DatasetReagentAnnotationLazyLoader	Public	objectEntityManager annotation		
DatasetReagentAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
DatasetReagentAnnotationLazyLoader	Public	objectEntityManager annotation filters		
DatasetReagentAnnotationLazyLoader	Public	objectEntityManager annotation filters distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	DatasetReagentAnnotationLazyLoader. AnnotationLazyLoader.	

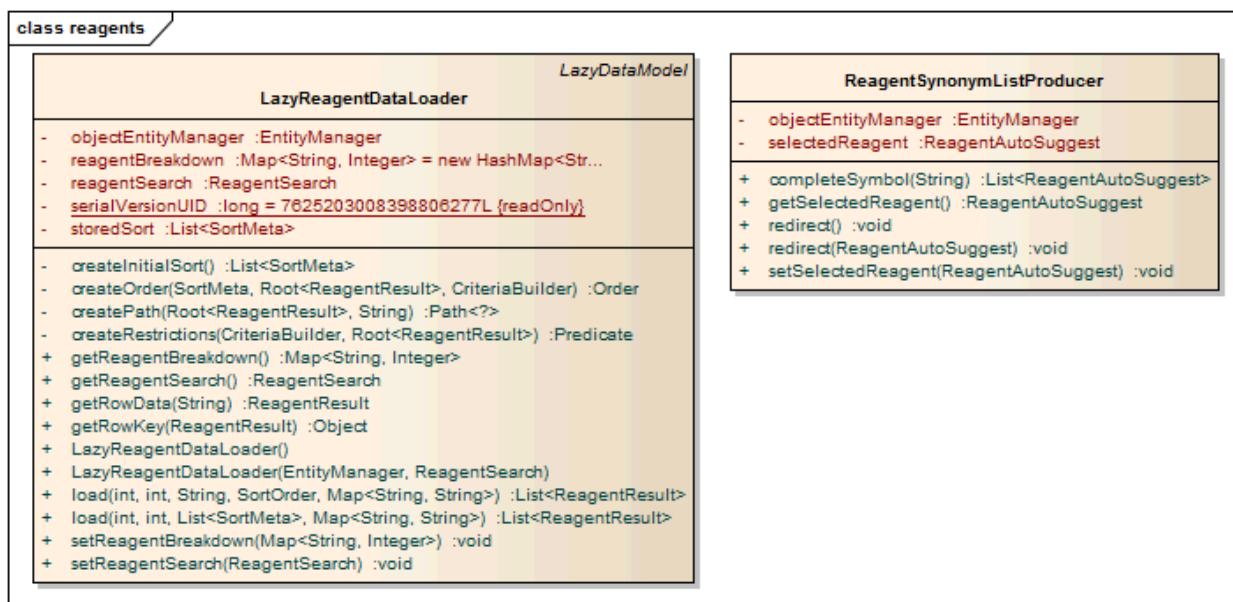
reagents*Type:* **Package***Package:* data*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***reagents***Created By:* apollo mcowitz on 9/11/2014*Last Modified:* 9/11/2014, *Version:*1.0

Figure: 28

LazyReagentDataLoader*Database:* Java, *Stereotype:* , *Package:* reagents*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityMa nager			0				
	reagentBreakdown	Map<Stri ng, Integer>			0				new HashM ap<Str ing, Integer >()
	reagentSearch	ReagentS earch			0				

	serialVersionUID	long			0			76252 03008 39880 6277L	
	storedSort	List<Sort Meta>			0				

Constraints

Name	Type	Columns	Initial Code	Notes
createInitialSort	Private			
createOrder	Private	sm reagentRoot cb		
createPath	Private	root stringPath		
createRestrictions	Private	cb reagentRoot		
getReagentBreakdown	Public			@return the reagentBreakdown
getReagentSearch	Public			
getRowData	Public	rowKey		
getRowKey	Public	object		
LazyReagentDataLoader	Public			
LazyReagentDataLoader	Public	objectEntityManage r reagentSearch		
load	Public	first pageSize sortField sortOrder filters		
load	Public	first pageSize multiSortMeta filters		
setReagentBreakdown	Public	reagentBreakdown		
setReagentSearch	Public	reagentSearch		

Relationships

Columns	Association	Notes
	LazyReagentDataLoader. ReagentSearch.reagentSearch	

ReagentSynonymListProducer

Database: Java, Stereotype: , Package: reagents

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	selectedReagent	ReagentAutoSuggest			0				

Constraints

Name	Type	Columns	Initial Code	Notes
completeSymbol	Public	query		
getSelectedReagent	Public			
redirect	Public			
redirect	Public	ras		
setSelectedReagent	Public	selectedReagent		

Relationships

Columns	Association	Notes
	ReagentSynonymListProducer. ReagentAutoSuggest.selectedReagent	

translational

Type: **Package**

Package: data

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

translational

Created By: apollo mcowitz on 9/11/2014

Last Modified: 9/11/2014, *Version:*1.0

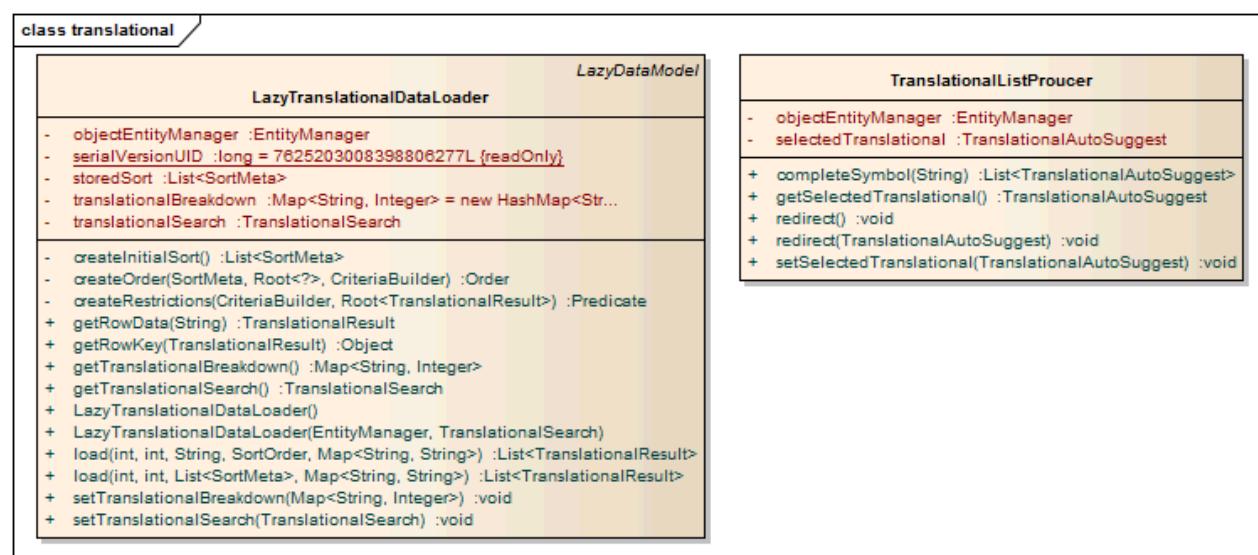


Figure: 29

LazyTranslationalDataLoader

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				
	serialVersionUID	long			0			76252 03008 39880 6277L	
	storedSort	List<SortMeta>			0				
	translationalBreakdown	Map<String, Integer>			0			new HashMap<String, Integer >()	
	translationalSearch	TranslationalSearch			0				

Constraints

Name	Type	Columns	Initial Code	Notes
createInitialSort	Private			
createOrder	Private	sm root cb		
createRestrictions	Private	cb translationalRoot		
getRowData	Public	rowKey		
getRowKey	Public	object		
getTranslationalBreakdown	Public			@return the translationalBreakdo wn
getTranslationalSearch	Public			
LazyTranslationalDataLoade r	Public			
LazyTranslationalDataLoade r	Public	objectEntityManager translationalSearch		
load	Public	first pageSize sortField		

Name	Type	Columns	Initial Code	Notes
		sortOrder filters		
load	Public	first pageSize multiSortMeta filters		
setTranslationalBreakdown	Public	translationalBreakd own		
setTranslationalSearch	Public	translationalSearch		

Relationships

Columns	Association	Notes
	LazyTranslationalDataLoader. TranslationalSearch.translationalSearch	

TranslationalListProucer

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityMa nager			0				
	selectedTranslati onAl	Translati onalAuto Suggest			0				

Constraints

Name	Type	Columns	Initial Code	Notes
completeSymbol	Public	query		
getSelectedTranslational	Public			
redirect	Public			
redirect	Public	mas		
setSelectedTranslational	Public	selectedTranslati onAl		

Relationships

Columns	Association	Notes
	TranslationalListProucer. TranslationalAutoSuggest.selectedTranslational	

translationalAnnotations

Type: **Package**
Package: data
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

translationalAnnotations

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

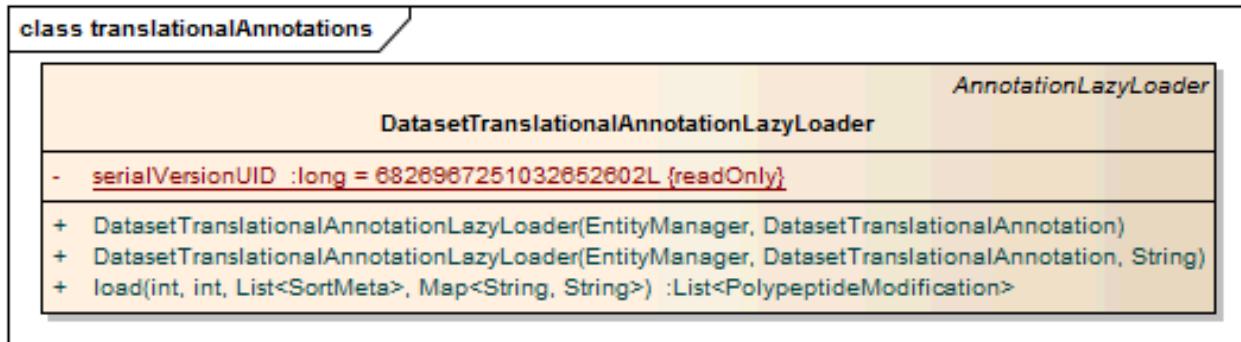


Figure: 30

DatasetTranslationalAnnotationLazyLoader

Database: Java, *Stereotype:* , *Package:* translationalAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			68269 67251 03265 2602L	

Constraints

Name	Type	Columns	Initial Code	Notes
DatasetTranslationalAnnotationLazyLoader	Public	objectEntityManager annotation		
DatasetTranslationalAnnotationLazyLoader	Public	objectEntityManager annotation distinctColumn		
load	Public	first pageSize multiSortMeta filters		

Relationships

Columns	Association	Notes
	DatasetTranslationalAnnotationLazyLoader. AnnotationLazyLoader.	

el

*Type:*Package

Package: nursa
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

el
Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version:1.0

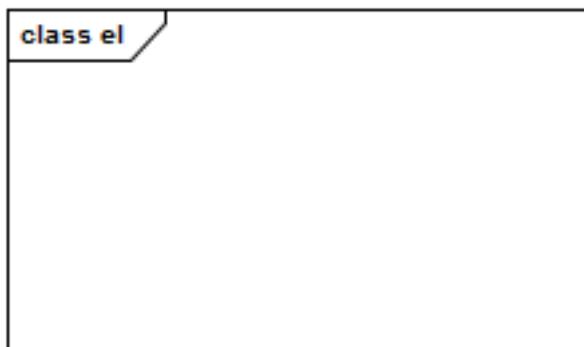


Figure: 31

functions

Type: **Package**
Package: el
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

functions
Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version:1.0

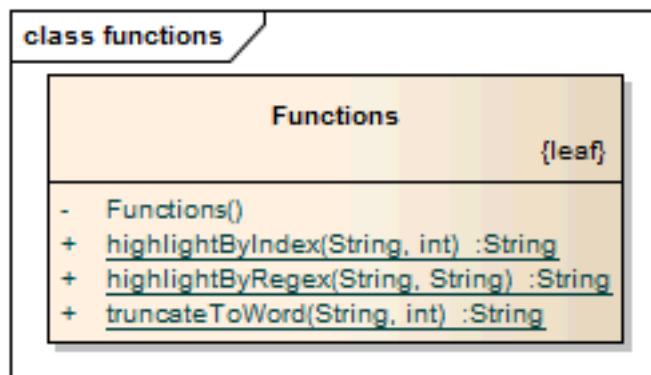


Figure: 32

Functions

Database: Java, Stereotype: , Package: functions
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: custom EL functions it's quite conceivable that this may go into DLDCC Common at some point
3/12/14 CMW

Constraints

Name	Type	Columns	Initial Code	Notes
Functions	Private			
highlightByIndex	Public	theSource thePos		highlights a character in the supplied text consider modifying this to allow for specifying the HTML markup for highlighting, as well as additional formatting options @author cmw @return formatted HTML highlighting the specified character in theSource
highlightByRegex	Public	theSource theRegex		given a source and substring, returns HTML markup that highlights the substring(s) matching the regex in the source. this also returns results in uppercase to fit the use case for which this was built consider modifying this to allow for specifying the HTML markup for highlighting, as well as additional formatting options @author cmw @return formatted HTML highlighting theSubstring in theSource
truncateToWord	Public	theSource maxChars		truncates a string to the nearest word given a maximum number of characters @author cw @return a string containing no more than maxChars truncated to the nearest word

model

Type: **Package**
Package: nursa
Detail: *Created on 9/11/2014. Last modified on 9/11/2014.*
Notes:

model

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

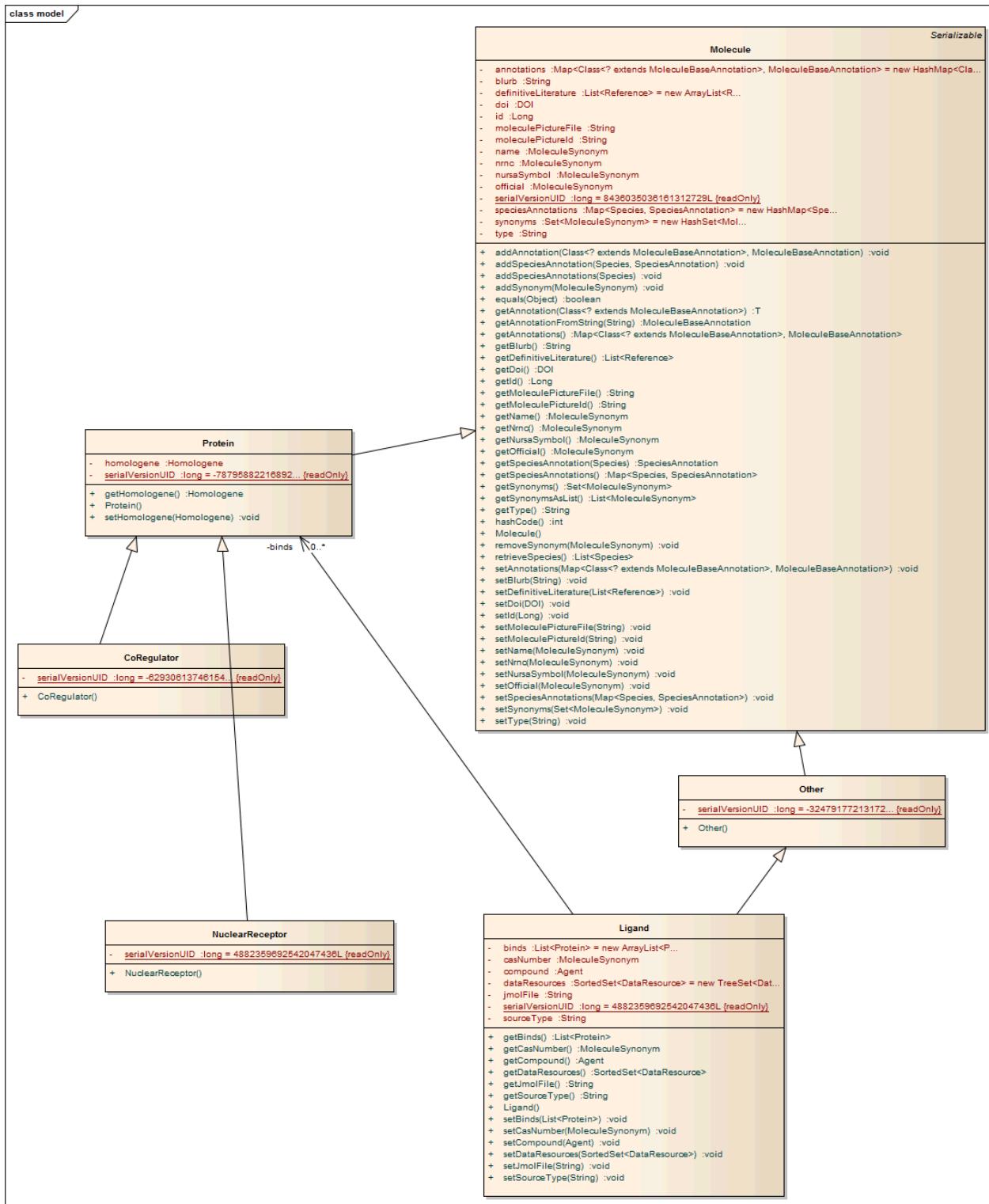


Figure: 33

CoRegulator

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-62930 61374 61545 9384L	

Constraints

Name	Type	Columns	Initial Code	Notes
CoRegulator	Public			

Relationships

Columns	Association	Notes
	CoRegulator. Protein.	

Ligand

Database: Java, *Stereotype:* , *Package:* model

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	binds	List<Protein>			0			new ArrayList<Protein>()	
	casNumber	Molecule Synonym			0				
	compound	Agent			0				
	dataResources	SortedSet<DataResource>			0			new TreeSet<DataResource>()	
	jmolFile	String			0				
	serialVersionUID	long			0			48823 59692 54204 7436L	
	sourceType	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getBinds	Public			@return the binds
getCasNumber	Public			@return the casNumber
getCompound	Public			
getDataResources	Public			@return the dataResources
getJmolFile	Public			@return the jmolFile
getSourceType	Public			@return the sourceType

Name	Type	Columns	Initial Code	Notes
Ligand	Public			
setBinds	Public	binds		
setCasNumber	Public	casNumber		
setCompound	Public	compound		
setDataResources	Public	dataResources		
setJmolFile	Public	jmolFile		
setSourceType	Public	sourceType		

Relationships

Columns	Association	Notes
	LigandAnnotation. 0..* Ligand.ligands	
	Agent. Ligand.ligand	
	Ligand. 0..* Protein.binds	
	Ligand. MoleculeSynonym.casNumber	
	Ligand. Agent.compound	
	Ligand. Other.	

MoleculeDatabase: Java, *Stereotype:* , *Package:* model

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotations	Map<Class<? extends MoleculeBaseAnnotation>, MoleculeBaseAnnotation>			0			new HashMap<Class<? extends MoleculeBaseAnnotation>, MoleculeBaseAnnotation>()	
	blurb	String			0				
	definitiveLiterature	List<Reference>			0			new ArrayList<Reference>()	

							ist<Reference>()	
	doi	DOI		0				
	id	Long		0				
	moleculePictureFile	String		0				
	moleculePictureId	String		0				
	name	Molecule Synonym		0				
	nrnc	Molecule Synonym		0				
	nursaSymbol	Molecule Synonym		0				
	official	Molecule Synonym		0				
	serialVersionUID	long		0		84360 35036 16131 2729L		
	speciesAnnotations	Map<Species, SpeciesAnnotation>		0			new HashMap<Species, SpeciesAnnotation>()	
	synonyms	Set<MoleculeSynonym>		0			new HashSet<MoleculeSynonym>()	
	type	String		0				

Constraints

Name	Type	Columns	Initial Code	Notes
addAnnotation	Public	class1 baseCompoundAnnotation		
addSpeciesAnnotation	Public	species annotation		
addSpeciesAnnotations	Public	species		
addSynonym	Public	symbol		
equals	Public	obj		
getAnnotation	Public	type		
getAnnotationFromString	Public	type		
getAnnotations	Public			
getBlurb	Public			

Name	Type	Columns	Initial Code	Notes
getDefinitiveLiterature	Public			
getDoi	Public			
getId	Public			
getMoleculePictureFile	Public			
getMoleculePictureId	Public			
getName	Public			
getNrnc	Public			
getNursaSymbol	Public			
getOfficial	Public			
getSpeciesAnnotation	Public	type		
getSpeciesAnnotations	Public			
getSynonyms	Public			
getSynonymsAsList	Public			
getType	Public			
hashCode	Public			
Molecule	Public			
removeSynonym	Public	symbol		
retrieveSpecies	Public			
setAnnotations	Public	annotations		
setBlurb	Public	blurb		
setDefinitiveLiterature	Public	definitiveLiterature		
setDoi	Public	doi		
setId	Public	id		
setMoleculePictureFile	Public	moleculePictureFile		
setMoleculePictureId	Public	moleculePictureId		
setName	Public	name		
setNrnc	Public	nrnc		
setNursaSymbol	Public	nursaSymbol		
setOfficial	Public	official		
setSpeciesAnnotations	Public	annotations		
setSynonyms	Public	synonyms		
setType	Public	type		

Relationships

Columns	Association	Notes
	MoleculeBean. Molecule.selectedMolecule	
	MoleculeSynonym. Molecule.molecule	

Columns	Association	Notes
	MoleculeInteraction. 0..* Molecule.interactions	
	MoleculeInteraction. Molecule.source	
	NURSADataset. 0..* Molecule.molecules	
	MoleculeTreatment. Molecule.molecule	
	Reagent. Molecule.mol	
	Translational. 0..* Molecule.molecules	
	Molecule. 0..* Reference.definitiveLiterature	
	Molecule. DOI.doi	
	Molecule. MoleculeSynonym.name	
	Molecule. MoleculeSynonym.nrnc	
	Molecule. MoleculeSynonym.nursaSymbol	
	Molecule. MoleculeSynonym.official	
	Other. Molecule.	
	Protein. Molecule.	

NuclearReceptor

Database: Java, Stereotype: , Package: model

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			48823 59692 54204 7436L	

Constraints

Name	Type	Columns	Initial Code	Notes
NuclearReceptor	Public			

Relationships

Columns	Association	Notes
	NuclearReceptor. Protein.	

Other

Database: Java, Stereotype: , Package: model

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-32479 17721 31721 6960L	

Constraints

Name	Type	Columns	Initial Code	Notes
Other	Public			

Relationships

Columns	Association	Notes
	Ligand. Other.	
	Other. Molecule.	

Protein*Database:* Java, *Stereotype:* , *Package:* model*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	homologene	Homologene			0				
	serialVersionUID	long			0			-78795 88221 68927 8208L	

Constraints

Name	Type	Columns	Initial Code	Notes
getHomologene	Public			
Protein	Public			
setHomologene	Public	homologene		

Relationships

Columns	Association	Notes
	CoRegulator. Protein.	
	Ligand. 0..* Protein.binds	
	NuclearReceptor. Protein.	
	Protein. Homologene.homologene	
	Protein. Molecule.	

common*Type:*Package

Package: model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

common
Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, **Version:**1.0

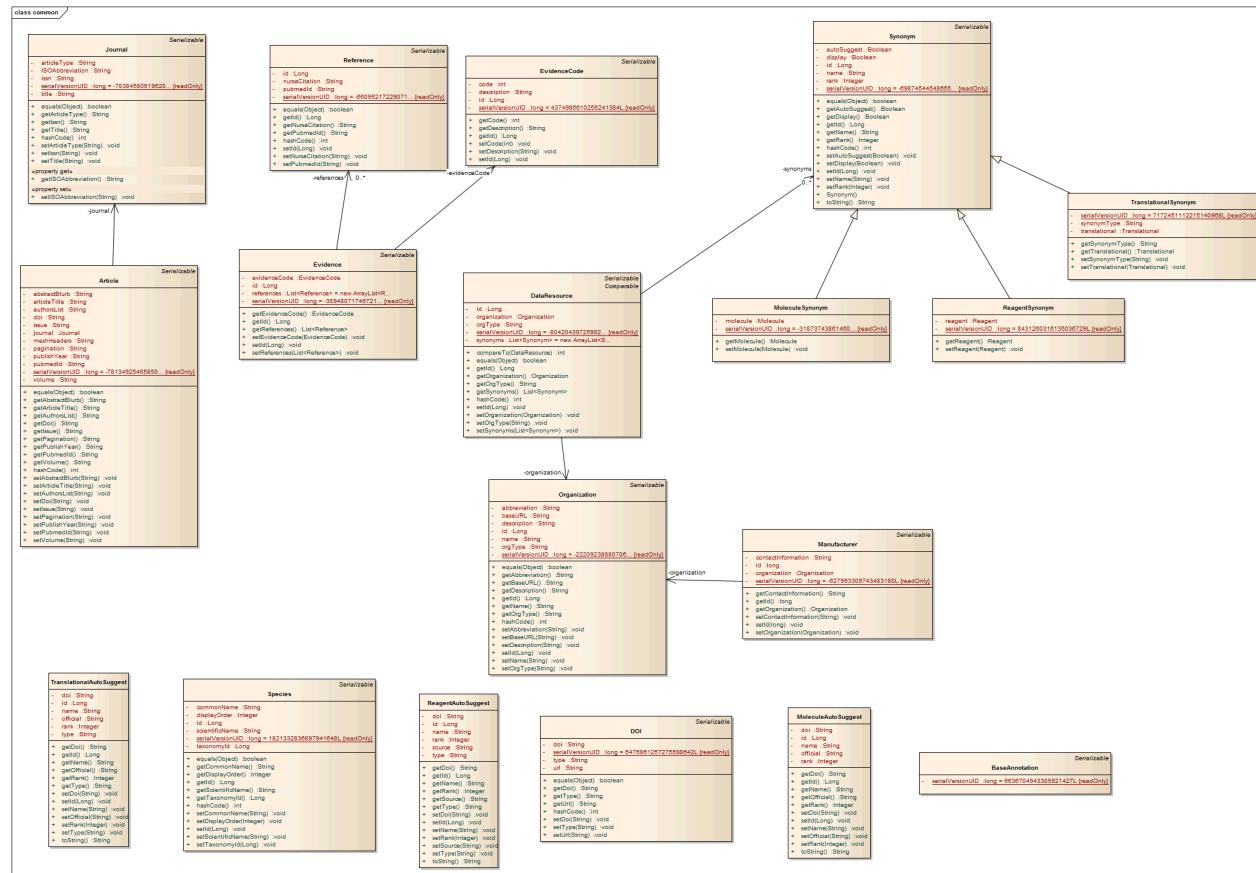


Figure: 34

Article

Database: Java, **Stereotype:** , **Package:** common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: An article(eg Pubmed article) is separate from a Reference A nusra citation reference is like Ochsner SA, Watkins CM, McOwiti A, Xu X, Darlington YF, Dehart MD, Cooney AJ, Steffen DL, Becnel LB and McKenna NJ (2012) Transcriptomine, a web resource for nuclear receptor signaling transcriptomes. Physiol Genomics 44, 853-63.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	abstractBlurb	String			0				
	articleTitle	String			0				
	authorsList	String			0				
	doi	String			0				
	issue	String			0				

	journal	Journal		0				
	meshHeaders	String		0				
	pagination	String		0				
	publishYear	String		0				
	pubmedId	String		0				
	serialVersionUID	long		0		-78134 92546 58506 6338L		
	volume	String		0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getAbstractBlurb	Public			@return the abstractBlurb
getArticleTitle	Public			
getAuthorsList	Public			
getDoi	Public			
getIssue	Public			
getPagination	Public			
getPublishYear	Public			
getPubmedId	Public			
getVolume	Public			
hashCode	Public			
setAbstractBlurb	Public	abstractBlurb		
setArticleTitle	Public	articleTitle		
setAuthorsList	Public	authors		
setDoi	Public	doi		
setIssue	Public	issue		
setPagination	Public	pagination		
setPublishYear	Public	publishYear		
setPubmedId	Public	pubmedId		
setVolume	Public	volume		

Relationships

Columns	Association	Notes
	Article. Journal.journal	

BaseAnnotation

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			66367 04943 30592 1427L	

Relationships

Columns	Association	Notes
	MoleculeBaseAnnotation. BaseAnnotation.	
	ReagentBaseAnnotation. BaseAnnotation.	
	TranslationalBaseAnnotation. BaseAnnotation.	

DOI

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	doi	String			0				
	serialVersionUID	long			0			64768 61257 27559 8642L	
	type	String			0				
	url	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getDoi	Public			
getType	Public			
getUrl	Public			
hashCode	Public			
setDoi	Public	doi		
setType	Public	type		
setUrl	Public	url		

Relationships

Columns	Association	Notes
	Gene. DOI.doi	
	Homologene. DOI.doi	
	MRNA. DOI.doi	
	Polypeptide.	

Columns	Association	Notes
	DOI.doi	
	NURSADataSet. DOI.doi	
	NURSAFilter. DOI.doi	
	Reagent. DOI.doi	
	Translational. DOI.doi	
	Molecule. DOI.doi	

DataResource

Database: Java, *Stereotype:* , *Package:* common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	organization	Organization			0				
	orgType	String			0				
	serialVersionUID	long			0			-80420 43972 59925 3948L	
	synonyms	List<Synonym>			0			new ArrayList<Synonym>()	

Constraints

Name	Type	Columns	Initial Code	Notes
compareTo	Public	dr2		
equals	Public	obj		
getId	Public			
getOrganization	Public			
getOrgType	Public			
getSynonyms	Public			
hashCode	Public			
setId	Public	id		
setOrganization	Public	organization		
setOrgType	Public	orgType		
setSynonyms	Public	synonyms		

Relationships

Columns	Association	Notes
	DataSource. Organization.organization	
0..*	DataSource. Synonym.synonyms	
	CrystalStructure. DataSource.pdbEntry	
0..*	GOTerm. DataSource.dataResources	
	MiRNA. DataSource.mirBaseAccession	
0..*	Polypeptide. DataSource.dataResources	
0..*	PolypeptideInteraction. DataSource.dataResources	
	PolypeptideModification. DataSource.dataResources	
0..*	Drug. DataSource.externalIdentifier	

Evidence

Database: Java, Stereotype: , Package: common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	evidenceCode	Evidence Code			0				
	id	Long			0				
	references	List<Reference>			0			new ArrayList<Reference>()	
	serialVersionUID	long			0			-38948 07174 67219 2676L	

Constraints

Name	Type	Columns	Initial Code	Notes
getEvidenceCode	Public			
getId	Public			
getReferences	Public			
setEvidenceCode	Public	evidenceCode		
setId	Public	id		
setReferences	Public	references		

Relationships

Columns	Association	Notes
	Evidence.	

Columns	Association	Notes
	EvidenceCode.evidenceCode	
0..*	Evidence. Reference.references	
	Expression. Evidence.evidence	
	MoleculeInteraction. Evidence.evidence	
	Carrier. Evidence.evidence	
	Enzyme. Evidence.evidence	
	Target. Evidence.evidence	
	Transporter. Evidence.evidence	

EvidenceCode

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	code	int			0				
	description	String			0				
	id	Long			0				
	serialVersionUID	long			0			43749 86610 25624 1384L	

Constraints

Name	Type	Columns	Initial Code	Notes
getCode	Public			
getDescription	Public			
getId	Public			
setCode	Public	code		
setDescription	Public	description		
setId	Public	id		

Relationships

Columns	Association	Notes
	Evidence. EvidenceCode.evidenceCode	

Journal

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	articleType	String			0				
	ISOAbbreviation	String			0				
	issn	String			0				
	serialVersionUID	long			0			-78384 58061 96202 5607L	
	title	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getArticleType	Public			
getISOAbbreviation	Public			
getIssn	Public			
getTitle	Public			
hashCode	Public			
setArticleType	Public	articleType		
setISOAbbreviation	Public	iSOAbbreviation		
setIssn	Public	issn		
setTitle	Public	title		

Relationships

Columns	Association	Notes
	Article. Journal.journal	

Manufacturer

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	contactInformation	String			0				
	id	long			0				
	organization	Organization			0				
	serialVersionUID	long			0			-62799 33097 43483 180L	

Constraints

Name	Type	Columns	Initial Code	Notes
getContactInformation	Public			
getId	Public			
getOrganization	Public			
setContactInformation	Public	contactInformation		

Name	Type	Columns	Initial Code	Notes
setId	Public	id		
setOrganization	Public	organization		

Relationships

Columns	Association	Notes
	Manufacturer. Organization.organization	
	Reagent. Manufacturer.manufacturer	
0..*	ReagentSearch. Manufacturer.manufacturers	

MoleculeAutoSuggest*Database:* Java, *Stereotype:* , *Package:* common*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	doi	String			0				
	id	Long			0				
	name	String			0				
	official	String			0				
	rank	Integer			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getDoi	Public			
getId	Public			
getName	Public			
getOfficial	Public			
getRank	Public			
setDoi	Public	doi		
setId	Public	id		
setName	Public	name		
setOfficial	Public	official		
setRank	Public	rank		
toString	Public			

Relationships

Columns	Association	Notes
	MoleculeSynonymListProducer. MoleculeAutoSuggest.selectedMolecule	
	NURSADataSetSearch. MoleculeAutoSuggest.addMolecule	
	NURSADataSetSearch.	

Columns	Association	Notes
	0..* MoleculeAutoSuggest.molecules NURSADataSetSearch. MoleculeAutoSuggest.removeMolecule	
	ReagentSearch. MoleculeAutoSuggest.addMolecule	
	ReagentSearch. 0..* MoleculeAutoSuggest.molecules	
	ReagentSearch. MoleculeAutoSuggest.removeMolecule	
	TranslationalResult. 0..* MoleculeAutoSuggest.molecules	
	TranslationalSearch. MoleculeAutoSuggest.addMolecule	
	TranslationalSearch. 0..* MoleculeAutoSuggest.molecules	
	TranslationalSearch. MoleculeAutoSuggest.removeMolecule	

MoleculeSynonym

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	molecule	Molecule			0				
	serialVersionUID	long			0			-31873 74386 14606 0683L	

Constraints

Name	Type	Columns	Initial Code	Notes
getMolecule	Public			
setMolecule	Public	molecule		

Relationships

Columns	Association	Notes
	MoleculeSearchBean. MoleculeSynonym.searchedMoleculeSynonym	
	MoleculeSynonym. Molecule.molecule	
	MoleculeSynonym. Synonym.	
	Complex. 0..* MoleculeSynonym.synonyms	
	Gene. MoleculeSynonym.official	
	Gene. 0..* MoleculeSynonym.synonyms	
	MRNA. 0..* MoleculeSynonym.synonyms	
	Polypeptide.	

Columns	Association	Notes
	0..* MoleculeSynonym.synonyms	
	Ligand. MoleculeSynonym.casNumber	
	Molecule. MoleculeSynonym.name	
	Molecule. MoleculeSynonym.nrnc	
	Molecule. MoleculeSynonym.nursaSymbol	
	Molecule. MoleculeSynonym.official	

Organization

Database: Java, Stereotype: , Package: common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	abbreviation	String			0				
	baseURL	String			0				
	description	String			0				
	id	Long			0				
	name	String			0				
	orgType	String			0				
	serialVersionUID	long			0			-22209 23888 07064 6825L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getAbbreviation	Public			
getBaseURL	Public			
getDescription	Public			
getId	Public			
getName	Public			
getOrgType	Public			
hashCode	Public			
setAbbreviation	Public	abbreviation		
setBaseURL	Public	baseURL		
setDescription	Public	description		
setId	Public	id		
setName	Public	name		
setOrgType	Public	orgType		

Relationships

Columns	Association	Notes
	DataSource. Organization.organization	
	Manufacturer. Organization.organization	
	ChemicalProperty. Organization.source	

ReagentAutoSuggest*Database:* Java, *Stereotype:* , *Package:* common*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	doi	String			0				
	id	Long			0				
	name	String			0				
	rank	Integer			0				
	source	String			0				
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getDoi	Public			
getId	Public			
getName	Public			
getRank	Public			
getSource	Public			@return the source
getType	Public			@return the type
setDoi	Public	doi		
setId	Public	id		
setName	Public	name		
setRank	Public	rank		
setSource	Public	source		
setType	Public	type		
toString	Public			

Relationships

Columns	Association	Notes
	ReagentSynonymListProducer. ReagentAutoSuggest.selectedReagent	

ReagentSynonym*Database:* Java, *Stereotype:* , *Package:* common*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:*

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	reagent	Reagent			0				
	serialVersionUID	long			0			84312 60316 13503 6729L	

Constraints

Name	Type	Columns	Initial Code	Notes
getReagent	Public			
setReagent	Public	reagent		

Relationships

Columns	Association	Notes
	ReagentSearchBean. ReagentSynonym.searchedReagentSynonym	
	ReagentSynonym. Reagent.reagent	
	ReagentSynonym. Synonym.	
	Reagent. ReagentSynonym.catalogNumber	
	Reagent. ReagentSynonym.name	

Reference

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	nursaCitation	String			0				
	pubmedId	String			0				
	serialVersionUID	long			0			-66095 21722 90710 9346L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getId	Public			@return the id
getNursaCitation	Public			
getPubmedId	Public			@return the pubmedId
hashCode	Public			
setId	Public	id		
setNursaCitation	Public	nursaCitation		

Name	Type	Columns	Initial Code	Notes
setPubmedId	Public	pubmedId		

Relationships

Columns	Association	Notes
	Evidence. 0..* Reference.references	
	GOTerm. Reference.reference	
	MiRNAInteraction. Reference.reference	
	PolypeptideInteraction. 0..* Reference.references	
	NURSADataSet. Reference.reference	
	Experiment. Reference.reference	
	Reagent. Reference.reference	
	ChemicalProperty. Reference.reference	
	ClinicalTrial. Reference.resultsReference	
	Translational. 0..* Reference.references	
	Molecule. 0..* Reference.definitiveLiterature	

Species

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	commonName	String			0				
	displayOrder	Integer			0				
	id	Long			0				
	scientificName	String			0				
	serialVersionUID	long			0			18213 32836 89794 1648L	
	taxonomyId	Long			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getCommonName	Public			
getDisplayOrder	Public			@return the displayOrder
getId	Public			
getScientificName	Public			

Name	Type	Columns	Initial Code	Notes
getTaxonomyId	Public			
hashCode	Public			
setCommonName	Public	commonName		
setDisplayOrder	Public	displayOrder		
setId	Public	id		
setScientificName	Public	scientificName		
setTaxonomyId	Public	taxonomyId		

Relationships

Columns	Association	Notes
	Gene. Species.species	
	MiRNA. Species.species	
	NURSADataset. Species.species	
0..*	Dataset. Species.species	
	Antibody. Species.hostSpecies	
	Reagent. Species.species	
0..*	NURSADatasetSearch. Species.species	
	ReagentResult. Species.species	
0..*	ReagentSearch. Species.species	

Synonym

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	autoSuggest	Boolean			0				
	display	Boolean			0				
	id	Long			0				
	name	String			0				
	rank	Integer			0				
	serialVersionUID	long			0			-69874 54454 86656 8089L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		

Name	Type	Columns	Initial Code	Notes
getAutoSuggest	Public			
getDisplay	Public			
getId	Public			
getName	Public			
getRank	Public			
hashCode	Public			
setAutoSuggest	Public	autoSuggest		
setDisplay	Public	display		
setId	Public	id		
setName	Public	name		
setRank	Public	rank		
Synonym	Public			
toString	Public			

Relationships

Columns	Association	Notes
	0..* DataResource. Synonym.synonyms	
	MoleculeSynonym. Synonym.	
	ReagentSynonym. Synonym.	
	TranslationalSynonym. Synonym.	

TranslationalAutoSuggest

Database: Java, *Stereotype:* , *Package:* common
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	doi	String			0				
	id	Long			0				
	name	String			0				
	official	String			0				
	rank	Integer			0				
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getDoi	Public			@return the doi
getId	Public			
getName	Public			
getOfficial	Public			@return the official
getRank	Public			
getType	Public			
setDoi	Public	doi		

Name	Type	Columns	Initial Code	Notes
setId	Public	id		
setName	Public	name		
setOfficial	Public	official		
setRank	Public	rank		
setType	Public	type		
toString	Public			

Relationships

Columns	Association	Notes
	TranslationalSynonymListProducer. TranslationalAutoSuggest.selectedTranslational	
	TranslationalListProucer. TranslationalAutoSuggest.selectedTranslational	
	MoleculeResult. 0..* TranslationalAutoSuggest.diseases	
	MoleculeSearch. TranslationalAutoSuggest.addDisease	
	MoleculeSearch. 0..* TranslationalAutoSuggest.diseases	
	MoleculeSearch. TranslationalAutoSuggest.removeDisease	
	TranslationalResult. 0..* TranslationalAutoSuggest.diseases	
	TranslationalResult. 0..* TranslationalAutoSuggest.drugs	
	TranslationalSearch. TranslationalAutoSuggest.addDisease	
	TranslationalSearch. TranslationalAutoSuggest.addDrug	
	TranslationalSearch. 0..* TranslationalAutoSuggest.diseases	
	TranslationalSearch. 0..* TranslationalAutoSuggest.drugs	
	TranslationalSearch. TranslationalAutoSuggest.removeDisease	
	TranslationalSearch. TranslationalAutoSuggest.removeDrug	

TranslationalSynonym

Database: Java, *Stereotype:* , *Package:* common

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			71724 51112 21514	

							0968L	
	synonymType	String		0				
	translational	Translational		0				

Constraints

Name	Type	Columns	Initial Code	Notes
getSynonymType	Public			
getTranslational	Public			
setSynonymType	Public	synonymType		
setTranslational	Public	translational		

Relationships

Columns	Association	Notes
	TranslationalSearchBean.	
	TranslationalSynonym.searchedTranslationalSynonym	
	TranslationalSynonym.	
	Translational.translational	
	TranslationalSynonym.	
	Synonym.	
	Agent.	
0..*	TranslationalSynonym.synonyms	
	Chemical.	
	TranslationalSynonym.casNumber	
	ClinicalTrial.	
	TranslationalSynonym.nctID	
	ClinicalTrial.	
	TranslationalSynonym.officialTitle	
	ClinicalTrial.	
0..*	TranslationalSynonym.studyId	
	Disease.	
	TranslationalSynonym.omimID	
	Disease.	
0..*	TranslationalSynonym.synonyms	
	Drug.	
0..*	TranslationalSynonym.ahfCodes	
	Drug.	
0..*	TranslationalSynonym.atcCodes	
	Drug.	
0..*	TranslationalSynonym.brands	
	Drug.	
	TranslationalSynonym.casNumber	
	Drug.	
	TranslationalSynonym.drugBankId	
	Drug.	
0..*	TranslationalSynonym.salts	
	Drug.	
0..*	TranslationalSynonym.secondaryAssesionNumbers	
	Translational.	
	TranslationalSynonym.name	

core

Type: **Package**
Package: model
Detail: *Created on 9/11/2014. Last modified on 9/11/2014.*
Notes:

core

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

Figure: 35

Complex

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	crystalStructure	CrystalStructure			0				
	id	Long			0				
	name	String			0				
	polypeptides	List<Polypeptide>			0			new ArrayList<Polypeptide>()	
	serialVersionUID	long			0			-70073 56402 64196 283L	
	synonyms	List<MoleculeSynonym>			0			new ArrayList<MoleculeSynonym>()	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
getPolypeptides	Public			
setId	Public	id		
setName	Public	name		
setPolypeptides	Public	polypeptides		

Relationships

Columns	Association	Notes
	Complex. CrystalStructure.crystalStructure	
	Complex. 0..* Polypeptide.polypeptides	
	Complex. 0..* MoleculeSynonym.synonyms	
	Polypeptide. 0..* Complex.complexes	
	ComplexAnnotation. 0..* Complex.complexes	

ComplexInteractionType

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			28904 36785 10993 6509L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	PolypeptideInteraction. ComplexInteractionType.complexType	

CrystalStructure

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	pdbEntry	DataResource			0				
	polypeptides	List<Poly peptide>			0				
	serialVersionUID	long			0			-35231 22479 01968 4136L	
	techniques	List<CrystalStructureTechnique>			0			new ArrayList<CrystalStructureTechnique>()	
	title	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getId	Public			
getPdbEntry	Public			
getPolypeptides	Public			
getTechniques	Public			
getTitle	Public			
hashCode	Public			
setId	Public	id		
setPdbEntry	Public	pdbEntry		
setPolypeptide	Public	polypeptides		
setTechniques	Public	techniques		
setTitle	Public	title		

Relationships

Columns	Association	Notes
	Complex. CrystalStructure.crystalStructure	
	CrystalStructure. DataResource.pdbEntry	
	CrystalStructure. 0..* Polypeptide.polypeptides	
	CrystalStructure. 0..* CrystalStructureTechnique.techniques	
	Polypeptide. 0..* CrystalStructure.crystalStructure	
	CrystalStructureAnnotation. 0..* CrystalStructure.crystalStructures	

CrystalStructureTechnique

Database: Java, *Stereotype:* , *Package:* core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	resolution	String			0				
	serialVersionUID	long			0			-27407 74954 10521 4432L	
	technique	CrystalStructureTechniqueType			0				

Constraints

Name	Type	Columns	Initial Code	Notes
------	------	---------	--------------	-------

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getId	Public			
getResolution	Public			
getTechnique	Public			
hashCode	Public			
setId	Public	id		
setResolution	Public	resolution		
setTechnique	Public	technique		

Relationships

Columns	Association	Notes
	CrystalStructure. 0..* CrystalStructureTechnique.techniques	
	CrystalStructureTechnique. CrystalStructureTechniqueType.technique	

CrystalStructureTechniqueType

Database: Java, *Stereotype:* , *Package:* core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	serialVersionUID	long			0			59895 46124 96031 2704L	
	techniqueTypeName	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getId	Public			
getTechniqueTypeName	Public			
hashCode	Public			
setId	Public	id		
setTechniqueTypeName	Public	techniqueTypeName		

Relationships

Columns	Association	Notes
	CrystalStructureTechnique. CrystalStructureTechniqueType.technique	

Expression

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	evidence	Evidence			0				
	id	Long			0				
	polypeptide	Polypeptide			0				
	serialVersionUID	long			0			-58489 67824 90913 0892L	
	tissue	Tissue			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getEvidence	Public			
getId	Public			
getPolypeptide	Public			
getTissue	Public			
setEvidence	Public	evidence		
setId	Public	id		
setPolypeptide	Public	polypeptide		
setTissue	Public	tissue		

Relationships

Columns	Association	Notes
	Expression. Evidence.evidence	
	Expression. Polypeptide.polypeptide	
	Expression. Tissue.tissue	
	Polypeptide. 0..* Expression.expression	

GOTerm

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	dataResources	List<DataResource>			0			new ArrayList<DataResource>()	
	genes	List<Gene>			0			new	

		e>						ArrayList<Gene>()	
	goTermID	String		0					
	id	Long		0					
	reference	Reference		0					
	serialVersionUID	long		0			-65238 61523 88487 9634L		
	termName	String		0					

Constraints

Name	Type	Columns	Initial Code	Notes
getDataResources	Public			
getGenes	Public			
getGoTermID	Public			
getId	Public			
getReference	Public			
getTermName	Public			
setDataResources	Public	dataResources		
setGenes	Public	genes		
setGoTermID	Public	goTermID		
setId	Public	id		
setReference	Public	reference		
setTermName	Public	termName		

Relationships

Columns	Association	Notes
	Gene. 0..* GOTerm.goTerms	
	GOTerm. 0..* DataResource.dataResources	
	GOTerm. 0..* Gene.genes	
	GOTerm. Reference.reference	
	GOTermAnnotation. 0..* GOTerm.goTerms	
	Dataset. 0..* GOTerm.goTerm	
	MoleculeResult. 0..* GOTerm.goterms	
	MoleculeSearch. GOTerm.addGOTerm	
	MoleculeSearch. 0..* GOTerm.goTerms	
	MoleculeSearch. GOTerm.removeGOTerm	

Gene

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	chromosome	String			0				
	dataResources	SortedSet<DataResource>			0			new TreeSet<DataResource>()	
	description	String			0				
	doi	DOI			0				
	encodes	List<MRNA>			0			new ArrayList<MRNA>()	
	entrezGeneId	String			0				
	goTerms	List<GOTerm>			0			new ArrayList<GOTerm>()	
	id	Long			0				
	mapLocation	String			0				
	official	MoleculeSynonym			0				
	serialVersionUID	long			0			-58038 72719 32854 5056L	
	species	Species			0				
	strand	String			0				
	synonyms	List<MoleculeSynonym>			0			new ArrayList<MoleculeSynonym>()	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
Gene	Public			
getChromosome	Public			
getDataResources	Public			
getDataResourcesAsList	Public			
getDescription	Public			
getDoi	Public			@return the doi
getEncodes	Public			

Name	Type	Columns	Initial Code	Notes
getEntrezGeneId	Public			
getGoTerms	Public			
getId	Public			
getMapLocation	Public			
getOfficial	Public			
getSpecies	Public			
getStrand	Public			
getSynonyms	Public			
hashCode	Public			
setChromosome	Public	chromosome		
setDataResources	Public	dataResources		
setDescription	Public	description		
setDoi	Public	doi		
setEncodes	Public	encodes		
setEntrezGeneId	Public	entrezGeneId		
setGoTerms	Public	goTerms		
setId	Public	id		
setMapLocation	Public	mapLocation		
setOfficial	Public	official		
setSpecies	Public	species		
setStrand	Public	strand		
setSynonyms	Public	synonyms		

Relationships

Columns	Association	Notes
	Gene. DOI.doi	
	Gene. 0..* mRNA.encodes	
	Gene. 0..* GOTerm.goTerms	
	Gene. MoleculeSynonym.official	
	Gene. Species.species	
	Gene. 0..* MoleculeSynonym.synonyms	
	GeneModification. Gene.gene	
	GOTerm. 0..* Gene.genes	
	MRNA.	

Columns	Association	Notes
	Gene.encodingGene	
	PolypeptideModification. Gene.gene	
	GeneAnnotation. 0..* Gene.genes	
	GeneExpression. Gene.gene	
	QPCRExpression. Gene.gene	
	PlasmidInsert. 0..* Gene.gene	

GeneModification

Database: Java, *Stereotype*: , *Package*: core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	gene	Gene			0				
	id	Long			0				
	modificationType	GeneModificationType			0				
	polypeptide	Polypeptide			0				
	residue	String			0				
	sequence	String			0				
	serialVersionUID	long			0			60994 40744 92759 3057L	

Constraints

Name	Type	Columns	Initial Code	Notes
getGene	Public			
getId	Public			
getModificationType	Public			
getResidue	Public			
getSequence	Public			
setGene	Public	gene		
setId	Public	id		
setModificationType	Public	modificationType		
setResidue	Public	residue		
setSequence	Public	sequence		

Relationships

Columns	Association	Notes
	GeneModification.	

Columns	Association	Notes
	Gene.gene	
	GeneModification.	
	GeneModificationType.modificationType	
	GeneModification.	
	Polypeptide.polypeptide	

GeneModificationType

Database: Java, *Stereotype*: , *Package*: core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	serialVersionUID	long			0			28904 36785 10993 6509L	
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getType	Public			
setId	Public	id		
setType	Public	type		

Relationships

Columns	Association	Notes
	GeneModification. GeneModificationType.modificationType	

Homologene

Database: Java, *Stereotype*: , *Package*: core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: This class is represents homologene. Homologene is a way of grouping like genes together using common terminology.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	doi	DOI			0				
	genes	Map<Species, Gene>			0			new HashMap<Species, Gene> ()	
	homologeneId	Long			0				
	id	Long			0				
	serialVersionUID	long			0			48843 93743	

								73605 7672L	
--	--	--	--	--	--	--	--	----------------	--

Constraints

Name	Type	Columns	Initial Code	Notes
addGene	Public	species gene		
getDoi	Public			@return the doi
getGenes	Public			Returns a map of all the species and genes that are associated with this homologene @return A Map of all species and genes that are associated with this homologene
getHomologeneId	Public			
getId	Public			Returns the ID of homologene @return The id
Homologene	Public			
removeGene	Public	species		
setDoi	Public	doi		
setGenes	Public	genes		Sets a map of all species and genes that are associated with this homologe.
setHomologeneId	Public	homologeneId		
setId	Public	id		Sets the ID of the hologene

Relationships

Columns	Association	Notes
	Homologene. DOI.doi	
	Protein. Homologene.homologene	

MRNA

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	dataResources	SortedSet<DataResource>			0			new TreeSet<Data Resource>	

							ce>()	
	description	String		0				
	doi	DOI		0				
	encodingGene	Gene		0				
	encodingGenomicAccessionVersion	String		0				
	endPos	Long		0				
	id	Long		0				
	length	Long		0				
	miRNAInteraction	List<MiRNAInteraction>		0			new ArrayList<MiRNAInteraction>()	
	polypeptide	Polypeptide		0				
	rnaAccessionVersion	String		0				
	serialVersionUID	long		0			-92255 49192 94935 77L	
	startPos	Long		0				
	status	String		0				
	synonyms	List<MoleculeSynonym>		0			new ArrayList<MoleculeSynonym>()	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getDataResources	Public			
getDataResourcesAsList	Public			
getDescription	Public			
getDoi	Public			@return the doi
getEncodingGene	Public			
getEncodingGenomicAccessionVersion	Public			
getEndPos	Public			
getId	Public			
getLength	Public			
getMiRNAInteraction	Public			
getPolypeptide	Public			
getRnaAccessionVersion	Public			
getStartPos	Public			
getStatus	Public			
getSynonyms	Public			
hashCode	Public			
setDataResources	Public	dataResources		
setDescription	Public	description		

Name	Type	Columns	Initial Code	Notes
setDoi	Public	doi		
setEncodingGene	Public	encodingGene		
setEncodingGenomicAccessionVersion	Public	encodingGenomicAccessionVersion		
setEndPos	Public	endPos		
setId	Public	id		
setLength	Public	length		
setMiRNAInteraction	Public	miRNAInteraction		
setPolypeptide	Public	polypeptide		
setRnaAccessionVersion	Public	rnaAccessionVersion		
setStartPos	Public	startPos		
setStatus	Public	status		
setSynonyms	Public	synonyms		

Relationships

Columns	Association	Notes
	Gene. 0..* mRNA.encodes	
	MiRNAInteraction. 0..* MRNA.mrna	
	MRNA. DOI.doi	
	MRNA. Gene.encodingGene	
	MRNA. 0..* MiRNAInteraction.miRNAInteraction	
	MRNA. Polypeptide.polypeptide	
	MRNA. 0..* MoleculeSynonym.synonyms	
	Polypeptide. 0..* MRNA.encodingMRNA	
	MRNAAnnotation. 0..* MRNA.mrna	
	Primer. 0..* MRNA.mrna	

MiRNA

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.

*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	family	MiRNAFamily			0				
	id	Long			0				
	interactions	List<MiRNAInteraction>			0				
	matureSequence	String			0				
	mirBaseAccession	DataResource			0				
	mirBaseId	String			0				
	serialVersionUID	long			0			-61001 63115 14094 8637L	
	species	Species			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getFamily	Public			
getId	Public			
getInteractions	Public			
getMatureSequence	Public			
getMirBaseAccession	Public			
getMirBaseId	Public			
getSpecies	Public			
setFamily	Public	family		
setId	Public	id		
setInteractions	Public	interactions		
setMatureSequence	Public	matureSequence		
setMirBaseAccession	Public	mirBaseAccession		
setMirBaseId	Public	mirBaseId		
setSpecies	Public	species		

Relationships

Columns	Association	Notes
	MiRNA. MiRNAFamily.family	
	MiRNA. 0..* MiRNAInteraction.interactions	
	MiRNA. DataResource.mirBaseAccession	
	MiRNA. Species.species	
	MiRNAFamily. 0..* MiRNA.members	

Columns	Association	Notes
	MiRNAInteraction. MiRNA.miRNA	
0..*	MIRNAAnnotation. MiRNA.mirna	

MiRNAFamily

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	members	List<MiRNA>			0			new ArrayList<MiRNA>()	
	name	String			0				
	seed	String			0				
	serialVersionUID	long			0			48747 60841 70102 5121L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getMembers	Public			
getName	Public			
getSeed	Public			
setId	Public	id		
setMembers	Public	members		
setName	Public	name		
setSeed	Public	seed		

Relationships

Columns	Association	Notes
	MiRNA. MiRNFamily.family	
0..*	MiRNFamily. MiRNA.members	

MiRNAInteraction

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
-----------	-------------	-------------	-----------------	---------------	------------	-------------	--------------	-------------	--------------

	id	Long			0				
	miRNA	MiRNA			0				
	mrna	List<MRNA>			0				
	reference	Reference			0				
	serialVersionUID	long			0			81012 95662 68194 0987L	
	targetPosition	Long			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getMiRNA	Public			
getMrna	Public			
getReference	Public			
getTargetPosition	Public			
setId	Public	id		
setMiRNA	Public	miRNA		
setMrna	Public	mrna		
setReference	Public	reference		
setTargetPosition	Public	targetPosition		

Relationships

Columns	Association	Notes
	MiRNA. 0..* MirNAInteraction.interactions	
	MirNAInteraction. MirNA.miRNA	
	0..* MiRNAInteraction. MRNA.mrna	
	MirNAInteraction. Reference.reference	
	0..* MRNA. MirNAInteraction.miRNAInteraction	

MoleculeInteraction

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	evidence	Evidence			0				
	id	Long			0				
	interactions	List<Molecule>			0			new ArrayList<Mo	

								lecle>()	
	serialVersionUID	long			0			-79142 91521 39567 1184L	
	source	Molecule			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getEvidence	Public			
getId	Public			
getInteractions	Public			
getSource	Public			
setEvidence	Public	evidence		
setId	Public	id		
setInteractions	Public	interactions		
setSource	Public	source		

Relationships

Columns	Association	Notes
	MoleculeInteraction. Evidence.evidence	
0..*	MoleculeInteraction. Molecule.interactions	
	MoleculeInteraction. Molecule.source	

PolypeptideDatabase: Java, *Stereotype:* , *Package:* core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	complexes	List<Complex>			0			new ArrayList<Complex>()	
	crystalStructure	List<CrystalStructure>			0			new ArrayList<CrystalStructure>()	
	dataResources	List<DataResource>			0			new ArrayList<DataResource>()	

	doi	DOI		0				
	encodingMRNA	List<MRNA>		0			new ArrayList<MRNA>()	
	expression	List<Expression>		0			new ArrayList<Expression>()	
	id	Long		0				
	interactions	List<Poly peptideInteraction >		0			new ArrayList<Poly peptideInteraction>()	
	modifications	List<Poly peptideModification>		0			new ArrayList<Poly peptideModification>()	
	refseqId	String		0				
	sequenceSize	Integer		0				
	serialVersionUID	long		0			-61001 63115 14094 8637L	
	synonyms	List<MoleculeSynonym>		0			new ArrayList<MoleculeSynonym>()	
	uniProtKB_AC	String		0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getComplexes	Public			
getCrystalStructure	Public			
getDataResources	Public			
getDoi	Public			@return the doi
getEncodingMRNA	Public			
getExpression	Public			
getId	Public			
getInteractions	Public			
getModifications	Public			
getRefseqId	Public			
getSequenceSize	Public			
getSynonyms	Public			

Name	Type	Columns	Initial Code	Notes
getUniProtKB_AC	Public			
hashCode	Public			
setComplexes	Public	complexes		
setCrystalStructure	Public	crystalStructure		
setDataResources	Public	dataResources		
setDoi	Public	doi		
setEncodingMRNA	Public	encodingMRNA		
setExpression	Public	expression		
setId	Public	id		
setInteractions	Public	interactions		
setModifications	Public	modifications		
setRefseqId	Public	refseqId		
setSequenceSize	Public	sequenceSize		
setSynonyms	Public	synonyms		
setUniProtKB_AC	Public	uniProtKB_AC		

Relationships

Columns	Association	Notes
	Complex. 0..* Polypeptide.polypeptides	
	CrystalStructure. 0..* Polypeptide.polypeptides	
	Expression. Polypeptide.polypeptide	
	GeneModification. Polypeptide.polypeptide	
	MRNA. Polypeptide.polypeptide	
	Polypeptide. 0..* Complex.complexes	
	Polypeptide. 0..* CrystalStructure.crystalStructure	
	Polypeptide. 0..* DataResource.dataResources	
	Polypeptide. DOI.doi	
	Polypeptide. 0..* MRNA.encodingMRNA	
	Polypeptide. 0..* Expression.expression	
	Polypeptide. 0..* PolypeptideInteraction.interactions	

Columns	Association	Notes
	Polypeptide. 0..* PolypeptideModification.modifications	
	Polypeptide. 0..* MoleculeSynonym.synonyms	
	PolypeptideInteraction. 0..* Polypeptide.polypeptides	
	PolypeptideModification. Polypeptide.polypeptide	
	PolypeptideAnnotation. 0..* Polypeptide.polypeptides	
	Antibody. Polypeptide.antigen	
	Carrier. 0..* Polypeptide.polypeptide	
	Enzyme. 0..* Polypeptide.polypeptide	
	Target. 0..* Polypeptide.polypeptide	
	Transporter. 0..* Polypeptide.polypeptide	

PolypeptideInteraction

Database: Java, *Stereotype:* , *Package:* core

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	complexId	String			0				
	complexType	Complex InteractionType			0				
	dataResources	List<DataResource>			0			new ArrayList<DataResource>()	
	description	String			0				
	id	Long			0				
	interactionId	String			0				
	name	String			0				
	polyinteractionType	PolyptideInteractionType			0				
	polypeptides	List<Polypeptide>			0			new ArrayList<Polypeptide>()	
	references	List<Reference>			0			new ArrayList<Reference>()	

	serialVersionUID	long			0			21048 32031 21119 3455L	
--	------------------	------	--	--	---	--	--	----------------------------------	--

Constraints

Name	Type	Columns	Initial Code	Notes
getComplexId	Public			
getComplexType	Public			
getDataResources	Public			
getDescription	Public			
getId	Public			
getInteractionId	Public			
getName	Public			
getPolyinteractionType	Public			
getPolypeptides	Public			
getReferences	Public			
setComplexId	Public	complexId		
setComplexType	Public	complexType		
setDataResources	Public	dataResources		
setDescription	Public	description		
setId	Public	id		
setInteractionId	Public	interactionId		
setName	Public	name		
setPolyinteractionType	Public	polyinteractionType		
setPolypeptides	Public	polypeptides		
setReferences	Public	references		

Relationships

Columns	Association	Notes
	Polypeptide. 0..* PolypeptideInteraction.interactions	
	PolypeptideInteraction. ComplexInteractionType.complexType	
	PolypeptideInteraction. 0..* DataResource.dataResources	
	PolypeptideInteraction. PolypeptideInteractionType.polyinteractionType	
	PolypeptideInteraction. 0..* Polypeptide.polypeptides	
	PolypeptideInteraction. 0..* Reference.references	
	ProteinInteractionAnnotation. 0..* PolypeptideInteraction.polypeptideInteractions	

[PolypeptideInteractionType](#)

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			28904 36785 10993 6509L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	PolypeptideInteraction. PolypeptideInteractionType.polyinteractionType	

PolypeptideModification

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	aminoAcid	String			0				
	dataResources	List<DataResource>			0			new ArrayList<DataResource>()	
	gene	Gene			0				
	id	Long			0				
	modificationType	PolypeptideModificationType			0				
	polypeptide	Polypeptide			0				
	position	Integer			0				
	residue	String			0				
	sequence	String			0				
	serialVersionUID	long			0			60994 40744 92759 3057L	

Constraints

Name	Type	Columns	Initial Code	Notes
getAminoAcid	Public			
getDataResources	Public			
getGene	Public			
getId	Public			
getModificationType	Public			
getPolypeptide	Public			
getPosition	Public			
getResidue	Public			
getSequence	Public			
setAminoAcid	Public	aminoAcid		
setDataResources	Public	dataResources		
setGene	Public	gene		
setId	Public	id		
setModificationType	Public	modificationType		
setPolypeptide	Public	polypeptide		
setPosition	Public	position		
setResidue	Public	residue		
setSequence	Public	sequence		

Relationships

Columns	Association	Notes
	Polypeptide. 0..* PolypeptideModification.modifications	
	PolypeptideModification. 0..* DataResource.dataResources	
	PolypeptideModification. Gene.gene	
	PolypeptideModification. PolypeptideModificationType.modificationType	
	PolypeptideModification. Polypeptide.polypeptide	
	PolypeptideModificationAnnotation. 0..* PolypeptideModification.polypeptideModifications	
	PTMAnnotation. 0..* PolypeptideModification.polypeptideModifications	

PolypeptideModificationType

Database: Java, *Stereotype:* , *Package:* core
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
----	------	------	----------	--------	-----	------	-------	------	-------

	id	Long			0				
	serialVersionUID	long			0			28904 36785 10993 6509L	
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getType	Public			
setId	Public	id		
setType	Public	type		

Relationships

Columns	Association	Notes
	PolypeptideModification. PolypeptideModificationType.modificationType	

dataset

Type: **Package**
Package: model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

dataset

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0



Figure: 36

NURSA Dataset

Database: Java, *Stereotype:* , *Package:* dataset
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cellLine	List<String>			0			new ArrayList<String>()	
	dataSource	String			0				
	description	String			0				
	doi	DOI			0				
	fileID	String			0				
	fileName	String			0				
	id	Long			0				
	molecules	List<Molecule>			0			new ArrayList<Molecule>()	
	name	String			0				
	reagents	List<Reagent>			0			new ArrayList<Reagent>()	
	reference	Reference			0				
	serialVersionUID	long			0			43475 61349 03819 7693L	
	species	Species			0				
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getCellLine	Public			@return the cellLine
getDataSource	Public			@return the dataSource
getDescription	Public			@return the description
getDoi	Public			@return the doi
getFileID	Public			@return the fileID
getFileName	Public			@return the fileName
getId	Public			@return the id
getMolecules	Public			@return the molecules
getName	Public			@return the name
getReagents	Public			@return the reagents

Name	Type	Columns	Initial Code	Notes
getReference	Public			@return the reference
getSpecies	Public			@return the species
getType	Public			@return the type
setCellLine	Public	cellLine		
setDataSource	Public	dataSource		
setDescription	Public	description		
setDoi	Public	doi		
setFileID	Public	fileID		
setFileName	Public	fileName		
setId	Public	id		
setMolecules	Public	molecules		
setName	Public	name		
setReagents	Public	reagents		
setReference	Public	reference		
setSpecies	Public	species		
setType	Public	type		

Relationships

Columns	Association	Notes
	NURSADatasetBean. NURSADataset.selectedDataset	
	NURSADatasetSynonymListProducer. NURSADataset.selectedDataset	
	NURSADataset. DOI.doi	
0..*	NURSADataset. Molecule.molecules	
0..*	NURSADataset. Reagent.reagents	
	NURSADataset. Reference.reference	
	NURSADataset. Species.species	
0..*	DatasetReagentAnnotation. NURSADataset.datasets	

filter

Type:

Package:

Detail:

Package

model

Created on 9/11/2014. Last modified on 9/11/2014.

*Notes:***filter**

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

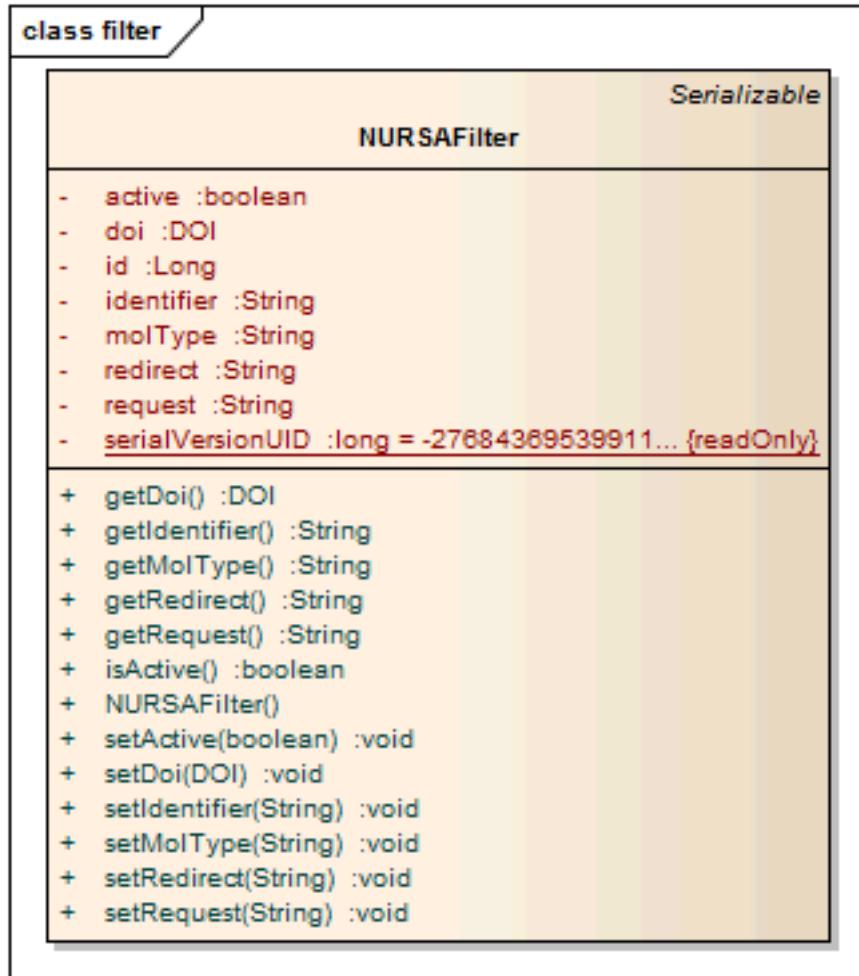


Figure: 37

NURSAFilter

Database: Java, *Stereotype:* , *Package:* filter
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	active	boolean			0				
	doi	DOI			0				
	id	Long			0				
	identifier	String			0				
	molType	String			0				
	redirect	String			0				
	request	String			0				

	serialVersionUID	long			0			-27684 36953 99111 2809L	
--	------------------	------	--	--	---	--	--	-----------------------------------	--

Constraints

Name	Type	Columns	Initial Code	Notes
getDoi	Public			@return the doi
getIdentifier	Public			@return the identifier
getMolType	Public			@return the molType
getRedirect	Public			@return the redirect
getRequest	Public			@return the request
isActive	Public			@return the active
NURSAFilter	Public			
setActive	Public	active		
setDoi	Public	doi		
setIdentifier	Public	identifier		
setMolType	Public	molType		
setRedirect	Public	redirect		
setRequest	Public	request		

Relationships

Columns	Association	Notes
	NURSAFilter. DOI.doi	

moleculeAnnotations

Type: **Package**
Package: model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

moleculeAnnotations

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

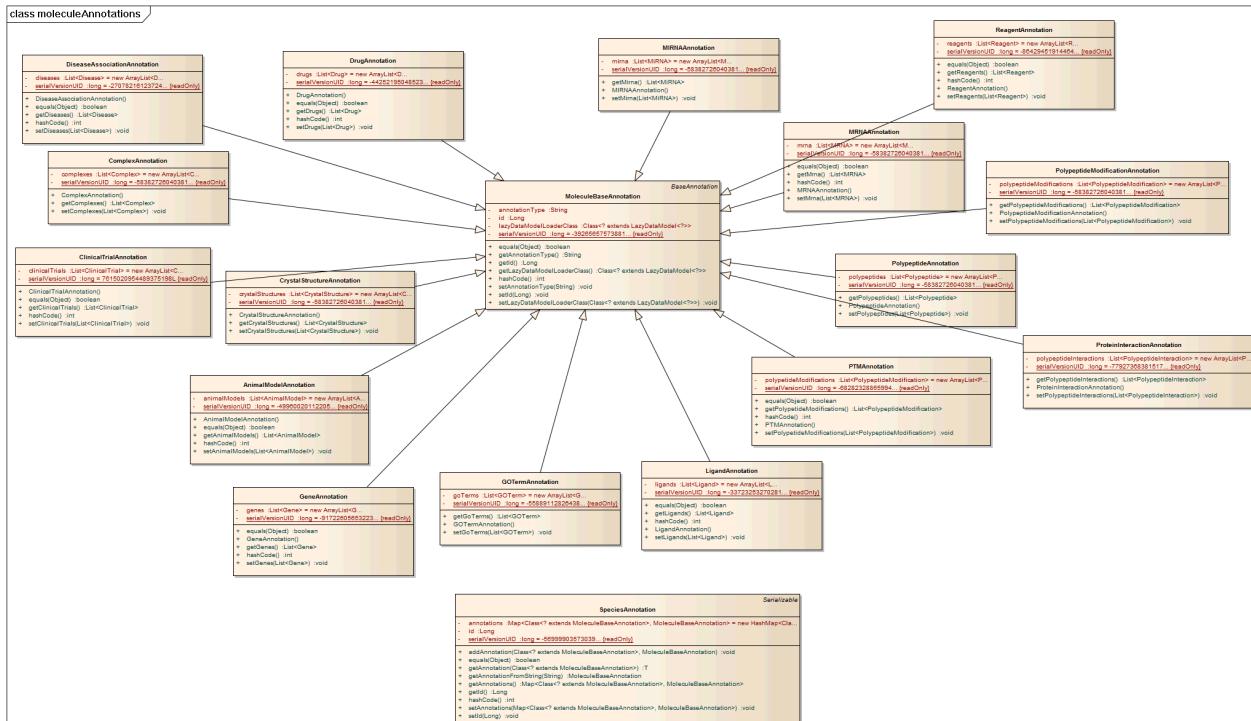


Figure: 38

AnimalModelAnnotation

Database: Java, **Stereotype:** , **Package:** moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	animalModels	List<AnimalModel>			0			new ArrayList<AnimalModel>()	
	serialVersionUID	long			0			-4996002011220573389L	

Constraints

Name	Type	Columns	Initial Code	Notes
AnimalModelAnnotation	Public			
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getAnimalModels	Public			@return the animalModels
hashCode	Public			(non-Javadoc) @see

Name	Type	Columns	Initial Code	Notes
				java.lang.Object#hashCode()
setAnimalModels	Public	animalModels		

Relationships

Columns	Association	Notes
	AnimalModelAnnotation. 0..* AnimalModel.animalModels	
	AnimalModelAnnotation. MoleculeBaseAnnotation.	

ClinicalTrialAnnotation*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	clinicalTrials	List<ClinicalTrial>			0			new ArrayList<ClinicalTrial>()	
	serialVersionUID	long			0			76150 20954 48937 5198L	

Constraints

Name	Type	Columns	Initial Code	Notes
ClinicalTrialAnnotation	Public			
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getClinicalTrials	Public			@return the clinicalTrials
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setClinicalTrials	Public	clinicalTrials		

Relationships

Columns	Association	Notes
	ClinicalTrialAnnotation. 0..* ClinicalTrial.clinicalTrials	
	ClinicalTrialAnnotation. MoleculeBaseAnnotation.	

ComplexAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	complexes	List<Complex>			0			new ArrayList<Complex>()	
	serialVersionUID	long			0			-58382 72604 03815 4615L	

Constraints

Name	Type	Columns	Initial Code	Notes
ComplexAnnotation	Public			
getComplexes	Public			
setComplexes	Public	complexes		

Relationships

Columns	Association	Notes
	ComplexAnnotation. 0..* Complex.complexes	
	ComplexAnnotation. MoleculeBaseAnnotation.	

CrystalStructureAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	crystalStructures	List<CrystalStructure>			0			new ArrayList<CrystalStructure>()	
	serialVersionUID	long			0			-58382 72604 03815 4615L	

Constraints

Name	Type	Columns	Initial Code	Notes
CrystalStructureAnnotation	Public			
getCrystalStructures	Public			
setCrystalStructures	Public	crystalStructures		

Relationships

Columns	Association	Notes
	CrystalStructureAnnotation. 0..* CrystalStructure.crystalStructures	
	CrystalStructureAnnotation. MoleculeBaseAnnotation.	

DiseaseAssociationAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

Columns									
PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	diseases	List<Dis ease>			0			new ArrayL ist<Dis ease>()	
	serialVersionUID	long			0			-27078 21612 37242 4600L	

Constraints

Name	Type	Columns	Initial Code	Notes
DiseaseAssociationAnnotation	Public			
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getDiseases	Public			@return the diseases
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setDiseases	Public	diseases		

Relationships

Relationships	Columns	Association	Notes
		DiseaseAssociationAnnotation. 0..* Disease.diseases	
		DiseaseAssociationAnnotation. MoleculeBaseAnnotation	

DrugAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Bennett
Notes.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
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	drugs	List<Drug>			0			new ArrayList<Drug>()	
	serialVersionUID	long			0			-44252 19504 85231 6469L	

Constraints

Name	Type	Columns	Initial Code	Notes
DrugAnnotation	Public			
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getDrugs	Public			@return the drugs
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setDrugs	Public	drugs		

Relationships

Columns	Association	Notes
	DrugAnnotation. 0..* Drug.drugs	
	DrugAnnotation. MoleculeBaseAnnotation.	

GOTermAnnotation

Database: Java, Stereotype: , Package: moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	goTerms	List<GO Term>			0			new ArrayList<GO Term>()	
	serialVersionUID	long			0			-55889 11282 64380 2012L	

Constraints

Name	Type	Columns	Initial Code	Notes
getGoTerms	Public			
GOTermAnnotation	Public			
setGoTerms	Public	goTerms		

Relationships

Columns	Association	Notes
	GOTermAnnotation. 0..* GOTerm.goTerms	
	GOTermAnnotation. MoleculeBaseAnnotation.	

GeneAnnotation*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	genes	List<Gene>			0			new ArrayList<Gene>()	
	serialVersionUID	long			0			-91722 60565 32238 5939L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
GeneAnnotation	Public			
getGenes	Public			
hashCode	Public			
setGenes	Public	genes		

Relationships

Columns	Association	Notes
	GeneAnnotation. 0..* Gene.genes	
	GeneAnnotation. MoleculeBaseAnnotation.	

LigandAnnotation*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	ligands	List<Ligand>			0			new ArrayList<Ligand>()	
	serialVersionUID	long			0			-33723 25327 02811	

							3138L	
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Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getLigands	Public			@return the ligands
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
LigandAnnotation	Public			
setLigands	Public	ligands		

Relationships

Columns	Association	Notes
	LigandAnnotation. 0..* Ligand.ligands	
	LigandAnnotation. MoleculeBaseAnnotation.	

MIRNAAnnotation

Database: Java, Stereotype: , Package: moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	mirna	List<MiRNA>			0			new ArrayList<MiRNA>()	
	serialVersionUID	long			0			-58382 72604 03815 4615L	

Constraints

Name	Type	Columns	Initial Code	Notes
getMirna	Public			
MIRNAAnnotation	Public			
setMirna	Public	mirna		

Relationships

Columns	Association	Notes
	MIRNAAnnotation. 0..* MiRNA.mirna	
	MIRNAAnnotation. MoleculeBaseAnnotation.	

MRNAAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	mrna	List<MRNA>			0			new ArrayList<MRNA>()	
	serialVersionUID	long			0			-58382 72604 03815 4615L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getMrna	Public			
hashCode	Public			
MRNAAnnotation	Public			
setMrna	Public	mrna		

Relationships

Columns	Association	Notes
	MRNAAnnotation. 0..* MRNA.mrna	
	MRNAAnnotation. MoleculeBaseAnnotation.	

MoleculeBaseAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotationType	String			0				
	id	Long			0				
	lazyDataModelLoaderClass	Class<? extends LazyDataModel<?>>			0				
	serialVersionUID	long			0			-39265 65757 38817 0400L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getAnnotationType	Public			
getId	Public			
getLazyDataManagerLoaderClass	Public			
hashCode	Public			
setAnnotationType	Public	type		
setId	Public	id		
setLazyDataManagerLoaderClass	Public	lazyDataManagerLoaderClass		

Relationships

Columns	Association	Notes
	AnimalModelAnnotation. MoleculeBaseAnnotation.	
	ClinicalTrialAnnotation. MoleculeBaseAnnotation.	
	ComplexAnnotation. MoleculeBaseAnnotation.	
	CrystalStructureAnnotation. MoleculeBaseAnnotation.	
	DiseaseAssociationAnnotation. MoleculeBaseAnnotation.	
	DrugAnnotation. MoleculeBaseAnnotation.	
	GeneAnnotation. MoleculeBaseAnnotation.	
	GOTermAnnotation. MoleculeBaseAnnotation.	
	LigandAnnotation. MoleculeBaseAnnotation.	
	MIRNAAnnotation. MoleculeBaseAnnotation.	
	MoleculeBaseAnnotation. BaseAnnotation.	
	mRNAAnnotation. MoleculeBaseAnnotation.	
	PolypeptideAnnotation. MoleculeBaseAnnotation.	
	PolypeptideModificationAnnotation. MoleculeBaseAnnotation.	
	ProteinInteractionAnnotation. MoleculeBaseAnnotation.	
	PTMAnnotation. MoleculeBaseAnnotation.	
	ReagentAnnotation. MoleculeBaseAnnotation.	

PTMAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	polypeptideModifications	List<Poly peptideModification>			0			new ArrayList<PolyptideModification>()	
	serialVersionUID	long			0			-68282 32886 59941 6158L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getPolypeptideModifications	Public			
hashCode	Public			
PTMAnnotation	Public			
setPolypeptideModifications	Public	polypeptideModifications		

Relationships

Columns	Association	Notes
	PTMAnnotation. 0..* PolyptideModification.polypeptideModifications	
	PTMAnnotation. MoleculeBaseAnnotation.	

PolypeptideAnnotation

Database: Java, *Stereotype:* , *Package:* moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	polypeptides	List<Poly peptide>			0			new ArrayList<Poly peptide>()	
	serialVersionUID	long			0			-58382 72604 03815 4615L	

Constraints

Name	Type	Columns	Initial Code	Notes
getPolypeptides	Public			

Name	Type	Columns	Initial Code	Notes
PolypeptideAnnotation	Public			
setPolypeptides	Public	polypeptides		

Relationships

Columns	Association	Notes
	PolypeptideAnnotation. 0..* Polypeptide.polypeptides	
	PolypeptideAnnotation. MoleculeBaseAnnotation.	

PolyptideModificationAnnotation*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	polypeptideModifications	List<Poly peptideModificatio n>			0			new ArrayL ist<Pol ypeptid eModif ication >()	
	serialVersionUID	long			0			-58382 72604 03815 4615L	

Constraints

Name	Type	Columns	Initial Code	Notes
getPolypeptideModifications	Public			
PolypeptideModificationAnn otation	Public			
setPolypeptideModifications	Public	polypeptideModifica tions		

Relationships

Columns	Association	Notes
	PolypeptideModificationAnnotation. 0..* PolypeptideModification.polypeptideModifications	
	PolypeptideModificationAnnotation. MoleculeBaseAnnotation.	

ProteinInteractionAnnotation*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	polypeptideInteracti	List<Poly			0			new	

	ons	peptideInteraction >						ArrayList<PolyptideInteraction>()	
	serialVersionUID	long			0			-77927 36838 15170 9158L	

Constraints

Name	Type	Columns	Initial Code	Notes
getPolypeptideInteractions	Public			
ProteinInteractionAnnotation	Public			
setPolypeptideInteractions	Public	polypeptideInteractions		

Relationships

Columns	Association	Notes
	ProteinInteractionAnnotation. 0..* PolypeptideInteraction.polypeptideInteractions	
	ProteinInteractionAnnotation. MoleculeBaseAnnotation.	

ReagentAnnotation

Database: Java, Stereotype: , Package: moleculeAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	reagents	List<Reagent>			0			new ArrayList<Reagent>()	
	serialVersionUID	long			0			-86429 45191 44647 2196L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getReagents	Public			@return the reagents
hashCode	Public			(non-Javadoc) @see java.lang.Object#ha

Name	Type	Columns	Initial Code	Notes
				shCode()
ReagentAnnotation	Public			
setReagents	Public	reagents		

Relationships

Columns	Association	Notes
	ReagentAnnotation. 0..* Reagent.reagents	
	ReagentAnnotation. MoleculeBaseAnnotation.	

SpeciesAnnotation*Database:* Java, *Stereotype:* , *Package:* moleculeAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotations	Map<Class<? extends MoleculeBaseAnnotation>, MoleculeBaseAnnotation>			0			new HashMap<Class<? extends MoleculeBaseAnnotation>, MoleculeBaseAnnotation>()	
	id	Long			0				
	serialVersionUID	long			0			-56999 90357 30395 5959L	

Constraints

Name	Type	Columns	Initial Code	Notes
addAnnotation	Public	class1 baseCompoundAnnotation		
equals	Public	obj		
getAnnotation	Public	type		
getAnnotationFromString	Public	type		
getAnnotations	Public			
getId	Public			

Name	Type	Columns	Initial Code	Notes
hashCode	Public			
setAnnotations	Public	annotations		
setId	Public	id		

ominer

Type:

Package

Package:

model

Detail:

Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

ominer

Created By:

apollo mcowiti on 9/11/2014

Last Modified:

9/11/2014, Version:1.0

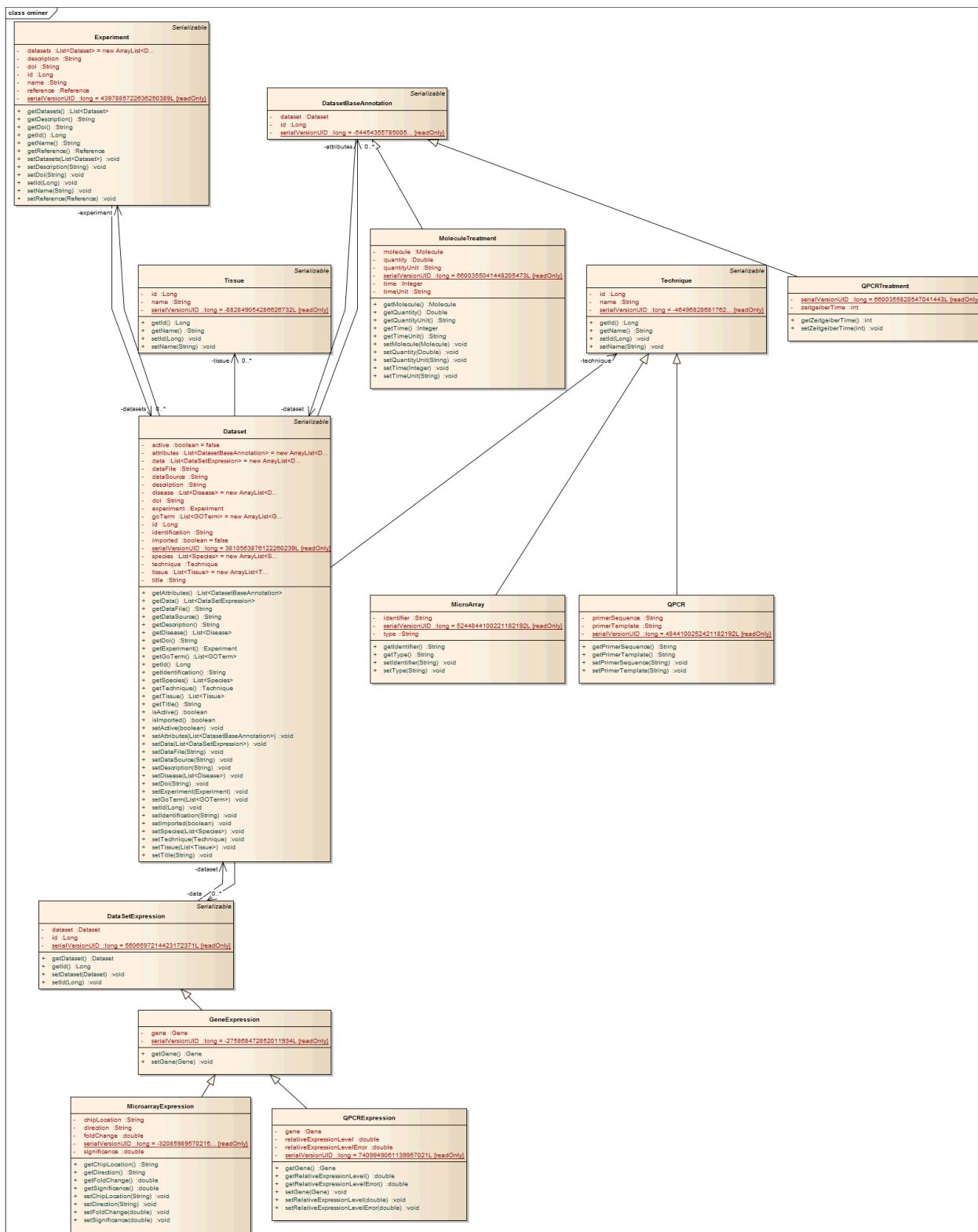


Figure: 39

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	dataset	Dataset			0				
	id	Long			0				
	serialVersionUID	long			0			56065 97214 42317 2371L	

Constraints

Name	Type	Columns	Initial Code	Notes
getDataset	Public			
getId	Public			
setDataset	Public	dataset		
setId	Public	id		

Relationships

Columns	Association	Notes
	Dataset. 0..* DataSetExpression.data	
	DataSetExpression. Dataset.dataset	
	GeneExpression. DataSetExpression.	

Dataset

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	active	boolean			0			false	
	attributes	List<DatasetBaseAnnotation>			0			new ArrayList<DatasetBaseAnnotation>()	
	data	List<DataSetExpression>			0			new ArrayList<DataSetExpression>()	
	dataFile	String			0				
	dataSource	String			0				
	description	String			0				

	disease	List<Dis ease>		0			new ArrayL ist<Dis ease>()	
	doi	String		0				
	experiment	Experim ent		0				
	goTerm	List<GO Term>		0			new ArrayL ist<GO Term> ()	
	id	Long		0				
	identification	String		0				
	imported	boolean		0			false	
	serialVersionUID	long		0			38105 63876 12226 0239L	
	species	List<Spe cies>		0			new ArrayL ist<Sp ecies> ()	
	technique	Techniqu e		0				
	tissue	List<Tiss ue>		0			new ArrayL ist<Tis ue>()	
	title	String		0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAttributes	Public			
getData	Public			
getDataFile	Public			
getSource	Public			
getDescription	Public			
getDisease	Public			
getDoi	Public			
getExperiment	Public			
getGoTerm	Public			
getId	Public			
getIdentification	Public			
getSpecies	Public			
getTechnique	Public			
getTissue	Public			
Title	Public			
isActive	Public			
isImported	Public			
setActive	Public	active		
setAttributes	Public	attributes		
setData	Public	data		

Name	Type	Columns	Initial Code	Notes
setDataFile	Public	dataFile		
setDataSource	Public	dataSource		
setDescription	Public	description		
setDisease	Public	disease		
setDoi	Public	doi		
setExperiment	Public	experiment		
setGoTerm	Public	goTerm		
setId	Public	id		
setIdentification	Public	identification		
setImported	Public	imported		
setSpecies	Public	species		
setTechnique	Public	technique		
setTissue	Public	tissue		
setTitle	Public	title		

Relationships

Columns	Association	Notes
	Dataset. 0..* DatasetBaseAnnotation.attributes	
	Dataset. 0..* DataSetExpression.data	
	Dataset. 0..* Disease.disease	
	Dataset. Experiment.experiment	
	Dataset. 0..* GOTerm.goTerm	
	Dataset. 0..* Species.species	
	Dataset. Technique.technique	
	Dataset. 0..* Tissue.tissue	
	DatasetBaseAnnotation. Dataset.dataset	
	DataSetExpression. Dataset.dataset	
	Experiment. 0..* Dataset.datasets	
	DatasetTranslationalAnnotation.	

Columns	Association	Notes
	0..* Dataset.datasets	

DatasetBaseAnnotation

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	dataset	Dataset			0				
	id	Long			0				
	serialVersionUID	long			0			-54454 35578 50052 9073L	

Relationships

Columns	Association	Notes
	Dataset. 0..* DatasetBaseAnnotation.attributes	
	DatasetBaseAnnotation. Dataset.dataset	
	MoleculeTreatment. DatasetBaseAnnotation.	
	QPCRTreatment. DatasetBaseAnnotation.	

Experiment

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	datasets	List<Dataset>			0			new ArrayList<Dataset>()	
	description	String			0				
	doi	String			0				
	id	Long			0				
	name	String			0				
	reference	Reference			0				
	serialVersionUID	long			0			43978 85722 63625 0389L	

Constraints

Name	Type	Columns	Initial Code	Notes
getDatasets	Public			
getDescription	Public			
getDoi	Public			

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
getReference	Public			
setDatasets	Public	datasets		
setDescription	Public	description		
setDoi	Public	doi		
setId	Public	id		
setName	Public	name		
setReference	Public	reference		

Relationships

Columns	Association	Notes
	Dataset. Experiment.experiment	
	Experiment. 0..* Dataset.datasets	
	Experiment. Reference.reference	

GeneExpression*Database:* Java, *Stereotype:* , *Package:* ominer*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	gene	Gene			0				
	serialVersionUID	long			0			-27586 84728 52011 934L	

Constraints

Name	Type	Columns	Initial Code	Notes
getGene	Public			
setGene	Public	gene		

Relationships

Columns	Association	Notes
	GeneExpression. Gene.gene	
	GeneExpression. DataSetExpression.	
	MicroarrayExpression. GeneExpression.	
	QPCRExpression. GeneExpression.	

MicroArray

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	identifier	String			0				
	serialVersionUID	long			0			52448 44100 22118 2192L	
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getIdentifier	Public			
getType	Public			
setIdentifier	Public	identifier		
setType	Public	type		

Relationships

Columns	Association	Notes
	MicroArray. Technique.	

MicroarrayExpression

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	chipLocation	String			0				
	direction	String			0				
	foldChange	double			0				
	serialVersionUID	long			0			-32085 98957 02154 4038L	
	significance	double			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getChipLocation	Public			
getDirection	Public			
getFoldChange	Public			
getSignificance	Public			
setChipLocation	Public	chipLocation		
setDirection	Public	direction		

Name	Type	Columns	Initial Code	Notes
setFoldChange	Public	foldChange		
setSignificance	Public	significance		

Relationships

Columns	Association	Notes
	MicroarrayExpression. GeneExpression.	

MoleculeTreatment

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	molecule	Molecule			0				
	quantity	Double			0				
	quantityUnit	String			0				
	serialVersionUID	long			0			66003 55041 44820 5473L	
	time	Integer			0				
	timeUnit	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getMolecule	Public			
getQuantity	Public			
getQuantityUnit	Public			
getTime	Public			
getTimeUnit	Public			
setMolecule	Public	molecule		
setQuantity	Public	quantity		
setQuantityUnit	Public	quantityUnit		
setTime	Public	time		
setTimeUnit	Public	timeUnit		

Relationships

Columns	Association	Notes
	MoleculeTreatment. Molecule.molecule	
	MoleculeTreatment. DatasetBaseAnnotation.	

QPCR

Database: Java, *Stereotype:* , *Package:* ominer

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	primerSequence	String			0				
	primerTemplate	String			0				
	serialVersionUID	long			0			48441 00252 42118 2192L	

Constraints

Name	Type	Columns	Initial Code	Notes
getPrimerSequence	Public			
getPrimerTemplate	Public			
setPrimerSequence	Public	primerSequence		
setPrimerTemplate	Public	primerTemplate		

Relationships

Columns	Association	Notes
	QPCR. Technique.	

QPCRExpression

Database: Java, *Stereotype:* , *Package:* ominer

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	gene	Gene			0				
	relativeExpressionLevel	double			0				
	relativeExpressionLevelError	double			0				
	serialVersionUID	long			0			74099 49061 13995 7021L	

Constraints

Name	Type	Columns	Initial Code	Notes
getGene	Public			
getRelativeExpressionLevel	Public			
getRelativeExpressionLevelError	Public			
setGene	Public	gene		
setRelativeExpressionLevel	Public	relativeExpressionLevel		
setRelativeExpressionLevelError	Public	relativeExpressionLevelError		

Name	Type	Columns	Initial Code	Notes
rror		evelError		

Relationships

Columns	Association	Notes
	QPCRExpression. Gene.gene	
	QPCRExpression. GeneExpression.	

QPCRTreatment

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			66003 55820 54704 1443L	
	zeitgeberTime	int			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getZeitgeberTime	Public			
setZeitgeberTime	Public	zeitgeberTime		

Relationships

Columns	Association	Notes
	QPCRTreatment. DatasetBaseAnnotation.	

Technique

Database: Java, *Stereotype:* , *Package:* ominer
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-46496 82868 17626 5210L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		

Name	Type	Columns	Initial Code	Notes
setName	Public	name		

Relationships

Columns	Association	Notes
	Dataset. Technique.technique	
	MicroArray. Technique.	
	QPCR. Technique.	

Tissue*Database:* Java, *Stereotype:* , *Package:* ominer*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-88284 90542 86626 732L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	Expression. Tissue.tissue	
	Dataset. 0..* Tissue.tissue	

reagentAnnotations*Type:* **Package***Package:* model*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***reagentAnnotations***Created By:* apollo mcowiti on 9/11/2014*Last Modified:* 9/11/2014, *Version:*1.0

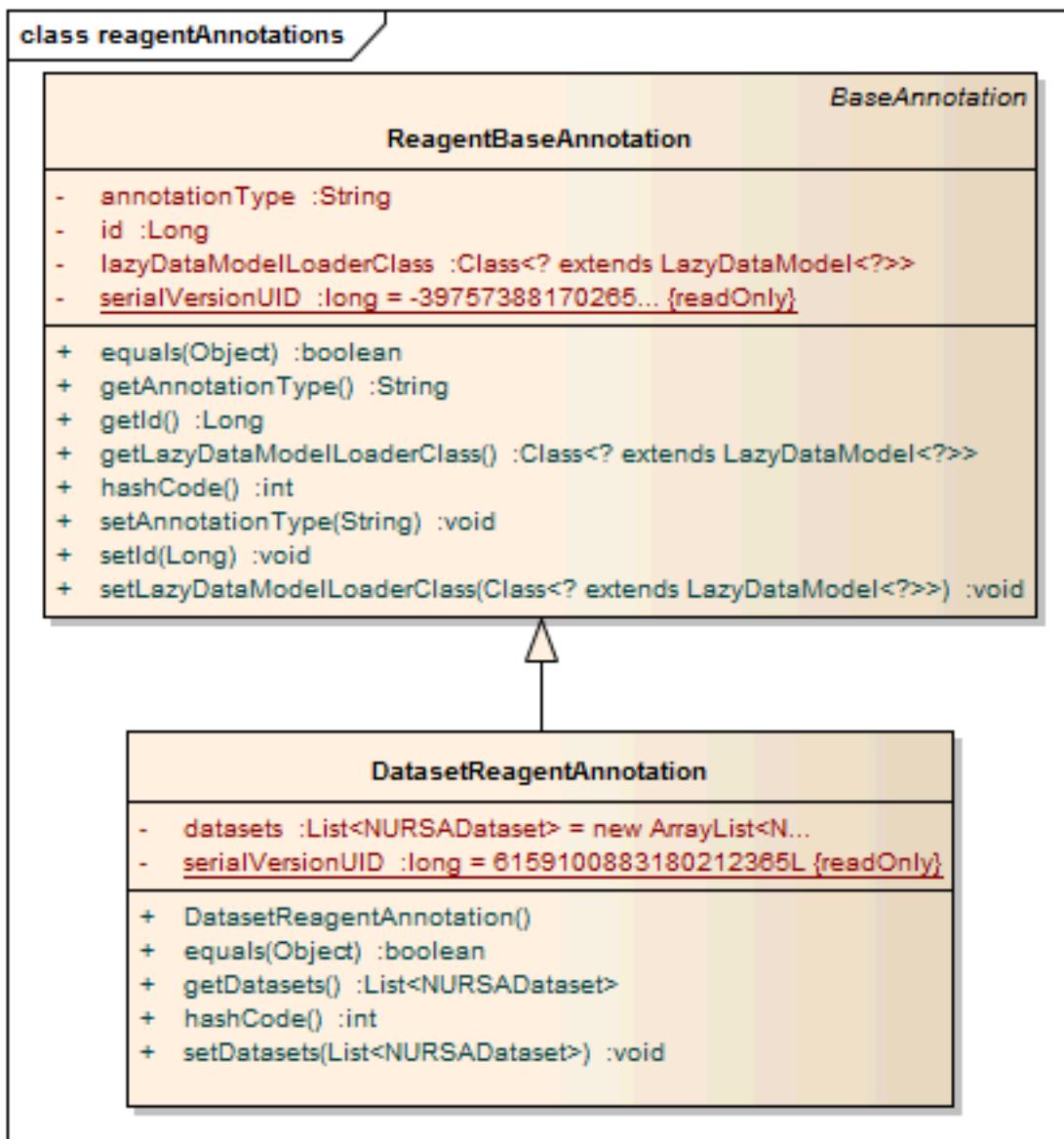


Figure: 40

DatasetReagentAnnotation

Database: Java, **Stereotype:** , **Package:** reagentAnnotations
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	datasets	List<NU RSAData set>			0			new ArrayL ist<NU RSAD ataset> ()	
	serialVersionUID	long			0			61591	

								00883 18021 2365L	
--	--	--	--	--	--	--	--	-------------------------	--

Constraints

Name	Type	Columns	Initial Code	Notes
DatasetReagentAnnotation	Public			
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getDatasets	Public			@return the datasets
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setDatasets	Public	datasets		

Relationships

Columns	Association	Notes
	DatasetReagentAnnotation. 0..* NURSADataset.datasets	
	DatasetReagentAnnotation. ReagentBaseAnnotation.	

ReagentBaseAnnotation*Database:* Java, *Stereotype:* , *Package:* reagentAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotationType	String			0				
	id	Long			0				
	lazyDataModelLoaderClass	Class<? extends LazyData Model<? >>			0				
	serialVersionUID	long			0			-39757 38817 02656 5400L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getAnnotationType	Public			
getId	Public			
getLazyDataModelLoaderClass	Public			

Name	Type	Columns	Initial Code	Notes
hashCode	Public			
setAnnotationType	Public	type		
setId	Public	id		
setLazyDataModelLoaderClass	Public	lazyDataModelLoaderClass		

Relationships

Columns	Association	Notes
	DatasetReagentAnnotation. ReagentBaseAnnotation.	
	ReagentBaseAnnotation. BaseAnnotation.	

reagents

Type: **Package**
Package: model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

reagents

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

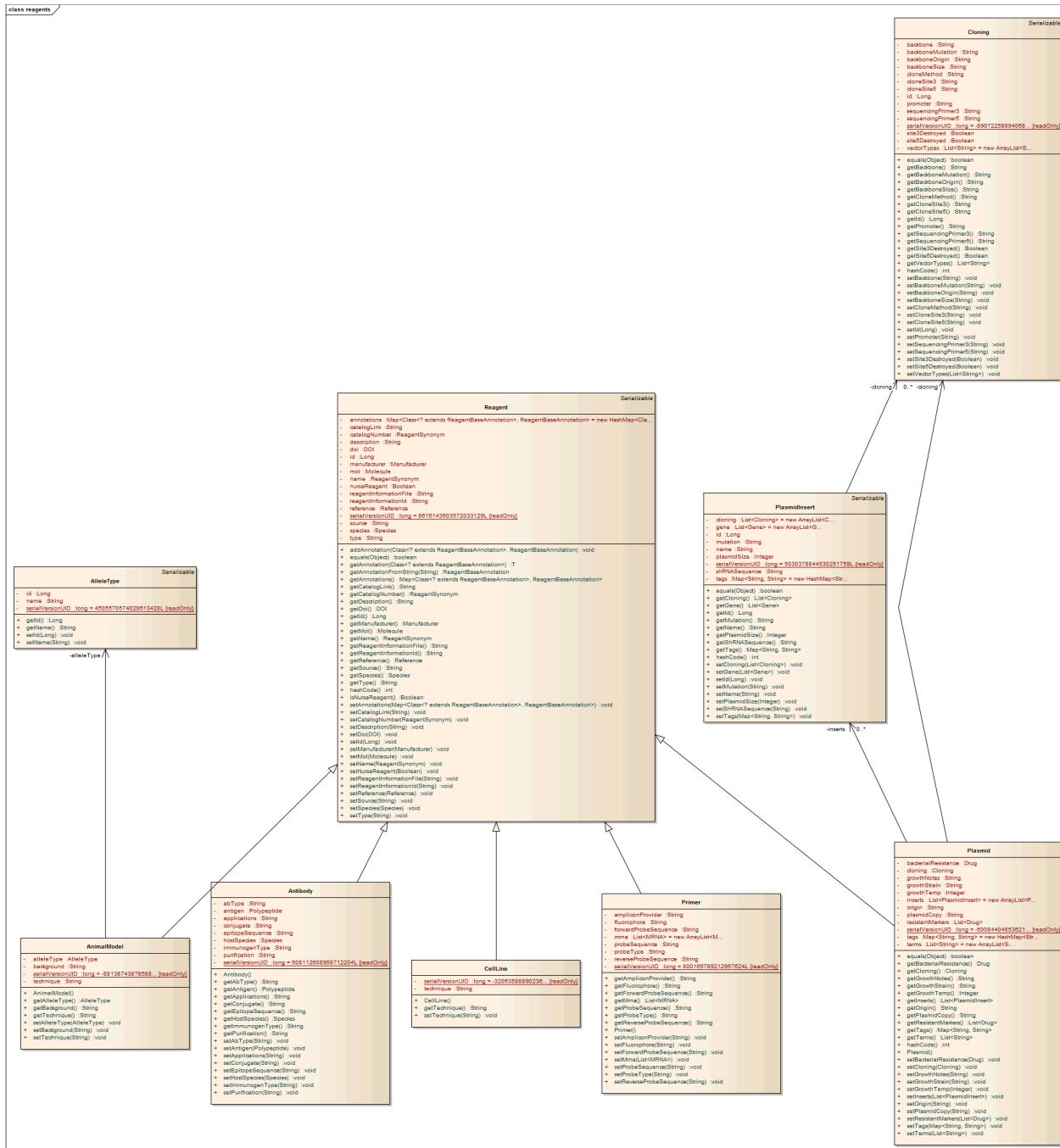


Figure: 41

AlleleType

Database: Java, **Stereotype:** , **Package:** reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				

	name	String			0				
	serialVersionUID	long			0			45055 70574 02061 3428L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	AnimalModel. AlleleType.alleleType	

AnimalModel*Database:* Java, *Stereotype:* , *Package:* reagents*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	alleleType	AlleleType			0				
	background	String			0				
	serialVersionUID	long			0			-88138 74387 85883 4781L	
	technique	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
AnimalModel	Public			
getAlleleType	Public			@return the alleleType
getBackground	Public			
getTechnique	Public			
setAlleleType	Public	alleleType		
setBackground	Public	background		
setTechnique	Public	technique		

Relationships

Columns	Association	Notes
	AnimalModelAnnotation. 0..* AnimalModel.animalModels	
	AnimalModel.	

Columns	Association	Notes
	AlleleType.alleleType	
	AnimalModel. Reagent.	

Antibody

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	abType	String			0				
	antigen	Polypeptide			0				
	applications	String			0				
	conjugate	String			0				
	epitopeSequence	String			0				
	hostSpecies	Species			0				
	immunogenType	String			0				
	purification	String			0				
	serialVersionUID	long			0			60811 26089 58712 204L	

Constraints

Name	Type	Columns	Initial Code	Notes
Antibody	Public			
getAbType	Public			
getAntigen	Public			
getApplications	Public			
getConjugate	Public			
getEpitopeSequence	Public			
getHostSpecies	Public			
getImmunogenType	Public			
getPurification	Public			
setAbType	Public	abType		
setAntigen	Public	antigen		
setApplications	Public	applications		
setConjugate	Public	conjugate		
setEpitopeSequence	Public	epitopeSequence		
setHostSpecies	Public	hostSpecies		
setImmunogenType	Public	immunogenType		
setPurification	Public	purification		

Relationships

Columns	Association	Notes
	Antibody. Polypeptide.antigen	
	Antibody. Species.hostSpecies	
	Antibody. Reagent.	

CellLine

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-32063 58889 02366 2516L	
	technique	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
CellLine	Public			
getTechnique	Public			
setTechnique	Public	technique		

Relationships

Columns	Association	Notes
	CellLine. Reagent.	

Cloning

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	backbone	String			0				
	backboneMutation	String			0				
	backboneOrigin	String			0				
	backboneSize	String			0				
	cloneMethod	String			0				
	cloneSite3	String			0				
	cloneSite5	String			0				
	id	Long			0				
	promoter	String			0				
	sequencingPrimer3	String			0				
	sequencingPrimer5	String			0				
	serialVersionUID	long			0			-89072 25889 40684 5277L	

	site3Destroyed	Boolean		0				
	site5Destroyed	Boolean		0				
	vectorTypes	List<String>		0			new ArrayList<String>()	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getBackbone	Public			@return the backbone
getBackboneMutation	Public			@return the backboneMutation
getBackboneOrigin	Public			@return the backboneOrigin
getBackboneSize	Public			@return the backboneSize
getCloneMethod	Public			@return the cloneMethod
getCloneSite3	Public			@return the cloneSite3
getCloneSite5	Public			@return the cloneSite5
getId	Public			@return the id
getPromoter	Public			@return the promoter
getSequencingPrimer3	Public			@return the sequencingPrimer3
getSequencingPrimer5	Public			@return the sequencingPrimer5
getSite3Destroyed	Public			@return the site3Destroyed
getSite5Destroyed	Public			@return the site5Destroyed
getVectorTypes	Public			@return the vectorTypes
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setBackbone	Public	backbone		
setBackboneMutation	Public	backboneMutation		
setBackboneOrigin	Public	backboneOrigin		
setBackboneSize	Public	backboneSize		
setCloneMethod	Public	cloneMethod		
setCloneSite3	Public	cloneSite3		

Name	Type	Columns	Initial Code	Notes
setCloneSite5	Public	cloneSite5		
setId	Public	id		
setPromoter	Public	promoter		
setSequencingPrimer3	Public	sequencingPrimer3		
setSequencingPrimer5	Public	sequencingPrimer5		
setSite3Destroyed	Public	site3Destroyed		
setSite5Destroyed	Public	site5Destroyed		
setVectorTypes	Public	vectorTypes		

Relationships

Columns	Association	Notes
	Plasmid. Cloning.cloning	
0..*	PlasmidInsert. Cloning.cloning	

Plasmid

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	bacterialResistance	Drug			0				
	cloning	Cloning			0				
	growthNotes	String			0				
	growthStrain	String			0				
	growthTemp	Integer			0				
	inserts	List<PlasmidInsert>			0			new ArrayList<PlasmidInsert>()	
	origin	String			0				
	plasmidCopy	String			0				
	resistantMarkers	List<Drug>			0				
	serialVersionUID	long			0			-60084 40485 36213 5078L	
	tags	Map<String, String>			0			new HashMap<String,	

								String >()	
	terms	List<String>			0			new ArrayList<String>()	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getBacterialResistance	Public			@return the bacterialResistance
getCloning	Public			@return the cloning
getGrowthNotes	Public			@return the growthNotes
getGrowthStrain	Public			@return the growthStrain
getGrowthTemp	Public			@return the growthTemp
getInserts	Public			@return the inserts
getOrigin	Public			@return the origin
getPlasmidCopy	Public			@return the plasmidCopy
getResistantMarkers	Public			@return the resistantMarkers
getTags	Public			@return the tags
getTerms	Public			@return the terms
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
Plasmid	Public			
setBacterialResistance	Public	bacterialResistance		
setCloning	Public	cloning		
setGrowthNotes	Public	growthNotes		
setGrowthStrain	Public	growthStrain		
setGrowthTemp	Public	growthTemp		
setInserts	Public	inserts		
setOrigin	Public	origin		
setPlasmidCopy	Public	plasmidCopy		
setResistantMarkers	Public	resistantMarkers		
setTags	Public	tags		

Name	Type	Columns	Initial Code	Notes
setTerms	Public	terms		

Relationships

Columns	Association	Notes
	Plasmid. Drug.bacterialResistance	
	Plasmid. Cloning.cloning	
0..*	Plasmid. PlasmidInsert.inserts	
0..*	Plasmid. Drug.resistantMarkers	
	Plasmid. Reagent.	

PlasmidInsert*Database:* Java, *Stereotype:* , *Package:* reagents*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cloning	List<Cloning>			0			new ArrayList<Cloning>()	
	gene	List<Gene>			0			new ArrayList<Gene>()	
	id	Long			0				
	mutation	String			0				
	name	String			0				
	plasmidSize	Integer			0				
	serialVersionUID	long			0			50303 78844 53025 1759L	
	shRNASequence	String			0				
	tags	Map<String, String>			0			new HashMap<String, String>()	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Objec

Name	Type	Columns	Initial Code	Notes
t)				
getCloning	Public			@return the cloning
getGene	Public			@return the gene
getId	Public			@return the id
getMutation	Public			@return the mutation
getName	Public			@return the name
getPlasmidSize	Public			@return the size
getShRNASEquence	Public			@return the shRNASEquence
getTags	Public			@return the tags
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setCloning	Public	cloning		
setGene	Public	gene		
setId	Public	id		
setMutation	Public	mutation		
setName	Public	name		
setPlasmidSize	Public	plasmidSize		@param size the size to set
setShRNASEquence	Public	shRNASEquence		
setTags	Public	tags		

Relationships

Columns	Association	Notes
	Plasmid. 0..* PlasmidInsert.inserts	
	PlasmidInsert. 0..* Cloning.cloning	
	PlasmidInsert. 0..* Gene.gene	

Primer

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	ampliconProvider	String			0				
	fluorophore	String			0				
	forwardProbeSequence	String			0				
	mrna	List<MRNA>			0			new ArrayL	

							ist<M RNA>()	
	probeSequence	String		0				
	probeType	String		0				
	reverseProbeSequence	String		0				
	serialVersionUID	long		0			80016 97892 12967 624L	

Constraints

Name	Type	Columns	Initial Code	Notes
getAmpliconProvider	Public			
getFluorophore	Public			
getForwardProbeSequence	Public			
getMrna	Public			
getProbeSequence	Public			
getProbeType	Public			
getReverseProbeSequence	Public			
Primer	Public			
setAmpliconProvider	Public	ampliconProvider		
setFluorophore	Public	fluorophore		
setForwardProbeSequence	Public	forwardProbeSequence		
setMrna	Public	mrna		
setProbeSequence	Public	probeSequence		
setProbeType	Public	probeType		
setReverseProbeSequence	Public	reverseProbeSequence		

Relationships

Columns	Association	Notes
	Primer. 0..* mRNA.mrna	
	Primer. Reagent.	

Reagent

Database: Java, *Stereotype:* , *Package:* reagents
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotations	Map<Class<?>			0			new HashM	

		extends Reagent BaseAnn otation>, Reagent BaseAnn otation>					ap<Cl ass<? exten s Reagen tBaseA nnotati on>, Reagen tBaseA nnotati on()>	
	catalogLink	String		0				
	catalogNumber	ReagentS ynonym		0				
	description	String		0				
	doi	DOI		0				
	id	Long		0				
	manufacturer	Manufact urer		0				
	mol	Molecule		0				
	name	ReagentS ynonym		0				
	nursaReagent	Boolean		0				
	reagentInformationF ile	String		0				
	reagentInformationI d	String		0				
	reference	Referenc e		0				
	serialVersionUID	long		0			86161 43603 57203 3129L	
	source	String		0				
	species	Species		0				
	type	String		0				

Constraints

Name	Type	Columns	Initial Code	Notes
addAnnotation	Public	class1 baseCompoundAnn otation		
equals	Public	obj		(non-Javadoc) @see java.lang.Object#eq uals(java.lang.Objec t)
getAnnotation	Public	type		
getAnnotationFromString	Public	type		
getAnnotations	Public			@return the annotations
getCatalogLink	Public			

Name	Type	Columns	Initial Code	Notes
getCatalogNumber	Public			@return the catalogNumber
getDescription	Public			@return the description
getDoi	Public			@return the doi
getId	Public			@return the id
getManufacturer	Public			@return the manufacturer
getMol	Public			@return the mol
getName	Public			@return the name
getReagentInformationFile	Public			@return the reagentInformationFile
getReagentInformationId	Public			@return the reagentInformationId
getReference	Public			@return the reference
getSource	Public			@return the source
getSpecies	Public			@return the species
getType	Public			@return the type
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
isNursaReagent	Public			@return the nursaReagent
setAnnotations	Public	annotations		
setCatalogLink	Public	catalogLink		
setCatalogNumber	Public	catalogNumber		
setDescription	Public	description		
setDoi	Public	doi		
setId	Public	id		
setManufacturer	Public	manufacturer		
setMol	Public	mol		
setName	Public	name		
setNursaReagent	Public	nursaReagent		
setReagentInformationFile	Public	reagentInformationFile		
setReagentInformationId	Public	reagentInformationId		
setReference	Public	reference		
setSource	Public	source		

Name	Type	Columns	Initial Code	Notes
setSpecies	Public	species		
setType	Public	type		

Relationships

Columns	Association	Notes
	ReagentBean. Reagent.selectedReagent	
	ReagentSynonym. Reagent.reagent	
0..*	NURSADataSet. Reagent.reagents	
0..*	ReagentAnnotation. Reagent.reagents	
	AnimalModel. Reagent.	
	Antibody. Reagent.	
	CellLine. Reagent.	
	Plasmid. Reagent.	
	Primer. Reagent.	
	Reagent. ReagentSynonym.catalogNumber	
	Reagent. DOI.doi	
	Reagent. Manufacturer.manufacturer	
	Reagent. Molecule.mol	
	Reagent. ReagentSynonym.name	
	Reagent. Reference.reference	
	Reagent. Species.species	

search**Type:** Package**Package:** model**Detail:** *Created on 9/11/2014. Last modified on 9/11/2014.***Notes:****search****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:**1.0



Figure: 42

MoleculeResult

Database: Java, **Stereotype:** , **Package:** search
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	description	String			0				
	diseases	List<TranslationalAutoSug			0				new ArrayList<Tra

		gest>						nslatio nalAut oSugge st>()	
	doi	String			0				
	goterms	List<GO Term>			0			new ArrayL ist<GO Term> ()	
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			65464 35439 95067 7400L	
	symbol	String			0				
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#eq uals(java.lang.Objec t)
getDescription	Public			@return the description
getDiseases	Public			@return the diseases
getDoi	Public			@return the doi
getGoterms	Public			@return the goterms
getId	Public			@return the id
getName	Public			@return the name
getSymbol	Public			@return the symbol
getType	Public			@return the type
hashCode	Public			(non-Javadoc) @see java.lang.Object#ha shCode()
setDescription	Public	description		
setDiseases	Public	diseases		
setDoi	Public	doi		
setGoterms	Public	goterms		
setId	Public	id		
setName	Public	name		
setSymbol	Public	symbol		
setType	Public	type		

Relationships

Columns	Association	Notes
	MoleculeResult. 0..* TranslationalAutoSuggest.diseases	
	MoleculeResult. 0..* GOTerm.goterms	

MoleculeSearch

Database: Java, *Stereotype:* , *Package:* search

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: This is the Molecule Search Class. It provides a class for performing searches on molecules. It extends the SearchBase which allows it to have a name. This implementation will allow for the ability to save searches in the future.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	addDisease	TranslationalAutoSuggest			0				
	addGOTerm	GOTerm			0				
	diseases	List<TranslationalAutoSuggest>			0			new ArrayList<TranslationalAutoSuggest>()	
	goTerms	List<GOTerm>			0			new ArrayList<GOTerm>()	
	moleculeTypes	List<String>			0			new ArrayList<String>()	
	removeDisease	TranslationalAutoSuggest			0				
	removeGOTerm	GOTerm			0				
	serialVersionUID	long			0			-10304 67985 98972 7719L	

Constraints

Name	Type	Columns	Initial Code	Notes
getAddDisease	Public			@return the addDisease
getAddGOTerm	Public			@return the addGOTerm
getDiseases	Public			Returns the list of diseases that are to

Name	Type	Columns	Initial Code	Notes
				be searched on @return The list of diseases
getGoTerms	Public			Returns the list of goTerms that are to be searched on. @return A list of goTerms
getMoleculeTypes	Public			Returns the list of molecule types that are to be searched on. @return A list of molecule types
getRemoveDisease	Public			@return the removeDisease
getRemoveGOTerm	Public			@return the removeGOTerm
setAddDisease	Public	addDisease		
setAddGOTerm	Public	addGOTerm		
setDiseases	Public	diseases		Sets the list of diseases that are to be searched on
setGoTerms	Public	goTerms		Sets the list of goTerms that will be searched on.
setMoleculeTypes	Public	moleculeTypes		Sets the list of molecule types that will be searched on.
setRemoveDisease	Public	removeDisease		
setRemoveGOTerm	Public	removeGOTerm		

Relationships

Columns	Association	Notes
	MoleculeSearchBean. MoleculeSearch.moleculeSearch	
	LazyMoleculeDataLoader. MoleculeSearch.moleculeSearch	
	MoleculeSearch. TranslationalAutoSuggest.addDisease	
	MoleculeSearch. GOTerm.addGOTerm	
	MoleculeSearch. 0..* TranslationalAutoSuggest.diseases	
	MoleculeSearch. 0..* GOTerm.goTerms	
	MoleculeSearch. TranslationalAutoSuggest.removeDisease	
	MoleculeSearch. GOTerm.removeGOTerm	
	MoleculeSearch.	

Columns	Association	Notes
	SearchBase.	

NURSADatasetSearch

Database: Java, *Stereotype:* , *Package:* search
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	addMolecule	Molecule AutoSug gest			0				
	molecules	List<Mo lecleAut oSuggest >			0			new ArrayL ist<Mo lecle AutoS uggest >()	
	removeMolecule	Molecule AutoSug gest			0				
	serialVersionUID	long			0			52970 65328 85176 4701L	
	species	List<Spe cies>			0			new ArrayL ist<Sp ecies>()	
	type	List<Stri ng>			0			new ArrayL ist<Str ing>()	

Constraints

Name	Type	Columns	Initial Code	Notes
getAddMolecule	Public			@return the addMolecule
getMolecules	Public			
getRemoveMolecule	Public			@return the removeMolecule
getSpecies	Public			
getType	Public			@return the type
setAddMolecule	Public	addMolecule		
setMolecules	Public	molecules		
setRemoveMolecule	Public	removeMolecule		
setSpecies	Public	species		
setType	Public	type		

Name	Type	Columns	Initial Code	Notes

Relationships

Columns	Association	Notes
	LazyNURSADatasetDataLoader. NURSADatasetSearch.ndsSearch	
	NURSADatasetSearchBean. NURSADatasetSearch.datasetSearch	
	NURSADatasetSearch. MoleculeAutoSuggest.addMolecule	
0..*	NURSADatasetSearch. MoleculeAutoSuggest.molecules	
	NURSADatasetSearch. MoleculeAutoSuggest.removeMolecule	
0..*	NURSADatasetSearch. Species.species	
	NURSADatasetSearch. SearchBase.	

ReagentResult*Database:* Java, *Stereotype:* , *Package:* search*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	description	String			0				
	doi	String			0				
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-57365 86285 15080 1898L	
	source	String			0				
	species	Species			0				
	symbol	String			0				
	symbolDOI	String			0				
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getDescription	Public			@return the description
getDoi	Public			@return the doi
getId	Public			@return the id
getName	Public			@return the name
getSource	Public			@return the source
getSpecies	Public			@return the species

Name	Type	Columns	Initial Code	Notes
getSymbol	Public			@return the symbol
getSymbolDOI	Public			
getType	Public			@return the type
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setDescription	Public	description		
setDoi	Public	doi		
setId	Public	id		
setName	Public	name		
setSource	Public	source		
setSpecies	Public	species		
setSymbol	Public	symbol		
setSymbolDOI	Public	symbolDOI		
setType	Public	type		

Relationships

Columns	Association	Notes
	ReagentResult. Species.species	

ReagentSearchDatabase: Java, *Stereotype*: , *Package*: search

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	addMolecule	Molecule AutoSug gest			0				
	manufacturers	List<Ma nufacture r>			0			new ArrayList<Ma nufacturer>()	
	molecules	List<Mo lecleAut oSuggest >			0			new ArrayList<Mo lecle AutoS uggest >()	
	NURSAReagent	boolean			0				

	reagentTypes	List<String>		0			new ArrayList<String>()	
	removeMolecule	MoleculeAutoSuggest		0				
	serialVersionUID	long		0			-10785 98930 46972 7719L	
	species	List<Species>		0			new ArrayList<Species>()	

Constraints

Name	Type	Columns	Initial Code	Notes
getAddMolecule	Public			@return the addMolecule
getManufacturers	Public			
getMolecules	Public			
getReagentTypes	Public			
getRemoveMolecule	Public			@return the removeMolecule
getSpecies	Public			
isNURSAReagent	Public			
setAddMolecule	Public	addMolecule		
setManufacturers	Public	manufacturers		
setMolecules	Public	molecules		
setNURSAReagent	Public	nURSAReagent		
setReagentTypes	Public	reagentTypes		
setRemoveMolecule	Public	removeMolecule		
setSpecies	Public	species		

Relationships

Columns	Association	Notes
	ReagentSearchBean. ReagentSearch.reagentSearch	
	LazyReagentDataLoader. ReagentSearch.reagentSearch	
	ReagentSearch. MoleculeAutoSuggest.addMolecule	
0..*	ReagentSearch. Manufacturer.manufacturers	
0..*	ReagentSearch. MoleculeAutoSuggest.molecules	
	ReagentSearch.	

Columns	Association	Notes
	MoleculeAutoSuggest.removeMolecule	
	ReagentSearch.	
0..*	Species.species	
	ReagentSearch.	
	SearchBase.	

SearchBase

Database:

Java, *Stereotype*: , *Package*: search

Detail:

Created on 9/11/2014. *Last modified on* 9/11/2014.

Notes:

This is the base class for all searches in NURSA. Each individual search should extend this class either directly or indirectly. By creating an entity that corresponds to searches we can provide additional functionality such as both public, and private saved searches.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			39441 73315 10970 9585L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			Returns the id corresponding to the search @return The id of the search
getName	Public			Returns the name of the search @return The name of the search
setId	Public	id		Sets the id corresponding to the search
setName	Public	name		Sets the name of the search

Relationships

Columns	Association	Notes
	MoleculeSearch. SearchBase.	
	NURSADatasetSearch. SearchBase.	
	ReagentSearch. SearchBase.	
	TranslationalSearch. SearchBase.	

TranslationalResult

Database:

Java, *Stereotype*: , *Package*: search

Detail:

Created on 9/11/2014. *Last modified on* 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	diseases	List<TranslationAutoSuggest>			0			new ArrayList<TranslationAutoSuggest>()	
	doi	String			0				
	drugs	List<TranslationAutoSuggest>			0			new ArrayList<TranslationAutoSuggest>()	
	id	Long			0				
	molecules	List<MoleculeAutoSuggest>			0			new ArrayList<MoleculeAutoSuggest>()	
	name	String			0				
	serialVersionUID	long			0			-57365 86285 15080 1898L	
	source	String			0				
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getDiseases	Public			@return the diseases
getDoi	Public			@return the doi
getDrugs	Public			@return the drugs
getId	Public			@return the id
getMolecules	Public			@return the molecules
getName	Public			@return the name
getSource	Public			@return the source
getType	Public			@return the type
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()

Name	Type	Columns	Initial Code	Notes
setDiseases	Public	diseases		
setDoi	Public	doi		
setDrugs	Public	drugs		
setId	Public	id		
setMolecules	Public	molecules		
setName	Public	name		
setSource	Public	source		
setType	Public	type		

Relationships

Columns	Association	Notes
	TranslationalResult. 0..* TranslationalAutoSuggest.diseases	
	TranslationalResult. 0..* TranslationalAutoSuggest.drugs	
	TranslationalResult. 0..* MoleculeAutoSuggest.molecules	

TranslationalSearch

Database: Java, *Stereotype:* , *Package:* search

Detail: *Created on* 9/11/2014. *Last modified on* 9/11/2014.

Notes: This is the Translational Search Class. It provides a class for performing searches on translational entries. It extends the SearchBase which allows it to have a name and to be saved in a future implementation.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	addDisease	TranslationalAutoSuggest			0				
	addDrug	TranslationalAutoSuggest			0				
	addMolecule	MoleculeAutoSuggest			0				
	diseases	List<TranslationalAutoSuggest>			0			new ArrayList<TranslationalAutoSuggest>()	
	drugs	List<TranslationalAutoSug			0			new ArrayList<Tra	

		gest>					nslatio nalAut oSugge st>()	
	molecules	List<Mo lecuLeAut oSuggest >		0			new ArrayL ist<Mo lecuLe AutoS uggest >()	
	removeDisease	Translati onalAuto Suggest		0				
	removeDrug	Translati onalAuto Suggest		0				
	removeMolecule	Molecule AutoSug gest		0				
	serialVersionUID	long		0			-23323 83325 95664 2836L	
	translationalTypes	List<Stri ng>		0			new ArrayL ist<Str ing>()	

Constraints

Name	Type	Columns	Initial Code	Notes
getAddDisease	Public			@return the addDisease
getAddDrug	Public			@return the addDrug
getAddMolecule	Public			@return the addMolecule
getDiseases	Public			Returns the list of diseases that are to be searched on @return The list of diseases
getDrugs	Public			Returns the list of drugs that are to be searched on @return The list of drugs
getMolecules	Public			Returns the list of molecules that are to be searched on @return The list of molecules
getRemoveDisease	Public			@return the removeDisease
getRemoveDrug	Public			@return the removeDrug

Name	Type	Columns	Initial Code	Notes
getRemoveMolecule	Public			@return the removeMolecule
getTranslationalTypes	Public			Returns the list of translational types that are to be searched on. @return The list of translational types
setAddDisease	Public	addDisease		
setAddDrug	Public	addDrug		
setAddMolecule	Public	addMolecule		
setDiseases	Public	diseases		Sets the list of diseases that are to be searched on
setDrugs	Public	drugs		Sets the list of drugs that are to be searched on
setMolecules	Public	molecules		Sets the list of molecules that are to be searched on
setRemoveDisease	Public	removeDisease		
setRemoveDrug	Public	removeDrug		
setRemoveMolecule	Public	removeMolecule		
setTranslationalTypes	Public	translationalTypes		Sets the list of translational types that are to be searched on

Relationships

Columns	Association	Notes
	TranslationalSearchBean. TranslationalSearch.translationalSearch	
	LazyTranslationalDataLoader. TranslationalSearch.translationalSearch	
	TranslationalSearch. TranslationalAutoSuggest.addDisease	
	TranslationalSearch. TranslationalAutoSuggest.addDrug	
	TranslationalSearch. MoleculeAutoSuggest.addMolecule	
	TranslationalSearch. 0..* TranslationalAutoSuggest.diseases	
	TranslationalSearch. 0..* TranslationalAutoSuggest.drugs	
	TranslationalSearch. 0..* MoleculeAutoSuggest.molecules	
	TranslationalSearch. TranslationalAutoSuggest.removeDisease	
	TranslationalSearch.	

Columns	Association	Notes
	TranslationalAutoSuggest.removeDrug	
	TranslationalSearch.	
	MoleculeAutoSuggest.removeMolecule	
	TranslationalSearch.	
	SearchBase.	

translational

Type:

Package:
model

Detail:
Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

translational

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

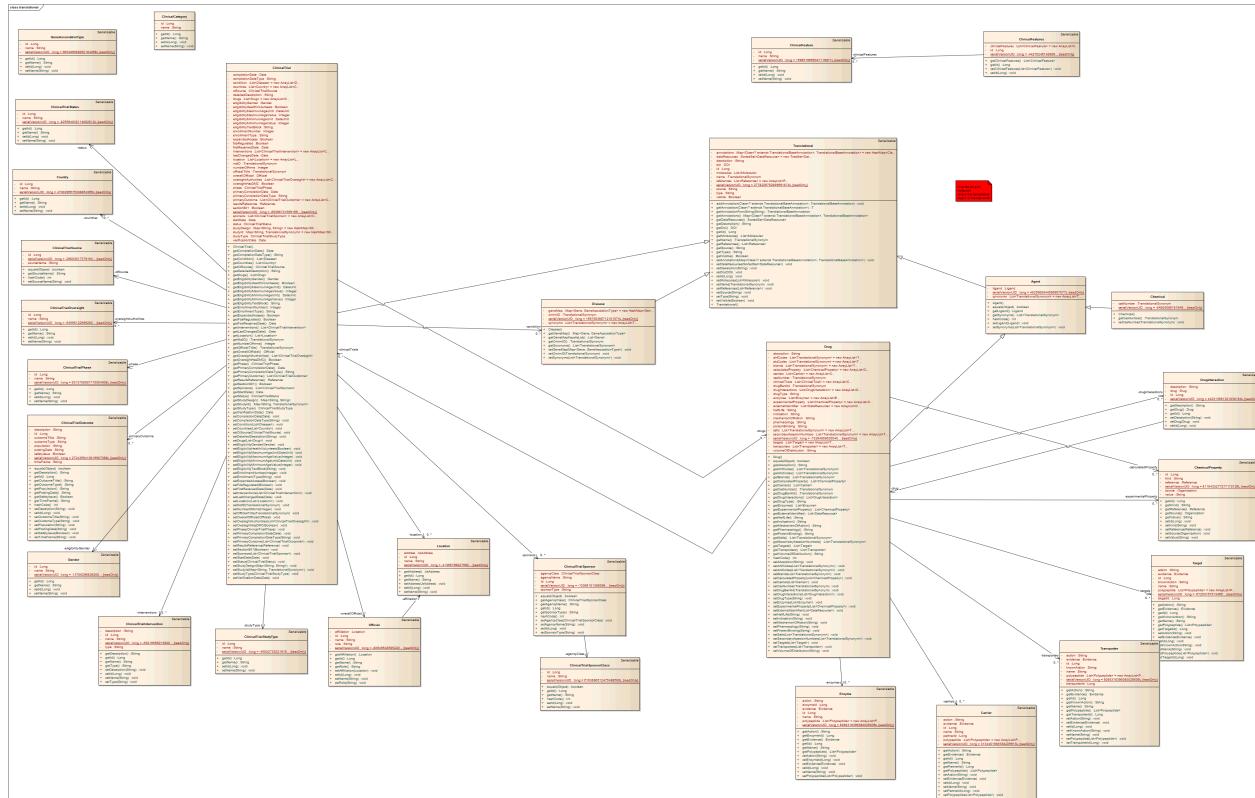


Figure: 43

Agent

Database: Java, Stereotype: , Package: translational
 Detail:
Created on 9/11/2014. Last modified on 9/11/2014.
 Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	ligand	Ligand			0				
	serialVersionUID	long			0			48259	

							88944 89595 7577L	
	synonyms	List<Translations>		0			new ArrayList<TranslationalSynonym>()	

Constraints

Name	Type	Columns	Initial Code	Notes
Agent	Public			
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getLigand	Public			
getSynonyms	Public			SETTERS AND GETTERS
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setLigand	Public	ligand		
setSynonyms	Public	synonyms		

Relationships

Columns	Association	Notes
	Agent. Ligand.ligand	
0..*	Agent. TranslationalSynonym.synonyms	
	Agent. Translational.	
	Chemical. Agent.	
	Drug. Agent.	
	Ligand. Agent.compound	

Carrier

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	action	String			0				
	evidence	Evidence			0				

	id	Long			0				
	name	String			0				
	partnerId	Long			0				
	polypeptide	List<Poly peptide>			0			new ArrayList<Pol ypeptid e>()	
	serialVersionUID	long			0			31344 01686 33820 9913L	

Constraints

Name	Type	Columns	Initial Code	Notes
<code>getAction</code>	Public			
<code>getEvidence</code>	Public			
<code>getId</code>	Public			
<code>getName</code>	Public			
<code>getPartnerId</code>	Public			
<code>getPolypeptide</code>	Public			
<code>setAction</code>	Public	action		
<code>setEvidence</code>	Public	evidence		
<code>setId</code>	Public	id		
<code>setName</code>	Public	name		
<code>setPartnerId</code>	Public	partnerId		
<code>setPolypeptide</code>	Public	polypeptide		

Relationships

Columns	Association	Notes
	Carrier. Evidence.evidence	
	0..* Carrier. Polypeptide.polypeptide	
	Drug. 0..* Carrier.carriers	

Chemical

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	casNumber	Translati onalSyno nym			0				
	serialVersionUID	long			0			-54806 08618	

								16493 8624L	
--	--	--	--	--	--	--	--	----------------	--

Constraints

Name	Type	Columns	Initial Code	Notes
Chemical	Public			
getCasNumber	Public			@return the casNumber
setCasNumber	Public	casNumber		

Relationships

Columns	Association	Notes
	Chemical. TranslationalSynonym.casNumber	
	Chemical. Agent.	

ChemicalProperty

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	kind	String			0				
	reference	Reference			0				
	serialVersionUID	long			0			81184 33277 27717 2126L	
	source	Organization			0				
	value	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getKind	Public			
getReference	Public			@return the reference
getSource	Public			
getValue	Public			
setId	Public	id		
setKind	Public	kind		
setReference	Public	reference		
setSource	Public	source		
setValue	Public	value		

Relationships

Columns	Association	Notes
	ChemicalProperty. Reference.reference	
	ChemicalProperty. Organization.source	
0..*	Drug. ChemicalProperty.calculatedProperty	
0..*	Drug. ChemicalProperty.experimentalProperty	

ClinicalCategory*Database:* Java, *Stereotype:* , *Package:* translational*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

ClinicalFeature*Database:* Java, *Stereotype:* , *Package:* translational*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			15985 19666 34711 9971L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalFeatures. 0..* ClinicalFeature.clinicalFeatures	

ClinicalFeatures

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	clinicalFeatures	List<ClinicalFeature>			0			new ArrayList<ClinicalFeature>()	
	id	Long			0				
	serialVersionUID	long			0			-44270 24614 20891 9163L	

Constraints

Name	Type	Columns	Initial Code	Notes
getClinicalFeatures	Public			@return the clinicalFeatures
getId	Public			@return the id
setClinicalFeatures	Public	clinicalFeatures		
setId	Public	id		

Relationships

Columns	Association	Notes
	ClinicalFeatures. 0..* ClinicalFeature.clinicalFeatures	

ClinicalTrial

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	completionDate	Date			0				
	completionDateType	String			0				
	condition	List<Disease>			0			new ArrayList<Disease>()	
	countries	List<Country>			0			new ArrayList<Country>()	

							untry>0	
	ctSource	ClinicalTrialSource		0				
	detailedDescription	String		0				
	drugs	List<Drug>		0			new ArrayList<Drug>()	
	eligibilityGender	Gender		0				
	eligibilityHealthVolunteers	Boolean		0				
	eligibilityMaximumAgeUnit	DateUnit		0				
	eligibilityMaximumAgeValue	Integer		0				
	eligibilityMinimumAgeUnit	DateUnit		0				
	eligibilityMinimumAgeValue	Integer		0				
	eligibilityTextBlock	String		0				
	enrollmentNumber	Integer		0				
	enrollmentType	String		0				
	expandedAccess	Boolean		0				
	fdaRegulated	Boolean		0				
	firstReceivedDate	Date		0				
	interventions	List<ClinicalTrialIntervention>		0			new ArrayList<ClinicalTrialIntervention>()	
	lastChangedDate	Date		0				
	location	List<Location>		0			new ArrayList<Location>()	
	nctID	TranslationalSynonym		0				
	numberOfArms	Integer		0				
	officialTitle	TranslationalSynonym		0				
	overallOfficial	Official		0				
	oversightAuthorities	List<ClinicalTrialOversight>		0			new ArrayList<ClinicalTrialOversight>()	
	oversightHasDMC	Boolean		0				

	phase	ClinicalTrialPhase			0				
	primaryCompletionDate	Date			0				
	primaryCompletionDateType	String			0				
	primaryOutcome	List<ClinicalTrialOutcome>			0			new ArrayList<ClinicalTrialOutcome>()	
	resultsReference	Reference			0				
	section801	Boolean			0				
	serialVersionUID	long			0			-65398 73159 91695 6194L	
	sponsors	List<ClinicalTrialSponsor>			0			new ArrayList<ClinicalTrialSponsor>()	
	startDate	Date			0				
	status	ClinicalTrialStatus			0				
	studyDesign	Map<String, String>			0			new HashMap<String, String>()	
	studyId	Map<String, TranslationalSynonym>			0			new HashMap<String, TranslationalSynonym>()	
	studyType	ClinicalTrialStudyType			0				
	verificationDate	Date			0				

Constraints

Name	Type	Columns	Initial Code	Notes
ClinicalTrial	Public			
getCompletionDate	Public			@return the completionDate
getCompletionDateType	Public			@return the completionDateType
getCondition	Public			@return the condition

Name	Type	Columns	Initial Code	Notes
getCountries	Public			@return the countries
getCtSource	Public			@return the ctSource
getDetailedDescription	Public			@return the detailedDescription
getDrugs	Public			@return the drugs
getEligibilityGender	Public			@return the eligibilityGender
getEligibilityHealthVolunteers	Public			@return the eligibilityHealthVolunteers
getEligibilityMaximumAgeUnit	Public			@return the eligibilityMaximumAgeUnit
getEligibilityMaximumAgeValue	Public			@return the eligibilityMaximumAgeValue
getEligibilityMinimumAgeUnit	Public			@return the eligibilityMinimumAgeUnit
getEligibilityMinimumAgeValue	Public			@return the eligibilityMinimumAgeValue
getEligibilityTextBlock	Public			@return the eligibilityTextBlock
getEnrollmentNumber	Public			@return the enrollmentNumber
getEnrollmentType	Public			@return the enrollmentType
getExpandedAccess	Public			@return the expandedAccess
getFdaRegulated	Public			@return the fdaRegulated
getFirstReceivedDate	Public			@return the firstReceivedDate
getInterventions	Public			@return the interventions
getLastChangedDate	Public			@return the lastChangedDate
getLocation	Public			@return the location
getNctID	Public			@return the nctID
getNumberOfArms	Public			@return the numberOfArms
getOfficialTitle	Public			@return the officialTitle
getOverallOfficial	Public			@return the overallOfficial
getOversightAuthorities	Public			@return the oversightAuthorities
getOversightHasDMC	Public			@return the oversightHasDMC
getPhase	Public			@return the phase
getPrimaryCompletionDate	Public			@return the primaryCompletionD

Name	Type	Columns	Initial Code	Notes
getPrimaryCompletionDateType	Public			@return the primaryCompletionDateType ate
getPrimaryOutcome	Public			@return the primaryOutcome
getResultsReference	Public			@return the resultsReference
getSection801	Public			@return the section801
getSponsors	Public			@return the sponsors
getStartDate	Public			@return the startDate
getStatus	Public			@return the status
getStudyDesign	Public			@return the studyDesign
getStudyId	Public			@return the studyId
getStudyType	Public			@return the studyType
getVerificationDate	Public			@return the verificationDate
setCompletionDate	Public	completionDate		
setCompletionDateType	Public	completionDateType		
setCondition	Public	condition		
setCountries	Public	countries		
setCtSource	Public	ctSource		
setDetailedDescription	Public	detailedDescription		
setDrugs	Public	drugs		
setEligibilityGender	Public	eligibilityGender		
setEligibilityHealthVolunteers	Public	eligibilityHealthVolunteers		
setEligibilityMaximumAgeUnit	Public	eligibilityMaximumAgeUnit		
setEligibilityMaximumAgeValue	Public	eligibilityMaximumAgeValue		
setEligibilityMinimumAgeUnit	Public	eligibilityMinimumAgeUnit		
setEligibilityMinimumAgeValue	Public	eligibilityMinimumAgeValue		
setEligibilityTextBlock	Public	eligibilityTextBlock		

Name	Type	Columns	Initial Code	Notes
setEnrollmentNumber	Public	enrollmentNumber		
setEnrollmentType	Public	enrollmentType		
setExpandedAccess	Public	expandedAccess		
setFdaRegulated	Public	fdaRegulated		
setFirstReceivedDate	Public	firstReceivedDate		
setInterventions	Public	interventions		
setLastChangedDate	Public	lastChangedDate		
setLocation	Public	location		
setNctID	Public	nctID		
setNumberOfArms	Public	numberOfArms		
setOfficialTitle	Public	officialTitle		
setOverallOfficial	Public	overallOfficial		
setOversightAuthorities	Public	oversightAuthorities		
setOversightHasDMC	Public	oversightHasDMC		
setPhase	Public	phase		
setPrimaryCompletionDate	Public	primaryCompletion Date		
setPrimaryCompletionDateT ype	Public	primaryCompletion DateType		
setPrimaryOutcome	Public	primaryOutcome		
setResultsReference	Public	resultsReference		
setSection801	Public	section801		
setSponsors	Public	sponsors		
setStartDate	Public	startDate		
setStatus	Public	status		
setStudyDesign	Public	studyDesign		
setStudyId	Public	studyId		
setStudyType	Public	studyType		

Name	Type	Columns	Initial Code	Notes
setVerificationDate	Public	verificationDate		

Relationships

Columns	Association	Notes
	ClinicalTrialAnnotation.	
	0..* ClinicalTrial.clinicalTrials	
	ClinicalTrial.	
	0..* Disease.condition	
	ClinicalTrial.	
	0..* Country.countries	
	ClinicalTrial.	
	ClinicalTrialSource.ctSource	
	ClinicalTrial.	
	0..* Drug.drugs	
	ClinicalTrial.	
	Gender.eligibilityGender	
	ClinicalTrial.	
	DateUnit.eligibilityMaximumAgeUnit	
	ClinicalTrial.	
	DateUnit.eligibilityMinimumAgeUnit	
	ClinicalTrial.	
	0..* ClinicalTrialIntervention.interventions	
	ClinicalTrial.	
	0..* Location.location	
	ClinicalTrial.	
	TranslationalSynonym.nctID	
	ClinicalTrial.	
	TranslationalSynonym.officialTitle	
	ClinicalTrial.	
	Official.overallOfficial	
	ClinicalTrial.	
	0..* ClinicalTrialOversight.oversightAuthorities	
	ClinicalTrial.	
	ClinicalTrialPhase.phase	
	ClinicalTrial.	
	0..* ClinicalTrialOutcome.primaryOutcome	
	ClinicalTrial.	
	Reference.resultsReference	
	ClinicalTrial.	
	0..* ClinicalTrialSponsor.sponsors	
	ClinicalTrial.	
	ClinicalTrialStatus.status	
	ClinicalTrial.	
	0..* TranslationalSynonym.studyId	
	ClinicalTrial.	
	ClinicalTrialStudyType.studyType	
	ClinicalTrial.	
	Translational.	
	Drug.	
	0..* ClinicalTrial.clinicalTrials	

ClinicalTrialIntervention

Database: Java, Stereotype: , Package: translational

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	description	String			0				
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-63216 59521 39208 5499L	
	type	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getDescription	Public			@return the description
getId	Public			@return the id
getName	Public			@return the name
getType	Public			@return the type
setDescription	Public	description		
setId	Public	id		
setName	Public	name		
setType	Public	type		

Relationships

Columns	Association	Notes
	ClinicalTrial. 0..* ClinicalTrialIntervention.interventions	

ClinicalTrialOutcome

Database: Java, *Stereotype:* , *Package:* translational

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	description	String			0				
	id	Long			0				
	outcomeTitle	String			0				
	outcomeType	String			0				
	population	String			0				
	postingDate	String			0				
	safetyissue	Boolean			0				
	serialVersionUID	long			0			27243 56410 01690 7088L	
	timeFrame	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getDescription	Public			@return the description
getId	Public			@return the id
getOutcomeTitle	Public			@return the outcomeTitle
getOutcomeType	Public			@return the outcomeType
getPopulation	Public			@return the population
getPostingDate	Public			@return the postingDate
getSafetyissue	Public			@return the safetyissue
getTimeFrame	Public			@return the timeFrame
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setDescription	Public	description		
setId	Public	id		
setOutcomeTitle	Public	outcomeTitle		
setOutcomeType	Public	outcomeType		
setPopulation	Public	population		
setPostingDate	Public	postingDate		
setSafetyissue	Public	safetyissue		
setTimeFrame	Public	timeFrame		

Relationships

Columns	Association	Notes
	ClinicalTrial. 0..* ClinicalTrialOutcome.primaryOutcome	

ClinicalTrialOversight

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
----	------	------	----------	--------	-----	------	-------	------	-------

	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-64595 12269 92624 1323L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. 0..* ClinicalTrialOversight.oversightAuthorities	

ClinicalTrialPhase

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			63137 06567 17050 4938L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. ClinicalTrialPhase.phase	

ClinicalTrialSource

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	serialVersionUID	long			0			-29003 01737 91644 3012L	
	sourceName	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getSourceName	Public			
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setSourceName	Public	sourceName		

Relationships

Columns	Association	Notes
	ClinicalTrial. ClinicalTrialSource.ctSource	

ClinicalTrialSponsor

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	agencyClass	ClinicalTrialSponsorClass			0				
	agencyName	String			0				
	id	Long			0				
	serialVersionUID	long			0			-10368 18139 50968 7141L	
	sponsorType	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getAgencyClass	Public			@return the agencyClass

Name	Type	Columns	Initial Code	Notes
getAgencyName	Public			@return the agencyName
getId	Public			@return the id
getSponsorType	Public			@return the sponsorType
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setAgencyClass	Public	agencyClass		
setAgencyName	Public	agencyName		
setId	Public	id		
setSponsorType	Public	sponsorType		

Relationships

Columns	Association	Notes
	ClinicalTrial. 0..* ClinicalTrialSponsor.sponsors	
	ClinicalTrialSponsor. ClinicalTrialSponsorClass.agencyClass	

ClinicalTrialSponsorClass

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			61038 90512 47549 8508L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getId	Public			@return the id
getName	Public			@return the name
hashCode	Public			(non-Javadoc) @see java.lang.Object#hashCode()
setId	Public	id		

Name	Type	Columns	Initial Code	Notes
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrialSponsor. ClinicalTrialSponsorClass.agencyClass	

ClinicalTrialStatus

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-82556 40321 14082 812L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. ClinicalTrialStatus.status	

ClinicalTrialStudyType

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-45002 73322 19166 5843L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name

Name	Type	Columns	Initial Code	Notes
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. ClinicalTrialStudyType.studyType	

Country

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			47002 96676 33886 4366L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. 0..* Country.countries	

Disease

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	geneMap	Map<Gene, GeneAssociationType>			0			new HashMap<Gene, GeneAssociationType>()	
	omimID	Translati			0				

		onalSynonym							
	serialVersionUID	long			0			16915 83687 12101 074L	
	synonyms	List<TranslationalSynonym>			0			new ArrayList<TranslationalSynonym>()	

Constraints

Name	Type	Columns	Initial Code	Notes
Disease	Public			
getGeneMap	Public			@return the geneMap
getGeneMapKeysAsList	Public			
getOmimID	Public			@return the omimID
getSynonyms	Public			@return the synonyms
setGeneMap	Public	geneMap		
setOmimID	Public	omimID		
setSynonyms	Public	synonyms		

Relationships

Columns	Association	Notes
	DiseaseAssociationAnnotation. 0..* Disease.diseases	
	Dataset. 0..* Disease.disease	
	ClinicalTrial. 0..* Disease.condition	
	Disease. TranslationalSynonym.omimID	
	Disease. 0..* TranslationalSynonym.synonyms	
	Disease. Translational.	

Drug*Database:* Java, *Stereotype:* , *Package:* translational*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:***Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	absorption	String			0				
	ahfCodes	List<Translational			0			new ArrayL	

		lSynonym>					ist<TranslationalSynonym>()	
	atcCodes	List<Translationa lSynonym>		0			new ArrayList<TranslationalSynonym>()	
	brands	List<Translationa lSynonym>		0			new ArrayList<TranslationalSynonym>()	
	calculatedProperty	List<ChemicalPro perty>		0			new ArrayList<Chemical Propert y>()	
	carriers	List<Car rier>		0			new ArrayList<Ca rrier>()	
	casNumber	Translati onalSyno nym		0				
	clinicalTrials	List<Clin icalTrial >		0			new ArrayList<Cli nicalTr ial>()	
	drugBankId	Translati onalSyno nym		0				
	drugInteractions	List<DrugInteraction>		0			new ArrayList<Dr ugInter action>()	
	drugType	String		0				
	enzymes	List<Enz yme>		0			new ArrayList<En zyme>()	
	experimentalPropert y	List<ChemicalPro perty>		0			new ArrayList<Ch emical Property>()	

							emical Property>()	
	externalIdentifier	List<DataResource>		0			new ArrayList<DataResource>()	
	halfLife	String		0				
	indication	String		0				
	mechanismOfAction	String		0				
	pharmacology	String		0				
	proteinBinding	String		0				
	salts	List<Translationalsynonym>		0			new ArrayList<Translationalsynonym>()	
	secondaryAssesionNumbers	List<Translationalsynonym>		0			new ArrayList<Translationalsynonym>()	
	serialVersionUID	long		0			-73394 95953 55406 4988L	
	targets	List<Target>		0			new ArrayList<Target>()	
	transporters	List<Transporter>		0			new ArrayList<Transporter>()	
	volumeOfDistribution	String		0				

Constraints

Name	Type	Columns	Initial Code	Notes
Drug.equals	Public	obj		(non-Javadoc) @see java.lang.Object#equals(java.lang.Object)
getAbsorption	Public			
getAhfCodes	Public			
getAtcCodes	Public			
getBrands	Public			
getCalculatedProperty	Public			

Name	Type	Columns	Initial Code	Notes
getCarriers	Public			
getCasNumber	Public			
getDrugBankId	Public			SETTERS AND GETTERS
getDrugInteractions	Public			
getDrugType	Public			
getEnzymes	Public			@return the enzymes
getExperimentalProperty	Public			
getExternalIdentifier	Public			
getHalfLife	Public			
getIndication	Public			
getMechanismOfAction	Public			
getPharmacology	Public			
getProteinBinding	Public			
getSalts	Public			
getSecondaryAssesionNumbe rs	Public			
getTargets	Public			
getTransporters	Public			
getVolumeOfDistribution	Public			
hashCode	Public			(non-Javadoc) @see java.lang.Object#ha shCode()
setAbsorption	Public	absorption		
setAhfCodes	Public	ahfCodes		
setAtcCodes	Public	atcCodes		
setBrands	Public	brands		
setCalculatedProperty	Public	calculatedProperty		
setCarriers	Public	carriers		
setCasNumber	Public	casNumber		
setDrugBankId	Public	drugBankId		
setDrugInteractions	Public	drugInteractions		
setDrugType	Public	drugType		
setEnzymes	Public	enzymes		
setExperimentalProperty	Public	experimentalProp erty		
setExternalIdentifier	Public	externalIdentifier		
setHalfLife	Public	halfLife		
setIndication	Public	indication		

Name	Type	Columns	Initial Code	Notes
setMechanismOfAction	Public	mechanismOfAction		
setPharmacology	Public	pharmacology		
setProteinBinding	Public	proteinBinding		
setSalts	Public	salts		
setSecondaryAssesionNumbers	Public	secondaryAssesionNumbers		
setTargets	Public	targets		
setTransporters	Public	transporters		
setVolumeOfDistribution	Public	volumeOfDistribution		

Relationships

Columns	Association	Notes
	DrugAnnotation. 0..* Drug.drugs	
	Plasmid. Drug.bacterialResistance	
	Plasmid. 0..* Drug.resistantMarkers	
	ClinicalTrial. 0..* Drug.drugs	
	Drug. 0..* TranslationalSynonym.ahfCodes	
	Drug. 0..* TranslationalSynonym.atcCodes	
	Drug. 0..* TranslationalSynonym.brands	
	Drug. 0..* ChemicalProperty.calculatedProperty	
	Drug. 0..* Carrier.carriers	
	Drug. TranslationalSynonym.casNumber	
	Drug. 0..* ClinicalTrial.clinicalTrials	
	Drug. TranslationalSynonym.drugBankId	
	Drug. 0..* DrugInteraction.drugInteractions	
	Drug. 0..* Enzyme.enzymes	
	Drug. 0..* ChemicalProperty.experimentalProperty	
	Drug. 0..* DataResource.externalIdentifier	
	Drug.	

Columns	Association	Notes
	0..* TranslationalSynonym.salts Drug.	
	0..* TranslationalSynonym.secondaryAssesionNumbers Drug.	
	0..* Target.targets Drug.	
	0..* Transporter.transporters Drug. Agent.	
	DrugInteraction. Drug.drug	

DrugInteraction

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	description	String			0				
	drug	Drug			0				
	id	Long			0				
	serialVersionUID	long			0			44231 36813 21838 184L	

Constraints

Name	Type	Columns	Initial Code	Notes
getDescription	Public			
getDrug	Public			
getId	Public			
setDescription	Public	description		
setDrug	Public	drug		
setId	Public	id		

Relationships

Columns	Association	Notes
	Drug. 0..* DrugInteraction.drugInteractions	
	DrugInteraction. Drug.drug	

Enzyme

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	action	String			0				

	enzymeId	Long		0				
	evidence	Evidence		0				
	id	Long		0				
	name	String		0				
	polypeptide	List<Poly peptide>		0			new ArrayList<Polypeptide>()	
	serialVersionUID	long		0			80883 18396 38002 6836L	

Constraints

Name	Type	Columns	Initial Code	Notes
getAction	Public			
getEnzymeId	Public			
getEvidence	Public			
getId	Public			
getName	Public			
getPolypeptide	Public			
setAction	Public	action		
setEnzymeId	Public	enzymeId		
setEvidence	Public	evidence		
setId	Public	id		
setName	Public	name		
setPolypeptide	Public	polypeptide		

Relationships

Columns	Association	Notes
	Drug. 0..* Enzyme.enzymes	
	Enzyme. Evidence.evidence	
	Enzyme. 0..* Polypeptide.polypeptide	

Gender

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-13706 29683	

								62003 8070L	
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Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. Gender.eligibilityGender	

GeneAssociationType

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			90548 95880 62184 268L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			@return the id
getName	Public			@return the name
setId	Public	id		
setName	Public	name		

Location

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	address	UsAddress			0				
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-41368 79922 75925 6585L	

Constraints

Name	Type	Columns	Initial Code	Notes
getAddress	Public			@return the address
getId	Public			@return the id
getName	Public			@return the name
setAddress	Public	address		
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	ClinicalTrial. 0..* Location.location	
	Official. Location.affiliation	

Official

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	affiliation	Location			0				
	id	Long			0				
	name	String			0				
	role	String			0				
	serialVersionUID	long			0			-80949 54058 52203 2152L	

Constraints

Name	Type	Columns	Initial Code	Notes
getAffiliation	Public			@return the affiliation
getId	Public			@return the id
getName	Public			@return the name
getRole	Public			@return the role
setAffiliation	Public	affiliation		
setId	Public	id		
setName	Public	name		
setRole	Public	role		

Relationships

Columns	Association	Notes
	ClinicalTrial.	

Columns	Association	Notes
	Official.overallOfficial	
	Official. Location.affiliation	

Target

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	action	String			0				
	evidence	Evidence			0				
	id	Long			0				
	knownAction	String			0				
	name	String			0				
	polypeptide	List<Poly peptide>			0			new ArrayList<Polypeptide>()	
	serialVersionUID	long			0			-67253 16751 34660 6577L	
	targetId	Long			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAction	Public			
getEvidence	Public			
getId	Public			
getKnownAction	Public			
getName	Public			
getPolypeptide	Public			
getTargetId	Public			
setAction	Public	action		
setEvidence	Public	evidence		
setId	Public	id		
setKnownAction	Public	knownAction		
setName	Public	name		
setPolypeptide	Public	polypeptide		
setTargetId	Public	targetId		

Relationships

Columns	Association	Notes
	Drug.	

Columns	Association	Notes
	0..* Target.targets Target. Evidence.evidence	
	0..* Polypeptide.polypeptide	

Translational

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotations	Map<Class<? extends TranslationalBaseAnnotation>, TranslationalBaseAnnotation>			0			new HashMap<Class<? extends TranslationalBaseAnnotation>, TranslationalBaseAnnotation>()	
	dataResources	SortedSet<DataResource>			0			new TreeSet<DataResource>()	
	description	String			0				
	doi	DOI			0				
	id	Long			0				
	molecules	List<Molecule>			0				
	name	TranslationalSynonym			0				
	references	List<Reference>			0			new ArrayList<Reference>()	
	serialVersionUID	long			0			27782 26752 00969 1874L	
	source	String			0				
	type	String			0				
	visible	Boolean			0				

Constraints

Name	Type	Columns	Initial Code	Notes
addAnnotation	Public	class1 baseCompoundAnnotation		
getAnnotation	Public	type		
getAnnotationFromString	Public	type		
getAnnotations	Public			
getDataResources	Public			
getDescription	Public			
getDoi	Public			
getId	Public			
getMolecules	Public			
getName	Public			
getReferences	Public			
getSource	Public			
getType	Public			
getVisible	Public			@return the visible
setAnnotations	Public	annotations		
setDataResources	Public	dataResources		
setDescription	Public	description		
setDoi	Public	doi		
setId	Public	id		
setMolecules	Public	molecules		
setName	Public	name		
setReferences	Public	references		
setSource	Public	source		
setType	Public	type		
setVisible	Public	visible		
Translational	Public			

Relationships

Columns	Association	Notes
	TranslationalBean. Translational.selectedTranslational	
	TranslationalSynonym. Translational.translational	
	Agent. Translational.	
	ClinicalTrial. Translational.	

Columns	Association	Notes
	Disease. Translational.	
	Translational. DOI.doi	
0..*	Translational. Molecule.molecules	
	Translational. TranslationalSynonym.name	
0..*	Translational. Reference.references	

Transporter

Database: Java, *Stereotype:* , *Package:* translational
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	action	String		0					
	evidence	Evidence		0					
	id	Long		0					
	knownAction	String		0					
	name	String		0					
	polypeptide	List<Poly peptide>		0				new ArrayList<Poly peptide>()	
	serialVersionUID	long		0				80883 18396 38002 6836L	
	transporterId	Long		0					

Constraints

Name	Type	Columns	Initial Code	Notes
getAction	Public			
getEvidence	Public			
getId	Public			
getKnownAction	Public			
getName	Public			
getPolypeptide	Public			
getTransporterId	Public			
setAction	Public	action		
setEvidence	Public	evidence		
setId	Public	id		
setKnownAction	Public	knownAction		
setName	Public	name		
setPolypeptide	Public	polypeptide		

Name	Type	Columns	Initial Code	Notes
setTransporterId	Public	transporterId		

Relationships

Columns	Association	Notes
	Drug. 0..* Transporter.transporters	
	Transporter. Evidence.evidence	
	Transporter. 0..* Polypeptide.polypeptide	

translationalAnnotations

Type: **Package**
Package: model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

translationalAnnotations

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

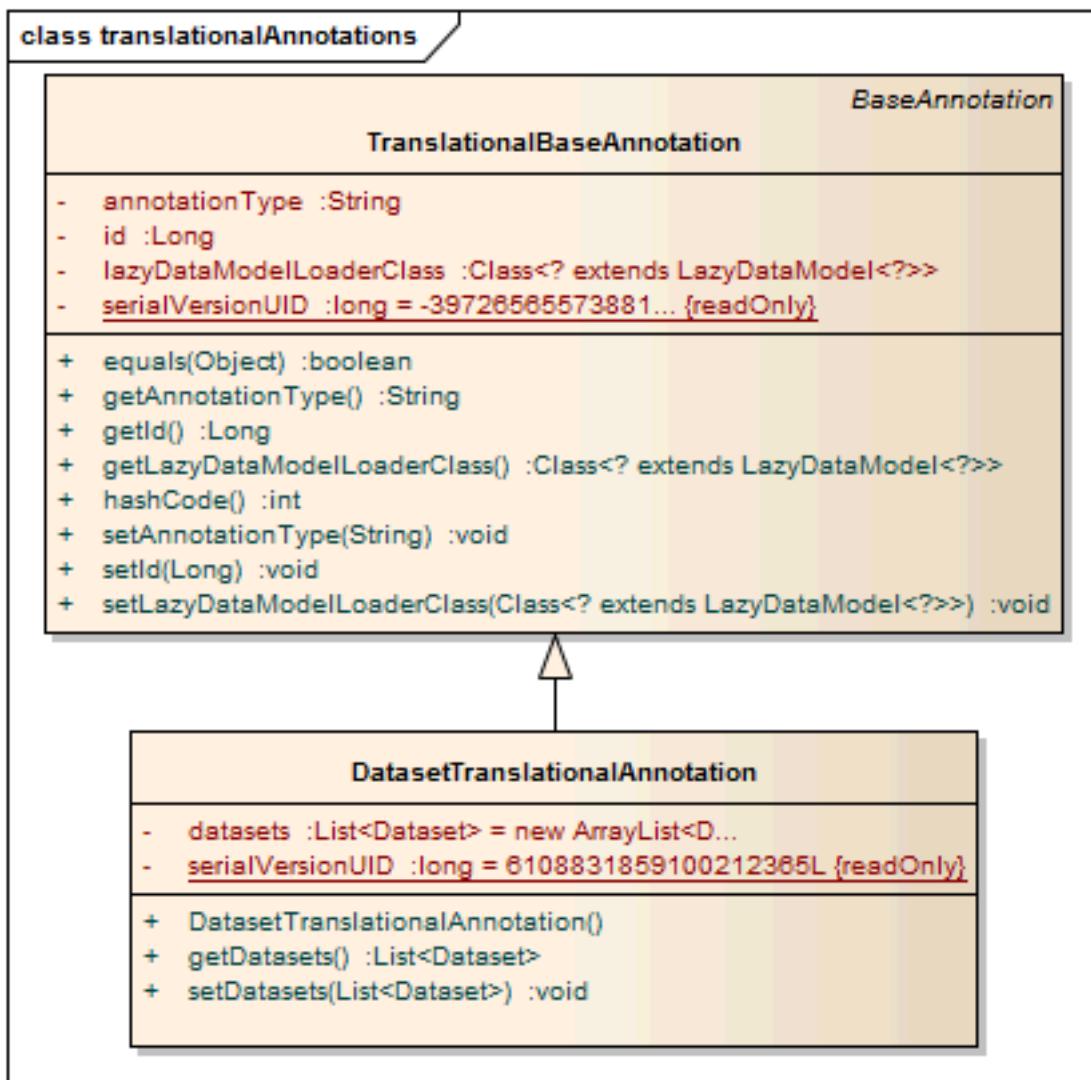


Figure: 44

DatasetTranslationalAnnotation

Database: Java, *Stereotype:* , *Package:* translationalAnnotations

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	datasets	List<Dataset>			0			new ArrayList<Dataset>()	
	serialVersionUID	long			0			6108831859100212365L	

Constraints

Name	Type	Columns	Initial Code	Notes
DatasetTranslationalAnnotation	Public			
getDatasets	Public			
setDatasets	Public	datasets		

Relationships

Columns	Association	Notes
	DatasetTranslationalAnnotation. 0..* Dataset.datasets	
	DatasetTranslationalAnnotation. TranslationalBaseAnnotation.	

TranslationalBaseAnnotation*Database:* Java, *Stereotype:* , *Package:* translationalAnnotations*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:****Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	annotationType	String			0				
	id	Long			0				
	lazyDataManagerLoaderClass	Class<? extends LazyDataManager<? >>			0				
	serialVersionUID	long			0			-39726 56557 38817 0400L	

Constraints

Name	Type	Columns	Initial Code	Notes
equals	Public	obj		
getAnnotationType	Public			
getId	Public			
getLazyDataManagerLoaderClass	Public			
hashCode	Public			
setAnnotationType	Public	type		
setId	Public	id		
setLazyDataManagerLoaderClass	Public	lazyDataManagerLoaderClass		

Relationships

Columns	Association	Notes
	DatasetTranslationalAnnotation. TranslationalBaseAnnotation.	
	TranslationalBaseAnnotation.	

Columns	Association	Notes
	BaseAnnotation.	

user

Type: **Package**

Package: model

Detail: *Created on 9/11/2014. Last modified on 9/11/2014.*

Notes:

user

Created By: apollo mcowitz on 9/11/2014

Last Modified: 9/11/2014, *Version:*1.0

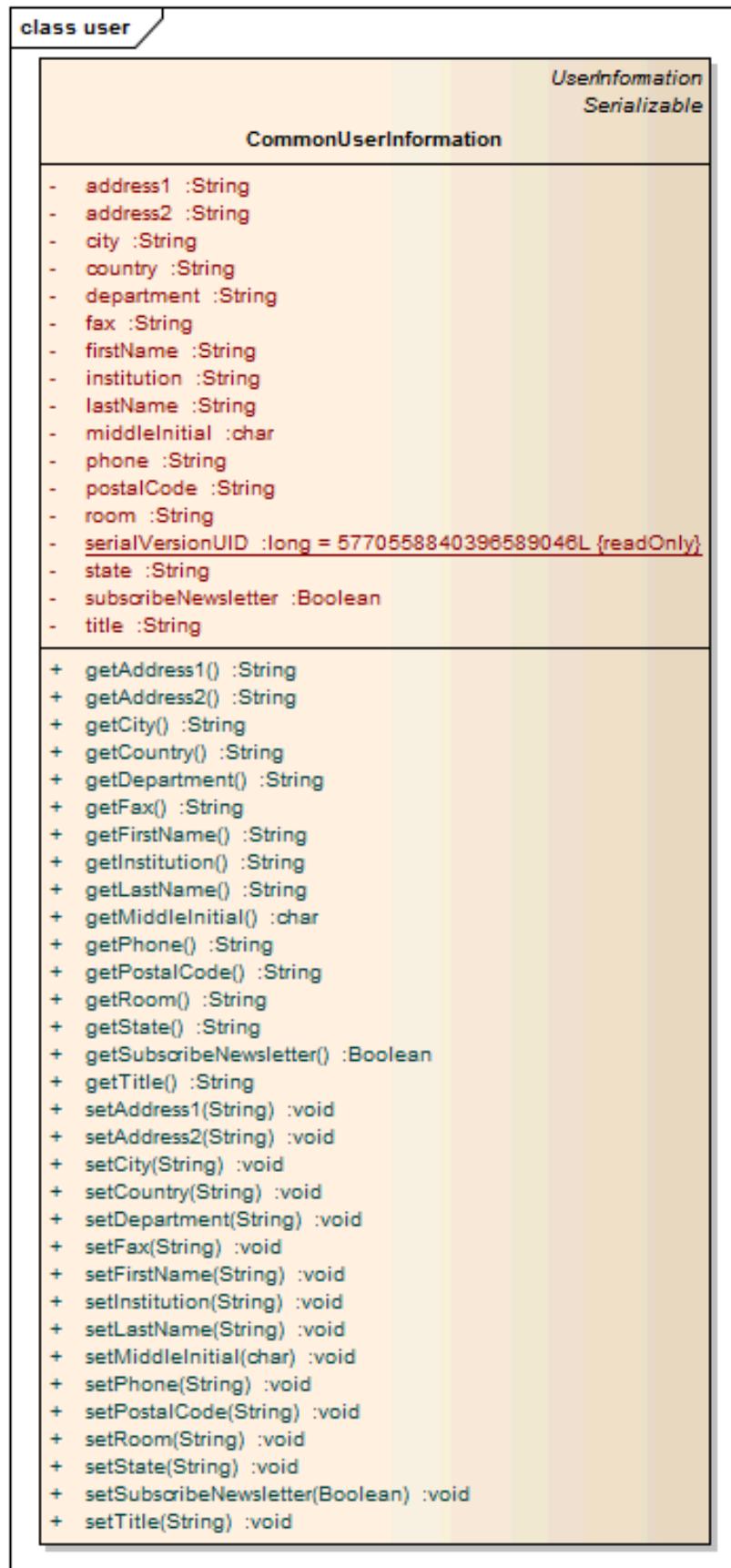


Figure: 45

CommonUserInformation

Database: Java, *Stereotype:* , *Package:* user
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	address1	String			0				
	address2	String			0				
	city	String			0				
	country	String			0				
	department	String			0				
	fax	String			0				
	firstName	String			0				
	institution	String			0				
	lastName	String			0				
	middleInitial	char			0				
	phone	String			0				
	postalCode	String			0				
	room	String			0				
	serialVersionUID	long			0			57705 58840 39658 9046L	
	state	String			0				
	subscribeNewsletter	Boolean			0				
	title	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAddress1	Public			
getAddress2	Public			
getCity	Public			
getCountry	Public			
getDepartment	Public			
getFax	Public			
getFirstName	Public			public CommonUserInformation() { setFirstName(""); setLastName(""); setMiddleInitial(' '); setPhone(""); setEmail(new EmailAddress()); }
getInstitution	Public			
getLastname	Public			
getMiddleInitial	Public			
getPhone	Public			
getPostalCode	Public			
getRoom	Public			
getState	Public			

Name	Type	Columns	Initial Code	Notes
getSubscribeNewsletter	Public			
getTitle	Public			
setAddress1	Public	address1		
setAddress2	Public	address2		
setCity	Public	city		
setCountry	Public	country		
setDepartment	Public	department		
setFax	Public	fax		
setFirstName	Public	firstName		
setInstitution	Public	institution		
setLastName	Public	lastName		
setMiddleInitial	Public	middleInitial		
setPhone	Public	phone		
setPostalCode	Public	postalCode		
setRoom	Public	room		
setState	Public	state		
setSubscribeNewsletter	Public	subscribeNewsletter		
setTitle	Public	title		

Relationships

Columns	Association	Notes
	UserBean. CommonUserInformation.selectedUserInformation	

security

Type: Package
Package: nursa
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

security

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, **Version:**1.0

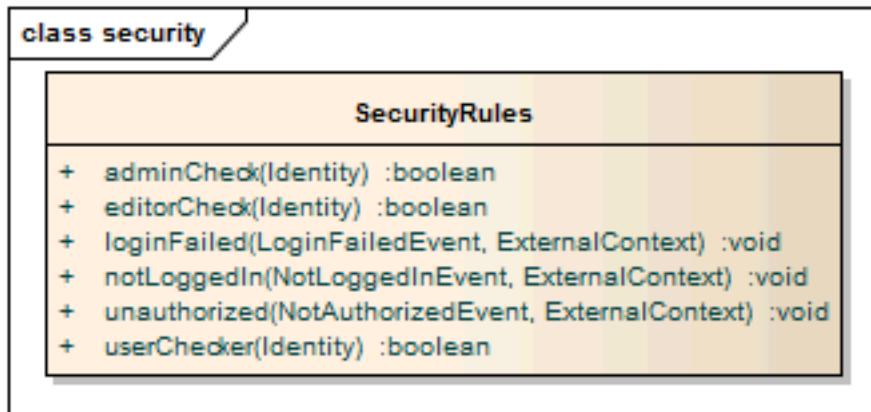


Figure: 46

SecurityRules

Database: Java, *Stereotype:* , *Package:* security
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
adminCheck	Public	identity		
editorCheck	Public	identity		
loginFailed	Public	event context		
notLoggedIn	Public	event context		
unauthorized	Public	event context		
userChecker	Public	identity		

identity

Type: **Package**
Package: security
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

identity

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

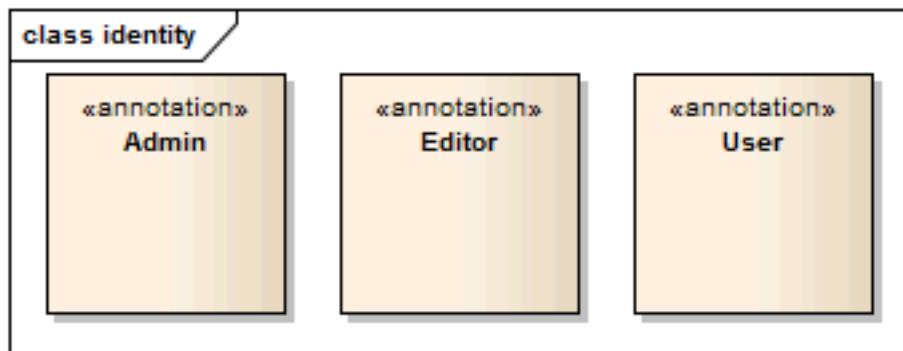


Figure: 47

Admin

Database: Java, *Stereotype:* «annotation», *Package:* identity
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Editor

Database: Java, *Stereotype:* «annotation», *Package:* identity
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

User

Database: Java, *Stereotype:* «annotation», *Package:* identity
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

model

Type: **Package**
Package: security
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

model

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

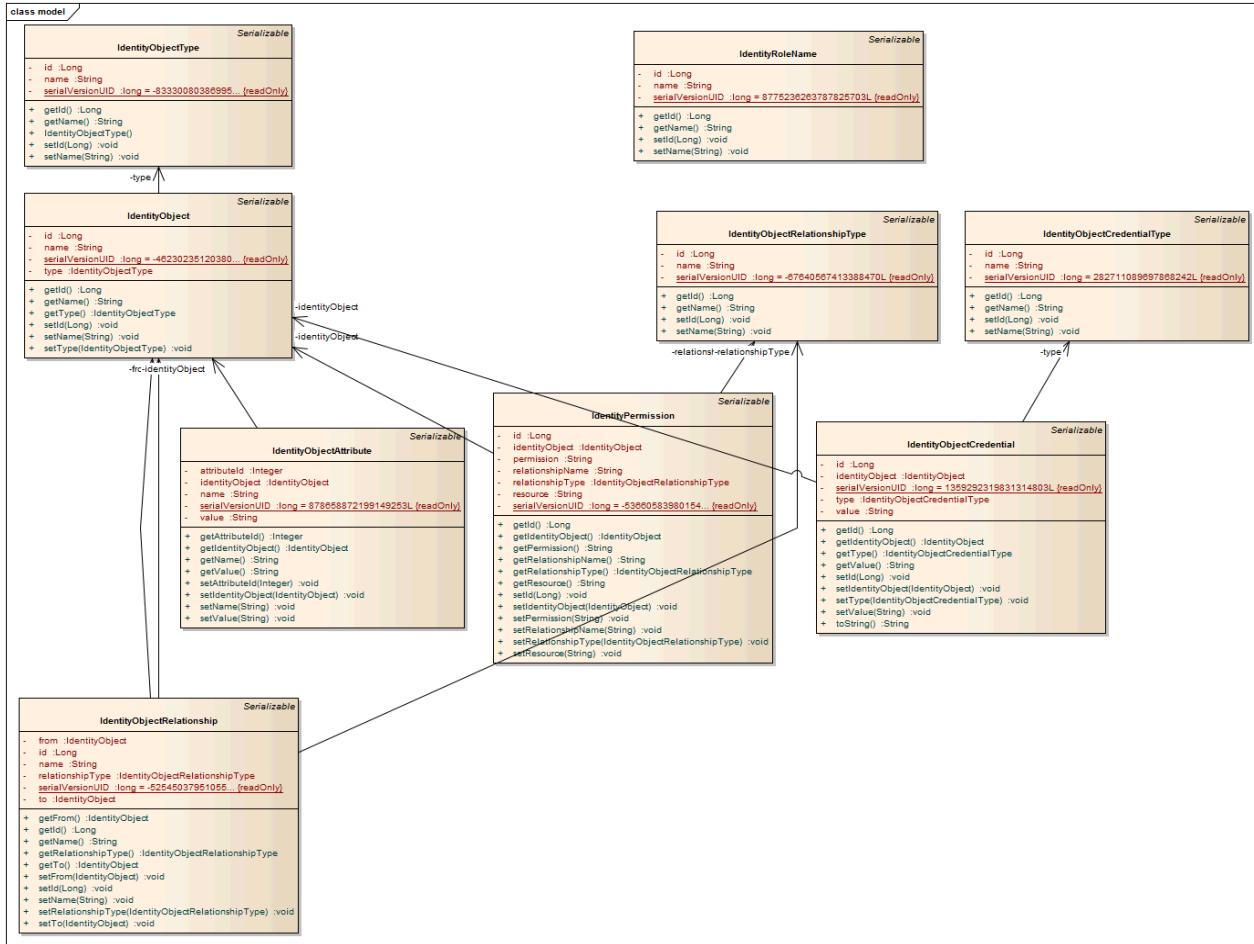


Figure: 48

IdentityObject

Database:

Java, *Stereotype*: , *Package*: model

Detail:

Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

This entity contains identity objects, e.g. users and groups

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-46230 23512 03805 9728L	
	type	IdentityObject			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
getType	Public			

Name	Type	Columns	Initial Code	Notes
setId	Public	id		
setName	Public	name		
setType	Public	type		

Relationships

Columns	Association	Notes
	IdentityObject. IdentityObjectType.type	
	IdentityObjectAttribute. IdentityObject.identityObject	
	IdentityObjectCredential. IdentityObject.identityObject	
	IdentityObjectRelationship. IdentityObject.from	
	IdentityObjectRelationship. IdentityObject.to	
	IdentityPermission. IdentityObject.identityObject	

IdentityObjectAttribute

Database: Java, Stereotype: , Package: model

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: Stores user attributes

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	attributeId	Integer			0				
	identityObject	IdentityObject			0				
	name	String			0				
	serialVersionUID	long			0			87865 88721 99149 253L	
	value	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getAttributeId	Public			
getIdentityObject	Public			
getName	Public			
getValue	Public			
setAttributeId	Public	id		
setIdentityObject	Public	identityObject		
setName	Public	name		
setValue	Public	value		

Relationships

Columns	Association	Notes
	IdentityObjectAttribute. IdentityObject.identityObject	

IdentityObjectCredential

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: Holds credential values

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	identityObject	IdentityObject			0				
	serialVersionUID	long			0			13592 92319 83131 4803L	
	type	IdentityObjectCredentialType			0				
	value	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getIdentityObject	Public			
getType	Public			
getValue	Public			
setId	Public	id		
setIdentityObject	Public	identityObject		
setType	Public	type		
setValue	Public	value		
toString	Public			

Relationships

Columns	Association	Notes
	IdentityObjectCredential. IdentityObject.identityObject	
	IdentityObjectCredential. IdentityObjectCredentialType.type	

IdentityObjectCredentialType

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: Lookup table containing credential types

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			28271 10896 97868 242L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	IdentityObjectCredential. IdentityObjectCredentialType.type	

IdentityObjectRelationship*Database:* Java, *Stereotype:* , *Package:* model*Detail:* Created on 9/11/2014. Last modified on 9/11/2014.*Notes:* Contains relationships between identities***Columns***

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	from	IdentityObject			0				
	id	Long			0				
	name	String			0				
	relationshipType	IdentityObjectRelationshipType			0				
	serialVersionUID	long			0			-52545 03795 10557 1898L	
	to	IdentityObject			0				

Constraints

Name	Type	Columns	Initial Code	Notes
getFrom	Public			
getId	Public			
getName	Public			
getRelationshipType	Public			
getTo	Public			
setFrom	Public	from		

Name	Type	Columns	Initial Code	Notes
setId	Public	id		
setName	Public	name		
setRelationshipType	Public	relationshipType		
setTo	Public	to		

Relationships

Columns	Association	Notes
	IdentityObjectRelationship. IdentityObject.from	
	IdentityObjectRelationship. IdentityObjectRelationshipType.relationshipType	
	IdentityObjectRelationship. IdentityObject.to	

IdentityObjectRelationshipType

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: Lookup table containing relationship types

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-67640 56741 33884 70L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	IdentityObjectRelationship. IdentityObjectRelationshipType.relationshipType	
	IdentityPermission. IdentityObjectRelationshipType.relationshipType	

IdentityObjectType

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: A lookup table containing identity object types

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			-83330 08038 69951 0742L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
IdentityObjectType	Public			
setId	Public	id		
setName	Public	name		

Relationships

Columns	Association	Notes
	IdentityObject. IdentityObjectType.type	

IdentityPermission

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: This entity stores ACL permissions

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	identityObject	IdentityObject			0				
	permission	String			0				
	relationshipName	String			0				
	relationshipType	IdentityObjectRelationshipType			0				
	resource	String			0				
	serialVersionUID	long			0			-53660 58398 01549 5583L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			Surrogate primary key value for the permission. @return

Name	Type	Columns	Initial Code	Notes
getIdentityObject	Public			Either the specific identity object for which this permission is granted, or in the case of a permission granted against a group, this property then represents the "to" side of the group relationship. Required field. @return
getPermission	Public			The permission(s) granted for the resource. May either be a comma-separated list of permission names (such as create, delete, etc) or a bit-masked integer value, in which each bit represents a different permission. @return
getRelationshipName	Public			If this permission is granted to a group of identities, then this property may be used to indicate the name for named relationships, such as role memberships. @return
getRelationshipType	Public			If this permission is granted to a group of identities, then this property may be used to indicate the relationship type of the group membership. For example, a group or role relationship. It is possible that the permission may also be granted to identities that have *any* sort of membership within a group, in which case this property would

Name	Type	Columns	Initial Code	Notes
				be null. @return
getResource	Public			The unique identifier for the resource for which permission is granted @return
setId	Public	id		
setIdentityObject	Public	identityObject		
setPermission	Public	permission		
setRelationshipName	Public	relationshipName		
setRelationshipType	Public	relationshipType		
setResource	Public	resource		

Relationships

Columns	Association	Notes
	IdentityPermission. IdentityObject.identityObject	
	IdentityPermission. IdentityObjectRelationshipType.relationshipType	

IdentityRoleName

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: This is a simple lookup table containing role names

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long			0				
	name	String			0				
	serialVersionUID	long			0			87752 36263 78782 5703L	

Constraints

Name	Type	Columns	Initial Code	Notes
getId	Public			
getName	Public			
setId	Public	id		
setName	Public	name		

util

Type: **Package**
Package: nursa

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

util

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

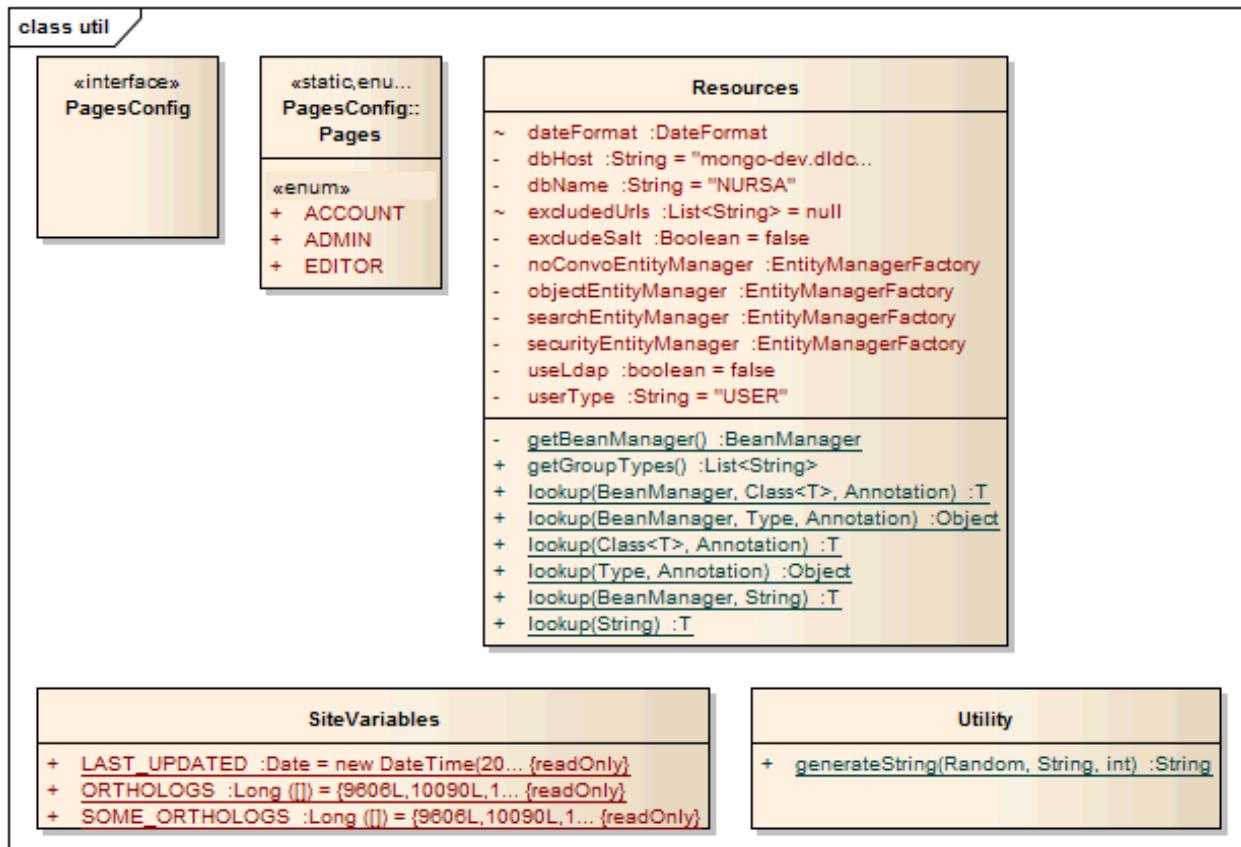


Figure: 49

Resources

Database: Java, *Stereotype:* , *Package:* util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	dateFormat	DateFormat			0				
	dbHost	String			0			"mongo-dev.dldccbcm.edu"	
	dbName	String			0			"NURSA"	
	excludedUrls	List<String>			0			null	
	excludeSalt	Boolean			0			false	

	noConvoEntityManager	EntityManagerFactory			0				
	objectEntityManager	EntityManagerFactory			0				
	searchEntityManager	EntityManagerFactory			0				
	securityEntityManager	EntityManagerFactory			0				
	useLdap	boolean			0		false	Change this to turn on and off LDAP	
	userType	String			0		"USER"		

Constraints

Name	Type	Columns	Initial Code	Notes
getBeanManager	Private			
getGroupTypes	Public			
lookup	Public	manager beanClass qualifiers		
lookup	Public	manager beanType qualifiers		
lookup	Public	beanClass qualifiers		
lookup	Public	beanType qualifiers		
lookup	Public	manager name		
lookup	Public	name		

SiteVariables

Database: Java, *Stereotype:* , *Package:* util

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	LAST_UPDATED	Date			0			new DateTi me(20 14,1,3 1,0,0).t oCalen dar(nul	last updated

								l).getTime()	
	ORTHOLOGS	Long			0			{9606 L,1009 0L,101 16L,72 27L}	sorted list of species taxon ids for displaying orthologs human, mouse, rat, fly
	SOME_ORTHOLOGS	Long			0			{9606 L,1009 0L,101 16L}	apollo minus fly

Utility

Database: Java, *Stereotype:* , *Package:* util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
generateString	Public	rng characters length		

PagesConfig

Database: Java, *Stereotype:* , *Package:* util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Pages

Database: Java, *Stereotype:* «static», *Package:* util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	ACCOUNT				0				
	ADMIN				0				
	EDITOR				0				

annotations

Type: **Package**
Package: util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

annotations

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

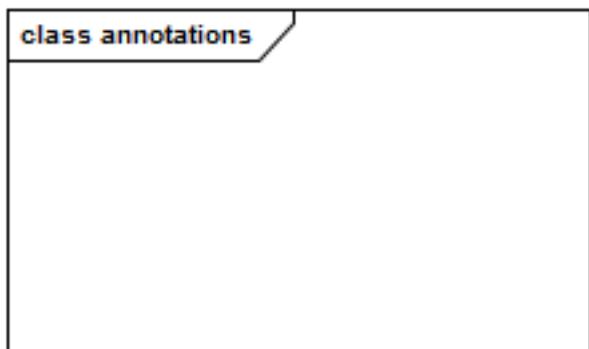


Figure: 50

listeners*Type:**Package:**Detail:**Notes:***Package**

annotations

*Created on 9/11/2014. Last modified on 9/11/2014.***listeners***Created By:*

apollo mcowitz on 9/11/2014

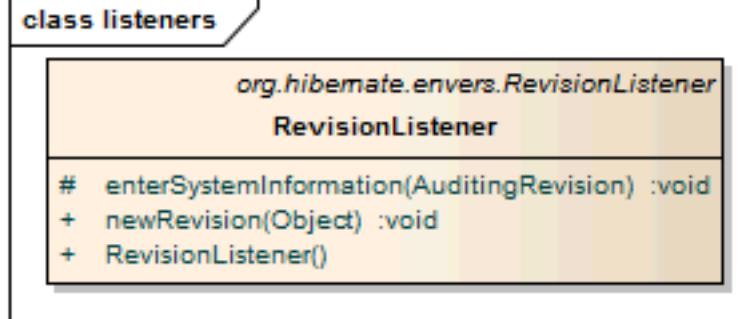
*Last Modified:*9/11/2014, *Version:*1.0

Figure: 51

RevisionListener*Database:* Java, *Stereotype:* , *Package:* listeners*Detail:* *Created on 9/11/2014. Last modified on 9/11/2014.**Notes:***Constraints**

Name	Type	Columns	Initial Code	Notes
enterSystemInformation	Protected	revision		
newRevision	Public	revisionEntity		(non-Javadoc) @see org.hibernate.envers. .RevisionListener#n ewRevision(java.lan g.Object)
RevisionListener	Public			

comparator**Type:** Package**Package:** util**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****comparator****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:** 1.0

Figure: 52

DataSourceAlphabetical**Database:** Java, **Stereotype:** , **Package:** comparator**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****Columns**

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			-54333 90441 12506 0137L	

Constraints

Name	Type	Columns	Initial Code	Notes
compare	Public	dr1 dr2		

enumeration**Type:** Package**Package:** util**Detail:** Created on 9/11/2014. Last modified on 9/11/2014.**Notes:****enumeration****Created By:** apollo mcowiti on 9/11/2014**Last Modified:** 9/11/2014, **Version:** 1.0

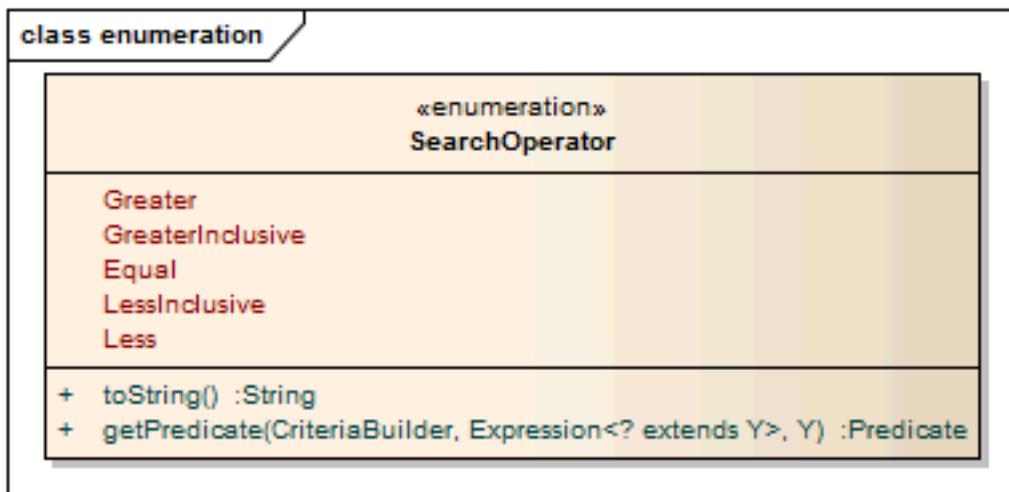


Figure: 53

SearchOperator

Database: Java, **Stereotype:** «enumeration», **Package:** enumeration

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	Greater				0				
	GreaterInclusive				0				
	Equal				0				
	LessInclusive				0				
	Less				0				

Constraints

Name	Type	Columns	Initial Code	Notes
toString	Public			
getPredicate	Public	cb x y		

etl

Type: **Package**

Package: util

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

etl

Created By: apollo mcowitz on 9/11/2014

Last Modified: 9/11/2014, **Version:**1.0

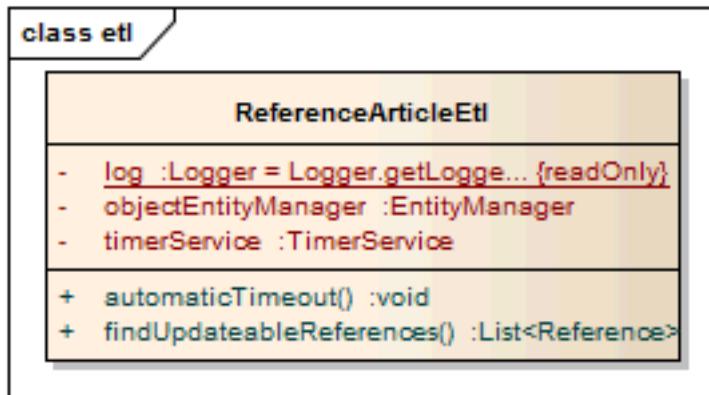


Figure: 54

ReferenceArticleEtl

Database: Java, *Stereotype:* , *Package:* etl
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: This need to be moved to the etl project

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	log	Logger			0			Logger.getLogger("ReferenceArticleEtl")	
	objectEntityManager	EntityManager			0				
	timerService	TimerService			0				

Constraints

Name	Type	Columns	Initial Code	Notes
automaticTimeout	Public			
findUpdateableReferences	Public			

filter

Type: **Package**
Package: util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

filter

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

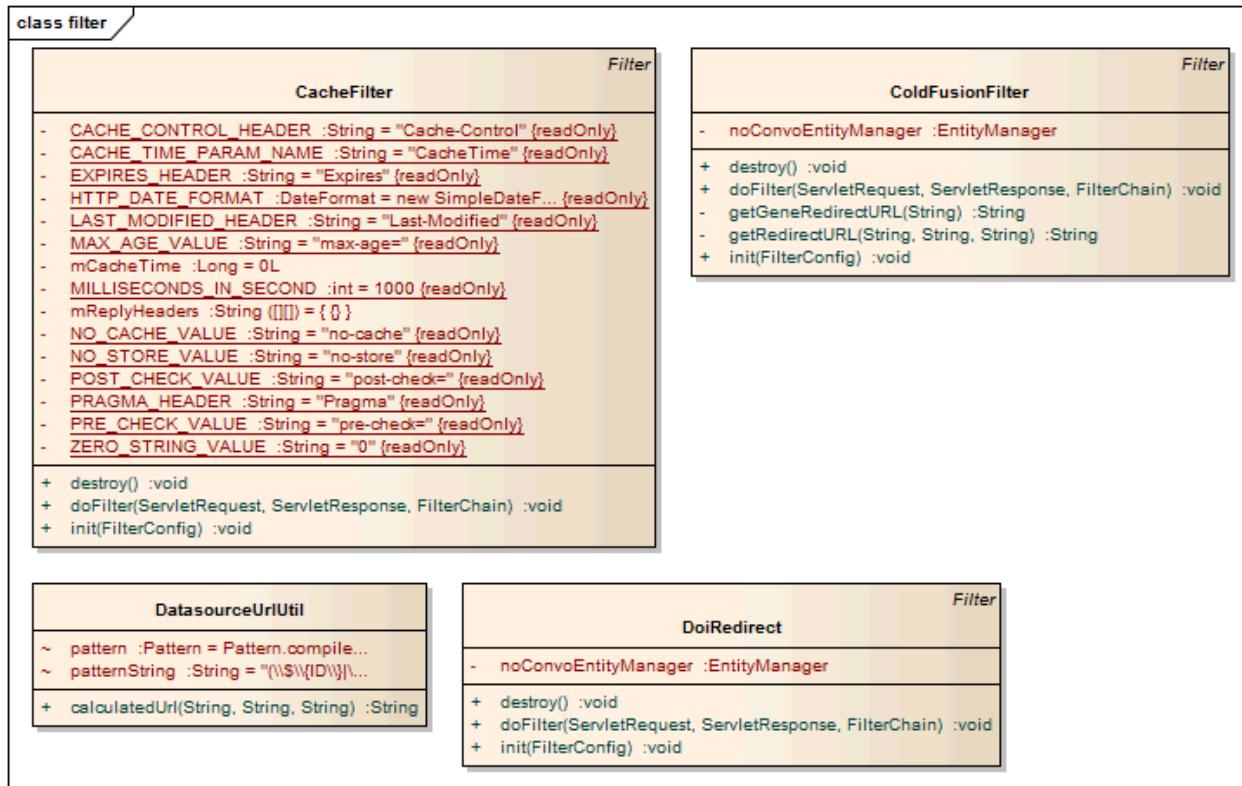


Figure: 55

CacheFilter

Database: Java, *Stereotype:* , *Package:* filter

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: CMW smarter caching based on resource type got this from

<http://www.digitalsanctuary.com/tech-blog/java/jboss/setting-cache-headers-from-jboss.html>

The Class CacheHeaderFilter.

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	CACHE_CONTROL_HEADER	String			0			"Cache-Contr ol"	The Constant CACHE_CONTROL_HEADER.
	CACHE_TIME_PARAM_NAME	String			0			"Cache Time"	The Constant CACHE_TIME_PARAM_NAME.
	EXPIRES_HEADER	String			0			"Expires"	The Constant EXPIRES_HEADER.
	HTTP_DATE_FORMAT	DateFormat			0			new SimpleDateFormat("EEE, dd MMM yyyy HH:mm:ss")	The Static HTTP_DATE_FORMAT object.

							z", Locale. US)	
LAST_MODIFIED_HEADER	String			0		"Last-Modifi ed"	The Constant LAST_MODIFIED_HEADER.	
MAX_AGE_VALUE	String			0		"max-age="	The Constant MAX_AGE_VALUE.	
mCacheTime	Long			0		0L	The cache time in seconds.	
MILLISECONDS_IN_SECOND	int			0		1000	The Constant MILLISECONDS_IN_SECOND.	
mReplyHeaders	String			0		{ {} }	The reply headers.	
NO_CACHE_VALUE	String			0		"no-cache"	The Constant NO_CACHE_VALUE.	
NO_STORE_VALUE	String			0		"no-store"	The Constant NO_STORE_VALUE.	
POST_CHECK_VALUE	String			0		"post-check="	The Constant POST_CHECK_VALUE.	
PRAGMA_HEADER	String			0		"Pragma"	The Constant PRAGMA_HEADER.	
PRE_CHECK_VALUE	String			0		"pre-check="	The Constant PRE_CHECK_VALUE.	
ZERO_STRING_VALUE	String			0		"0"	The Constant ZERO_STRING_VALUE.	

Constraints

Name	Type	Columns	Initial Code	Notes
destroy	Public			Destroy all humans! @see javax.servlet.Filter#destroy()
doFilter	Public	pRequest pResponse pChain		Do filter. @see javax.servlet.Filter#doFilter(javax.servlet.ServletRequest, javax.servlet.ServletResponse, javax.servlet.FilterChain)
init	Public	pConfig		Initializes the Servlet filter with the cache time and sets up the unchanging headers. @see javax.servlet.Filter#init(javax.servlet.FilterConfig)

ColdFusionFilter

Database: Java, *Stereotype:* , *Package:* filter

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	noConvoEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
destroy	Public			
doFilter	Public	req res chain		
getGeneRedirectURL	Private	entrezID		
getRedirectURL	Private	request molType identifier		
init	Public	filterConfig		

DatasourceUrlUtil

Database: Java, *Stereotype:* , *Package:* filter

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes: Util to calculate URLs

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	pattern	Pattern			0			Pattern.compile(patternString)	
	patternString	String			0			"(\\$\{ID\}\\$\{GENE_OF_FICIA_LNAME\\$\})"	

Constraints

Name	Type	Columns	Initial Code	Notes
calculatedUrl	Public	baseUrl id name		

DoiRedirect

Database: Java, *Stereotype:* , *Package:* filter
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	noConvoEntityManager	EntityManager			0				

Constraints

Name	Type	Columns	Initial Code	Notes
destroy	Public			
doFilter	Public	req res chain		
init	Public	arg0		

model

Type: **Package**
Package: util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

model

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

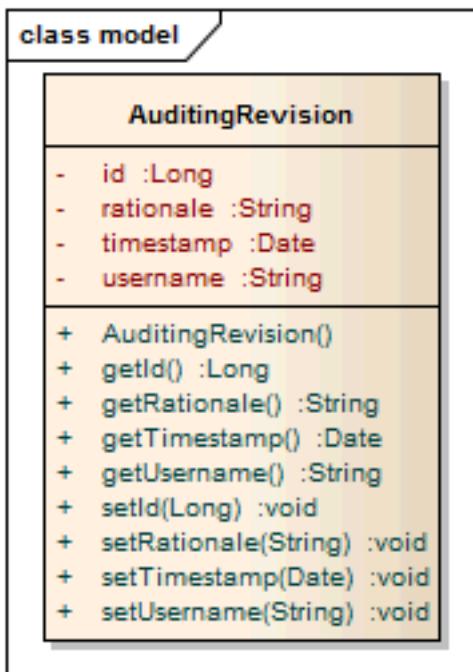


Figure: 56

AuditingRevision

Database: Java, *Stereotype:* , *Package:* model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	id	Long		0					
	rationale	String		0					
	timestamp	Date		0					
	username	String		0					

Constraints

Name	Type	Columns	Initial Code	Notes
AuditingRevision	Public			
getId	Public			@return the id
getRationale	Public			@return the rationale
getTimestamp	Public			@return the timestamp
getUsername	Public			@return the username
setId	Public	id		
setRationale	Public	rationale		
setTimestamp	Public	timestamp		
setUsername	Public	username		

qualifier

Type: **Package**
Package: util
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

qualifier

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0



Figure: 57

NamedLiteral

Database: Java, *Stereotype:* , *Package:* qualifier
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	serialVersionUID	long			0			53549 42660 22351 3782L	
	value	String			0				

Constraints

Name	Type	Columns	Initial Code	Notes
NamedLiteral	Public	value		
value	Public			

Current

Database: Java, *Stereotype:* «annotation», *Package:* qualifier
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

NoConversationDatabase

Database: Java, *Stereotype:* «annotation», *Package:* qualifier
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

validator

Type: **Package**
Package: nursa
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

validator

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

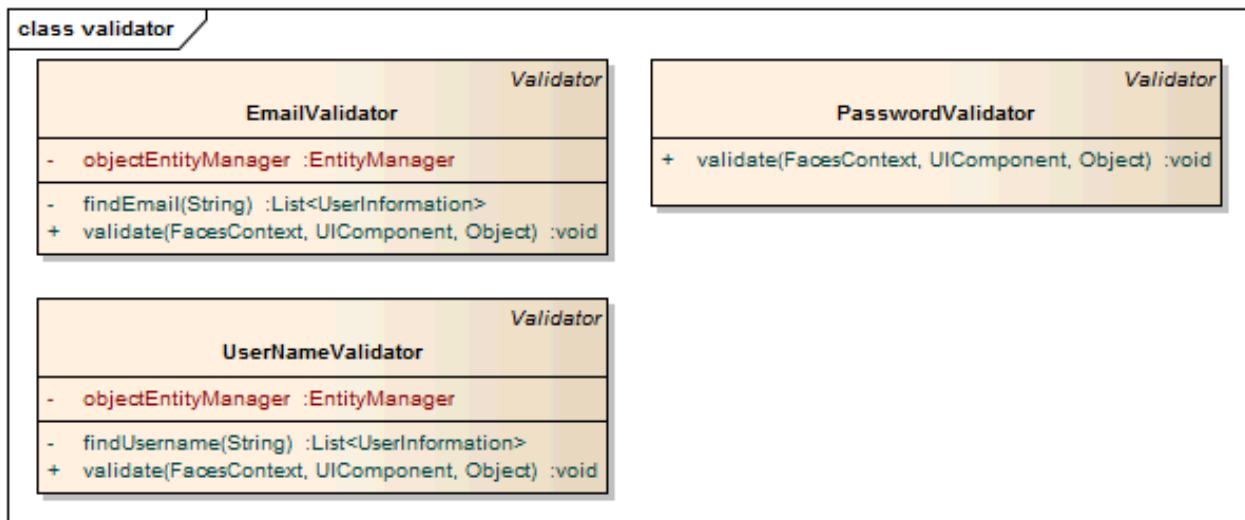


Figure: 58

EmailValidator

Database: Java, *Stereotype:* , *Package:* validator

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				Email validator - checks for both a valid email address and that it's unique (non-Javadoc) @see javax.faces.validator.Validator#validate(javax.faces.context.FacesContext, javax.faces.component.UIComponent, java.lang.Object)

Constraints

Name	Type	Columns	Initial Code	Notes
findEmail	Private	emailAddress		1/31/14 CMW this should really go into a data class I should like into this once it's all working @return
validate	Public	context component value		

PasswordValidator

Database: Java, **Stereotype:** , **Package:** validator
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes: 1/27/14 cmw confirms that two password inputs are identical a note about how the error messages are generated: Components in JSF are referenced by client ID global error messages aren't attached to a client ID error messages for a specific component are attached via client ID What does this mean? If we set required to "true" on either or both of the password fields, any component specific message tag (e.g., h:message and p:message) will display the required = "true" message along with this one. I would like to either display a message that the passwords don't match or none at all (the fields can still be highlighted to show that there is an issue if they are empty). Therefore, there are two options: 1) make this message global and pick a place to display global messages, preferably at the top of the registration form so that we're not boxing ourselves into a corner with any other future global messages. Also, flag both components as not valid. 2) turn off "required = 'true'" on the password fields and validate that there's a length in a custom validator. This is also moderately icky, because we're bypassing the semantically more meaningful "required" attribute, which can be used in a custom component implementation to flag the label of the corresponding input field as such. I'm going with #1 for the time being and will edit as changes are requested. :)

Constraints

Name	Type	Columns	Initial Code	Notes
validate	Public	context component value		

UserNameValidator

Database: Java, **Stereotype:** , **Package:** validator
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	objectEntityManager	EntityManager			0				Email validator - checks that the username is unique (non-Javadoc) @see javax.faces.validator.Validator#validate(javax.faces.context.FacesContext, javax.faces.component.UIComponent, java.lang.Object)

Constraints

Name	Type	Columns	Initial Code	Notes
findUsername	Private	username		1/31/14 CMW this should really go into a data class I should like into this once it's all working @param emailAddress

Name	Type	Columns	Initial Code	Notes
validate	Public	context component value		@return

Component Model

Type: Package

Package: Model

Detail: Created on 9/11/2014. Last modified on 9/11/2014.

Notes:

Component Model

Created By: apollo mcowiti on 9/11/2014

Last Modified: 9/11/2014, *Version:*1.0

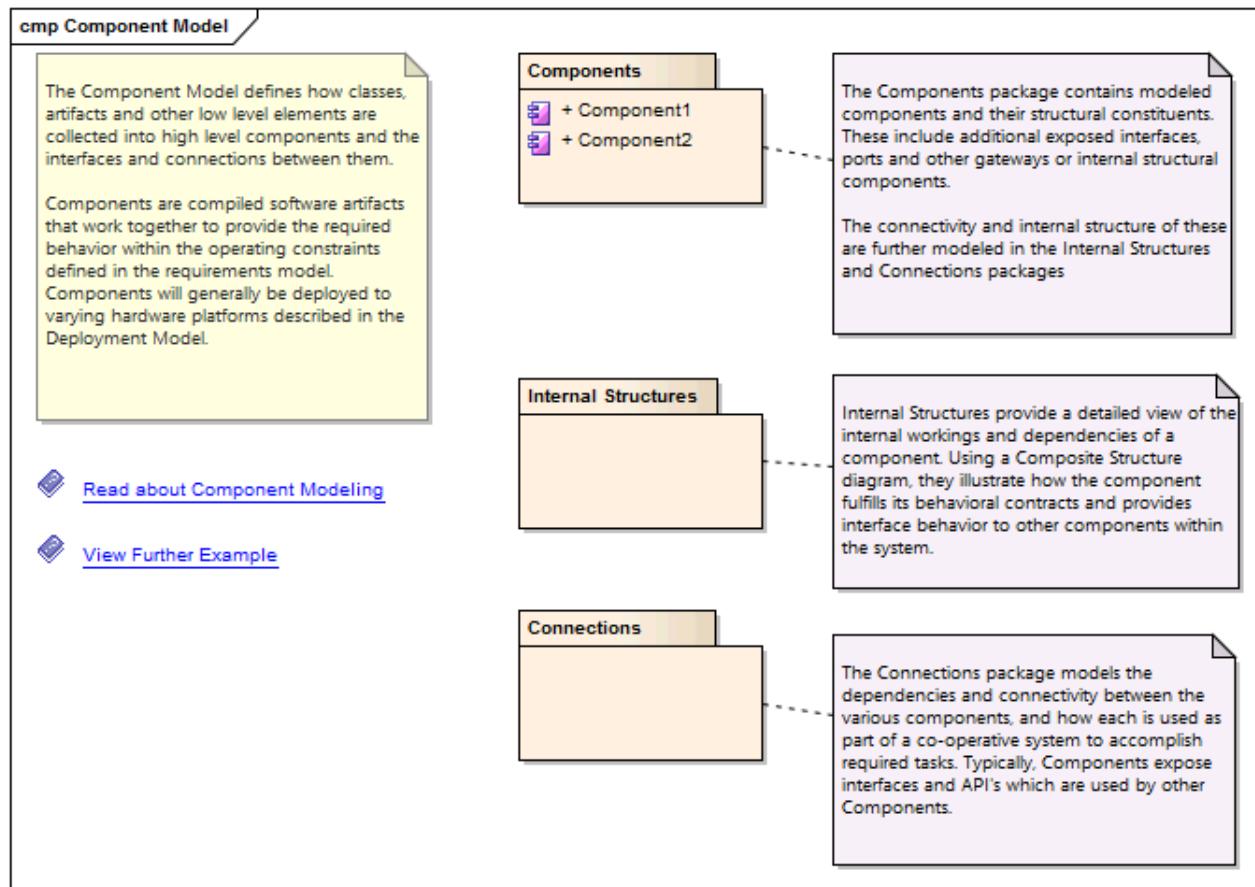


Figure: 59

Components

Type: Package

Package: Component Model

Detail: Created on 1/5/2006. Last modified on 1/5/2006.

Notes:

Components

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

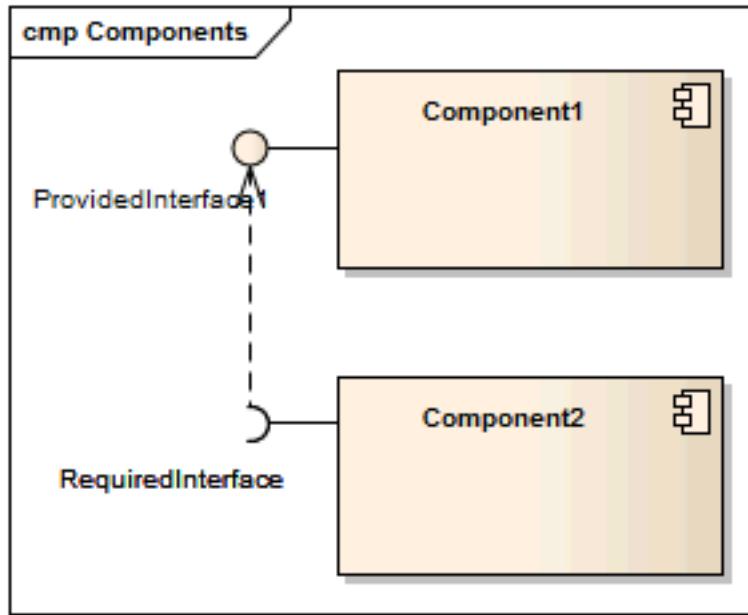


Figure: 60

Component1

Database: Java, *Stereotype:* , *Package:* Components
Detail: Created on 1/5/2006. Last modified on 1/5/2006.
Notes:

Relationships

Columns	Association	Notes
	Component1. <anonymous>.	
	Component1. <anonymous>.	

Component2

Database: Java, *Stereotype:* , *Package:* Components
Detail: Created on 1/5/2006. Last modified on 1/5/2006.
Notes:

Relationships

Columns	Association	Notes
	Component2. <anonymous>.	

Connections

Type: Package
Package: Component Model

Detail: Created on 1/5/2006. Last modified on 1/5/2006.

Notes:

Connections

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

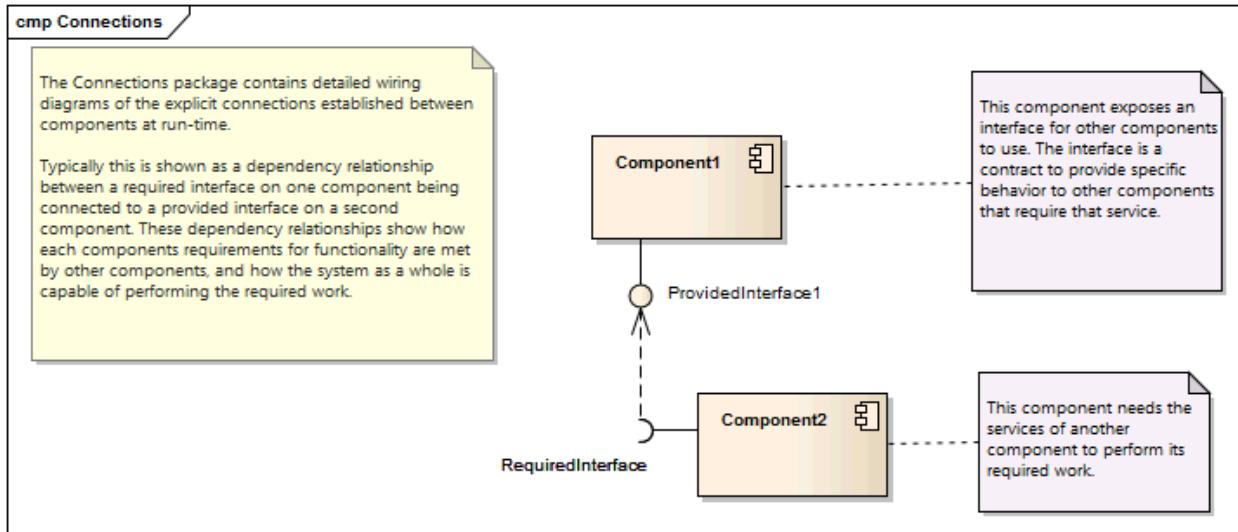


Figure: 61

Internal Structures

Type: Package
Package: Component Model
Detail: Created on 1/5/2006. Last modified on 1/5/2006.
Notes:

Internal Structures

Created By: apollo mcowitz on 9/11/2014
Last Modified: 9/11/2014, *Version:*1.0

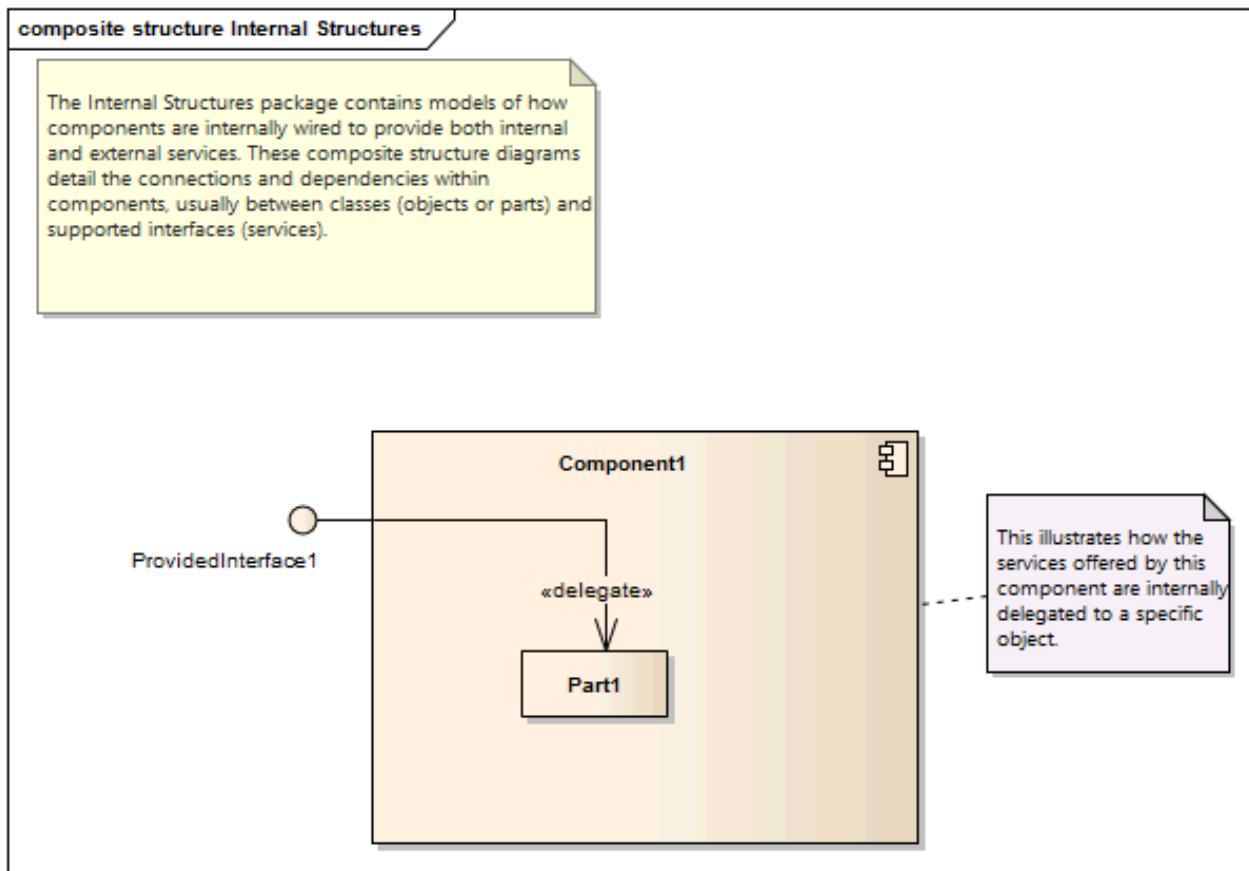


Figure: 62

Deployment Model

Type: **Package**
Package: Model
Detail: Created on 9/11/2014. Last modified on 9/11/2014.
Notes:

Deployment Model

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version: 1.0

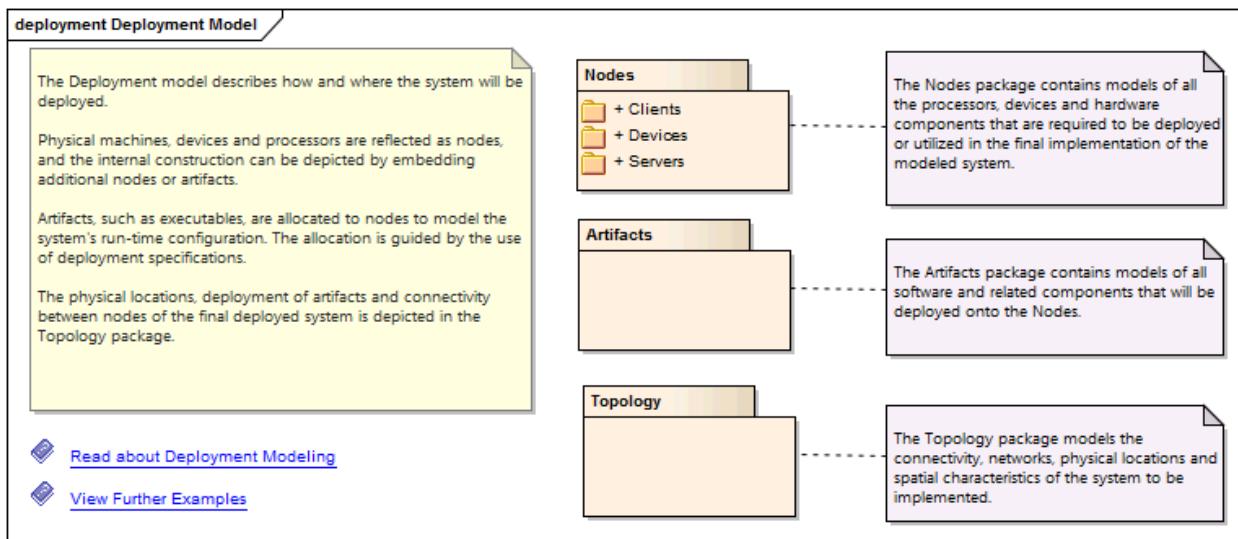


Figure: 63

Nodes

Type: [Package](#)
 Package: Deployment Model
 Detail: Created on 1/5/2006. Last modified on 1/5/2006.
 Notes:

Nodes

Created By: apollo mcowitz on 9/11/2014
 Last Modified: 9/11/2014, Version:1.0

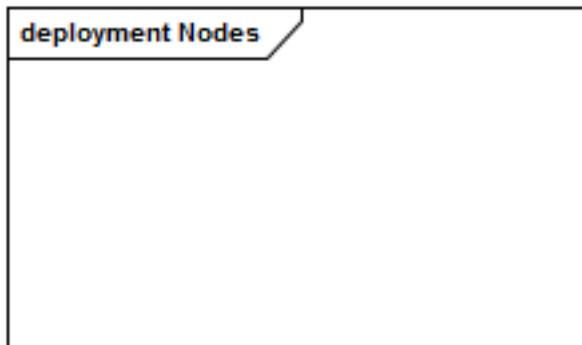


Figure: 64

Clients

Type: [Package](#)
 Package: Nodes
 Detail: Created on 11/20/2005. Last modified on 1/5/2006.
 Notes:

Clients

Created By: apollo mcowitz on 9/11/2014
 Last Modified: 9/11/2014, Version:1.0



Figure: 65

Devices

Type: **Package**

Package: Nodes

Detail: Created on 1/5/2006. Last modified on 1/5/2006.

Notes:

Devices

Created By: apollo mcowiti on 9/11/2014

Last Modified: 9/11/2014, *Version:*1.0

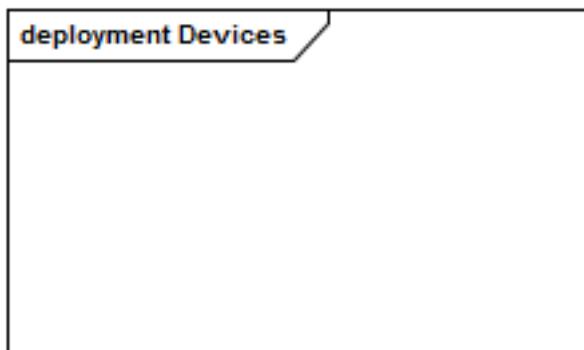


Figure: 66

Servers

Type: **Package**

Package: Nodes

Detail: Created on 11/19/2005. Last modified on 1/5/2006.

Notes:

Servers

Created By: apollo mcowiti on 9/11/2014

Last Modified: 9/11/2014, *Version:*1.0

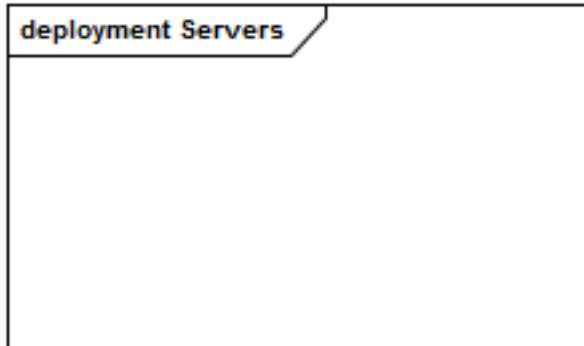


Figure: 67

Artifacts

Type: **Package**
Package: Deployment Model
Detail: *Created on 1/5/2006. Last modified on 1/5/2006.*
Notes:

Artifacts

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version:1.0

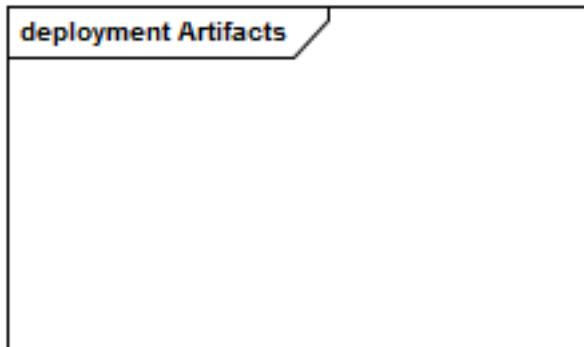


Figure: 68

Topology

Type: **Package**
Package: Deployment Model
Detail: *Created on 11/19/2005. Last modified on 11/19/2005.*
Notes:

Network

Created By: apollo mcowiti on 9/11/2014
Last Modified: 9/11/2014, Version:1.0

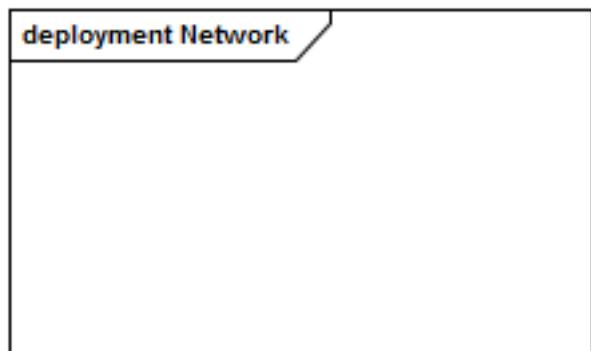


Figure: 69