### model

Package in package 'DDF'

model
Version 1.0 Phase 1.0 Proposed
cupke created on 12/14/2022. Last modified 12/14/2022

### model diagram

Class diagram in package 'model'

model Version 1.0 cupke created on 12/14/2022. Last modified 12/14/2022

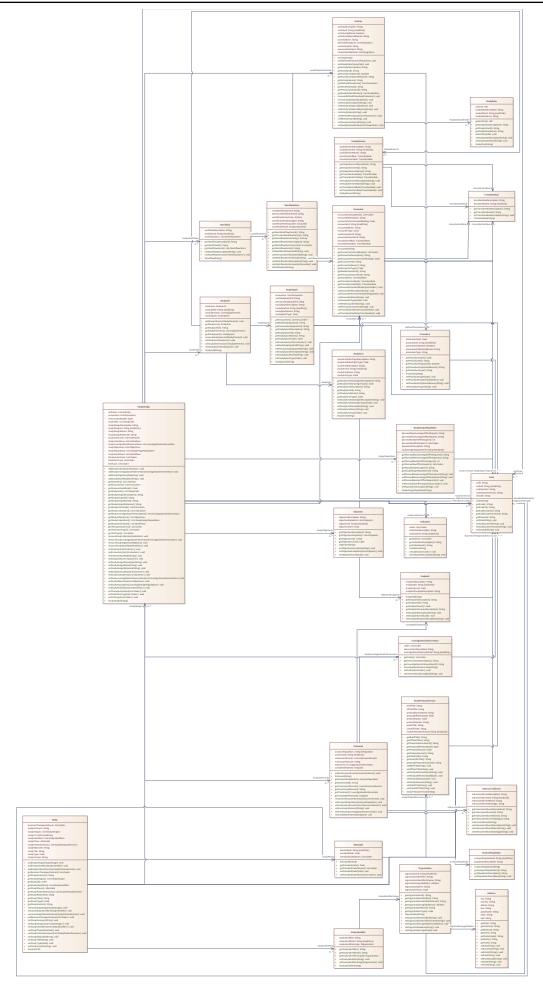


Figure 1: model

### **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.

Activity
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 12/14/2022. Last modified 12/14/2022

ATTRIBUTES	
activityDescription: String Private	
The textual representation of the study activity.	[ Is static True. Containment is Not Specified. ]
activityId: String Private Const	[ Is static True. Containment is Not Specified. ]
activityIsOptional: boolean Private	[ Is static True. Containment is Not Specified. ]
activityIsOptionalReason: 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. ]
definedProcedures : List <procedure> Private</procedure>	[ Is static True. Containment is Not Specified. ]
nextActivityId: String Private	
A system identifier assigned to a study activity that occurs immediately after t	he 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 t	to the current study activity.

### ATTRIBUTES [ Is static True. Containment is Not Specified. ] studyDataCollection: List<StudyData> Private [ 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) Activity Target: Private studyDataCollection (Class) StudyData Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) WorkflowItem Target: Private workflowItemActivity (Class) Activity 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.] addStudyData (studyData: StudyData): 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.]

### Model Report 14 December, 2022 **OPERATIONS** getActivityId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getActivityIsOptional (): boolean Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getActivityIsOptionalReason (): 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. ] • 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. ] getStudyDataCollection (): List<StudyData> 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. ]

removeStudyData (studyData : StudyData ) : 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. ]

setActivityIsOptional (activityIsOptional : boolean ) : void Public

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

setActivityIsOptionalReason (activityIsOptionalReason : String ) : void Public

## operations setActivityName (activityName: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setDefinedProcedures (definedProcedures: List<Procedure>): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setNextActivityId (nextActivityId: 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. ] setStudyDataCollection (studyDataCollection: List<StudyData>): 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 12/14/2022. Last modified 12/14/2022

ATTRIBUTES	
city: String Private	
	[ Is static True. Containment is Not Specified. ]
country: String Private	
	[ Is static True. Containment is Not Specified. ]
v distret: String 111 tale	[ Is static True. Containment is Not Specified. ]
↓ line : String Private	
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
♦ state : String Private	
5	[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES

vext: String Private

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

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 () : String 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 Public

[ 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

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

setCity (city : String ) : void Public

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

setCountry (country : String ) : void Public

## operations 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. ]

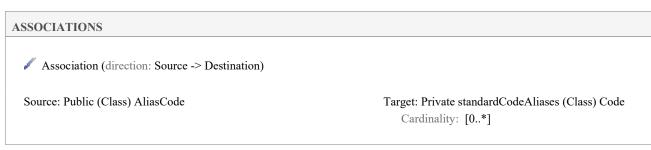
### **AliasCode**

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 12/14/2022. Last modified 12/14/2022

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. ]



### Association (direction: Source -> Destination) Source: Public (Class) AliasCode Target: Private standardCode (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Study Target: Private studyPhase (Class) AliasCode

## OPERATIONS AliasCode (aliasCodeld: 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 [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### AnalysisPopulation

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 12/14/2022. Last modified 12/14/2022

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### **ATTRIBUTES**

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

[ 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 12/14/2022. Last modified 12/14/2022

### ATTRIBUTES

code : 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. ]

### **ATTRIBUTES**

codeSystem : String Private

The literal identifier (i.e., distinctive designation) of the system used to assign and/or manage codes.

[ 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

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

[ Is static True. Containment is Not Specified. ]

### **ASSOCIATIONS**

Association (direction: Source -> Destination)

Source: Public (Class) Study Target: Private studyType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Encounter Target: Private encounterContactModes (Class)

Code

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) AliasCode Target: Private standardCodeAliases (Class) Code

Cardinality: [0..\*]

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 businessTherapeuticAreas (Class)

Code

Cardinality: [0..\*]

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveLevel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private trialIntentType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyProtocolVersion	Target: Private protocolStatus (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private trialType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesignPopulation	Target: Private plannedSexOfParticipants (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyEpoch	Target: Private studyEpochType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Endpoint	Target: Private endpointLevel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyArm	Target: Private studyArmDataOriginType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private interventionModel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Procedure	Target: Private procedureCode (Class) Code

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ASSOCIATIONS	
Association (direction: Source -> Destination)	
Association (direction, source -> Destination)	
a Pilli (di ) F	T (GL) G 1
Source: Public (Class) Encounter	Target: Private encounterType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private encounterEnvironmentalSetting
	(Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyArm	Target: Private studyArmType (Class) Code
, , ,	
Association (direction: Source -> Destination)	
p ribbedianten (uncontain beuret bestimmen)	
Source: Public (Class) InvestigationalIntervention	Target: Private codes (Class) Code
Source. I uone (Class) investigationalintervention	Cardinality: [0*]
	Cardinanty. [0]
Association (direction: Source -> Destination)	
Source: Public (Class) Indication	Target: Private codes (Class) Code
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Organization	Target: Private organizationType (Class) Code
Association (direction: Source -> Destination)	
,	
Source: Public (Class) AliasCode	Target: Private standardCode (Class) Code
(5.000)//////	Targett III. and Standard Columbia, Code

### **OPERATIONS**

Ode (codeId: String): Public

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

getCode () : String Public

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

getCodeId () : String Public

### **OPERATIONS**

getCodeSystem () : String Public

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

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. ]

setDecode (decode : String ) : void Public

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

### **Encounter**

Class in package 'model'

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 12/14/2022. Last modified 12/14/2022

### **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.

### ATTRIBUTES [ Is static True. Containment is Not Specified. ] encounterEnvironmentalSetting : Code Private 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..\*]

ASSOCIATIONS	
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) Encounter	Target: Private encounterType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private encounterEnvironmentalSetting (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private encounters (Class) Encounter Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyEpoch	Target: Private encounters (Class) Encounter Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) WorkflowItem	Target: Private workflowItemEncounter (Class) Encounter

### **OPERATIONS**

Note: The image of the image of

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

getEncounterContactModes () : List<Code> Public

### Model Report 14 December, 2022 **OPERATIONS** 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 [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 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. ]

setEncounterName (encounterName : String ) : void Public

setEncounterEnvironmentalSetting (encounterEnvironmentalSetting : Code ) : 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 [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 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 12/14/2022. Last modified 12/14/2022

	Chris Upkes created on 12/14/2022. Last modified 12/14/20
ATTRIBUTES	
endpointDescription : String Private	
The textual representation of the study endpoint.	[ Is static True. Containment is Not Specified. ]
endpointId : String Private Const	[ Is static True. Containment is Not Specified. ]
• endpointLevel : Code Private	
A characterization or classification of the study endpoints.	oint that determines its category of importance relative to other study

### **ATTRIBUTES**

[ Is static True. Containment is Not Specified. ]

endpointPurposeDescription : String Private

The textual representation of the study endpoint purpose.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Endpoint Target: Private endpointLevel (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Estimand Target: Private variableOfInterest (Class) Endpoint

Association (direction: Source -> Destination)

Source: Public (Class) Objective Target: Private objectiveEndpoints (Class)

Endpoint

Cardinality: [0..\*]

### **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

### OPERATIONS 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)

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 population.</li> <li>[ Is static True. Containment is Not Specified. ]</li> </ul>		
	[ Is static True. Containment is Not Specified. ]	
variableOfInterest : Endpoint Private	[ Is static True. Containment is Not Specified. ]	

### ASSOCIATIONS

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

String ): Public Estimand (estimandId: String):

[ 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

### **OPERATIONS**

[ 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. ]

removeIntercurrentEvent (intercurrentEvent : IntercurrentEvent ) : void Public

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

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.

Indication
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 12/14/2022. Last modified 12/14/2022

### ATTRIBUTES

codes : List<Code> Private

A short sequence of characters that represents the disease indication.

[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES

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**

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

### 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 12/14/2022. Last modified 12/14/2022

## ATTRIBUTES intercurrentEventDescription: String Private 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.]

### 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

### 

### 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 12/14/2022. Last modified 12/14/2022

Chris Upke	es created on 12/14/2022. Last modified 12/14/2022
ATTRIBUTES	
codes : List <code> Private</code>	
A short sequence of characters that represents the investigational interver	[ Is static True. Containment is Not Specified. ]
interventionDescription : String Private	
The textual representation of the study intervention.	[ Is static True. Containment is Not Specified. ]
investigationalInterventionId: String Private Const	[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) InvestigationalIntervention

Target: Private codes (Class) Code

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Estimand Target: Private treatment (Class)
InvestigationalIntervention

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign

Target: Private studyInvestigationalInterventions
(Class) InvestigationalIntervention

Cardinality: [0..\*]

### **OPERATIONS**

getCodes () : List<Code> Public

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

getInterventionDescription (): String Public

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

getInvestigationalInterventionId (): String Public

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

InvestigationalIntervention (investigationalInterventionId : 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. ]

setInterventionDescription (interventionDescription : String ) : void Public

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

### **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.

Objective Version 1.0 Phase 1.0 Proposed Chris Upkes created on 12/14/2022. Last modified 12/14/2022

ATTRIBUTES	
objectiveDescription : String Private	
The textual representation of the study objective. (BRIDG)	[ Is static True. Containment is Not Specified. ]
objectiveEndpoints : List <endpoint> Private</endpoint>	[ 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 carobjectives.	
	[ Is static True. Containment is Not Specified. ]

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

### **OPERATIONS**

getObjectiveDescription (): String Public

# OPERATIONS © getObjectiveEndpoints (): List<Endpoint> Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] © getObjectiveId (): String Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] © getObjectiveLevel (): Code Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] © Objective (objectiveId: String): Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.] © setObjectiveDescription (objectiveDescription: String): void Public [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

setObjectiveLevel (objectiveLevel : Code ) : void Public

### **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)

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

Organization
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 12/14/2022. Last modified 12/14/2022

ATTRIBUTES	
organizationId: String Private Const	[ Is static True. Containment is Not Specified. ]
<ul> <li>organizationIdentifier: String Private</li> <li>A unique symbol that establishes identity of the organization. (BRIDG)</li> </ul>	[ Is static True. Containment is Not Specified. ]

### **ATTRIBUTES**

organizationIdentifierScheme: String Private

The name of the organization that provides the identifier for the entity.

[ Is static True. Containment is Not Specified. ]

organizationLegalAddress : Address Private

[ Is static True. Containment is Not Specified. ]

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 organizationLegalAddress (Class)

Address

Association (direction: Source -> Destination)

Source: Public (Class) Organization Target: Private organizationType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) StudyIdentifier

Target: Private studyIdentifierScope (Class)

Organization

### **OPERATIONS**

getOrganizationId (): String Public

 $[\hbox{ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.}]$ 

getOrganizationIdentifier (): String Public

### **OPERATIONS**

getOrganizationIdentifierScheme (): String Public

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

getOrganizationLegalAddress () : Address Public

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

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 12/14/2022. Last modified 12/14/2022

**ATTRIBUTES** 

# 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 [ Is static True. Containment is Not Specified. ] procedureIsOptional: boolean Private [ Is static True. Containment is Not Specified. ] procedureIsOptionalReason: 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. ]

SOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) Procedure	Target: Private procedureCode (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Activity	Target: Private definedProcedures (Class) Procedure

### 

### 

### Study

Class in package 'model'

setProcedureType (procedureType : String ) : void Public

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 12/14/2022. Last modified 12/14/2022

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

### 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. ] studyAcronym: String Private [ Is static True. Containment is Not Specified. ]

### ATTRIBUTES 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. ] The sponsor-defined name of the clinical study. [ Is static True. Containment is Not Specified. ] 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

Association (direction: Source -> Destination)

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

### **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 abstract 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

14 December, 2022

### Model Report **OPERATIONS** 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

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

setBusinessTherapeuticAreas (businessTherapeuticAreas : List<Code>) : void Public

### **OPERATIONS** [ 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. ] Study (studyId : UUID ) : Public

### **StudyArm**

Class in package 'model'

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.

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

StudyArm Version 1.0 Phase 1.0 Proposed

Chris Upkes created on 12/14/2022. Last modified 12/14/2022

# 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 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. ] studyArmId : String Private Const [ Is static True. Containment is Not Specified. ] studyArmName : String Private The literal identifier (i.e., distinctive designation) of the study arm. [ 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
Association (direction: Source -> Destination)	
Source: Public (Class) StudyCell	Target: Private studyArm (Class) StudyArm

### ASSOCIATIONS

# **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

# **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 12/14/2022. Last modified 12/14/2022

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

# **StudyData**

Class in package 'model'

Data collected in the course of a clinical study.

StudyData Version 1.0 Phase 1.0 Proposed Chris Upkes created on 12/14/2022. Last modified 12/14/2022

**ATTRIBUTES** 

# **ATTRIBUTES**

ecrfLink: URI Private

The uniform resource locator used to access the digital case report form.

[ Is static True. Containment is Not Specified. ]

studyDataDescription : String Private

The textual representation of the study data.

[ Is static True. Containment is Not Specified. ]

[ Is static True. Containment is Not Specified. ]

studyDataName : String Private

The literal identifier (i.e., distinctive designation) for the study data.

[ Is static True. Containment is Not Specified. ]

# ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Activity

Target: Private studyDataCollection (Class) StudyData

Cardinality: [0..\*]

# **OPERATIONS**

getEcrfLink (): URI Public

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

getStudyDataDescription (): String Public

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

getStudyDataId (): String Public

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

getStudyDataName (): String Public

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

setEcrfLink (ecrfLink : URI ) : void Public

# OPERATIONS setStudyDataDescription (studyDataDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyDataName (studyDataName : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] StudyData (studyDataId : 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 12/14/2022. Last modified 12/14/2022

ATTRIBUTES	
activities: List <activity> Private</activity>	[ Is static True. Containment is Not Specified. ]
• encounters : List <encounter> Private</encounter>	[ Is static True. Containment is Not Specified. ]
interventionModel: Code Private  The general design of the strategy for assigning interventions to part	ticipants in a clinical study. (clinicaltrials.gov) [ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
studyDesignDescription : String Private	
The textual representation of the study design.	[ Is static True. Containment is Not Specified. ]
studyDesignId : String Private Const	

ATTRIBUTES	
	[ Is static True. Containment is Not Specified. ]
studyDesignName : String Private	
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</estimand>	[ Is static True. Containment is Not Specified. ]
studyIndications : List <indication> Private</indication>	[ Is static True. Containment is Not Specified. ]
studyInvestigationalInterventions : List <investigationalintervention> Properties</investigationalintervention>	rivate [ Is static True. Containment is Not Specified. ]
studyObjectives : List <objective> Private</objective>	[ Is static True. Containment is Not Specified. ]
studyPopulations: List <studydesignpopulation> Private</studydesignpopulation>	[ Is static True. Containment is Not Specified. ]
studyWorkflows: List <workflow> Private</workflow>	[ Is static True. Containment is Not Specified. ]
therapeuticAreas : List <code> Private</code>	
A categorization of a disease, disorder, or other condition based on common medical specialty focusing on research and development of specific theraper prevention.	
	[ Is static True. Containment is Not Specified. ]
trialIntentType : List <code> Private</code>	
The planned purpose of the therapy, device, or agent under study in the clin	ical trial.  [ Is static True. Containment is Not Specified. ]
trialType : List <code> Private</code>	

# **ATTRIBUTES**

The nature of the interventional study for which information is being collected.

[ Is static True. Containment is Not Specified. ]

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 encounters (Class) Encounter Cardinality: [0.*]  Association (direction: Source >> Destination)  Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code Cardinality: [0.*]  Association (direction: Source >> Destination)  Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesign  Target: Private trialIntentType (Class) Code 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 trialType (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 studyIndications (Class) Indication Cardinality: [0.*]	ASSOCIATIONS	
Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private encounters (Class) Encounter Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesignPopulation 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 trialType (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 studyIndications (Class) Indication Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyObjectives (Class) Objective	Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign  Target: Private encounters (Class) Encounter Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesignPopulation 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 trialType (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyIndications (Class) Indication Cardinality: [0.*]	Source: Public (Class) StudyDesign	
Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesignPopulation 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 trialType (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 therapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesignPopulation 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 trialType (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 studyObjectives (Class) Objective	Source: Public (Class) StudyDesign	
Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesignPopulation 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 trialType (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 studyObjectives (Class) Objective	Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign  Target: Private studyPopulations (Class) StudyDesignPopulation 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 trialType (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 studyObjectives (Class) Objective	Source: Public (Class) StudyDesign	
StudyDesignPopulation 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 trialType (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 studyObjectives (Class) Objective	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 trialType (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 studyObjectives (Class) Objective	Source: Public (Class) StudyDesign	StudyDesignPopulation
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 studyIndications (Class) Indication Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyObjectives (Class) Objective	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 studyIndications (Class) Indication Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyObjectives (Class) Objective	Source: Public (Class) StudyDesign	
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 studyObjectives (Class) Objective	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 studyObjectives (Class) Objective	Source: Public (Class) StudyDesign	
Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private studyObjectives (Class) Objective	Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign Target: Private studyObjectives (Class) Objective	Source: Public (Class) StudyDesign	
	Association (direction: Source -> Destination)	
	Source: Public (Class) StudyDesign	

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

# **OPERATIONS**

[ 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. ]

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

[ 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

14 December, 2022

# Model Report **OPERATIONS** 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 [ 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. ] 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. ]

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 12/14/2022. Last modified 12/14/2022

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. ]
	[ 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	
getPlannedMaximumAgeOfParticipants (): String Public	

# **OPERATIONS**

[ 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.

 $\begin{tabular}{ll} Study Element \\ Version 1.0 Phase 1.0 Proposed \\ Chris Upkes created on 12/14/2022. Last modified 12/14/2022 \\ \end{tabular}$ 

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. ]
transitionEndRule : TransitionRule Private	[ Is static True. Containment is Not Specified. ]
transitionStartRule : TransitionRule Private	
all elements point to transition rules	[ 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) 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.

 $Study Epoch \\ Version~1.0~Phase~1.0~Proposed \\ Chris~Upkes~created~on~12/14/2022.~Last~modified~12/14/2022$ 

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 cu	Irrent epoch.  [ Is static True. Containment is Not Specified. ]
previousStudyEpochId : String Private	
A system identifier assigned to the epoch that occurs immediately prior to the	e current epoch.  [ Is static True. Containment is Not Specified. ]
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. ]
The literal identifier (i.e., distinctive designation) of the study epoch, i.e., the wherein a study activity is specified and unchanging throughout the interval,	
studyEpochType : Code Private	
A characterization or classification of the study epoch, i.e., the named time per activity is specified and unchanging throughout the interval, to support a stud	

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

# ASSOCIATIONS 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 12/14/2022. Last modified 12/14/2022

[ 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)	
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### 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 12/14/2022. Last modified 12/14/2022

# ATTRIBUTES

briefTitle : String Private

The short descriptive name for the protocol.

[ Is static True. Containment is Not Specified. ]

officialTitle : String Private

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### **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

# **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 12/14/2022. Last modified 12/14/2022

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) Encounter	Target: Private transitionEndRule (Class) TransitionRule
Association (direction: Source -> Destination)	
Source: Public (Class) StudyElement	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 12/14/2022. Last modified 12/14/2022

# 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*]

PERATIONS	
getWorkflowDescripti	on (): String Public
·	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.
getWorkflowId (): Str	ing 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.
setWorkflowDescription	on (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'

ASSOCIATIONS

Association (direction: Source -> Destination)

WorkflowItem
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 12/14/2022. Last modified 12/14/2022

# **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. ] workflowItemActivity: Activity 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. ] workflowItemEncounter : Encounter Private [ Is static True. Containment is Not Specified. ] workflowItemId: String Private Const [ Is static True. Containment is Not Specified. ]

ASSOCIATIONS	
Source: Public (Class) WorkflowItem	Target: Private workflowItemActivity (Class) Activity
Association (direction: Source -> Destination)	
Source: Public (Class) WorkflowItem	Target: Private workflowItemEncounter (Class) Encounter
Association (direction: Source -> Destination)	
Source: Public (Class) Workflow	Target: Private workflowItems (Class) WorkflowItem Cardinality: [0*]

# **OPERATIONS** 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. ] getWorkflowItemActivity (): Activity 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. ] getWorkflowItemEncounter(): Encounter 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 (workflowItemActivity : Activity ) : void Public

# **OPERATIONS**

[ 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 (workflowItemEncounter : Encounter ) : void Public

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

WorkflowItem (workflowItemId : String ) : Public