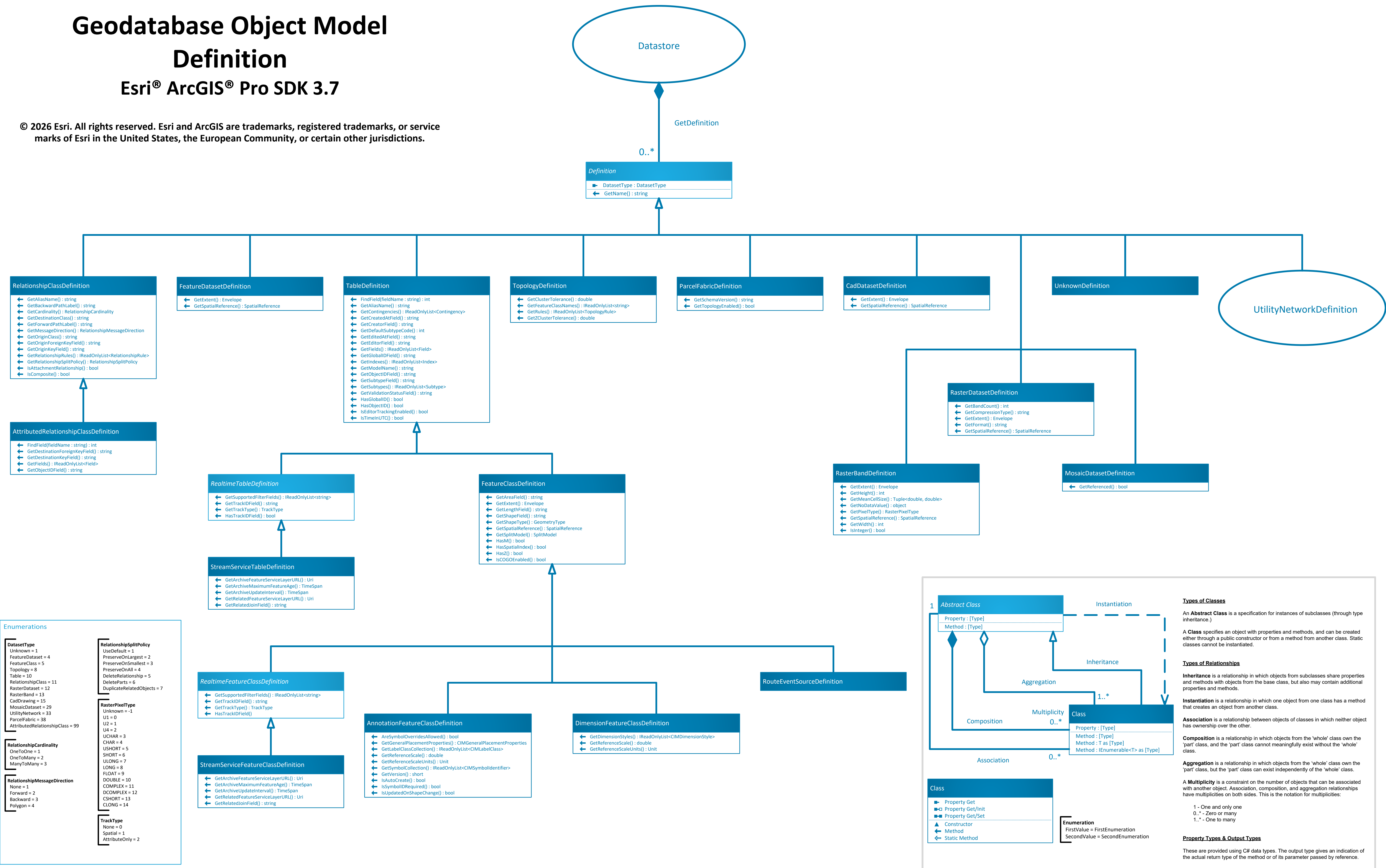


Geodatabase Object Model Definition

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Enumerations

DatasetType Unknown = 1 FeatureDataset = 4 FeatureClass = 5 Topology = 8 Table = 10 RelationshipClass = 11 RasterDataset = 12 RasterBand = 13 CadDrawing = 15 MosaicDataset = 29 UtilityNetwork = 33 ParcelFabric = 38 AttributedRelationshipClass = 99	RelationshipSplitPolicy UseDefault = 1 PreserveOnLargest = 2 PreserveOnSmallest = 3 PreserveOnAll = 4 DeleteRelationship = 5 DeleteParts = 6 DuplicateRelatedObjects = 7
RelationshipCardinality OneToOne = 1 OneToMany = 2 ManyToMany = 3	RasterPixelType Unknown = -1 U1 = 0 U2 = 1 U4 = 2 U8 = 3 U16 = 4 U32 = 5 SHORT = 6 ULONG = 7 LONG = 8 FLOAT = 9 DOUBLE = 10 COMPLEX = 11 DCOMPLEX = 12 CSHORT = 13 CLONG = 14
RelationshipMessageDirection None = 1 Forward = 2 Backward = 3 Polygon = 4	TrackType None = 0 Spatial = 1 AttributeOnly = 2

Types of Classes

An **Abstract Class** is a specification for instances of subclasses (through type inheritance.)

A **Class** specifies an object with properties and methods, and can be created either through a public constructor or from a method from another class. Static classes cannot be instantiated.

Types of Relationships

Inheritance is a relationship in which objects from subclasses share properties and methods with objects from the base class, but also may contain additional properties and methods.

Instantiation is a relationship in which one object from one class has a method that creates an object from another class.

Association is a relationship between objects of classes in which neither object has ownership over the other.

Aggregation is a relationship in which objects from the 'whole' class own the 'part' class, but the 'part' class can exist independently of the 'whole' class.

A **Multiplicity** is a constraint on the number of objects that can be associated with another object. Association, composition, and aggregation relationships have multiplicities on both sides. This is the notation for multiplicities:

- 1 - One and only one
- 0..* - Zero or many
- 1..* - One to many

Property Types & Output Types

These are provided using C# data types. The output type gives an indication of the actual return type of the method or of its parameter passed by reference.

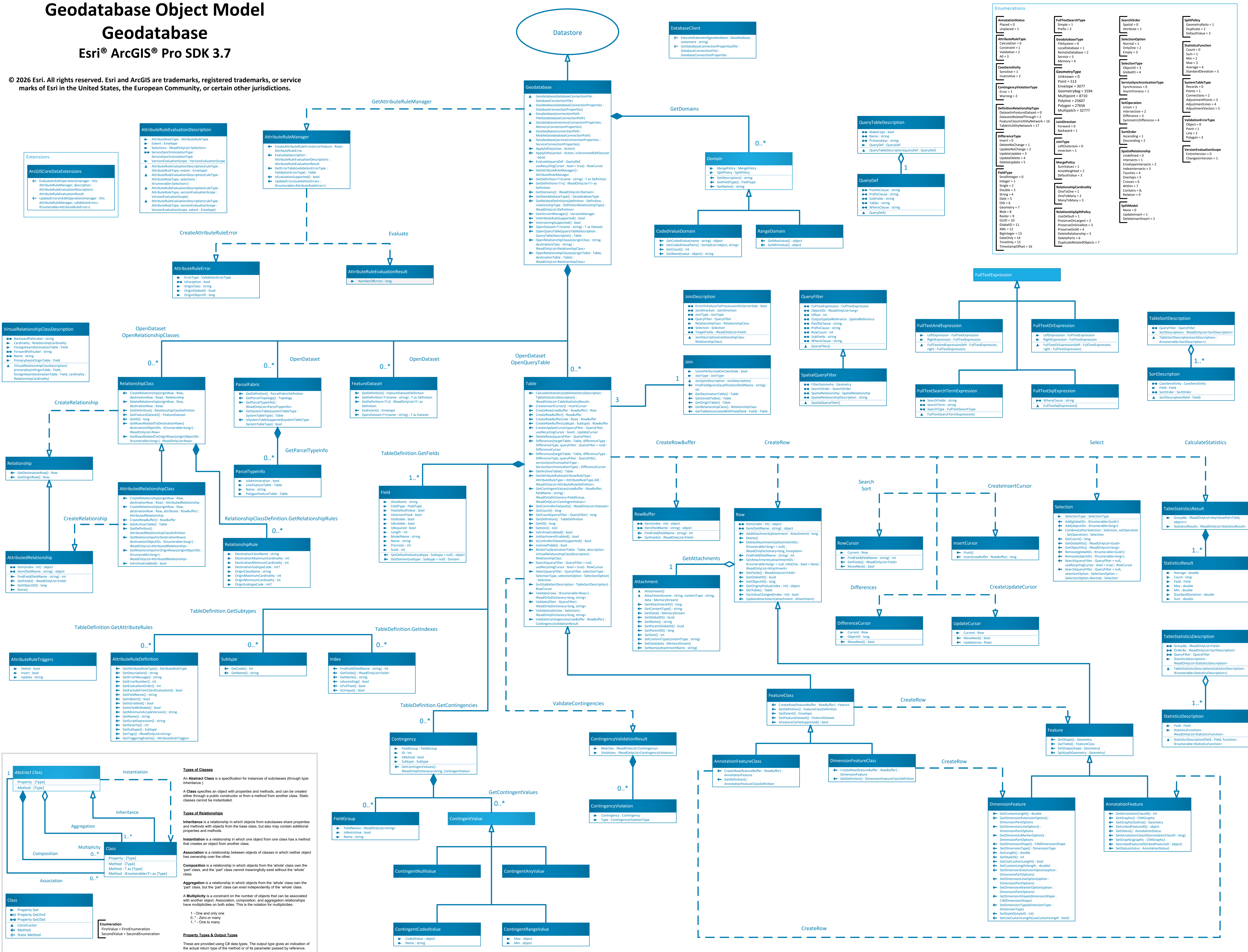
Class ■ Property Get ■ Property Get/Init ■ Property Get/Set ▲ Constructor ◀ Method ◀ Static Method	Enumeration FirstValue = FirstEnumeration SecondValue = SecondEnumeration
---	--

Geodatabase Object Model

Geodatabase

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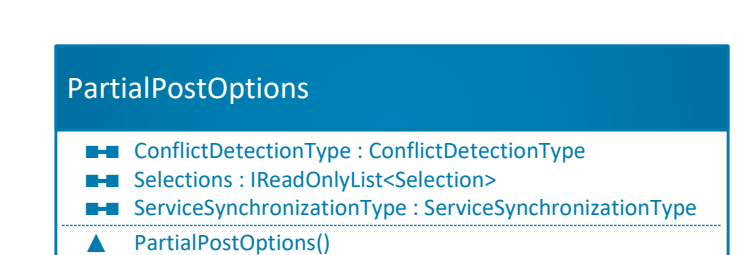
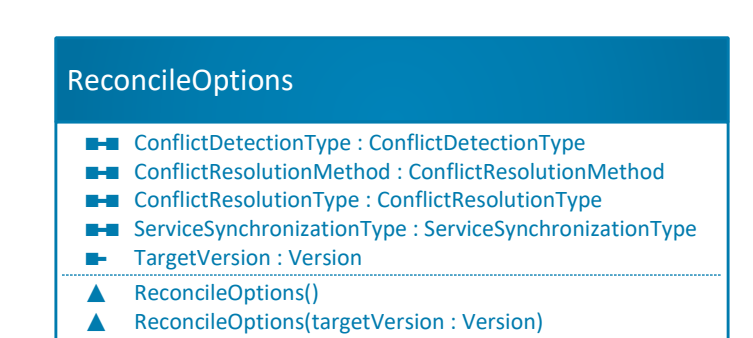
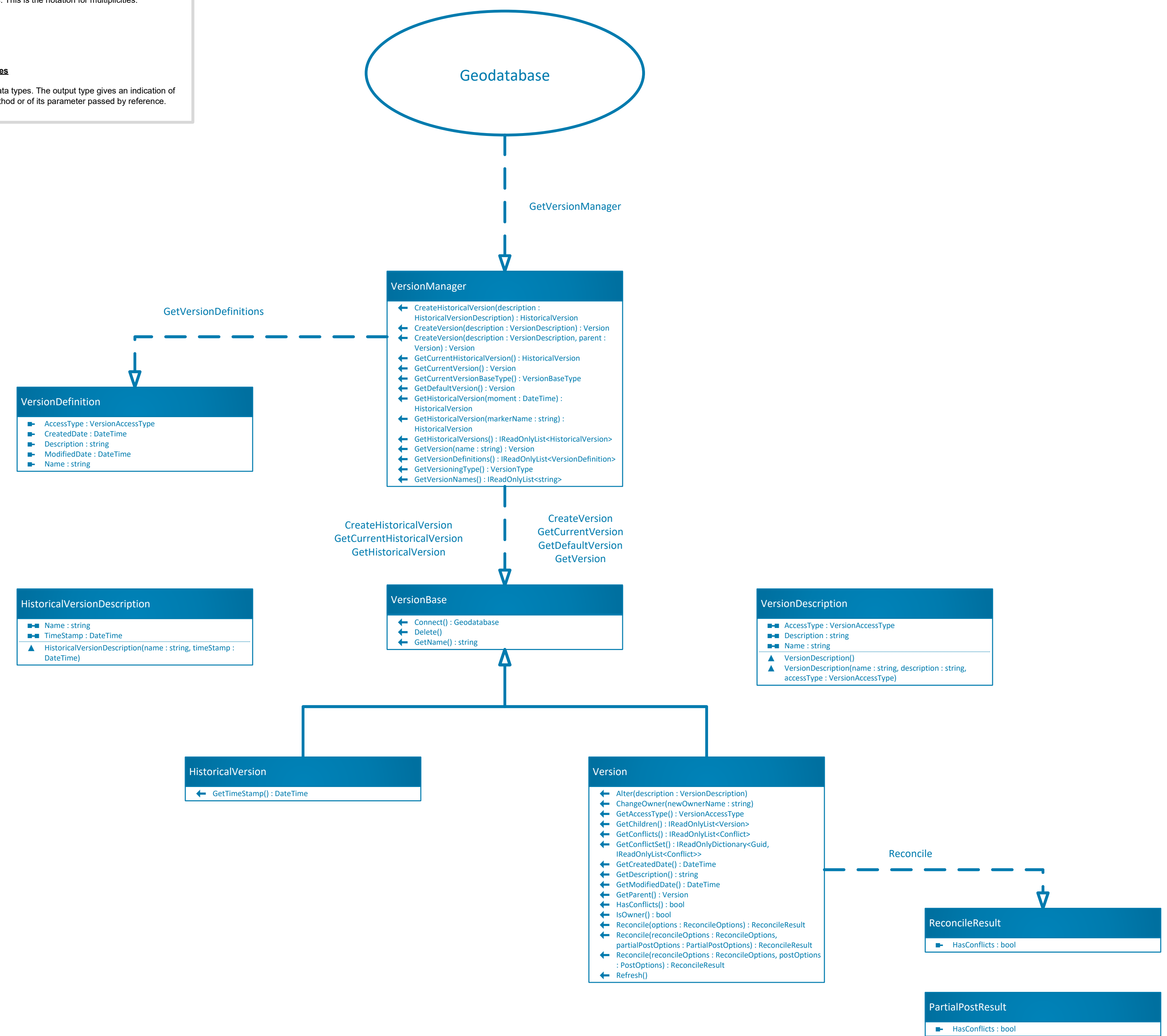
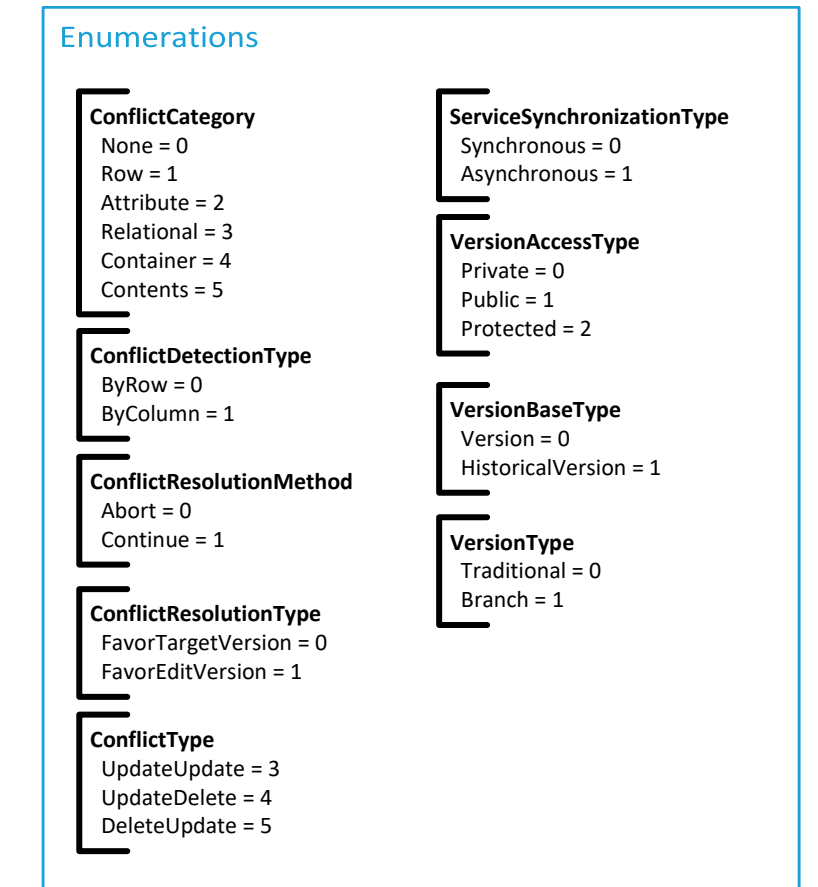
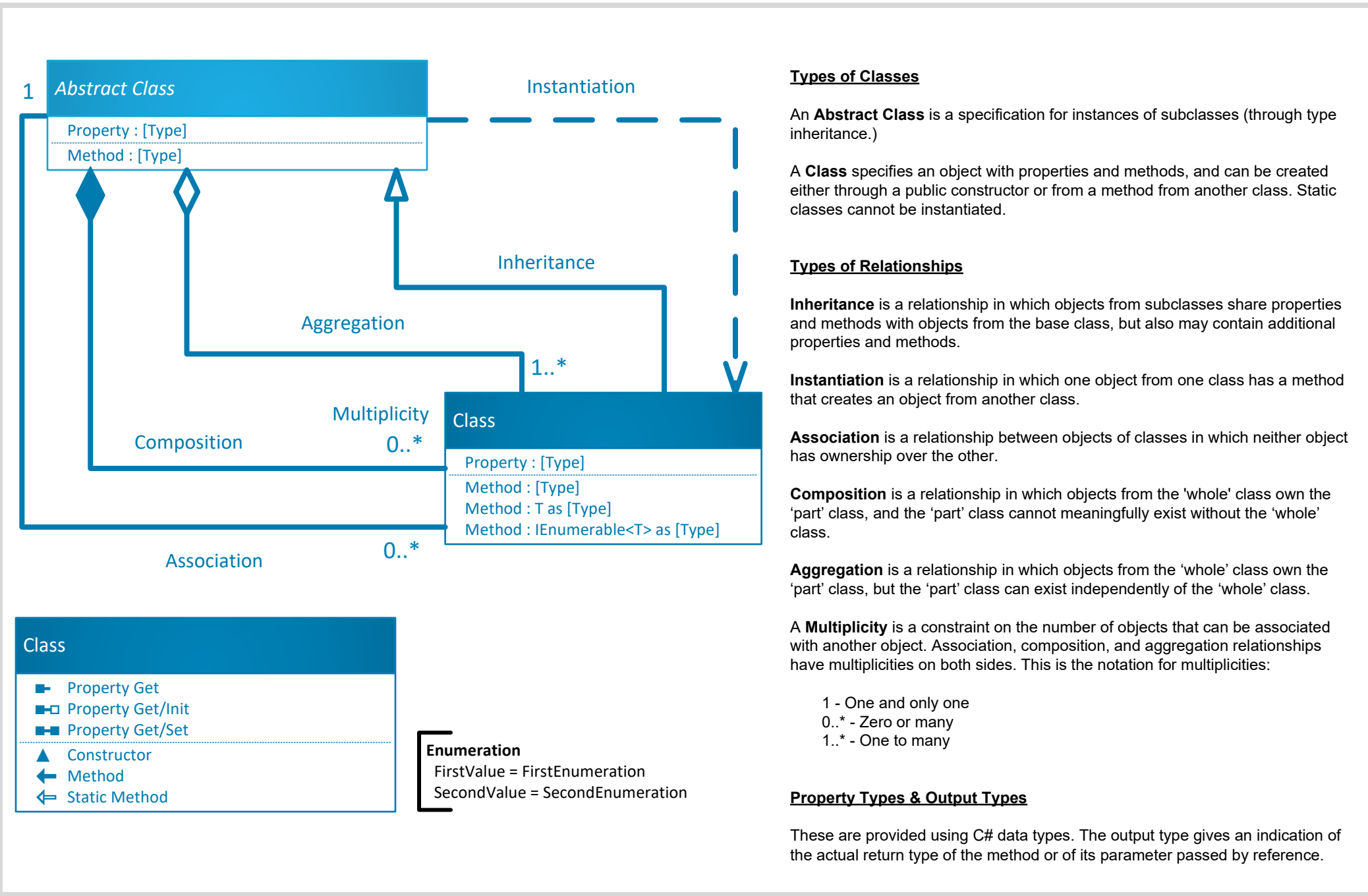


Geodatabase Object Model

Versioning

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Geodatabase Object Model DDL

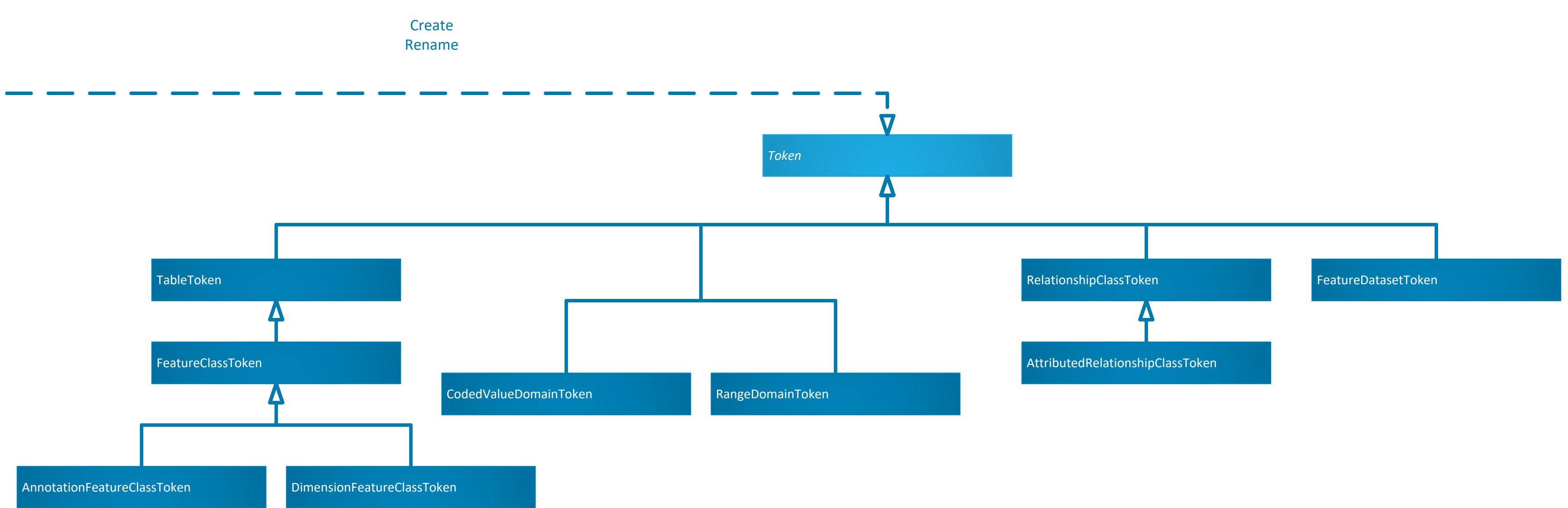
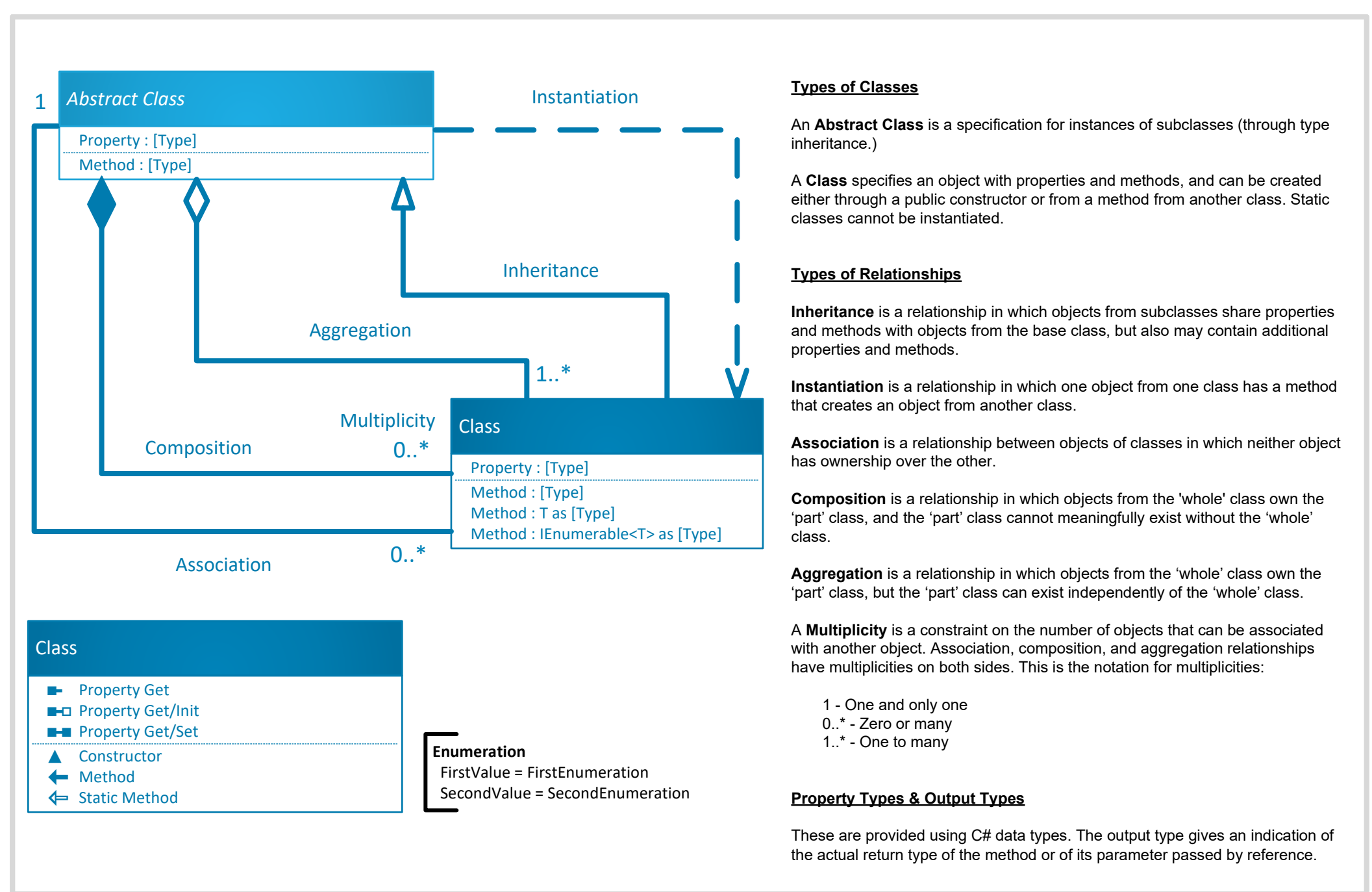
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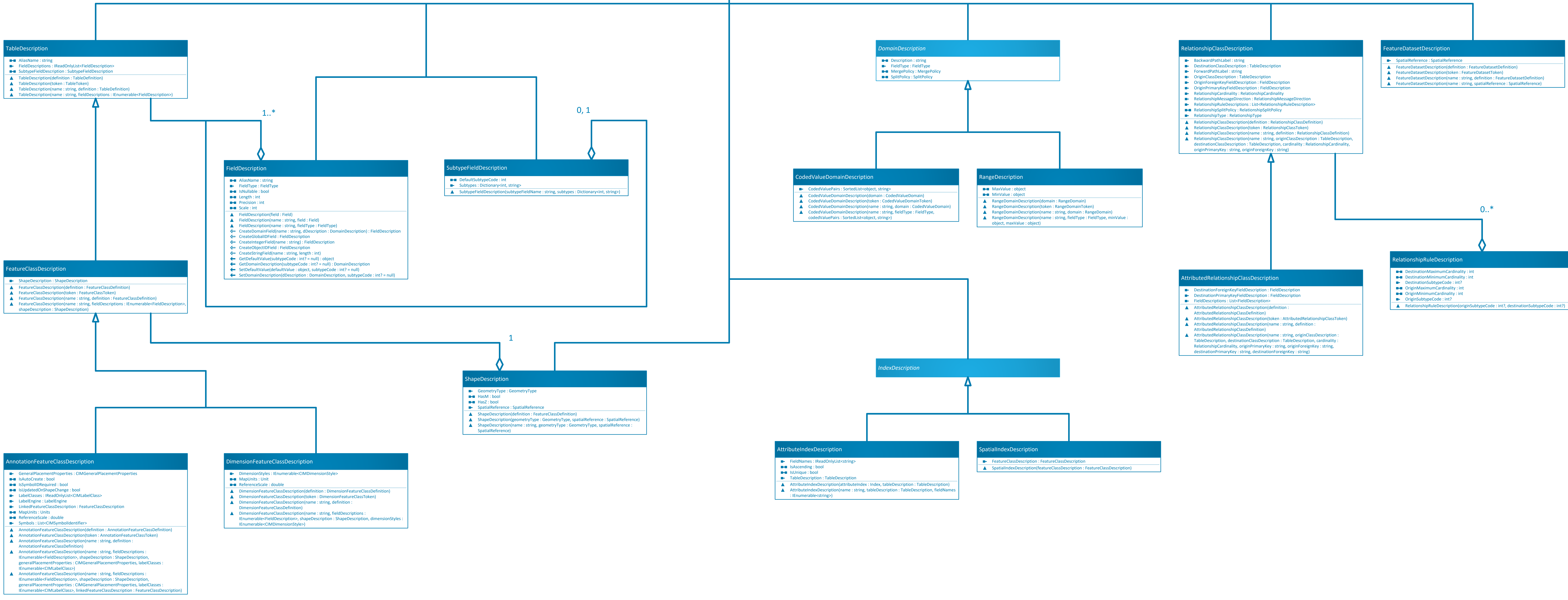
```

SchemaBuilder
  -> ErrorMessage: IReadOnly<string>
  -> SchemaBuilder(Geodatabase): Geodatabase
  -> AddFeatureClassDescription: FeatureDatasetDescription, AliDescription: AnnotationFeatureClassDescription
  -> AddFeatureClassDescription: FeatureDatasetDescription, AliDescription: DimensionFeatureClassDescription
  -> AddFeatureClassDescription: FeatureDatasetDescription, AliDescription: FeatureClassDescription
  -> AddRelationshipClassDescription: FeatureDatasetDescription, AliDescription: AttributeRelationshipClassDescription
  -> AddRelationshipClassDescription: FeatureDatasetDescription, AliDescription: RelationshipClassDescription
  -> Build: bool
  -> CreateDescription: AnnotationFeatureClassDescription: AnnotationFeatureClassToken
  -> CreateDescription: AttributeRelationshipClassDescription: AttributeRelationshipClassToken
  -> CreateDescription: CodeValueDomainDescription: CodeValueDomainToken
  -> CreateDescription: FeatureClassDescription: FeatureClassToken
  -> CreateDescription: DimensionFeatureClassDescription: DimensionFeatureClassToken
  -> CreateDescription: FeatureDatasetDescription, AliDescription: AnnotationFeatureClassToken
  -> CreateDescription: FeatureDatasetDescription, AliDescription: AttributeRelationshipClassToken
  -> CreateDescription: FeatureDatasetDescription, AliDescription: FeatureClassToken
  -> CreateDescription: FeatureDatasetDescription, AliDescription: RelationshipClassToken
  -> CreateDescription: IndexDescription
  -> CreateDescription: RangeDomainDescription: RangeDomainToken
  -> CreateDescription: RelationshipClassDescription: RelationshipClassToken
  -> CreateDescription: TableDescription: TableToken
  -> CreateGeodatabase(GeodatabaseConnectionPath: FileGeodatabaseConnectionPath): Geodatabase
  -> CreateGeodatabase(MemoryConnectionProperties: MemoryConnectionProperties): Geodatabase
  -> CreateGeodatabase(MobileGeodatabaseConnectionPath: MobileGeodatabaseConnectionPath): Geodatabase
  -> DeleteDescription
  -> DeleteGeodatabase(GeodatabaseConnectionPath: FileGeodatabaseConnectionPath)
  -> DeleteGeodatabase(MemoryConnectionProperties: MemoryConnectionProperties)
  -> DeleteGeodatabase(MobileGeodatabaseConnectionPath: MobileGeodatabaseConnectionPath)
  -> ModifyDescription: AnnotationFeatureClassDescription
  -> ModifyDescription: CodeValueDomainDescription, SortBy: SortBy, SortOrder: SortOrder
  -> ModifyDescription: DimensionFeatureClassDescription
  -> ModifyDescription: DomainDescription
  -> ModifyDescription: FeatureClassDescription
  -> ModifyDescription: RelationshipClassDescription
  -> ModifyDescription: TableDescription, FieldName: string, FieldDescription: FieldDescription
  -> RemoveFeatureClassDescription: FeatureDatasetDescription, AliDescription: AnnotationFeatureClassDescription
  -> RemoveFeatureClassDescription: FeatureDatasetDescription, AliDescription: DimensionFeatureClassDescription
  -> RemoveFeatureClassDescription: FeatureDatasetDescription, AliDescription: FeatureClassDescription
  -> RemoveRelationshipClassDescription: FeatureDatasetDescription, AliDescription: AttributeRelationshipClassDescription
  -> RemoveRelationshipClassDescription: FeatureDatasetDescription, AliDescription: RelationshipClassDescription
  -> RenameDescription: Description, NewName: string: Token
  
```



Enumerations

FieldType SmallInteger = 0 Integer = 1 Single = 2 Double = 3 String = 4 Date = 5 OID = 6 Geometry = 7 GUID = 10 GlobalID = 11 XML = 12	LabelEngine Standard = 0 Maplex = 1
GeometryType Unknown = 0 Point = 513 Envelope = 3277 GeometryBag = 3594 Multipoint = 8710 Polyline = 25607 Polygon = 27656 Multipatch = 32777	MergePolicy SumValues = 1 AreaWeighted = 2 DefaultValue = 3
RelationshipType Simple = 1 Composite = 2	SortBy Code = 1 Name = 2
	SortOrder Ascending = 1 Descending = 2
	SplitPolicy GeometryRatio = 1 Duplicate = 2 DefaultValue = 3



Geodatabase Object Model Topology

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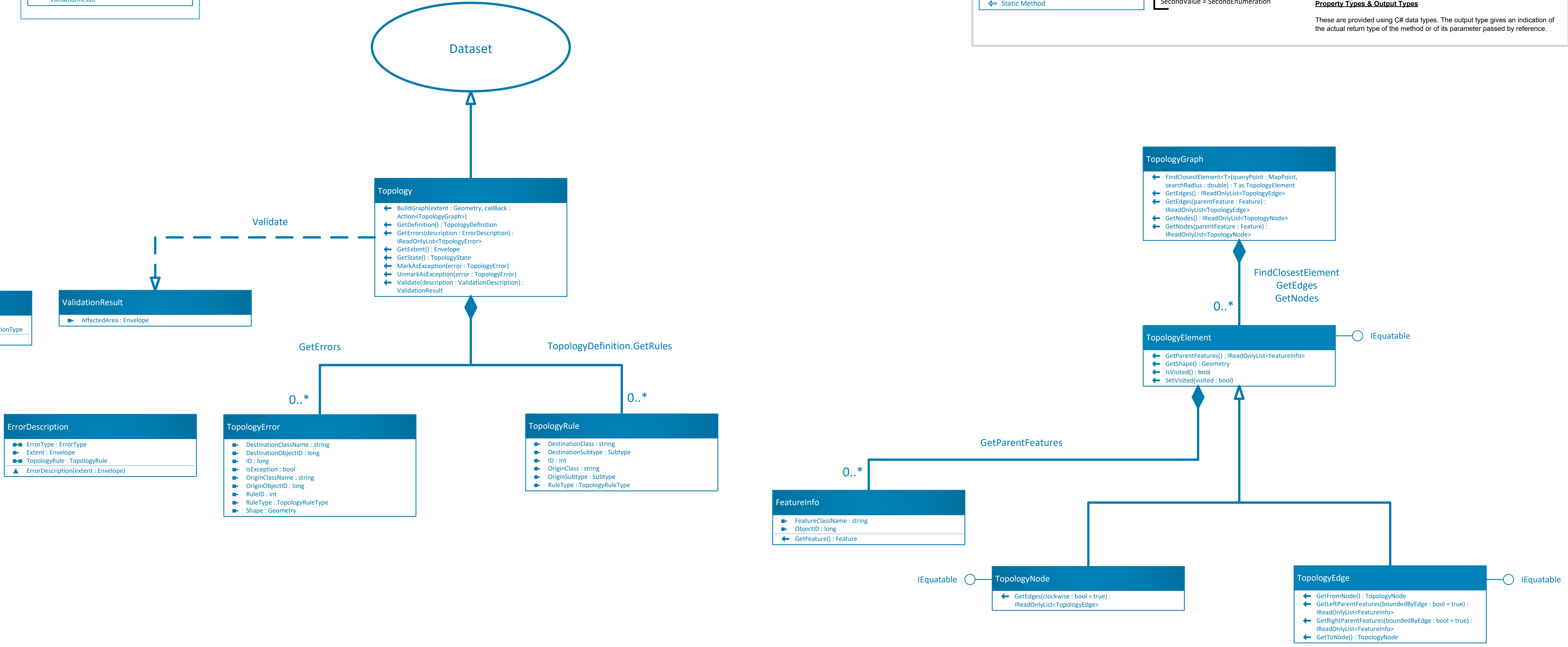
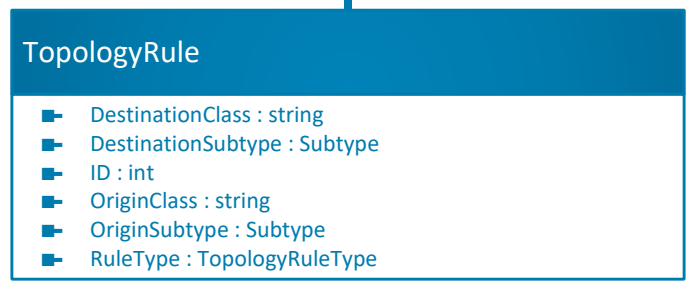
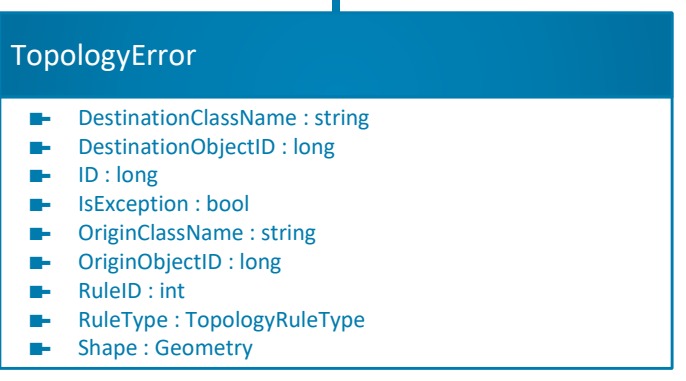
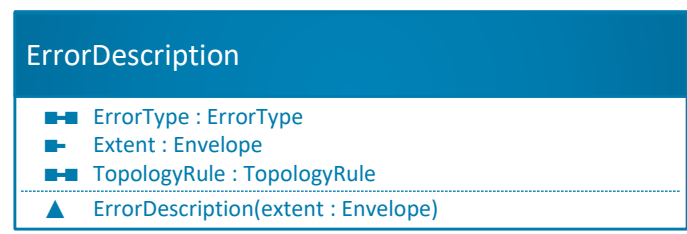
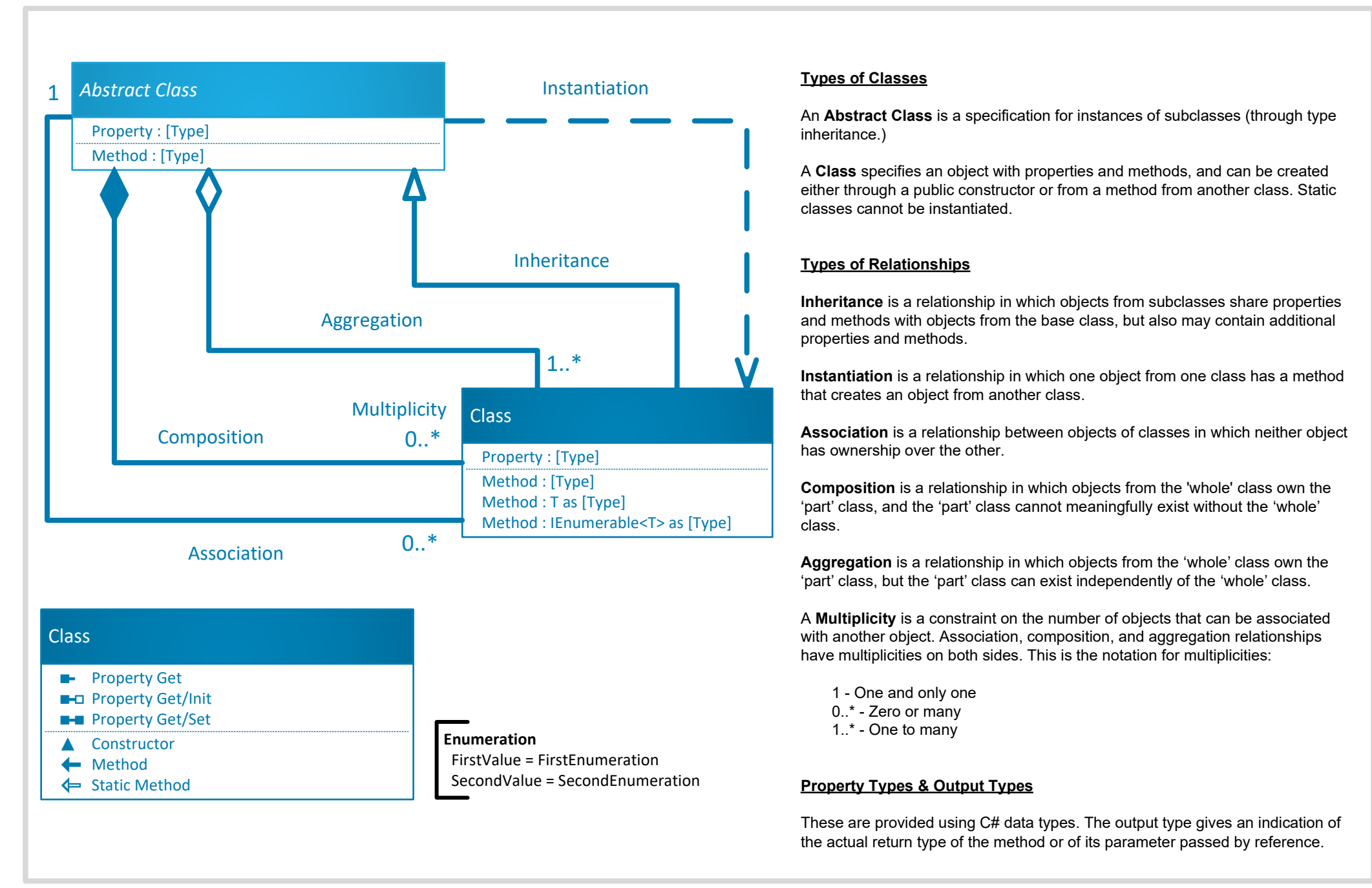
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Enumerations

- ErrorType**
 ErrorOnly = 0
 ExceptionOnly = 1
 ErrorAndException = 2
- ServiceSynchronizationType**
 Synchronous = 0
 Asynchronous = 1
- TopologyRuleType**
 FeatureLargerThanClusterTolerance = 0
 AreaNoGaps = 1
 AreaNoOverlap = 3
 AreaCoveredByAreaClass = 4
 AreaAreaCoverEachOther = 5
 AreaCoveredByArea = 7
 AreaNoOverlapArea = 8
 LineCoveredByAreaBoundary = 10
 LineInsideArea = 11
 PointCoveredByAreaBoundary = 13
 PointProperlyInsideArea = 15
 AreaContainOnePoint = 16
 LineNoOverlap = 19
 LineNoIntersection = 20
 LineNoDangles = 21
 LineNoPseudos = 22
 LineCoveredByLineClass = 26
 LineNoOverlapLine = 28
 PointCoveredByLine = 29
 PointCoveredByLineEndpoint = 31
 PointDisjoint = 34
 PointCoincidePoint = 35
 AreaBoundaryCoveredByLine = 37
 AreaBoundaryCoveredByAreaBoundary = 38
 LineNoSelfOverlap = 39
 LineNoSelfIntersect = 40
 LineNoIntersectOrInteriorTouch = 41
 LineEndpointCoveredByPoint = 42
 AreaContainPoint = 43
 LineNoMultipart = 44
 LineNoIntersectLine = 45
 LineNoIntersectOrInteriorTouchLine = 46
- TopologyState**
 Unanalyzed = 0
 AnalyzedWithErrors = 1
 AnalyzedWithoutErrors = 2
 Empty = 3

Extensions

- ArcGISCoreDataExtensions**
- ◀ MarkAsExceptionInEditOperation(topology : this Topology, topologyError : TopologyError)
 - ◀ UnmarkAsExceptionInEditOperation(topology : this Topology, topologyError : TopologyError)
 - ◀ ValidateInEditOperation(topology : this Topology, validationDescription : ValidationDescription) : ValidationResult

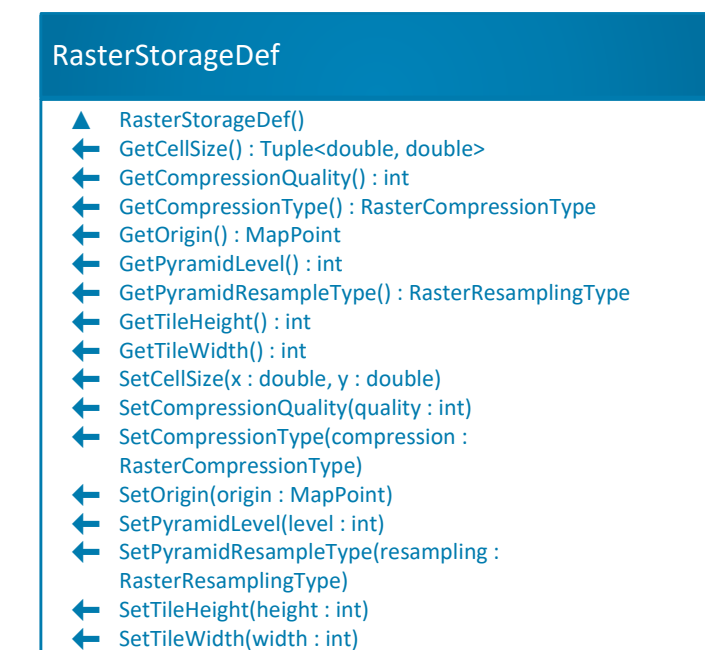
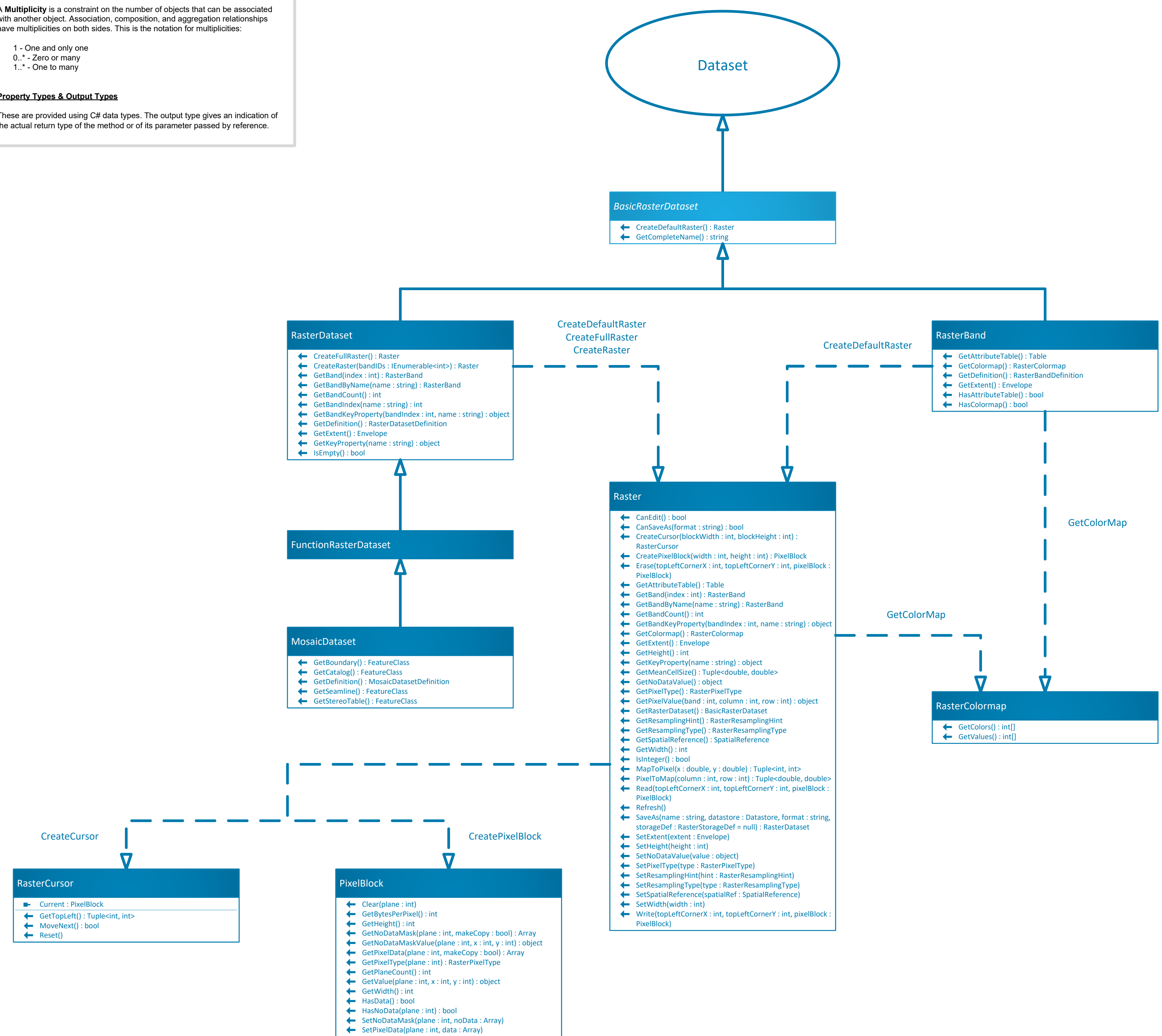
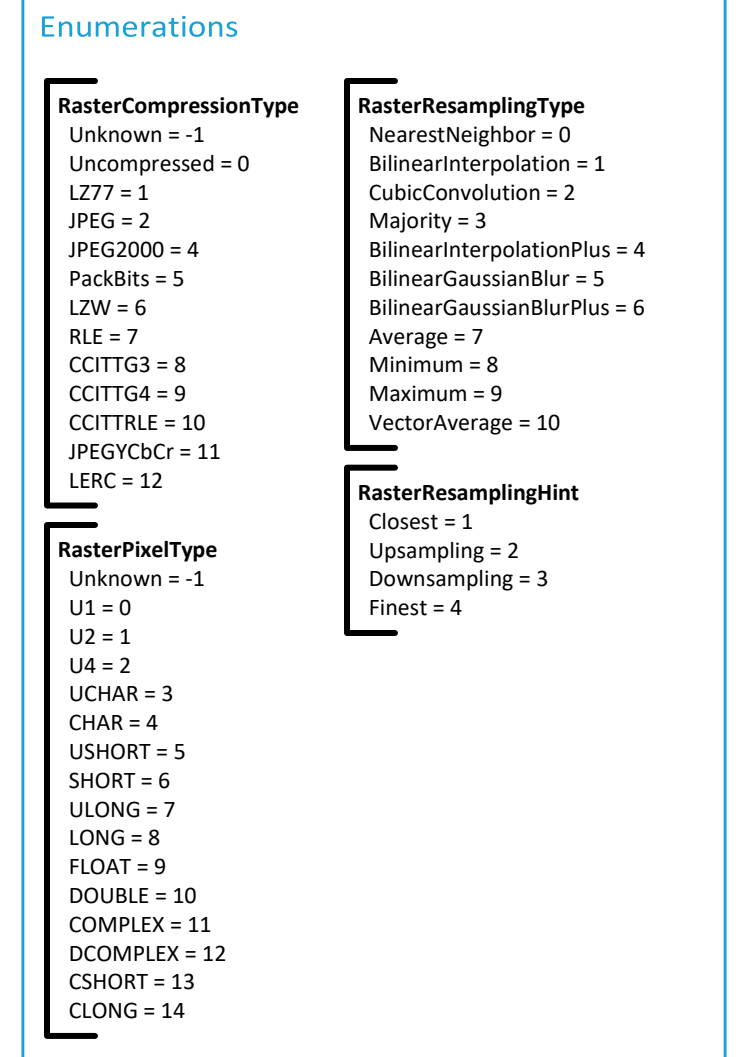
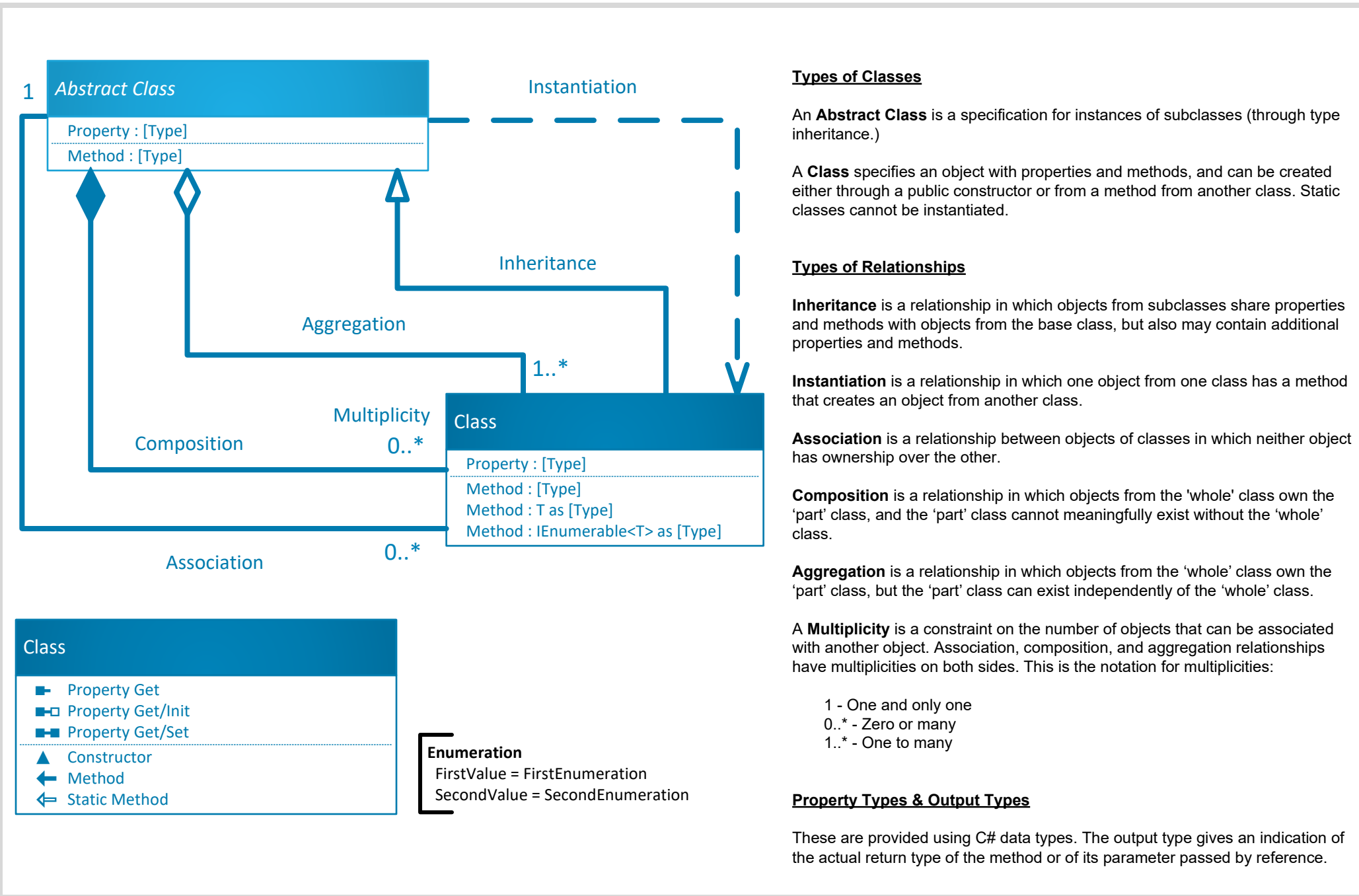


Geodatabase Object Model

Raster

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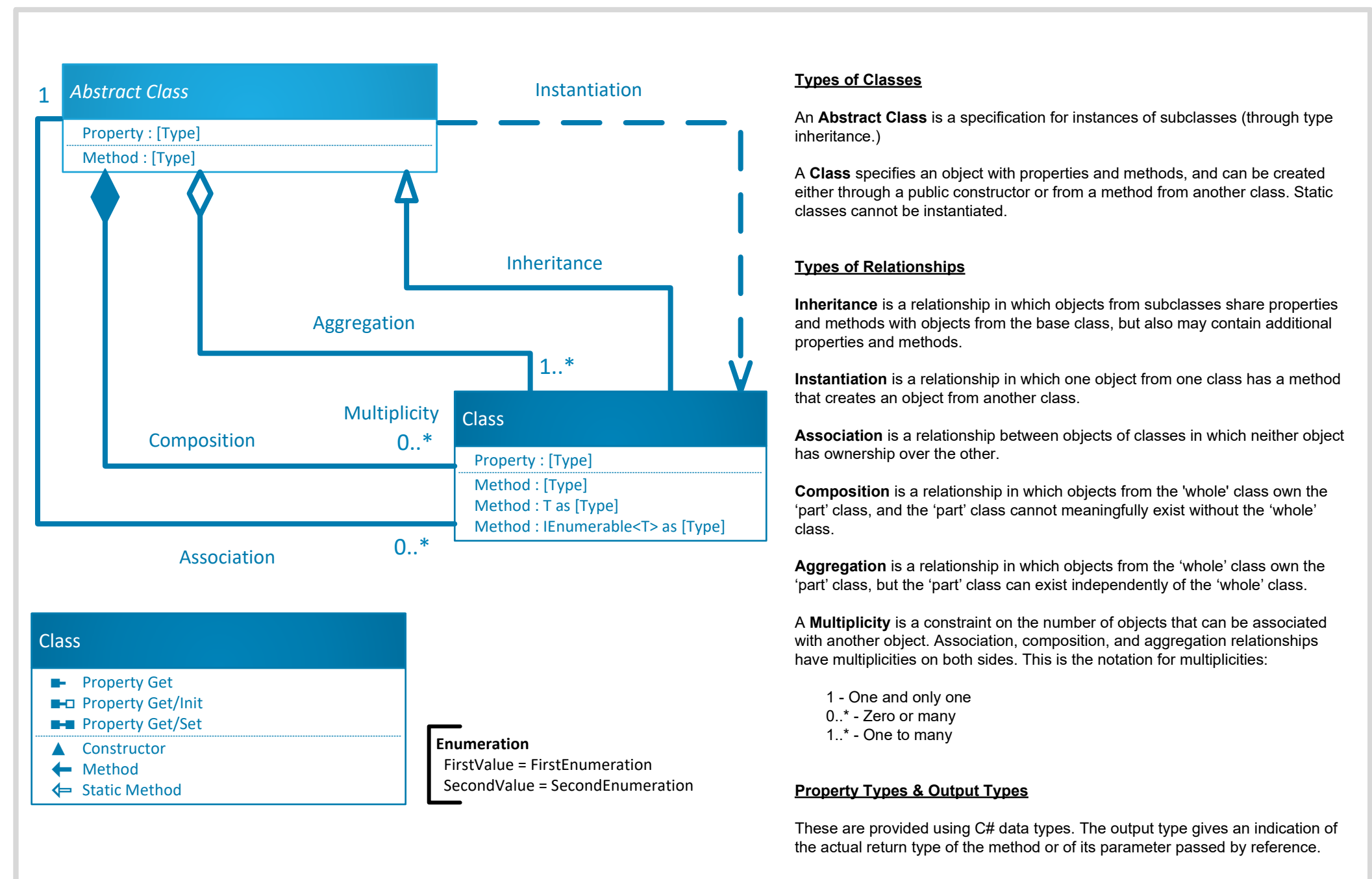
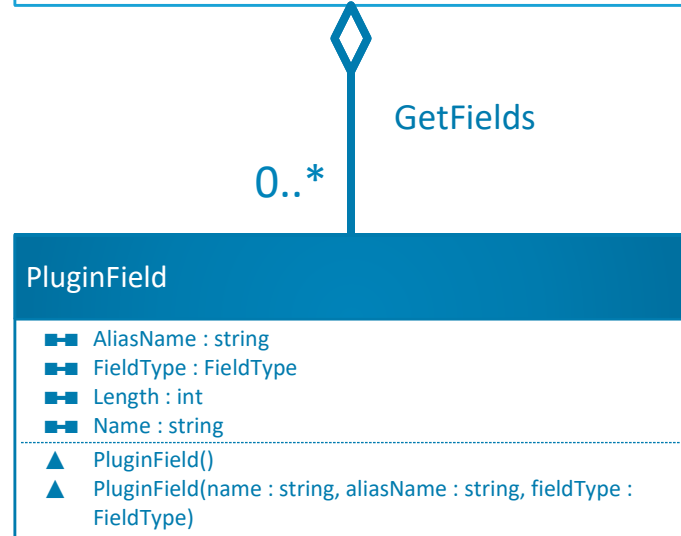
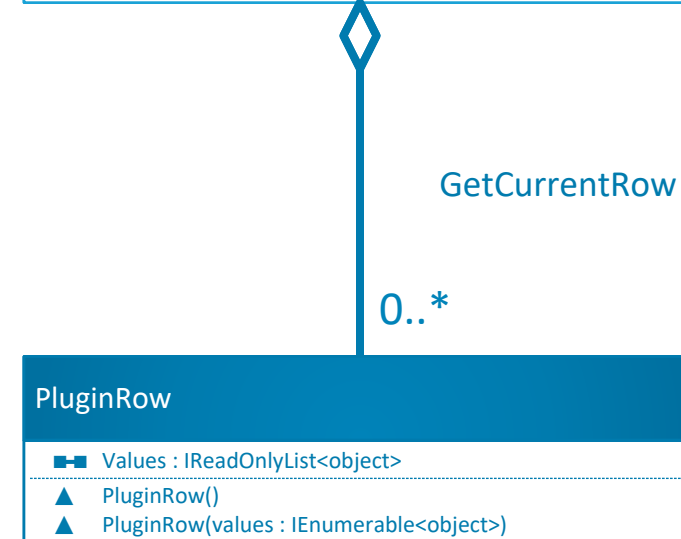
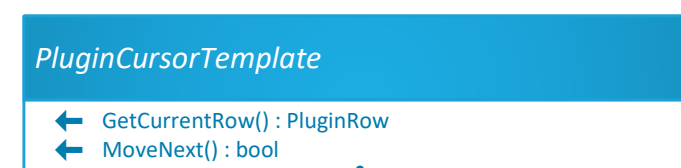
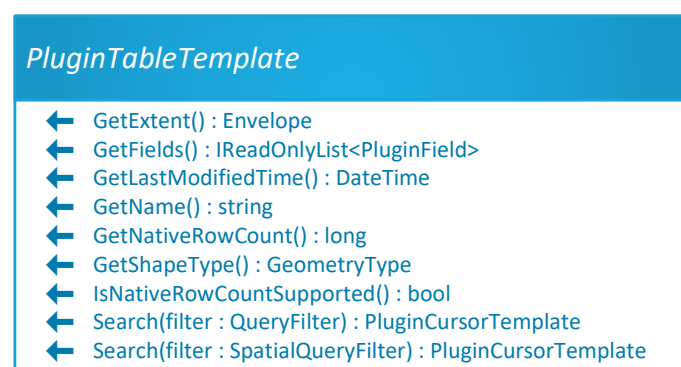
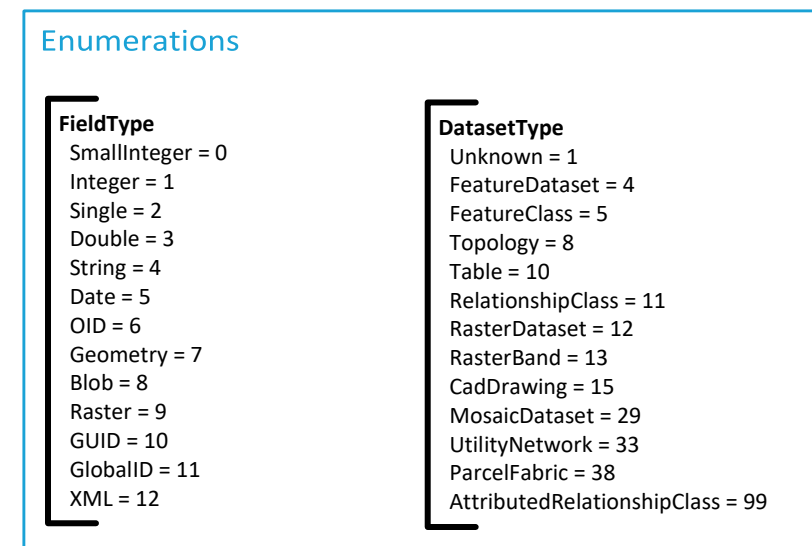
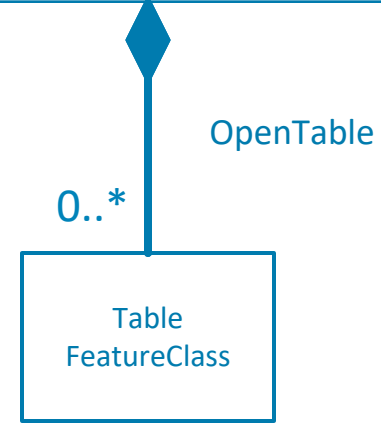
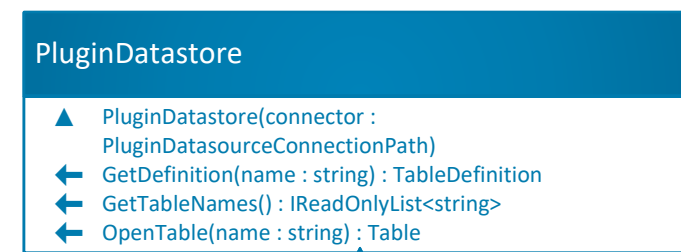
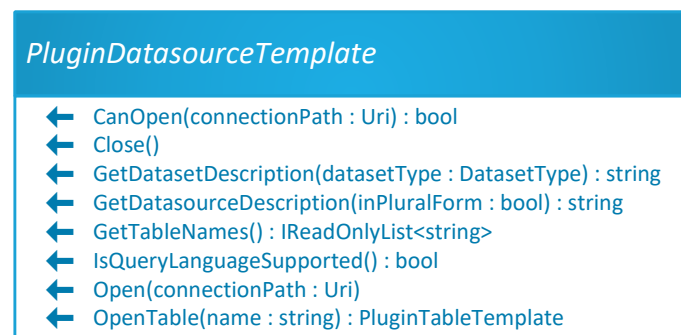
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Geodatabase Object Model Plugin

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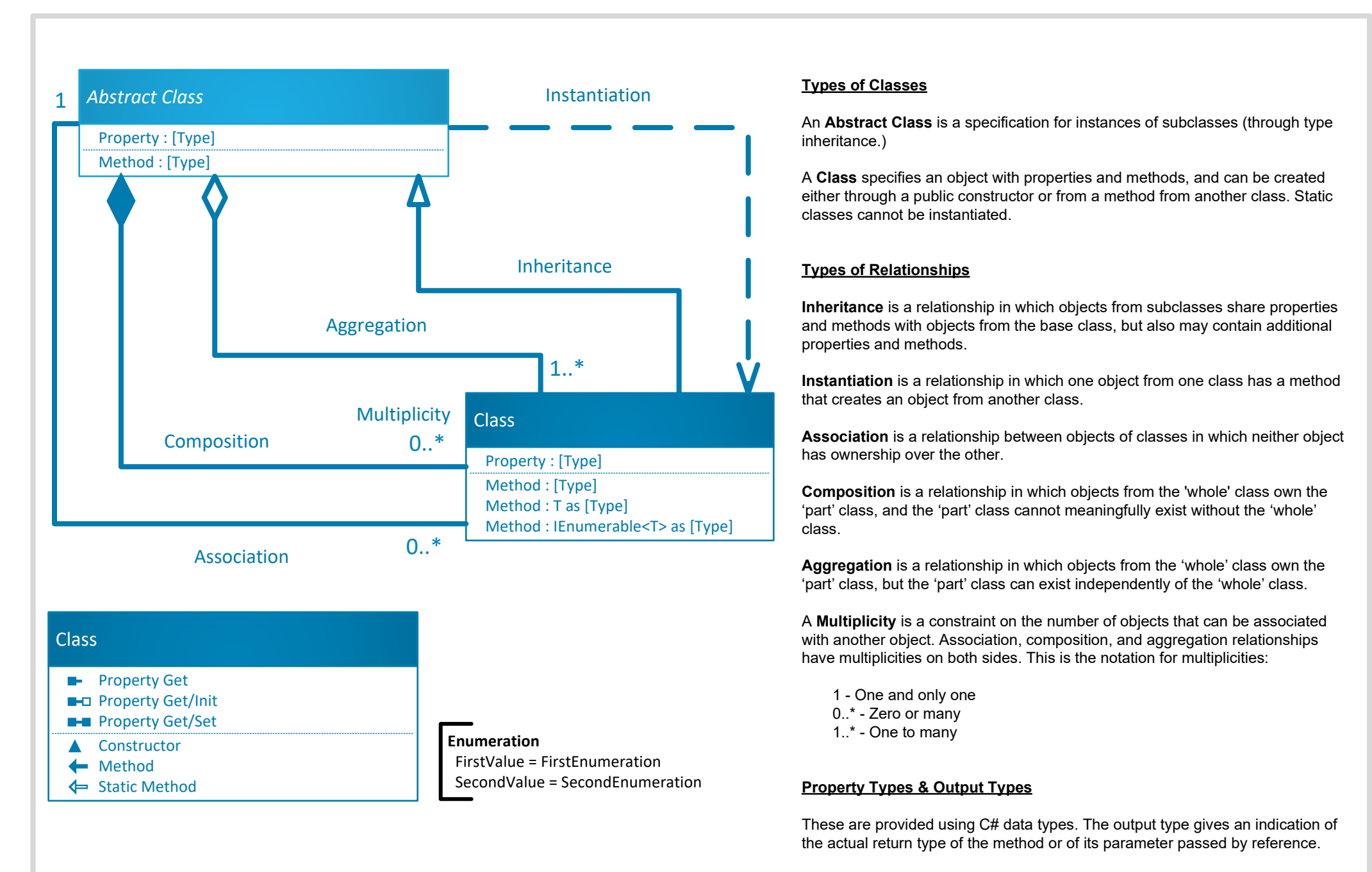
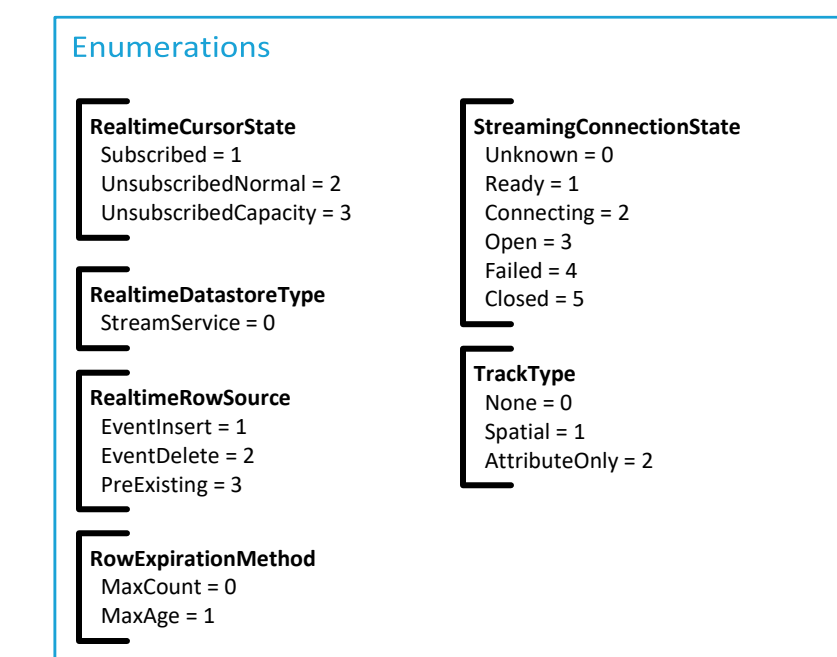
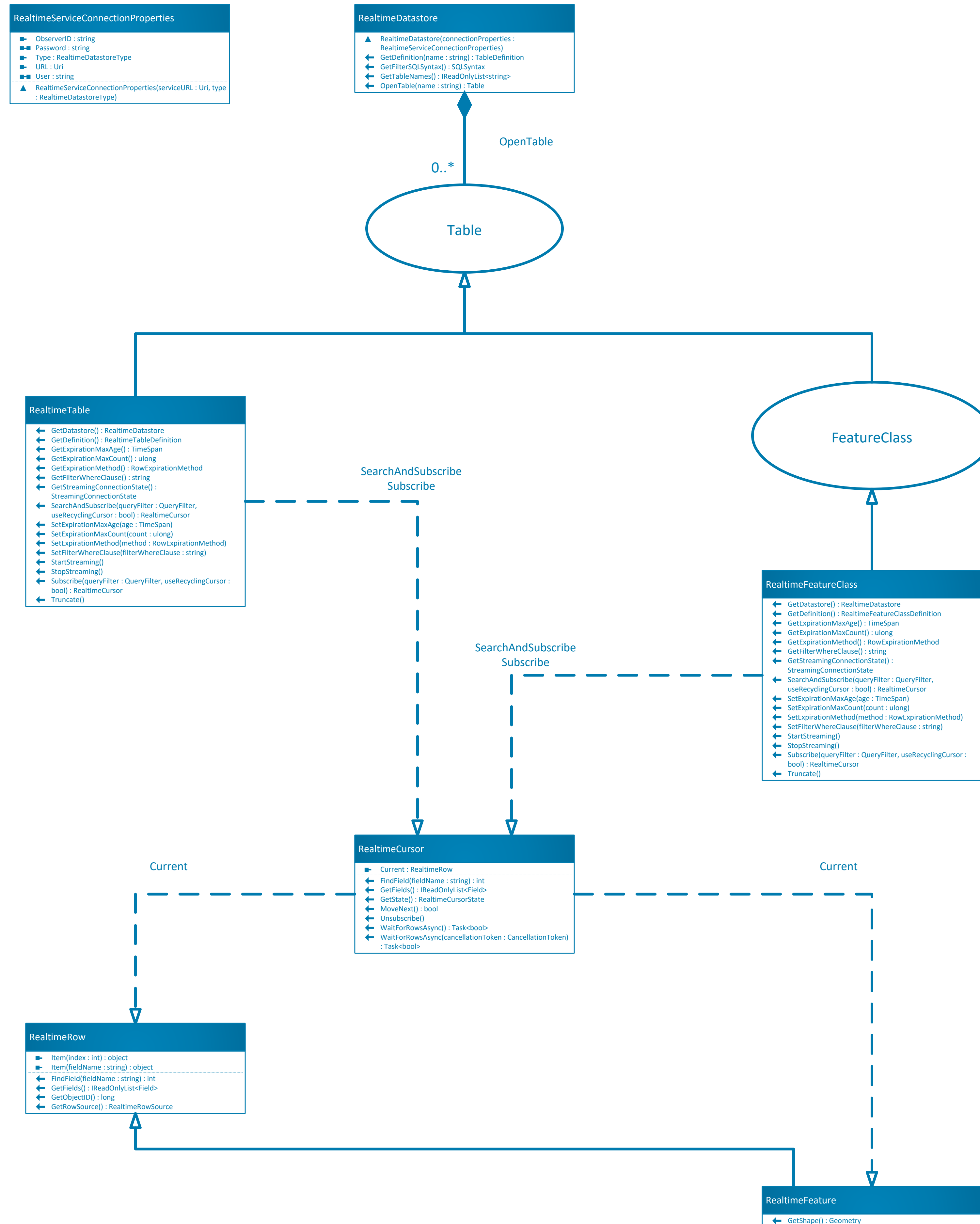
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Geodatabase Object Model Realtime

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Geodatabase Object Model

Linear Referencing

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