GenetikTest

Abel Hodelin Hernandez, Timur Horn

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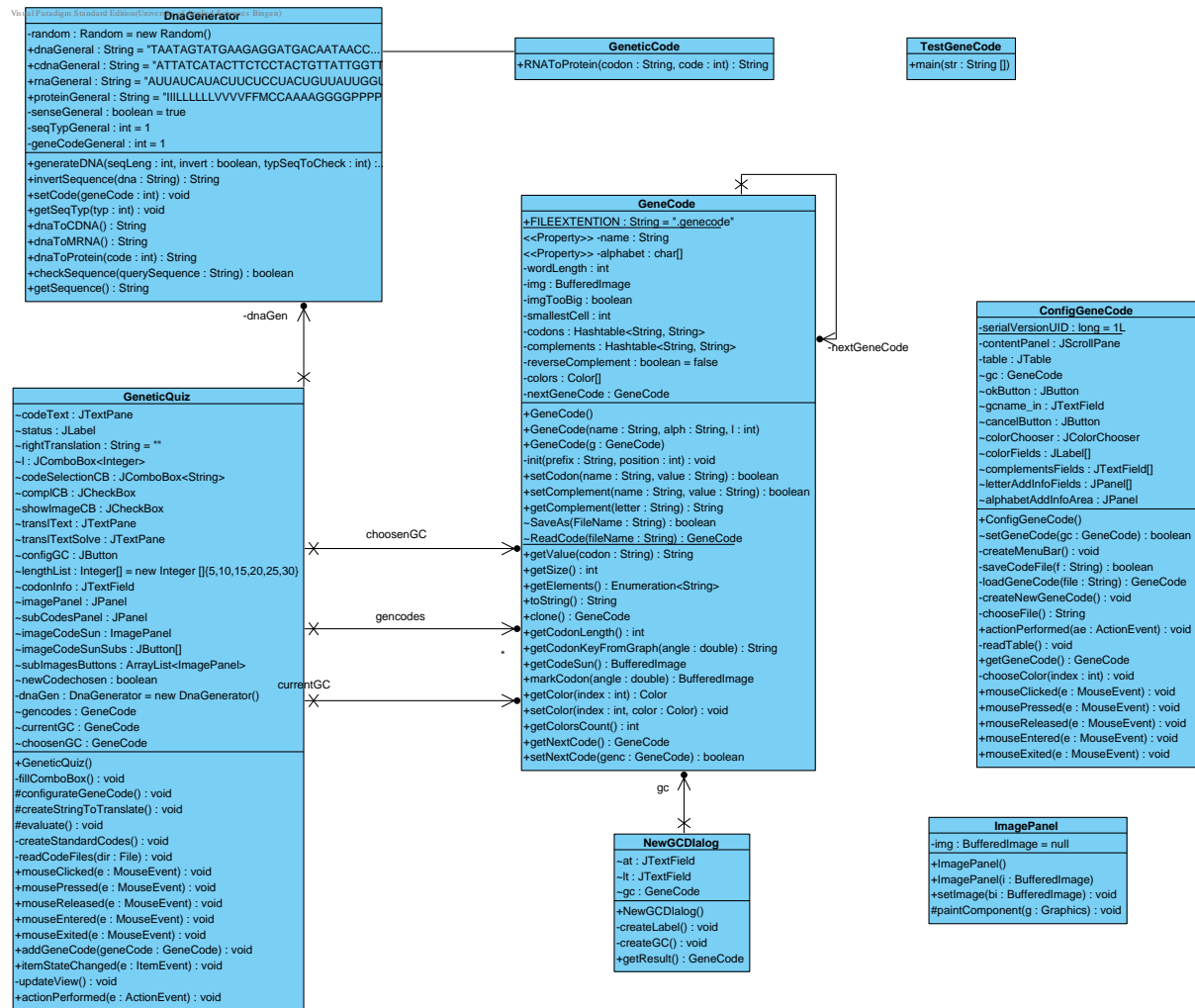
Table of Figures

Class Diagram
GenetikTest_CD

DnaGenerator
- -random : Random = new Random()
- +dnaGeneral : String = "TAATAGTATGAAGAGGATGACAATAACC...
- +cdnaGeneral : String = "ATTATCATACTTCTCCCTACTGTTATTGGTT
- +rnaGeneral : String = "AUUAUCAUACUUCUCCUACUGUUAUUGGU
- +proteinGeneral : String = "IIILLLLLLVVVVFFMCCAAAAGGGGPPPP
- -senseGeneral : boolean = true
- -seqTypGeneral : int = 1
- -geneCodeGeneral : int = 1
- +generateDNA(seqLeng : int, invert : boolean, typSeqToCheck : int) :..
- +invertSequence(dna : String) : String
- +setCode(geneCode : int) : void
- +getSeqTyp(typ : int) : void
- +dnaToCDNA() : String
- +dnaToMRNA() : String
- +dnaToProtein(code : int) : String
- +checkSequence(querySequence : String) : boolean
- +getSequence() : String

GeneticCode
- +RNAToProtein(codon : String, code : int) : String

TestGeneCode
- +main(str : String [])

GeneCode
- +FILEEXTENTION : String = ".genecode"
- <<Property>> -name : String
- <<Property>> -alphabet : char[]
- -wordLength : int
- -img : BufferedImage
- -imgTooBig : boolean
- -smallestCell : int
- -codons : Hashtable<String, String>
- -complements : Hashtable<String, String>
- -reverseComplement : boolean = false
- -colors : Color[]
- -nextGeneCode : GeneCode
- +GeneCode()
- +GeneCode(name : String, alph : String, l : int)
- +GeneCode(g : GeneCode)
- -init(prefix : String, position : int) : void
- +setCodon(name : String, value : String) : boolean
- +setComplement(name : String, value : String) : boolean
- +getComplement(letter : String) : String
- -SaveAs(FileName : String) : boolean
- -ReadCode(fileName : String) : GeneCode
- +getValue(codon : String) : String
- +getSize() : int
- +getElements() : Enumeration<String>
- +toString() : String
- +clone() : GeneCode
- +getCodonLength() : int
- +getCodonKeyFromGraph(angle : double) : String
- +getCodeSun() : BufferedImage
- +markCodon(angle : double) : BufferedImage
- +getColor(index : int) : Color
- +setColor(index : int, color : Color) : void
- +getColorsCount() : int
- +getNextCode() : GeneCode
- +setNextCode(genc : GeneCode) : boolean

-nextGeneCode

ConfigGeneCode
- -serialVersionUID : long = 1L
- -contentPanel : JScrollPane
- -table : JTable
- ~gc : GeneCode
- ~okButton : JButton
- ~gcname_in : JTextField
- -cancelButton : JButton
- ~colorChooser : JColorChooser
- -colorFields : JLabel[]
- ~complementsFields : JTextField[]
- ~letterAddInfoFields : JPanel[]
- -alphabetAddInfoArea : JPanel
- +ConfigGeneCode()
- +setGeneCode(gc : GeneCode) : boolean
- -createMenuBar() : void
- -saveCodeFile(f : String) : boolean
- -loadGeneCode(file : String) : GeneCode
- -createNewGeneCode() : void
- -chooseFile() : String
- +actionPerformed(ae : ActionEvent) : void
- -readTable() : void
- +getGeneCode() : GeneCode
- -chooseColor(index : int) : void
- +mouseClicked(e : MouseEvent) : void
- +mousePressed(e : MouseEvent) : void
- +mouseReleased(e : MouseEvent) : void
- +mouseEntered(e : MouseEvent) : void
- +mouseExited(e : MouseEvent) : void

GeneticQuiz
- ~codeText : JTextPane
- ~status : JLabel
- ~rightTranslation : String = ""
- ~l : JComboBox<Integer>
- ~codeSelectionCB : JComboBox<String>
- ~complCB : JCheckBox
- ~showImageCB : JCheckBox
- ~translText : JTextPane
- ~translTextSolve : JTextPane
- ~configGC : JButton
- ~lengthList : Integer[] = new Integer []{5,10,15,20,25,30}
- ~codonInfo : JTextField
- ~imagePanel : JPanel
- ~subCodesPanel : JPanel
- ~imageCodeSun : ImagePanel
- ~imageCodeSunSubs : JButton[]
- ~subImagesButtons : ArrayList<ImagePanel>
- ~newCodechosen : boolean
- -dnaGen : DnaGenerator = new DnaGenerator()
- ~gencodes : GeneCode
- ~currentGC : GeneCode
- ~choosenGC : GeneCode
- +GeneticQuiz()
- -fillComboBox() : void
- #configurateGeneCode() : void
- #createStringToTranslate() : void
- #evaluate() : void
- -createStandardCodes() : void
- -readCodeFiles(dir : File) : void
- +mouseClicked(e : MouseEvent) : void
- +mousePressed(e : MouseEvent) : void
- +mouseReleased(e : MouseEvent) : void
- +mouseEntered(e : MouseEvent) : void
- +mouseExited(e : MouseEvent) : void
- +addGeneCode(geneCode : GeneCode) : void
- +itemStateChanged(e : ItemEvent) : void
- -updateView() : void
- +actionPerformed(e : ActionEvent) : void

-dnaGen

choosenGC

gencodes

currentGC

*

gc

NewGCDialog
- ~at : JTextField
- ~lt : JTextField
- ~gc : GeneCode
- +NewGCDialog()
- -createLabel() : void
- -createGC() : void
- +getResult() : GeneCode

ImagePanel
- -img : BufferedImage = null
- +ImagePanel()
- +ImagePanel(i : BufferedImage)
- +setImage(bi : BufferedImage) : void
- #paintComponent(g : Graphics) : void

Name	Value
Name	GenetikTest_CD
Author	her_hod
Create Date Time	01.07.2015 12:55:52
Last Modified	01.07.2015 13:20:29

Summary

Name	Description
DnaGenerator	Ein Programm für Üben der genetiaschen Verfahren: Replication (DNA zu cDNA), Transcription (DNA zu mRNA), Translation(mRNA zu Protein). @author Abel Hodelin Hernandez @author Timur Horn @version 1.0
GeneticCode	Speicher die genetischen Code: Standard

	Vertebrate Mitochondrial ... @author Abel Hodelin Hernandez @author Timur Horn @version 1.0
📄 TestGeneCode	
📄 GeneCode	
📄 ConfigGeneCode	
📄 GeneticQuiz	
📄 ImagePanel	
📄 NewGCDIalog	

Details

📄 DnaGenerator

Name	Value		
Description	Ein Programm für Üben der genetiaschen Verfahren: Replication (DNA zu cDNA), Transcription (DNA zu mRNA), Translation(mRNA zu Protein). @author Abel Hodelin Hernandez @author Timur Horn @version 1.0		
Active	false		
Business Key Mutable	true		
Java Detail	N/A		
Business Model	false		
Visibility	public		
Leaf	false		
Root	false		
Project Management	**Name**	**Value**	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:00	
	Last Modified	01.07.2015 13:20:13	

Attributes

private random : java.util.Random			
Initial Value	new Random()		
Type	java.util.Random		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		

Aggregation	None	
Derived Union	false	
Read Only	false	
Is ID	false	
Leaf	false	

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public dnaGeneral : String

Initial Value	"TAATAGTATGAAGAGGATGACAATAACCAACAGCATCACAAAAAGTACACAACGCGACGGC(		
Type	String		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public cdnaGeneral : String

Description	generierte DNA-Sequenz		
Initial Value	"ATTATCATACTTCTCCTACTGTTATTGGTTGTCGTAGTGTTTTTCATGTGTTGCGCTGCCGCA		
Type	String		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public rnaGeneral : String

Description	cDNA
Initial Value	"AUUAUCAUACUUCUCCUACUGUUAUUGGUUGUCGUAGUGUUUUUCAUGUGUUGCGCUG(
Type	String
Allow Empty Name	false

Getter	false	Setter	false

Derived	false
Multiplicity	Unspecified
Java Detail	N/A
Aggregation	None
Derived Union	false
Read Only	false
Is ID	false
Leaf	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public proteinGeneral : String

Description	mRNA
Initial Value	"IIILLLLLLVVVVFFMCCAAAAGGGGPPPPTTTTSSSSSSYYWQQNNHHEEDDKKRRRRRRR***"
Type	String
Allow Empty Name	false

Getter	false	Setter	false

Derived	false
Multiplicity	Unspecified
Java Detail	N/A
Aggregation	None
Derived Union	false
Read Only	false
Is ID	false
Leaf	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

private senseGeneral : boolean			
Description	Protein		
Initial Value	true		
Type	🟢 boolean		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:00
	Last Modified		01.07.2015 13:08:25

private seqTypGeneral : int			
Description	Richtung zum lesen		
Initial Value	1		
Type	🟢 int		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:00
	Last Modified		01.07.2015 13:08:25

private geneCodeGeneral : int	
Description	Verfahren
Initial Value	1
Type	🟢 int

Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:00
	Last Modified		01.07.2015 13:08:25

Operations

public generateDNA (seqLeng : int, invert : boolean, typSeqToCheck : int) : String

Parameters	seqLeng		
	Multiplicity	Unspecified	
	Type	○ int	
	Direction	inout	
	Java Detail	N/A	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:00
		Last Modified	01.07.2015 13:08:25
	invert		
	Multiplicity	Unspecified	
	Type	○ boolean	
	Direction	inout	
	Java Detail	N/A	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:00
		Last Modified	01.07.2015 13:08:25
	typSeqToCheck		
	Multiplicity	Unspecified	
	Type	○ int	
	Direction	inout	
	Java Detail	N/A	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:00
		Last Modified	01.07.2015 13:08:25
Description	Generiert die DNA-Sequenz		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Return Type Description	dnaGeneral: DNA-Sequenz		
Query	false		
Project Management	**Name**	**Value**	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:00	
	Last Modified	01.07.2015 13:08:25	

public invertSequence (dna : String) : String

Parameters	dna	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:00
		Last Modified — 01.07.2015 13:08:25
Description	Invertiert die XNA-Sequenz	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Return Type Description	dna: umgekehrte XNA-Sequenz	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public setCode (geneCode : int) : void

Parameters	geneCode	
	Multiplicity	Unspecified
	Type	🟢 int
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:00
		Last Modified — 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public getSeqTyp (typ : int) : void

Parameters	**typ**	
	Multiplicity	Unspecified
	Type	⬤ int
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:00
		Last Modified — 01.07.2015 13:08:25

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public dnaToCDNA () : String

Description	Replication (DNA zu cDNA)	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Return Type Description	cdnaGeneral: cDNA-Sequenz	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public dnaToMRNA () : String

Description	Transcription (DNA zu mRNA)
Leaf	false
Upper	1
Ordered	false
Unique	true
Return Type Description	rnaGeneral: mRNA-Sequenz
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public dnaToProtein (code : int) : String

Parameters	code	
	Multiplicity	Unspecified
	Type	⬤ int
	Direction	inout
	Java Detail	N/A
	Project Management	Name / Value

		Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:58:00
		Last Modified	01.07.2015 13:08:25

Description	Translation (mRNA zu Protein)	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Return Type Description	proteinGeneral: Protein-Sequenz	
Query	false	

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public checkSequence (querySequence : String) : boolean

Parameters	querySequence	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	Name / Value

		Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:58:00
		Last Modified	01.07.2015 13:08:25

Description	Analysiert das Ergebnis Vergleich die erzeugte X-Sequenze mit der Sequenz des Benutzers	
Leaf	false	
Upper	1	
Ordered	false	

Unique	true
Return Type Description	true wenn beide Sequenze gleich sind, sonst false
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

public getSequence () : String	
Description	Zeigt das Ergebnis (Sequenze)
Leaf	false
Upper	1
Ordered	false
Unique	true
Return Type Description	seq: X-Sequenze
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:00
	Last Modified	01.07.2015 13:08:25

Relationships

Unnamed Association		
To	Name	Value
	End Model Element	GeneticCode
	Provide Property Getter Method	false
	Provide Property Setter Method	false
	Multiplicity	Unspecified
	Visibility	Unspecified
	Aggregation Kind	None
	Navigable	Navigable
	Derived	false
	Derived Union	false
	Read Only	false
	Static	false
	Leaf	false
	Type	GeneticCode

	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 13:08:10

Abstract	false	
Leaf	false	
Visibility	Unspecified	
Derived	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 13:08:10
	Last Modified	01.07.2015 13:20:13
Unnamed Association		
From	**Name**	**Value**
	End Model Element	📄 GeneticQuiz
	Provide Property Getter Method	false
	Provide Property Setter Method	false
	Multiplicity	Unspecified
	Visibility	Unspecified
	Aggregation Kind	None
	Navigable	Non Navigable
	Derived	false
	Derived Union	false
	Read Only	false
	Static	false
	Leaf	false
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:11
Abstract	false	
Leaf	false	
Visibility	Unspecified	
Derived	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

📄 GeneticCode

Name	Value
Description	Speicher die genetischen Code: Standard Vertebrate Mitochondrial ... @author Abel Hodelin Hernandez

	@author Timur Horn @version 1.0
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:03
	Last Modified	01.07.2015 13:20:13

Operations

public RNAToProtein (codon : String, code : int) : String		
Parameters	**codon**	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A

	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:03
		Last Modified	01.07.2015 13:08:25

	code	
	Multiplicity	Unspecified
	Type	◯ int
	Direction	inout
	Java Detail	N/A

	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:03
		Last Modified	01.07.2015 13:08:25

Description	Translation (mRNA zu Protein)
Leaf	false
Upper	1
Ordered	false
Unique	true
Return Type Description	amino: Aminosäure
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:03
	Last Modified	01.07.2015 13:08:25

Relationships

Unnamed Association		
From	**Name**	**Value**
	End Model Element	📑 DnaGenerator
	Provide Property Getter Method	false
	Provide Property Setter Method	false
	Multiplicity	Unspecified
	Visibility	Unspecified
	Aggregation Kind	None
	Navigable	Navigable
	Derived	false
	Derived Union	false
	Read Only	false
	Static	false
	Leaf	false
	Type	📑 DnaGenerator
	Project Management	**Name** **Value** Author — her_hod Create Date Time — 01.07.2015 13:08:10
Abstract	false	
Leaf	false	
Visibility	Unspecified	
Derived	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 13:08:10
	Last Modified	01.07.2015 13:20:13

📑 TestGeneCode

Name	Value
Active	false
Business Key Mutable	true
Business Model	false
Visibility	public
Leaf	false

Root	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 13:15:56
	Last Modified	01.07.2015 13:20:13

Operations

public main (str : String)		
Parameters	**str**	
	Multiplicity	Unspecified
	Type Modifier	[]
	Type	String
	Direction	inout
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 13:18:39
		Last Modified — 01.07.2015 13:20:13
Leaf	false	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 13:16:56
	Last Modified	01.07.2015 13:20:13

▤ GeneCode

Name	**Value**
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false
Project Management	**Name** / **Value**
	Author — her_hod
	Create Date Time — 01.07.2015 12:58:37
	Last Modified — 01.07.2015 13:08:25

Attributes

public FILEEXTENTION : String			
Initial Value	".genecode"		
Type	String		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**	**Value**	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:37	
	Last Modified	01.07.2015 13:08:25	

private name : String			
Stereotypes	Property		
Type	String		
Allow Empty Name	false		
Getter	true	Setter	true
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**	**Value**	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:37	
	Last Modified	01.07.2015 13:08:25	

private alphabet : char			
Stereotypes	Property		
Type Modifier	[]		
Type	🟢 char		
Allow Empty Name	false		
Getter	true	Setter	false

Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:37
	Last Modified		01.07.2015 13:08:25

private wordLength : int

Type	🟢 int		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:37
	Last Modified		01.07.2015 13:08:25

private img : java.awt.image.BufferedImage

Type	java.awt.image.BufferedImage		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

private imgTooBig : boolean

Type	🟢 boolean		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

private smallestCell : int

Type	🟢 int		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

private codons : java.util.Hashtable

Template Type Bind Info	N/A
Type	java.util.Hashtable

Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:37
	Last Modified		01.07.2015 13:08:25

private complements : java.util.Hashtable

Template Type Bind Info	N/A		
Type	java.util.Hashtable		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:37
	Last Modified		01.07.2015 13:08:25

private reverseComplement : boolean

Initial Value	false		
Type	🟢 boolean		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		

Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:37
	Last Modified		01.07.2015 13:08:25

private colors : java.awt.Color

Description	colors for created image		
Type Modifier	[]		
Type	java.awt.Color		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:58:37
	Last Modified		01.07.2015 13:08:25

private nextGeneCode : GeneCode

Type	GeneCode		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:38
	Last Modified	01.07.2015 13:08:25

Operations

public GeneCode ()	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public GeneCode (name : String, alph : String, l : int)

Parameters	**name**	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:37
		Last Modified — 01.07.2015 13:08:25
	alph	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:37
		Last Modified — 01.07.2015 13:08:25
	I	
	Multiplicity	Unspecified
	Type	🟢 int
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:37
		Last Modified — 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public GeneCode (g : GeneCode)

Parameters	**g**	
	Multiplicity	Unspecified
	Type	GeneCode
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:37
		Last Modified — 01.07.2015 13:08:25

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

private init (prefix : String, position : int) : void

Parameters	**prefix**	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:37
		Last Modified — 01.07.2015 13:08:25
	position	
	Multiplicity	Unspecified
	Type	⚪ int
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author — her_hod
		Create Date Time — 01.07.2015 12:58:37
		Last Modified — 01.07.2015 13:08:25

Description	fill Hashtable rekursive
Leaf	false
Upper	1

Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public setCodon (name : String, value : String) : boolean

Parameters	**name**	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
	value	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public setComplement (name : String, value : String) : boolean

Parameters	name	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
	value	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getComplement (letter : String) : String		
Parameters	letter	
	Multiplicity	Unspecified
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	

Unique	true
Query	false

Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015 12:58:37	
	Last Modified		01.07.2015 13:08:25	

package SaveAs (FileName : String) : boolean

Parameters	FileName			
	Multiplicity		Unspecified	
	Type		String	
	Direction		inout	
	Java Detail		N/A	
	Project Management	Name		Value
		Author		her_hod
		Create Date Time		01.07.2015 12:58:37
		Last Modified		01.07.2015 13:08:25
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			
Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015 12:58:37	
	Last Modified		01.07.2015 13:08:25	

package ReadCode (fileName : String) : GeneCode

Parameters	fileName			
	Multiplicity		Unspecified	
	Type		String	
	Direction		inout	
	Java Detail		N/A	
	Project Management	Name		Value
		Author		her_hod
		Create Date Time		01.07.2015 12:58:37
		Last Modified		01.07.2015 13:08:25
Leaf	false			
Upper	1			
Ordered	false			
Unique	true			
Query	false			

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getValue (codon : String) : String

Parameters	codon		
	Multiplicity	Unspecified	
	Type	String	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:37	
	Last Modified	01.07.2015 13:08:25	

public getSize () : int

Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getElements () : java.util.Enumeration

Leaf	false
Upper	1
Template Type Bind Info	N/A
Ordered	false
Unique	true

Query	false
Project Management	

Name	Value
Author	her_hod
Create Date Time	01.07.2015 12:58:37
Last Modified	01.07.2015 13:08:25

public toString () : String

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	

Name	Value
Author	her_hod
Create Date Time	01.07.2015 12:58:37
Last Modified	01.07.2015 13:08:25

public clone () : GeneCode

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	

Name	Value
Author	her_hod
Create Date Time	01.07.2015 12:58:37
Last Modified	01.07.2015 13:08:25

public getCodonLength () : int

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	

Name	Value
Author	her_hod
Create Date Time	01.07.2015 12:58:37
Last Modified	01.07.2015 13:08:25

public getCodonKeyFromGraph (angle : double) : String

Parameters	**angle**	
	Multiplicity	Unspecified
	Type	🟢 double
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getCodeSun () : java.awt.image.BufferedImage

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public markCodon (angle : double) : java.awt.image.BufferedImage

Parameters	**angle**	
	Multiplicity	Unspecified
	Type	🟢 double
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
Description	TODO noch nicht fertig
Leaf	false

Upper	1
Ordered	false
Unique	true
Query	false
Project Management	**Name** ... **Value**

	Name	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getColor (index : int) : java.awt.Color

Parameters	**index**	
	Multiplicity	Unspecified
	Type	🟢 int
	Direction	inout
	Java Detail	N/A
	Project Management	(see below)

		Name	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	(see below)

	Name	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public setColor (index : int, color : java.awt.Color) : void

Parameters	index	
	Multiplicity	Unspecified
	Type	⬤ int
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** **Value**
		Author her_hod
		Create Date Time 01.07.2015 12:58:37
		Last Modified 01.07.2015 13:08:25
	color	
	Multiplicity	Unspecified
	Type	java.awt.Color
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** **Value**
		Author her_hod
		Create Date Time 01.07.2015 12:58:37
		Last Modified 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getColorsCount () : int

Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public getNextCode () : GeneCode

Leaf	false

Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

public setNextCode (genc : GeneCode) : boolean		
Parameters	**genc**	
	Multiplicity	Unspecified
	Type	GeneCode
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:58:37
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:58:37
	Last Modified	01.07.2015 13:08:25

Relationships

Unnamed Association

To (nextGeneCode)	Name	Value	
	End Model Element	📄 GeneCode	
	Representative Attribute	nextGeneCode	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	private	
	Aggregation Kind	None	
	Navigable	Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Type	📄 GeneCode	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:58:38
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:58:38	
	Last Modified	01.07.2015 13:08:25	
Unnamed Association			

From	Name	Value	
	End Model Element	GeneticQuiz	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:11	
	Last Modified	01.07.2015 13:08:25	
Unnamed Association			

From	Name	Value	
	End Model Element	GeneticQuiz	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11

Abstract	false	
Leaf	false	
Visibility	Unspecified	
Derived	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

Unnamed Association

From	Name	Value	
	End Model Element	📄 GeneticQuiz	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	**Name**	**Value**	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:11	
	Last Modified	01.07.2015 13:08:25	

Unnamed Association

From	Name	Value	
	End Model Element	NewGCDIalog	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	**Name** **Value** Author — her_hod Create Date Time — 01.07.2015 12:59:40	
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:40	
	Last Modified	01.07.2015 13:08:25	

ConfigGeneCode

Name	Value	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:50
	Last Modified	01.07.2015 13:08:25

Attributes

private serialVersionUID : long			
Initial Value	1L		
Type	🟢 long		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

private contentPanel : javax.swing.JScrollPane			
Type	javax.swing.JScrollPane		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

private table : javax.swing.JTable			
Type	javax.swing.JTable		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		

Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package gc : GeneCode			
Type	GeneCode		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package okButton : javax.swing.JButton			
Type	javax.swing.JButton		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

package gcname_in : javax.swing.JTextField

Type	javax.swing.JTextField		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name		Value
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package cancelButton : javax.swing.JButton

Type	javax.swing.JButton		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name		Value
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package colorChooser : javax.swing.JColorChooser

Type	javax.swing.JColorChooser
Allow Empty Name	false

Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package colorFields : javax.swing.JLabel

Type Modifier	[]		
Type	javax.swing.JLabel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package complementsFields : javax.swing.JTextField

Type Modifier	[]		
Type	javax.swing.JTextField		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		

Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package letterAddInfoFields : javax.swing.JPanel			
Type Modifier	[]		
Type	javax.swing.JPanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

package alphabetAddInfoArea : javax.swing.JPanel			
Type	javax.swing.JPanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:57:51
	Last Modified		01.07.2015 13:08:25

Operations

public ConfigGeneCode ()	
Description	Create the dialog.
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	Name / Value tables below

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

package setGeneCode (gc : GeneCode) : boolean		
Parameters	**gc**	
	Multiplicity	Unspecified
	Type	GeneCode
	Direction	inout
	Java Detail	N/A

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private createMenuBar () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private saveCodeFile (f : String) : boolean

Parameters	f		
	Multiplicity	Unspecified	
	Type	String	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:57:51	
	Last Modified	01.07.2015 13:08:25	

private loadGeneCode (file : String) : GeneCode

Parameters	file		
	Multiplicity	Unspecified	
	Type	String	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private createNewGeneCode () : void

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private chooseFile () : String

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public actionPerformed (ae : java.awt.event.ActionEvent) : void

Parameters	ae		
	Multiplicity	Unspecified	
	Type	java.awt.event.ActionEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private readTable () : void

Description	read table in the GeneCode Hashtable	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public getGeneCode () : GeneCode

Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

private chooseColor (index : int) : void

Parameters	index		
	Multiplicity	Unspecified	
	Type	🟢 int	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		

Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public mouseClicked (e : java.awt.event.MouseEvent) : void

Parameters	**e**	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public mousePressed (e : java.awt.event.MouseEvent) : void

Parameters	**e**	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public mouseReleased (e : java.awt.event.MouseEvent) : void

Parameters	e		
	Multiplicity	Unspecified	
	Type	java.awt.event.MouseEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:57:51	
	Last Modified	01.07.2015 13:08:25	

public mouseEntered (e : java.awt.event.MouseEvent) : void

Parameters	e		
	Multiplicity	Unspecified	
	Type	java.awt.event.MouseEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:57:51
	Last Modified	01.07.2015 13:08:25

public mouseExited (e : java.awt.event.MouseEvent) : void

Parameters	e		
	Multiplicity	Unspecified	
	Type	java.awt.event.MouseEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:57:51
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:57:51	
	Last Modified	01.07.2015 13:08:25	

📄 GeneticQuiz

Name	Value	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

Attributes

package codeText : javax.swing.JTextPane

Type	javax.swing.JTextPane		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package status : javax.swing.JLabel			
Type	javax.swing.JLabel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package rightTranslation : String			
Initial Value	""		
Type	String		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		

Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package l : javax.swing.JComboBox

Template Type Bind Info	N/A		
Type	javax.swing.JComboBox		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package codeSelectionCB : javax.swing.JComboBox

Template Type Bind Info	N/A		
Type	javax.swing.JComboBox		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name		Value	
	Author		her_hod	
	Create Date Time		01.07.2015 12:59:11	
	Last Modified		01.07.2015 13:08:25	

package complCB : javax.swing.JCheckBox

Type	javax.swing.JCheckBox		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package showImageCB : javax.swing.JCheckBox

Type	javax.swing.JCheckBox		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package translText : javax.swing.JTextPane

Type	javax.swing.JTextPane
Allow Empty Name	false

Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package translTextSolve : javax.swing.JTextPane

Type	javax.swing.JTextPane		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package configGC : javax.swing.JButton

Type	javax.swing.JButton		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		

Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package lengthList : Integer			
Initial Value	new Integer []{5,10,15,20,25,30}		
Type Modifier	[]		
Type	Integer		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package codonInfo : javax.swing.JTextField			
Type	javax.swing.JTextField		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package imagePanel : javax.swing.JPanel

Type	javax.swing.JPanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package subCodesPanel : javax.swing.JPanel

Description	Panel, die kleinen Bilder der nextCodes zeigt		
Type	javax.swing.JPanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package imageCodeSun : ImagePanel

Type	ImagePanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		

Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package imageCodeSunSubs : javax.swing.JButton

Type Modifier	[]		
Type	javax.swing.JButton		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package subImagesButtons : java.util.ArrayList

Template Type Bind Info	N/A		
Type	java.util.ArrayList		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package newCodechosen : boolean

Type	🟢 boolean		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

private dnaGen : DnaGenerator

Initial Value	new DnaGenerator()		
Type	📄 DnaGenerator		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

package gencodes : GeneCode

Type	📄 GeneCode

Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	*		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package currentGC : GeneCode			
Description	aktueller Gene code		
Type	📄 GeneCode		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

package choosenGC : GeneCode			
Type	📄 GeneCode		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		

Read Only	false	
Is ID	false	
Leaf	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

Operations

public GeneticQuiz ()	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

private fillComboBox () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

protected configurateGeneCode () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

protected createStringToTranslate () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

protected evaluate () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

private createStandardCodes () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

private readCodeFiles (dir : java.io.File) : void

Parameters	dir	
	Multiplicity	Unspecified
	Type	java.io.File
	Direction	inout
	Java Detail	N/A
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public mouseClicked (e : java.awt.event.MouseEvent) : void

Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public mousePressed (e : java.awt.event.MouseEvent) : void

Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:11
		Last Modified / 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public mouseReleased (e : java.awt.event.MouseEvent) : void

Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:11
		Last Modified / 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public mouseEntered (e : java.awt.event.MouseEvent) : void

Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:11
		Last Modified / 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public mouseExited (e : java.awt.event.MouseEvent) : void

Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:11
		Last Modified / 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public addGeneCode (geneCode : GeneCode) : void

Parameters	geneCode		
	Multiplicity	Unspecified	
	Type	GeneCode	
	Direction	inout	
	Java Detail	N/A	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

public itemStateChanged (e : java.awt.event.ItemEvent) : void

Parameters	e		
	Multiplicity	Unspecified	
	Type	java.awt.event.ItemEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
		Last Modified	01.07.2015 13:08:25
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:11
	Last Modified		01.07.2015 13:08:25

private updateView () : void

Leaf	false
Upper	1

Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

public actionPerformed (e : java.awt.event.ActionEvent) : void		
Parameters	**e**	
	Multiplicity	Unspecified
	Type	java.awt.event.ActionEvent
	Direction	inout
	Java Detail	N/A
	Project Management	**Name**	**Value**
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
		Last Modified	01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:11
	Last Modified	01.07.2015 13:08:25

Relationships

Unnamed Association

To (gencodes)	Name	Value		
	End Model Element	📄 GeneCode		
	Representative Attribute	gencodes		
	Provide Property Getter Method	false		
	Provide Property Setter Method	false		
	Multiplicity	*		
	Visibility	package		
	Aggregation Kind	None		
	Navigable	Navigable		
	Derived	false		
	Derived Union	false		
	Read Only	false		
	Static	false		
	Leaf	false		
	Type	📄 GeneCode		
	Project Management	Name		Value
		Author		her_hod
		Create Date Time		01.07.2015 12:59:11
Abstract	false			
Leaf	false			
Visibility	Unspecified			
Derived	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:11		
	Last Modified	01.07.2015 13:08:25		
Unnamed Association				

To (currentGC)	Name	Value		
	End Model Element	📄 GeneCode		
	Description	aktueller Gene code		
	Representative Attribute	currentGC		
	Provide Property Getter Method	false		
	Provide Property Setter Method	false		
	Multiplicity	Unspecified		
	Visibility	package		
	Aggregation Kind	None		
	Navigable	Navigable		
	Derived	false		
	Derived Union	false		
	Read Only	false		
	Static	false		
	Leaf	false		
	Type	📄 GeneCode		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:59:11	
Abstract	false			
Leaf	false			
Visibility	Unspecified			
Derived	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:11		
	Last Modified	01.07.2015 13:08:25		

Unnamed Association

To (dnaGen)	Name	Value	
	End Model Element	DnaGenerator	
	Representative Attribute	dnaGen	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	private	
	Aggregation Kind	None	
	Navigable	Navigable	
	Derived	false	
	Default Value	new DnaGenerator()	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Type	DnaGenerator	
	Project Management	Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:11
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:11	
	Last Modified	01.07.2015 13:08:25	

Unnamed Association

To (choosenGC)	Name	Value		
	End Model Element	GeneCode		
	Representative Attribute	choosenGC		
	Provide Property Getter Method	false		
	Provide Property Setter Method	false		
	Multiplicity	Unspecified		
	Visibility	package		
	Aggregation Kind	None		
	Navigable	Navigable		
	Derived	false		
	Derived Union	false		
	Read Only	false		
	Static	false		
	Leaf	false		
	Type	GeneCode		
	Project Management	Name	Value	
		Author	her_hod	
		Create Date Time	01.07.2015 12:59:11	
Abstract	false			
Leaf	false			
Visibility	Unspecified			
Derived	false			
Project Management	Name	Value		
	Author	her_hod		
	Create Date Time	01.07.2015 12:59:11		
	Last Modified	01.07.2015 13:08:25		

ImagePanel

Name	Value
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	package
Leaf	false
Root	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

Attributes

private img : java.awt.image.BufferedImage			
Initial Value	null		
Type	java.awt.image.BufferedImage		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	her_hod	
	Create Date Time	01.07.2015 12:59:30	
	Last Modified	01.07.2015 13:08:25	

Operations

public ImagePanel ()	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false
Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

public ImagePanel (i : java.awt.image.BufferedImage)

Parameters	**i**	
	Multiplicity	Unspecified
	Type	java.awt.image.BufferedImage
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:30
		Last Modified / 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

public setImage (bi : java.awt.image.BufferedImage) : void

Parameters	**bi**	
	Multiplicity	Unspecified
	Type	java.awt.image.BufferedImage
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**
		Author / her_hod
		Create Date Time / 01.07.2015 12:59:30
		Last Modified / 01.07.2015 13:08:25
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	**Name**	**Value**
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

protected paintComponent (g : java.awt.Graphics) : void

Parameters	**g**	
	Multiplicity	Unspecified
	Type	java.awt.Graphics
	Direction	inout
	Java Detail	N/A
	Project Management	**Name** / **Value**

		Name	Value
		Author	her_hod
		Create Date Time	01.07.2015 12:59:30
		Last Modified	01.07.2015 13:08:25

Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:30
	Last Modified	01.07.2015 13:08:25

NewGCDialog

Name	Value
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25

Attributes

package at : javax.swing.JTextField			
Type	javax.swing.JTextField		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		

Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:40
	Last Modified		01.07.2015 13:08:25

package lt : javax.swing.JTextField

Type	javax.swing.JTextField		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	**Name**		**Value**
	Author		her_hod
	Create Date Time		01.07.2015 12:59:40
	Last Modified		01.07.2015 13:08:25

package gc : GeneCode

Type	GeneCode		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25

Operations

public NewGCDialog ()	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25

private createLabel () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25

private createGC () : void	
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25

public getResult () : GeneCode	
Leaf	false
Upper	1

Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25

Relationships

Unnamed Association		

To (gc)	Name	Value
	End Model Element	GeneCode
	Representative Attribute	gc
	Provide Property Getter Method	false
	Provide Property Setter Method	false
	Multiplicity	Unspecified
	Visibility	package
	Aggregation Kind	None
	Navigable	Navigable
	Derived	false
	Derived Union	false
	Read Only	false
	Static	false
	Leaf	false
	Type	GeneCode
	Project Management	Name / Value Author / her_hod Create Date Time / 01.07.2015 12:59:40

Abstract	false
Leaf	false
Visibility	Unspecified
Derived	false

Project Management	Name	Value
	Author	her_hod
	Create Date Time	01.07.2015 12:59:40
	Last Modified	01.07.2015 13:08:25