### model

Package in package 'DDF'

model Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

### model diagram

Class diagram in package 'model'

model Version 1.0 cupke created on 2/7/2023. Last modified 2/7/2023

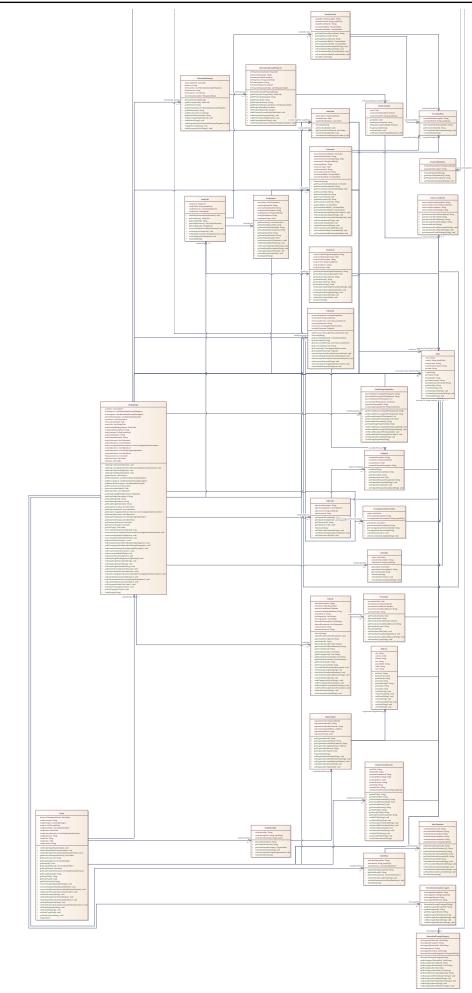


Figure 1: model

### **Activity**

Class in package 'model'

An action, undertaking, or event, which is anticipated to be performed or observed, or was performed or observed, according to the study protocol during the execution of the study.

ATTRIBUTES	
<ul> <li>activityDescription: String Private</li> <li>The textual representation of the study activity.</li> </ul>	
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
activityIsConditional: boolean Private	[ Is static True. Containment is Not Specified. ]
activityIsConditionalReason: String Private	[ Is static True. Containment is Not Specified. ]
activityName : String Private	
The literal identifier (i.e., distinctive designation) of the clinical study activity.	[ Is static True. Containment is Not Specified. ]
♦ bcCategoryIds : List <string> Private</string>	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
definedProcedures : List <procedure> Private</procedure>	

### **ATTRIBUTES**

[ Is static True. Containment is Not Specified. ]

nextActivityId: String Private

A system identifier assigned to a study activity that occurs immediately after the current study activity.

[ Is static True. Containment is Not Specified. ]

previousActivityId : String Private

A system identifier assigned to a study activity that occurs immediately prior to the current study activity.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Activity Target: Private definedProcedures (Class)

Procedure

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign Target: Private activities (Class) Activity

Cardinality: [0..\*]

### **OPERATIONS**

Activity (activityId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addDefinedProcedure (procedure : Procedure ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivityDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivityId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivityIsConditional (): boolean Public

### **OPERATIONS**

getActivityIsConditionalReason (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivityName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcCategoryIds (): List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcSurrogateIds () : List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBiomedicalConceptIds (): List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getDefinedProcedures () : List<Procedure> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getNextActivityId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPreviousActivityId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• removeDefinedProcedure (procedure : Procedure ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setActivityDescription (description : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setActivityIsConditional (activityIsConditional : boolean ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setActivityIsConditionalReason (activityIsConditionalReason : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setActivityName (activityName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcCategoryIds (bcCategoryIds : List<String>) : void Public

PERATIONS	
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
setBcSurrogateIds (bc	SurrogateIds : List <string> ) : void Public</string>
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
setBiomedicalConcept	elds (biomedicalConceptIds : List <string> ) : void Public</string>
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
setDefinedProcedures	(definedProcedures : List <procedure> ) : void Public</procedure>
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
setNextActivityId (nex	xtActivityId: String): void Public
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
setPreviousActivityId	(previousActivityId : String ) : void Public
•	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.

### **Address**

Class in package 'model'

Address Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
city: String Private	[ Is static True. Containment is Not Specified. ]
country : Code Private	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
postalCode: String Private	[ Is static True. Containment is Not Specified. ]

### 

### Association (direction: Source -> Destination) Source: Public (Class) Address Target: Private country (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Organization Target: Private organizationLegalAddress (Class) Address

OPERATIONS	
getCity (): String Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
getCountry () : Code Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
getDistrict (): String Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
getLine (): String Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
getPostalCode (): String Pul	blic [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
getState () : String Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
getText () : String Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

# setCity (city: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setCountry (country: Code): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setDistrict (district: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setLine (line: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setPostalCode (postalCode: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setState (state: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setText (text: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

### **AliasCode**

Class in package 'model'

An alternative symbol or combination of symbols which is assigned to the members of a collection.

AliasCode Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
aliasCodeId: String Private Const	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

1 00 0 07 1 TY 0 1/0	
ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) AliasCode	Target: Private standardCode (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) AliasCode	Target: Private standardCodeAliases (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConceptProperty	Target: Private bcPropertyConceptCode (Class) AliasCode
Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConcept	Target: Private bcConceptCode (Class) AliasCode
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyDesignBlindingScheme (Class) AliasCode
Association (direction: Source -> Destination)	
Source: Public (Class) Study	Target: Private studyPhase (Class) AliasCode

### **OPERATIONS**

AliasCode (aliasCodeId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStandardCode () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStandardCodeAliases () : List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStandardCode (standardCode : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStandardCodeAliases (standardCodeAliases : List<Code> ) : void Public

### **OPERATIONS**

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Analysis Population**

Class in package 'model'

A target study population on which an analysis is performed. These may be represented by the entire study population, a subgroup defined by a particular characteristic measured at baseline, or a principal stratum defined by the occurrence (or non-occurrence, depending on context) of a specific intercurrent event. (ICH E9 R1 Addendum)

AnalysisPopulation Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

### ATTRIBUTES

analysisPopulationId : String Private Const

[ Is static True. Containment is Not Specified. ]

populationDescription : String Private

The textual representation of the study population for analysis.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Estimand Target: Private analysisPopulation (Class)
AnalysisPopulation

### **OPERATIONS**

AnalysisPopulation (analysisPopulationId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getAnalysisPopulationId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPopulationDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPopulationDescription (populationDescription : String): void Public

### **OPERATIONS**

### **BiomedicalConcept**

Class in package 'model'

BiomedicalConcept Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
	[ Is static True. Containment is Not Specified. ]
◆ bcName : String Private	[ Is static True. Containment is Not Specified. ]
♦ bcProperties: List <biomedicalconceptproperty> Private</biomedicalconceptproperty>	[ Is static True. Containment is Not Specified. ]
◆ bcReference : String Private	[ Is static True. Containment is Not Specified. ]
bcSynonyms: List <string> Private</string>	[ Is static True. Containment is Not Specified. ]
♦ biomedicalConceptId : String Private Const	[ Is static True. Containment is Not Specified. ]

Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConcept	Target: Private bcConceptCode (Class) AliasCode
Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConcept	Target: Private bcProperties (Class) BiomedicalConceptProperty Cardinality: [0*]

### ASSOCIATIONS

Source: Public (Class) StudyDesign

Target: Private biomedicalConcepts (Class)

BiomedicalConcept

Cardinality: [0..\*]

$\mathbf{O}$	ΡF	'ID	A	TI	m	N	C
<b>\</b> //	ГГ	. IN	$\mathcal{A}$			/ 13	. 7

■ BiomedicalConcept (biomedicalConceptId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcConceptCode () : AliasCode Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcProperties (): List<BiomedicalConceptProperty> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcReference () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcSynonyms () : List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBiomedicalConceptId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcConceptCode (bcConceptCode : AliasCode ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcName (bcName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcProperties (bcProperties : List<BiomedicalConceptProperty> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcReference (bcReference : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcSynonyms (bcSynonyms : List<String>) : void Public

### **OPERATIONS**

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **BiomedicalConceptCategory**

Class in package 'model'

BiomedicalConceptCategory Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign

Target: Private bcCategories (Class)

BiomedicalConceptCategory

Cardinality: [0..\*]

### **OPERATIONS**

BiomedicalConceptCategory (bcCategoryId : String ) : Public

### **OPERATIONS**

getBcCategoryChildrenIds () : List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcCategoryDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcCategoryMemberIds () : List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcCategoryName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getBcCategoryParentIds () : List<String> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBiomedicalConceptCategoryId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcCategoryChildrenIds (bcCategoryChildrenIds : List<String> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcCategoryDescription (bcCategoryDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcCategoryMemberIds (bcCategoryMemberIds : List<String> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcCategoryName (bcCategoryName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcCategoryParentIds (bcCategoryParentIds : List<String> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Biomedical Concept Property

Class in package 'model'

BiomedicalConceptProperty Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConceptProperty	Target: Private bcPropertyConceptCode (Class) AliasCode
Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConceptProperty	Target: Private bcPropertyResponseCodes (Class) ResponseCode Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) BiomedicalConcept	Target: Private bcProperties (Class) BiomedicalConceptProperty Cardinality: [0*]

### **OPERATIONS**

### **OPERATIONS**

BiomedicalConceptProperty (bcPropertyId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcPropertyConceptCode () : AliasCode Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcPropertyDatatype () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcPropertyId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcPropertyName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcPropertyResponseCodes () : List<ResponseCode> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

isBcPropertyEnabled (): boolean Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

isBcPropertyRequired (): boolean Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcPropertyConceptCode (bcPropertyConceptCode : AliasCode ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcPropertyDatatype (bcPropertyDatatype : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcPropertyEnabled (bcPropertyEnabled : boolean ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBcPropertyName (bcPropertyName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

🎈 setBcPropertyResponseCodes (bcPropertyResponseCodes : List<ResponseCode> ) : void Public

### ${\bf Biomedical Concept Surrogate}$

Class in package 'model'

BiomedicalConceptSurrogate Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign

Target: Private bcSurrogates (Class)

BiomedicalConceptSurrogate

Cardinality: [0..\*]

### **OPERATIONS**

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcSurrogateDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcSurrogateId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcSurrogateName () : String Public

## OPERATIONS getBcSurrogateReference (): String Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setBcSurrogateDescription (bcSurrogateDescription: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setBcSurrogateName (bcSurrogateName: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] setBcSurrogateReference (bcSurrogateReference: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

### Code

Class in package 'model'

A symbol or combination of symbols which is assigned to the members of a collection.

Code Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
ode: String Private	
The literal value of a code.	
	[ Is static True. Containment is Not Specified. ]
odeId: String Private Const	[ Is static True. Containment is Not Specified. ]
odeSystem: String Private	
The literal identifier (i.e., distinctive designation) of the system used to	
	[ Is static True. Containment is Not Specified. ]
codeSystemVersion : String Private	
The version of the code system.	[ Is static True. Containment is Not Specified. ]
decode : String Private	

### **ATTRIBUTES**

Standardized or dictionary-derived human readable text associated with a code.

[ Is static True. Containment is Not Specified. ]

Association (direction: Source -> Destination)	
ource: Public (Class) StudyArm	Target: Private studyArmDataOriginType (Class) Code
Association (direction: Source -> Destination)	
ource: Public (Class) StudyDesign	Target: Private trialIntentType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Jource: Public (Class) Organization	Target: Private organizationType (Class) Code
Association (direction: Source -> Destination)	
Jource: Public (Class) Encounter	Target: Private encounterContactModes (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
ource: Public (Class) Endpoint	Target: Private endpointLevel (Class) Code
Association (direction: Source -> Destination)	
dource: Public (Class) InvestigationalIntervention	Target: Private codes (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
ource: Public (Class) StudyDesign	Target: Private interventionModel (Class) Code
Association (direction: Source -> Destination)	
ource: Public (Class) Encounter	Target: Private encounterType (Class) Code

ASSOCIATIONS	
Source: Public (Class) StudyDesignPopulation	Target: Private plannedSexOfParticipants (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) AliasCode	Target: Private standardCode (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private trialType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private encounterEnvironmentalSetting (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyEpoch	Target: Private studyEpochType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) AliasCode	Target: Private standardCodeAliases (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Procedure	Target: Private procedureCode (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) ResponseCode	Target: Private code (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyProtocolVersion	Target: Private protocolStatus (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Study	Target: Private businessTherapeuticAreas (Class) Code

1	,
ASSOCIATIONS	
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Association (direction, source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private therapeuticAreas (Class) Code
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Study	Target: Private studyType (Class) Code
Association (direction: Source -> Destination)	
Course Public (Class) Starks A	Town to Drive to the Assertance (Class) Code
Source: Public (Class) StudyArm	Target: Private studyArmType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Address	Target: Private country (Class) Code
	g
Association (direction: Source -> Destination)	
Source: Public (Class) Indication	Target: Private codes (Class) Code
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveLevel (Class) Code

### **OPERATIONS**

getCode () : String Public

Code (codeld: String): Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getCodeId (): String Public
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getCodeSystem (): String Public
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

# OPERATIONS © getCodeSystemVersion (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © getDecode (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © setCode (code: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © setCodeSystem (codeSystem: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © setCodeSystemVersion (codeSystemVersion: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Encounter**

Class in package 'model'

setDecode (decode : String ) : void Public

Contact between subject/patient and healthcare practitioner/researcher, during which an assessment or activity is performed. Contact may be physical or virtual.

Encounter
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 2/7/2023. Last modified 2/7/2023

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

# ATTRIBUTES encounterContactModes: List<Code> Private The means by which an interaction occurs between the subject/participant and person or entity (e.g., a device). [Is static True. Containment is Not Specified.] encounterDescription: String Private The textual representation of the protocol-defined clinical encounter. [Is static True. Containment is Not Specified.]

### ATTRIBUTES The environment/setting where the event, intervention, or finding occurred. [ Is static True. Containment is Not Specified. ] encounterId : String Private Const [ Is static True. Containment is Not Specified. ] encounterName : String Private The literal identifier (i.e., distinctive designation) for a protocol-defined clinical encounter. [ Is static True. Containment is Not Specified. ] encounterType : Code Private A characterization or classification of contact between subject/patient and healthcare practitioner/researcher, during which an assessment or activity is performed. [ Is static True. Containment is Not Specified. ] nextEncounterId : String Private A system identifier assigned to a clinical encounter that occurs immediately after the current clinical encounter. [ Is static True. Containment is Not Specified. ] previousEncounterId : String Private A system identifier assigned to a clinical encounter that occurs immediately prior to the current clinical encounter. [ Is static True. Containment is Not Specified. ] transitionEndRule : TransitionRule Private [ Is static True. Containment is Not Specified. ] transitionStartRule : TransitionRule Private [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Encounter Target: Private encounterContactModes (Class) Code Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) Encounter Target: Private encounterType (Class) Code

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Encounter Target: Private encounterEnvironmentalSetting (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Encounter Target: Private transitionStartRule (Class) TransitionRule Association (direction: Source -> Destination) Source: Public (Class) Encounter Target: Private transitionEndRule (Class) TransitionRule Association (direction: Source -> Destination) Source: Public (Class) StudyEpoch Target: Private encounters (Class) Encounter Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private encounters (Class) Encounter Cardinality: [0..\*]

### **OPERATIONS**

• Encounter (encounterId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterContactModes (): List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterEnvironmentalSetting (): Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterId () : String Public

### **OPERATIONS**

getEncounterName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getNextEncounterId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPreviousEncounterId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStartRule (): TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionEndRule (): TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionStartRule () : TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterContactModes (encounterContactModes : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterDescription (encounterDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterEnvironmentalSetting (encounterEnvironmentalSetting : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterName (encounterName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterType (encounterType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setNextEncounterId (nextEncounterId : String ) : void Public

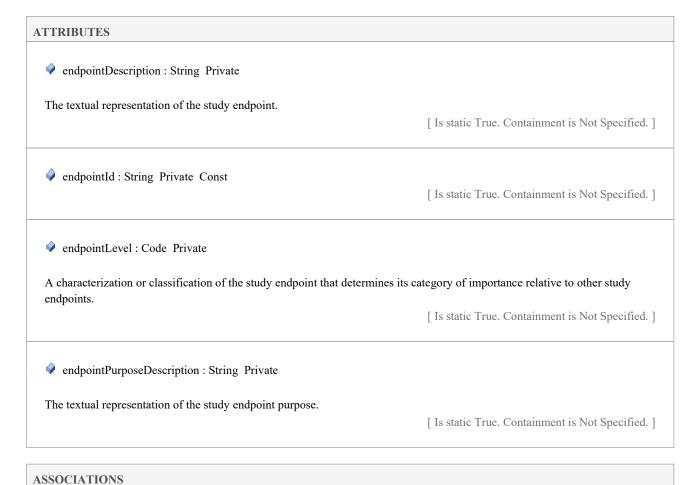
### OPERATIONS setPreviousEncounterId (previousEncounterId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setTransitionEndRule (transitionEndRule : TransitionRule ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setTransitionStartRule (transitionStartRule : TransitionRule ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Endpoint**

Class in package 'model'

A defined variable intended to reflect an outcome of interest that is statistically analyzed to address a particular research question. NOTE: A precise definition of an endpoint typically specifies the type of assessments made, the timing of those assessments, the assessment tools used, and possibly other details, as applicable, such as how multiple assessments within an individual are to be combined. [After BEST Resource]

Endpoint Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023



# ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Endpoint Target: Private endpointLevel (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Objective Target: Private objectiveEndpoints (Class) Endpoint Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) Estimand Target: Private variableOfInterest (Class) Endpoint

### **OPERATIONS** Endpoint (endpointId : String ) : Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getEndpointDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getEndpointId () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getEndpointLevel () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] • getEndpointPurposeDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setEndpointDescription (endpointDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setEndpointLevel (endpointLevel : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setEndpointPurposeDescription (endpointPurposeDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Estimand**

Class in package 'model'

A precise description of the treatment effect reflecting the clinical question posed by a given clinical trial objective. It summarises at a population level what the outcomes would be in the same patients under different treatment conditions being compared. (ICH E9 R1 Addendum)

Estimand Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
analysisPopulation : AnalysisPopulation Private	[ Is static True. Containment is Not Specified. ]
estimandId: String Private Const	[ Is static True. Containment is Not Specified. ]
intercurrentEvents : List <intercurrentevent> Private</intercurrentevent>	[ Is static True. Containment is Not Specified. ]
<ul> <li>summaryMeasure : String Private</li> <li>A synopsis of the clinical endpoint of interest within the analysis target study</li> </ul>	
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
variableOfInterest : Endpoint Private	[ Is static True. Containment is Not Specified. ]

Association (direction: Source -> Destination)	
Source: Public (Class) Estimand	Target: Private analysisPopulation (Class) AnalysisPopulation
Association (direction: Source -> Destination)	
Source: Public (Class) Estimand	Target: Private intercurrentEvents (Class) IntercurrentEvent

# Association (direction: Source -> Destination) Source: Public (Class) Estimand Target: Private treatment (Class) InvestigationalIntervention Association (direction: Source -> Destination) Source: Public (Class) Estimand Target: Private variableOfInterest (Class) Endpoint Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private studyEstimands (Class) Estimand Cardinality: [0.\*]

### **OPERATIONS** addIntercurrentEvent (intercurrentEvent : IntercurrentEvent ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] Estimand (estimandId : String ) : Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getAnalysisPopulation () : AnalysisPopulation Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getEstimandId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getIntercurrentEvents (): List<IntercurrentEvent> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getSummaryMeasure (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getTreatment (): InvestigationalIntervention Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getVariableOfInterest () : Endpoint Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

removeIntercurrentEvent (intercurrentEvent : IntercurrentEvent ) : void Public

### **OPERATIONS**

setAnalysisPopulation (analysisPopulation : AnalysisPopulation ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setIntercurrentEvents (intercurrentEvents : List<IntercurrentEvent> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setSummaryMeasure (summaryMeasure : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTreatment (treatment : InvestigationalIntervention ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setVariableOfInterest (variableOfInterest : Endpoint ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Indication**

Class in package 'model'

The condition, disease or disorder that the clinical trial is intended to investigate or address.

 $\begin{tabular}{ll} Indication \\ Version 1.0 Phase 1.0 Proposed \\ Chris Upkes created on 2/7/2023. Last modified 2/7/2023 \end{tabular}$ 

### ATTRIBUTES

codes : List<Code> Private

A short sequence of characters that represents the disease indication.

[ Is static True. Containment is Not Specified. ]

indicationDescription: String Private

The condition, disease or disorder that the clinical trial is intended to investigate or address.

[ Is static True. Containment is Not Specified. ]

indicationId: String Private Const

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

### ASSOCIATIONS Association (direct

Association (direction: Source -> Destination)

Source: Public (Class) Indication

Target: Private codes (Class) Code

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign

Target: Private studyIndications (Class) Indication

Cardinality: [0..\*]

### **OPERATIONS**

getCodes () : List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIndicationDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIndicationId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Indication (indicationId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setCodes (codes : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setIndicationDescription (indicationDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### IntercurrentEvent

Class in package 'model'

An event(s) occurring after treatment initiation that affects either the interpretation or the existence of the measurements associated with the clinical question of interest. (ICH E9 Addendum on Estimands)

IntercurrentEvent Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

### **ATTRIBUTES**

intercurrentEventDescription : String Private

### **ATTRIBUTES**

The textual representation of the intercurrent event.

[ Is static True. Containment is Not Specified. ]

intercurrentEventId: String Private Const

[ Is static True. Containment is Not Specified. ]

intercurrentEventName : String Private

The literal identifier (i.e., distinctive designation) of the intercurrent event.

[ Is static True. Containment is Not Specified. ]

intercurrentEventStrategy: String Private

A textual description of the planned strategy to manage and/or mitigate intercurrent events.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Estimand

Target: Private intercurrentEvents (Class)
IntercurrentEvent

Cardinality: [0..\*]

### **OPERATIONS**

getIntercurrentEventDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getIntercurrentEventId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getIntercurrentEventName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIntercurrentEventStrategy (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

● IntercurrentEvent (intercurrentEventId : String ) : Public

### OPERATIONS setIntercurrentEventDescription (intercurrentEventDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setIntercurrentEventName (intercurrentEventName : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setIntercurrentEventStrategy (intercurrentEventStrategy : String ) : void Public

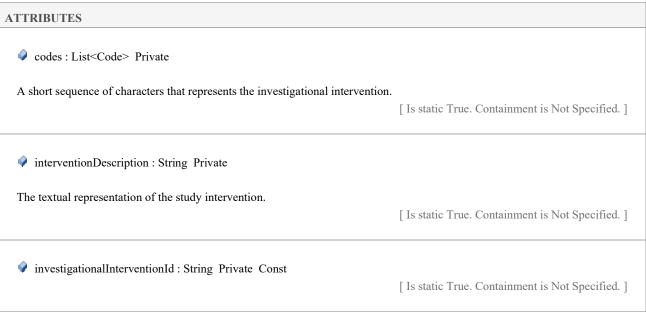
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### InvestigationalIntervention

Class in package 'model'

The drug, device, therapy, or process under investigation in a clinical study that is believed to have an effect on outcomes of interest in a study. [After https://grants.nih.gov/grants/policy/faq\_clinical\_trial\_definition.htm#5224] (CDISC-Glossary)

InvestigationalIntervention Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023



SSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) InvestigationalIntervention	Target: Private codes (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	

### ASSOCIATIONS Source: Public (Class) StudyDesign Target: Private studyInvestigationalInterventions (Class) InvestigationalIntervention Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) Estimand Target: Private treatment (Class) InvestigationalIntervention

### 

### **Objective**

Class in package 'model'

The reason for performing a study in terms of the scientific questions to be answered by the analysis of data collected during the study.

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setInterventionDescription (interventionDescription : String ) : void Public

Objective Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

### 

# ATTRIBUTES The textual representation of the study objective. (BRIDG) [ Is static True. Containment is Not Specified. ] objectiveEndpoints: List<Endpoint> Private [ Is static True. Containment is Not Specified. ] objectiveId: String Private Const [ Is static True. Containment is Not Specified. ] objectiveLevel: Code Private A characterization or classification of the study endpoint that determines its category of importance relative to other study objectives. [ Is static True. Containment is Not Specified. ]

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveEndpoints (Class) Endpoint Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveLevel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyObjectives (Class) Objective Cardinality: [0*]

### 

### 

### **Organization**

Class in package 'model'

A formalized group of persons or other organizations collected together for a common purpose (such as administrative, legal, political) and the infrastructure to carry out that purpose. (BRIDG)

Organization
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 2/7/2023. Last modified 2/7/2023

TTRIBUTES	
organizationId: String Private Const	
	[ Is static True. Containment is Not Specified. ]
A	
organizationIdentifier: String Private	
A unique symbol that establishes identity of the organization. (BRIDG)	
	[ Is static True. Containment is Not Specified. ]
organizationIdentifierScheme : String Private	
The name of the organization that provides the identifier for the entity.	
The name of the organization that provides the identification for the onting.	[ Is static True. Containment is Not Specified. ]
organizationLegalAddress: Address Private	
-	[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES

organizationName: String Private

A non-unique textual identifier for the organization. (BRIDG)

[ Is static True. Containment is Not Specified. ]

organizationType : Code Private

A characterization or classification of the formalized group of persons or other organizations collected together for a common purpose (such as administrative, legal, political) and the infrastructure to carry out that purpose.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Organization

Target: Private organizationType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Organization

Target: Private organizationLegalAddress (Class)

Address

Association (direction: Source -> Destination)

Source: Public (Class) StudyIdentifier

Target: Private studyIdentifierScope (Class)

Organization

### **OPERATIONS**

getOrganizationId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getOrganizationIdentifier (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationIdentifierScheme (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationLegalAddress (): Address Public

### **OPERATIONS**

getOrganizationName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationType (): Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Organization (organizationId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationIdentifier (organizationIdentifier : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationIdentifierScheme (organizationIdentifierScheme : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationLegalAddress (organizationLegalAddress : Address ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationName (organizationName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationType (organizationType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Procedure**

Class in package 'model'

Any activity performed by manual and/or instrumental means for the purpose of diagnosis, assessment, therapy, prevention, or palliative care.

Procedure Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

### ATTRIBUTES

procedureCode : Code Private

A symbol or combination of symbols which is assigned to medical procedure.

[ Is static True. Containment is Not Specified. ]

procedureId : String Private Const

## ATTRIBUTES [ Is static True. Containment is Not Specified. ] procedureIsConditional: boolean Private [ Is static True. Containment is Not Specified. ] procedureIsConditionalReason: String Private [ Is static True. Containment is Not Specified. ] procedureType: String Private A characterization or classification of the study procedure. [ Is static True. Containment is Not Specified. ]

### Association (direction: Source -> Destination) Source: Public (Class) Procedure Association (direction: Source -> Destination) Source: Public (Class) Activity Target: Private procedure (Class) Code Target: Private definedProcedures (Class) Procedure Cardinality: [0.\*]

# OPERATIONS © getProcedureCode (): Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © getProcedureId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © getProcedureIsConditional (): boolean Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © getProcedureIsConditionalReason (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] © getProcedureType (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

# OPERATIONS Procedure (procedureId: String): Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProcedureCode (procedureCode: Code): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProcedureIsConditional (procedureIsConditional: boolean): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProcedureIsConditionalReason (procedureIsConditionalReason: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProcedureType (procedureType: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### ResponseCode

Class in package 'model'

ResponseCode Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

[ Is static True. Containment is Not Specified. ]
[ Is static True. Containment is Not Specified. ]
[ Is static True. Containment is Not Specified. ]

SOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) ResponseCode	Target: Private code (Class) Code

### ASSOCIATIONS

Source: Public (Class) BiomedicalConceptProperty

Target: Private bcPropertyResponseCodes (Class)

ResponseCode

Cardinality: [0..\*]

### **OPERATIONS**

getCode () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getResponseCodeId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

isResponseCodeEnabled (): boolean Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

ResponseCode (responseCodeId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setCode (code : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setResponseCodeEnabled (responseCodeEnabled : boolean ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Study

Class in package 'model'

A clinical study involves research using human volunteers (also called participants) that is intended to add to medical knowledge. There are two main types of clinical studies: clinical trials (also called interventional studies) and observational studies. [[http://ClinicalTrials.gov]](CDISC Glossary)

Study
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 2/7/2023. Last modified 2/7/2023

### ATTRIBUTES

businessTherapeuticAreas : List<Code> Private

A therapeutic area classification based on the structure and operations of the business unit.

[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES studyAcronym : String Private [ Is static True. Containment is Not Specified. ] studyDesigns : List<StudyDesign> Private [ Is static True. Containment is Not Specified. ] studyId : UUID Private Const [ Is static True. Containment is Not Specified. ] studyIdentifiers : List<StudyIdentifier> Private [ Is static True. Containment is Not Specified. ] studyPhase : AliasCode Private A step in the clinical research and development of a therapy from initial clinical trials to post-approval studies. NOTE: Clinical trials are generally categorized into four (sometimes five) phases. A therapeutic intervention may be evaluated in two or more phases simultaneously in different trials, and some trials may overlap two different phases. [21 CFR section 312.21; After ICH Topic E8 NOTE FOR GUIDANCE ON GENERAL CONSIDERATIONS FOR CLINICAL TRIALS, CPMP/ICH/291/95 March 1998] [ Is static True. Containment is Not Specified. ] studyProtocolVersions : List<StudyProtocolVersion> Private [ Is static True. Containment is Not Specified. ] studyRationale : String Private [ Is static True. Containment is Not Specified. ] studyTitle : String Private The sponsor-defined name of the clinical study. [ Is static True. Containment is Not Specified. ] studyType : Code Private The nature of the investigation for which study information is being collected. (After clinicaltrials.gov) [ Is static True. Containment is Not Specified. ] studyVersion : String Private A plan at a particular point in time for a study. [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private studyProtocolVersions (Class) StudyProtocolVersion Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private studyDesigns (Class) StudyDesign Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private studyType (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private studyPhase (Class) AliasCode Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private studyIdentifiers (Class) StudyIdentifier Cardinality: [0..\*]

### **OPERATIONS**

addStudyDesign (studyDesign : StudyDesign ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addStudyIdentifier (studyIdentifier : StudyIdentifier ) : void Public

 $[\ Is\ static\ False.\ Is\ return\ array\ False.\ Is\ query\ False.\ Is\ synchronized\ False.\ ]$ 

addStudyProtocolVersion (studyProtocolVersion : StudyProtocolVersion ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBusinessTherapeuticAreas (): List<Code> Public

### **OPERATIONS** [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyAcronym (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyDesigns (): List<StudyDesign> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyId () : UUID Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyIdentifiers (): List<StudyIdentifier> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyPhase () : AliasCode Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyProtocolVersions (): List<StudyProtocolVersion> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyRationale () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyTitle (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyType () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyVersion (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyDesign (studyDesign : StudyDesign ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyIdentifier (studyIdentifier : StudyIdentifier ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 🗣 removeStudyProtocolVersion (studyProtocolVersion : StudyProtocolVersion ) : void Public

### Model Report 7 February, 2023 **OPERATIONS** setBusinessTherapeuticAreas (businessTherapeuticAreas : List<Code>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyAcronym (studyAcronym : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyDesigns (studyDesigns : List<StudyDesign>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyIdentifiers (studyIdentifiers : List<StudyIdentifier>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyPhase (studyPhase : AliasCode ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyProtocolVersions (studyProtocolVersions: List<StudyProtocolVersion>): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyRationale (studyRationale : String) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyTitle (studyTitle : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyType (studyType : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyVersion (studyVersion : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **StudyArm**

Class in package 'model'

Study (studyId : UUID ) : Public

A planned pathway assigned to the subject as they progress through the study, usually referred to by a name that reflects one or more treatments, exposures, and/or controls included in the path.

StudyArm Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
studyArmDataOriginDescription: String Private  The textual representation of the study arm data origin.	[ Is static True. Containment is Not Specified. ]
studyArmDataOriginType: Code Private  A characterization or classification of the study arm with respect to where the	e study arm data originates. [ Is static True. Containment is Not Specified. ]
studyArmDescription: String Private  The textual representation of the study arm.	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
studyArmType: Code Private  The literal identifier (i.e., distinctive designation) of the study arm type.	[ Is static True. Containment is Not Specified. ]

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyArm	Target: Private studyArmDataOriginType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyArm	Target: Private studyArmType (Class) Code

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyCell Target: Private studyArm (Class) StudyArm

### **OPERATIONS**

getStudyArmDataOriginDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmDataOriginType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmDataOriginDescription (studyArmDataOriginDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmDataOriginType (studyArmDataOriginType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmDescription (studyArmDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmName (studyArmName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmType (studyArmType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyArm (studyArmId : String ) : Public

### **OPERATIONS**

### **StudyCell**

Class in package 'model'

A partitioning of a study arm into individual pieces, which are associated with an epoch and any number of sequential elements within that epoch.

StudyCell Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
	[ Is static True. Containment is Not Specified. ]
studyCellId : String Private Const	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

Association (direction: Source -> Destination)	
Source: Public (Class) StudyCell	Target: Private studyEpoch (Class) StudyEpoch
Association (direction: Source -> Destination)	
Source: Public (Class) StudyCell	Target: Private studyArm (Class) StudyArm
Association (direction: Source -> Destination)	
Source: Public (Class) StudyCell	Target: Private studyElements (Class) StudyElement Cardinality: [0*]

### ASSOCIATIONS

Source: Public (Class) StudyDesign

Target: Private studyCells (Class) StudyCell

Cardinality: [0..\*]

### **OPERATIONS**

addStudyElement (studyElement : StudyElement ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArm () : StudyArm Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyCellId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyElements () : List<StudyElement> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyEpoch () : StudyEpoch Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

removeStudyElement (studyElement : StudyElement ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArm (studyArm : StudyArm ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyElements (studyElements : List<StudyElement> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyEpoch (studyEpoch : StudyEpoch ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyCell (studyCellId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **StudyDesign**

Class in package 'model'

A plan detailing how a study will be performed in order to represent the phenomenon under examination, to answer the research questions that have been asked, and informing the statistical approach.

StudyDesign Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
activities: List <activity> Private</activity>	[ Is static True. Containment is Not Specified. ]
bcCategories : List <biomedicalconceptcategory> Private</biomedicalconceptcategory>	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
<ul> <li>interventionModel: Code Private</li> <li>The general design of the strategy for assigning interventions to participants in</li> </ul>	n a clinical study. (clinicaltrials.gov) [ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES The literal identifier (i.e., distinctive designation) of the study design. [ Is static True. Containment is Not Specified. ] studyDesignRationale : String Private [ Is static True. Containment is Not Specified. ] studyEstimands : List<Estimand> Private [ Is static True. Containment is Not Specified. ] studyIndications : List<Indication> Private [ Is static True. Containment is Not Specified. ] studyInvestigationalInterventions: List<InvestigationalIntervention> Private [ Is static True. Containment is Not Specified. ] studyObjectives : List<Objective> Private [ Is static True. Containment is Not Specified. ] studyPopulations : List<StudyDesignPopulation> Private [ Is static True. Containment is Not Specified. ] [ Is static True. Containment is Not Specified. ] therapeutic Areas: List<Code> Private A categorization of a disease, disorder, or other condition based on common characteristics and often associated with a medical specialty focusing on research and development of specific therapeutic interventions for the purpose of treatment and prevention. [ Is static True. Containment is Not Specified. ] The planned purpose of the therapy, device, or agent under study in the clinical trial. [ Is static True. Containment is Not Specified. ] The nature of the interventional study for which information is being collected. [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyEstimands (Class) Estimand Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyCells (Class) StudyCell Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private trialIntentType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyIndications (Class) Indication Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private interventionModel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyObjectives (Class) Objective Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private trialType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private activities (Class) Activity  Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyInvestigationalInterventions (Class) InvestigationalIntervention Cardinality: [0*]

*	
ASSOCIATIONS	
Association (direction: Source -> Destination)	
P Abbellation (direction, boards - Bellination)	
Source: Public (Class) StudyDesign	Target: Private studyWorkflows (Class) Workflow
Source. I done (Class) Study Design	Cardinality: [0*]
	Curamunty. [o]
Association (direction: Source -> Destination)	
P Abbookation (direction, bource   Destination)	
Source: Public (Class) StudyDesign	Target: Private bcCategories (Class)
Source. I done (Class) Study Design	BiomedicalConceptCategory
	Cardinality: [0*]
	Curamunty. [o]
Association (direction: Source -> Destination)	
- 12550 and (another Source - Destination)	
Source: Public (Class) StudyDesign	Target: Private therapeuticAreas (Class) Code
Source. I done (Class) Study Design	Cardinality: [0*]
	Cardinanty. [0]
Association (direction: Source -> Destination)	
Association (direction, Source -> Destination)	
Common Dellie (Class) Starte Design	T4. Di4. 1C(Cl)
Source: Public (Class) StudyDesign	Target: Private bcSurrogates (Class) BiomedicalConceptSurrogate
	Cardinality: [0*]
	Cardinanty. [0]
Association (direction: Source -> Destination)	
Association (uncerton, source > Destination)	
Source: Public (Class) StudyDesign	Target: Private studyPopulations (Class)
Source. I done (Class) Study Design	Study Design Population
	Cardinality: [0*]
	Cardinanty. [o]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private biomedicalConcepts (Class)
(Cass) Staay Design	BiomedicalConcept
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private encounters (Class) Encounter
, , <b>,</b> <del>-</del> <b>8</b>	Cardinality: [0*]
	) r. 1
Association (direction: Source -> Destination)	
,	
Source: Public (Class) StudyDesign	Target: Private studyDesignBlindingScheme
( )y	(Class) AliasCode
	` '

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Study Target: Private studyDesigns (Class) StudyDesign

Cardinality: [0..\*]

### **OPERATIONS**

addStudyIndication (indication : Indication ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

🌳 addStudyInvestigationalIntervention (investigationalIntervention : InvestigationalIntervention ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addStudyObjective (objective : Objective ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addStudyWorkflow (workflow : Workflow ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivities (): List<Activity> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcCategories (): List<BiomedicalConceptCategory> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBcSurrogates (): List<BiomedicalConceptSurrogate> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBiomedicalConcepts (): List<BiomedicalConcept> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounters () : List<Encounter> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getInterventionModel () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyCells (): List<StudyCell> Public

### **OPERATIONS**

getStudyDesignBlindingScheme () : AliasCode Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDesignDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDesignId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDesignName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDesignRationale (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyEstimands (): List<Estimand> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyIndications (): List<Indication> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyInvestigationalInterventions (): List<InvestigationalIntervention> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyObjectives (): List<Objective> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyPopulations (): List<StudyDesignPopulation> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyWorkflows (): List<Workflow> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTherapeuticAreas (): List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTrialIntentType () : List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTrialType () : List<Code> Public

### **OPERATIONS** [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyIndication (indication : Indication ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 🌳 removeStudyInvestigationalIntervention (investigationalIntervention : InvestigationalIntervention ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyObjective (objective : Objective ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyWorkflow (workflow: Workflow): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setActivities (activities : List<Activity> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setBcCategories (bcCategories : List<BiomedicalConceptCategory> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setBcSurrogates (bcSurrogates : List<BiomedicalConceptSurrogate> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setBiomedicalConcepts (biomedicalConcepts: List<BiomedicalConcept>): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setEncounters (encounters : List<Encounter>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setInterventionModel (interventionModel : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyCells (studyCells : List<StudyCell> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyDesignBlindingScheme (studyDesignBlindingScheme : AliasCode ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyDesignDescription (studyDesignDescription : String ) : void Public

### **OPERATIONS**

setStudyDesignName (studyDesignName : String) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyDesignRationale (studyDesignRationale : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyEstimands (studyEstimands : List<Estimand>) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyIndications (studyIndications : List<Indication> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyInvestigationalInterventions (studyInvestigationalInterventions : List<InvestigationalIntervention> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyObjectives (studyObjectives : List<Objective> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyPopulations (studyStudyDesignPopulations : List<StudyDesignPopulation> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyWorkflows (studyWorkflows : List<Workflow> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTherapeuticAreas (therapeuticAreas : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTrialIntentType (trialIntentType : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTrialType (trialType : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyDesign (studyDesignId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### StudyDesignPopulation

Class in package 'model'

The population within the general population to which the study results can be generalized.

StudyDesignPopulation Version 1.0 Phase 1.0 Proposed cupke created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
plannedMaximumAgeOfParticipants : String Private	[ Is static True. Containment is Not Specified. ]
plannedMinimumAgeOfParticipants : String Private	[ Is static True. Containment is Not Specified. ]
plannedNumberOfParticipants: int Private	[ Is static True. Containment is Not Specified. ]
plannedSexOfParticipants : List <code> Private</code>	[ Is static True. Containment is Not Specified. ]
populationDescription : String Private	
The textual representation of the study population.	[ Is static True. Containment is Not Specified. ]
studyDesignPopulationId: String Private Const	[ Is static True. Containment is Not Specified. ]

SOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesignPopulation	Target: Private plannedSexOfParticipants (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyPopulations (Class) StudyDesignPopulation Cardinality: [0*]

OPERATIONS	

### **OPERATIONS**

getPlannedMaximumAgeOfParticipants (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPlannedMinimumAgeOfParticipants (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPlannedNumberOfParticipants (): int Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPlannedSexOfParticipants (): List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPopulationDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDesignPopulationId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPlannedMaximumAgeOfParticipants (plannedMaximumAgeOfParticipants : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPlannedMinimumAgeOfParticipants (plannedMinimumAgeOfParticipants : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPlannedNumberOfParticipants (plannedNumberOfParticipants : int ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPlannedSexOfParticipants (plannedSexOfParticipants : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPopulationDescription (populationDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyDesignPopulation (uuid : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### StudyElement

Class in package 'model'

A basic building block for time within a clinical study comprising the following characteristics: a description of what happens to the subject during the element; a definition of the start of the element; a rule for ending the element.

 $\begin{tabular}{lll} & StudyElement \\ & Version~1.0~Phase~1.0~Proposed \\ Chris~Upkes~created~on~2/7/2023.~Last~modified~2/7/2023 \end{tabular}$ 

ATTRIBUTES	
studyElementDescription : String Private	
The textual representation of the study design element.	[ Is static True. Containment is Not Specified. ]
studyElementId : String Private Const	
element only attributes - these purely describe an element	[ Is static True. Containment is Not Specified. ]
studyElementName : String Private	
The literal identifier (i.e., distinctive designation) of the study design element.	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
transitionStartRule : TransitionRule Private	
all elements point to transition rules	[ Is static True. Containment is Not Specified. ]

SOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyElement	Target: Private transitionStartRule (Class) TransitionRule
Association (direction: Source -> Destination)	
Source: Public (Class) StudyElement	Target: Private transitionEndRule (Class) TransitionRule
Association (direction: Source -> Destination)	
Source: Public (Class) StudyCell	Target: Private studyElements (Class) StudyElement

### ASSOCIATIONS

Cardinality: [0..\*]

### **OPERATIONS**

• getStudyElementDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyElementId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyElementName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionEndRule (): TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getTransitionStartRule () : TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyElementDescription (studyElementDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyElementName (studyElementName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTransitionEndRule (transitionEndRule : TransitionRule ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• setTransitionStartRule (transitionStartRule : TransitionRule ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyElement (studyElementId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **StudyEpoch**

Class in package 'model'

A named time period defined in the protocol, wherein a study activity is specified and unchanging throughout the interval, to support a study-specific purpose.

 $\begin{tabular}{ll} StudyEpoch & Version 1.0 Phase 1.0 Proposed \\ Chris Upkes created on 2/7/2023. Last modified 2/7/2023 \end{tabular}$ 

ATTRIBUTES	
• encounters : List <encounter> Private</encounter>	[ Is static True. Containment is Not Specified. ]
nextStudyEpochId: String Private	
A system identifier assigned to the epoch that occurs immediately after	the current epoch.  [ Is static True. Containment is Not Specified. ]
previousStudyEpochId : String Private	
A system identifier assigned to the epoch that occurs immediately prior	to the current epoch.  [ Is static True. Containment is Not Specified. ]
studyEpochDescription: String Private	
The textual representation of the study epoch.	[ Is static True. Containment is Not Specified. ]
studyEpochId: String Private Const	[ Is static True. Containment is Not Specified. ]
studyEpochName: String Private	
The literal identifier (i.e., distinctive designation) of the study epoch, i.e wherein a study activity is specified and unchanging throughout the interest of the study activity is specified and unchanging throughout the interest of the study epoch, i.e.	
studyEpochType: Code Private	
A characterization or classification of the study epoch, i.e., the named to activity is specified and unchanging throughout the interval, to support	

Association (direction: Source -> Destination)	
Source: Public (Class) StudyEpoch	Target: Private studyEpochType (Class) Code

### Source: Public (Class) StudyEpoch Target: Private encounters (Class) Encounter Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) StudyCell Target: Private studyEpoch (Class) StudyEpoch

### **OPERATIONS** getEncounters (): List<Encounter> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getNextStudyEpochId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getPreviousStudyEpochId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochName () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochType () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setEncounters (encounters : List<Encounter> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setNextStudyEpochId (nextStudyEpochId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setPreviousStudyEpochId (previousStudyEpochId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### OPERATIONS setStudyEpochDescription (studyEpochDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyEpochName (studyEpochName : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyEpochType (studyEpochType : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Studyldentifier

Class in package 'model'

A sequence of characters used to identify, name, or characterize the study.

StudyEpoch (studyEpochId : String ) : Public

StudyIdentifier Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

[ Is static True. Containment is Not Specified. ]
[ Is static True. Containment is Not Specified. ]
[ Is static True. Containment is Not Specified. ]

- Sundy I action 111 Control of the	[ Is static True. Containment is Not Specified. ]
ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyIdentifier	Target: Private studyIdentifierScope (Class) Organization
Association (direction: Source -> Destination)	
	64 of 72

### ASSOCIATIONS

Source: Public (Class) Study

Target: Private studyIdentifiers (Class)

StudyIdentifier

Cardinality: [0..\*]

### **OPERATIONS**

getStudyIdentifier (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyIdentifierId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyIdentifierScope () : Organization Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyIdentifier (studyIdentifier : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyIdentifierScope (studyIdentifierScope : Organization ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyIdentifier (studyIdentifierId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### StudyProtocolVersion

Class in package 'model'

A plan at a particular point in time for a formal investigation to assess the utility, impact, pharmacological, physiological, and/or psychological effects of a particular treatment, procedure, drug, device, biologic, food product, cosmetic, care plan, or subject characteristic. (BRIDG)

StudyProtocolVersion Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

### ATTRIBUTES

briefTitle : String Private

The short descriptive name for the protocol.

[ Is static True. Containment is Not Specified. ]

officialTitle : String Private

### **ATTRIBUTES**

The formal descriptive name for the protocol.

[ Is static True. Containment is Not Specified. ]

protocolAmendment : String Private

A written description of a change(s) to, or formal clarification of, a protocol. (ICH E6)

[ Is static True. Containment is Not Specified. ]

protocolEffectiveDate : Date Private

The date and time specifying when the protocol amendment takes effect or becomes operative.

[ Is static True. Containment is Not Specified. ]

protocolStatus : Code Private

A condition of the protocol at a point in time with respect to its state of readiness for implementation.

[ Is static True. Containment is Not Specified. ]

protocolVersion : String Private

A plan at a particular point in time for a formal investigation to assess the utility, impact, pharmacological, physiological, and/or psychological effects of a particular treatment, procedure, drug, device, biologic, food product, cosmetic, care plan, or subject characteristic. (BRIDG)

[ Is static True. Containment is Not Specified. ]

publicTitle : String Private

The descriptive name of the protocol that is intended for the lay public, written in easily understood language.

[ Is static True. Containment is Not Specified. ]

scientificTitle : String Private

A more extensive descriptive name of the protocol that is intended for medical professionals, written using medical and scientific language.

[ Is static True. Containment is Not Specified. ]

studyProtocolVersionId : String Private Const

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyProtocolVersion Target: Private protocolStatus (Class) Code

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyProtocolVersions (Class) StudyProtocolVersion

Cardinality: [0..\*]

### **OPERATIONS**

getBriefTitle () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOfficialTitle (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProtocolAmendment (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProtocolEffectiveDate (): Date Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProtocolStatus () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProtocolVersion (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPublicTitle (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getScientificTitle (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyProtocolVersionId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setBriefTitle (briefTitle : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOfficialTitle (officialTitle : String ) : void Public

# SetProtocolAmendment (protocolAmendment: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] SetProtocolEffectiveDate (protocolEffectiveDate: Date): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] SetProtocolStatus (protocolStatus: Code): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] SetProtocolVersion (protocolVersion: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] SetPublicTitle (publicTitle: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] SetScientificTitle (scientificTitle: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] StudyProtocolVersion (studyProtocolVersionId: String): Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **TransitionRule**

Class in package 'model'

A guide that governs the allocation of subjects to operational options at a discrete decision point or branch (e.g., assignment to a particular arm, discontinuation) within a clinical trial plan.

TransitionRule Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

ATTRIBUTES	
The textual representation of the transition rule.	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyElement	Target: Private transitionStartRule (Class) TransitionRule
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private transitionStartRule (Class) TransitionRule
Association (direction: Source -> Destination)	
Source: Public (Class) StudyElement	Target: Private transitionEndRule (Class) TransitionRule
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private transitionEndRule (Class) TransitionRule

### **OPERATIONS**

getTransitionRuleDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionRuleId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTransitionRuleDescription (transitionRuleDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

TransitionRule (ruleId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Workflow

Class in package 'model'

The operational aspect of a work procedure: how tasks are structured, who performs them, what their relative order is, how they are synchronized, how information flows to support the tasks and how tasks are being tracked.

Workflow

Version 1.0 Phase 1.0 Proposed Chris Upkes created on 2/7/2023. Last modified 2/7/2023

# workflowDescription: String Private The textual representation of the workflow. [ Is static True. Containment is Not Specified. ] workflowId: String Private Const [ Is static True. Containment is Not Specified. ] workflowItems: List≺WorkflowItem> Private The textual representation of the workflow item. [ Is static True. Containment is Not Specified. ]

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) Workflow	Target: Private workflowItems (Class) WorkflowItem Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyWorkflows (Class) Workflow Cardinality: [0*]

ERATIONS	
getWorkflowDescrip	ption () : String Public
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
getWorkflowId () : S	String Public
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
getWorkflowItems (	): List <workflowitem> Public</workflowitem>
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
setWorkflowDescrip	otion (workflowDescription : String ) : void Public
	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.

### **OPERATIONS**

setWorkflowItems (workflowItems : List<WorkflowItem> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Workflow (workFlowUUID : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### WorkflowItem

Class in package 'model'

WorkflowItem
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 2/7/2023. Last modified 2/7/2023

### **ATTRIBUTES** nextWorkflowItemId : String Private A system identifier assigned to a workflow item that occurs immediately prior to the current workflow item. [ Is static True. Containment is Not Specified. ] previousWorkflowItemId : String Private A system identifier assigned to a workflow item that occurs immediately prior to the current workflow item. [ Is static True. Containment is Not Specified. ] workflowItemActivityId: String Private [ Is static True. Containment is Not Specified. ] workflowItemDescription: String Private The textual representation of the workflow item. [ Is static True. Containment is Not Specified. ] workflowItemEncounterId : String Private [ Is static True. Containment is Not Specified. ] workflowItemId: String Private Const [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

### ASSOCIATIONS

Source: Public (Class) Workflow Target: Private workflowItems (Class) WorkflowItem

Cardinality: [0..\*]

OD	$\mathbf{r}\mathbf{p}$	A T	IONS

getNextWorkflowItemId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPreviousWorkflowItemId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getWorkflowItemActivityId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getWorkflowItemDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getWorkflowItemEncounterId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getWorkflowItemId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setNextWorkflowItemId (nextWorkflowItemId : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPreviousWorkflowItemId (previousWorkflowItemId : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setWorkflowItemActivity (workflowItemActivityId : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setWorkflowItemDescription (workflowItemDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setWorkflowItemEncounter (workflowItemEncounterId : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

WorkflowItem (workflowItemId : String ) : Public

### **OPERATIONS**