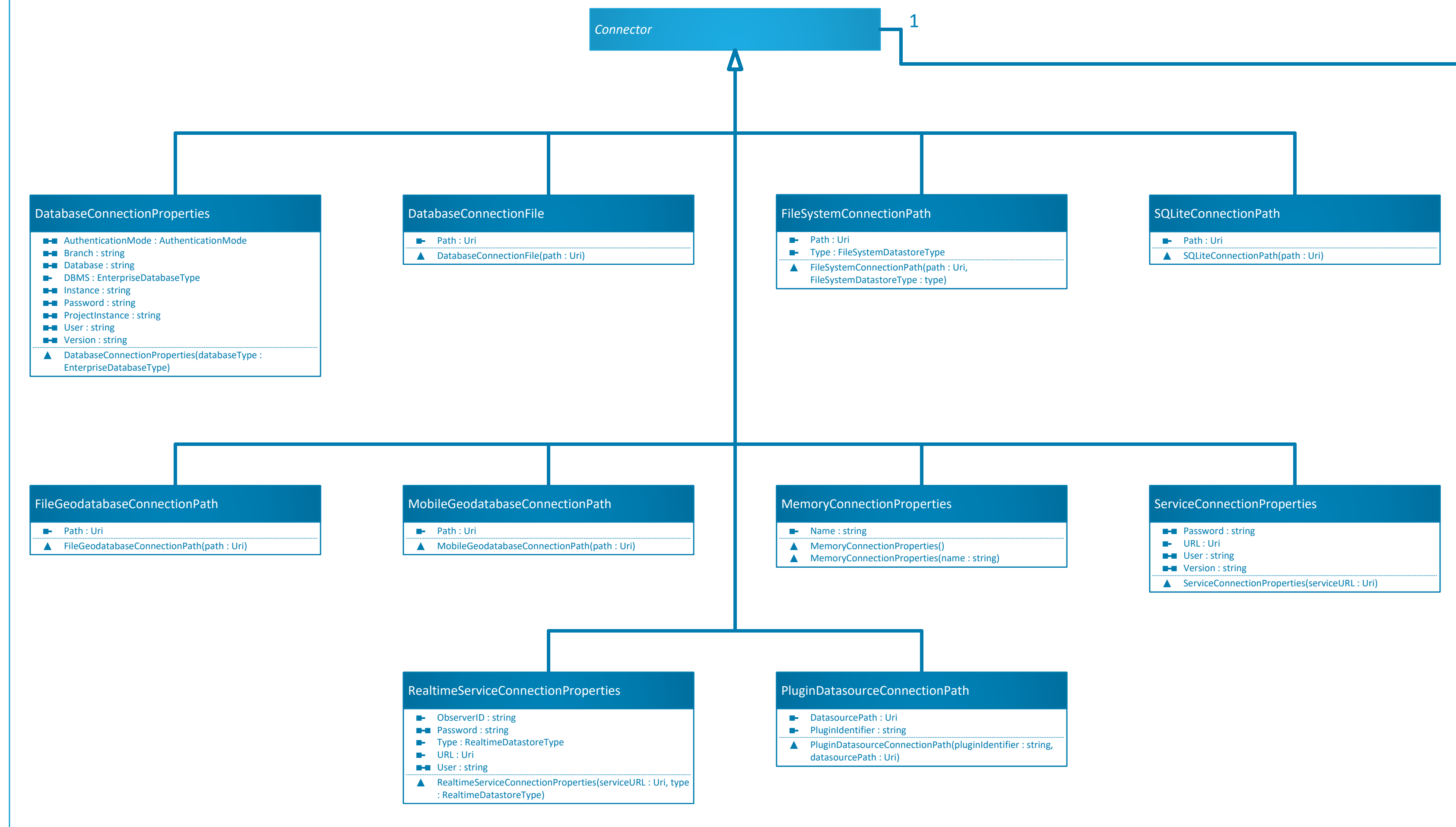


# Geodatabase Object Model Datastore

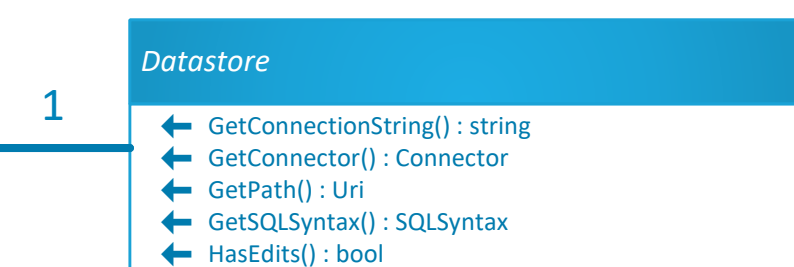
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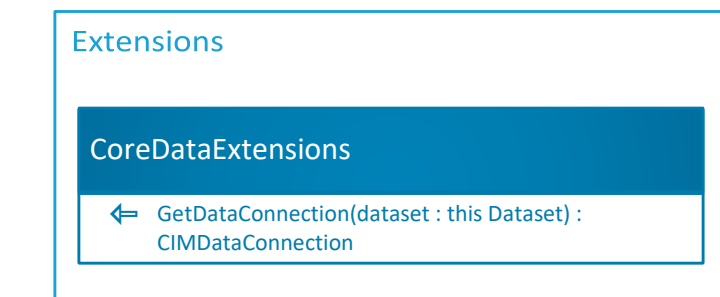
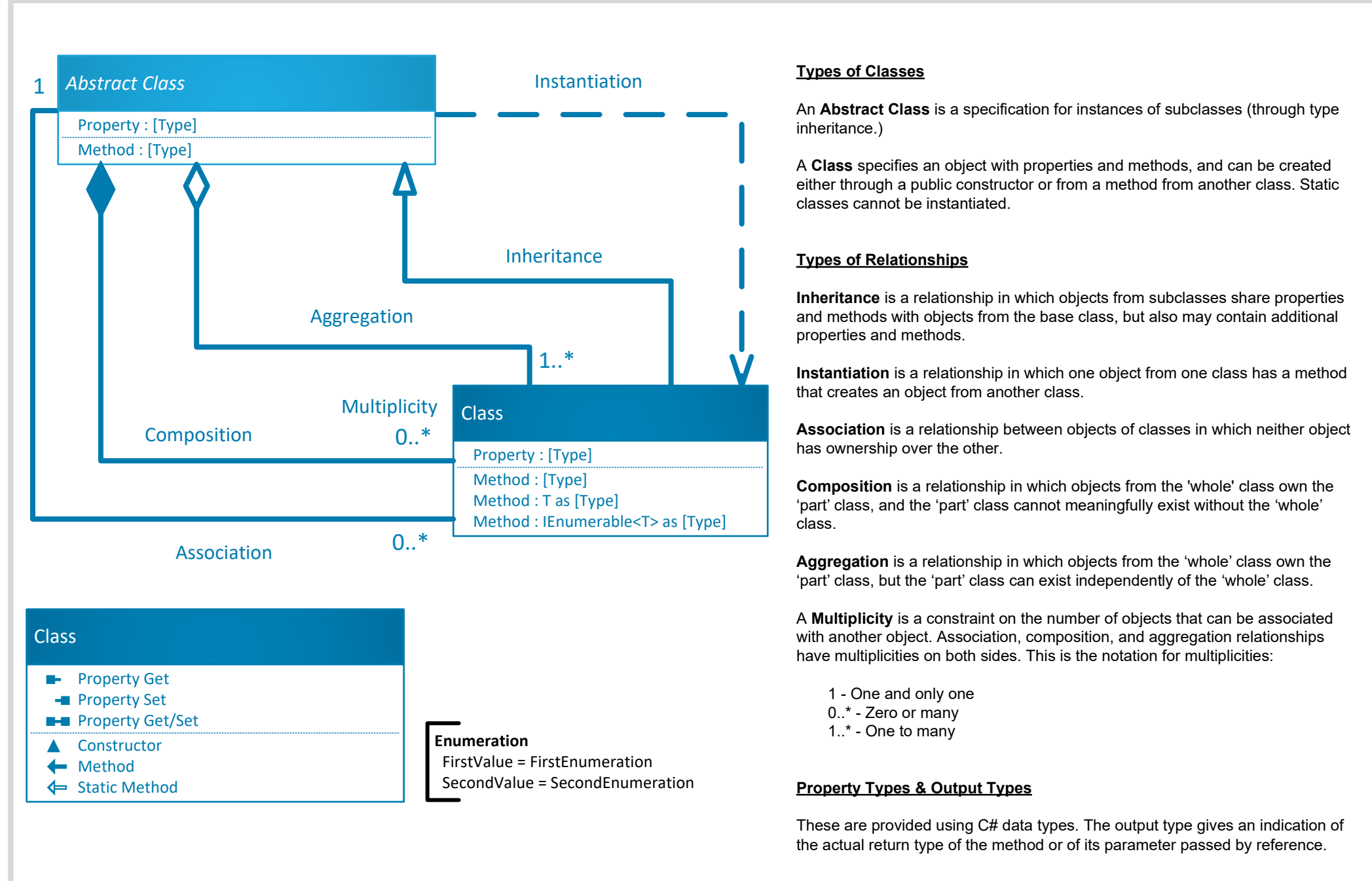
## Connectors



GetConnector



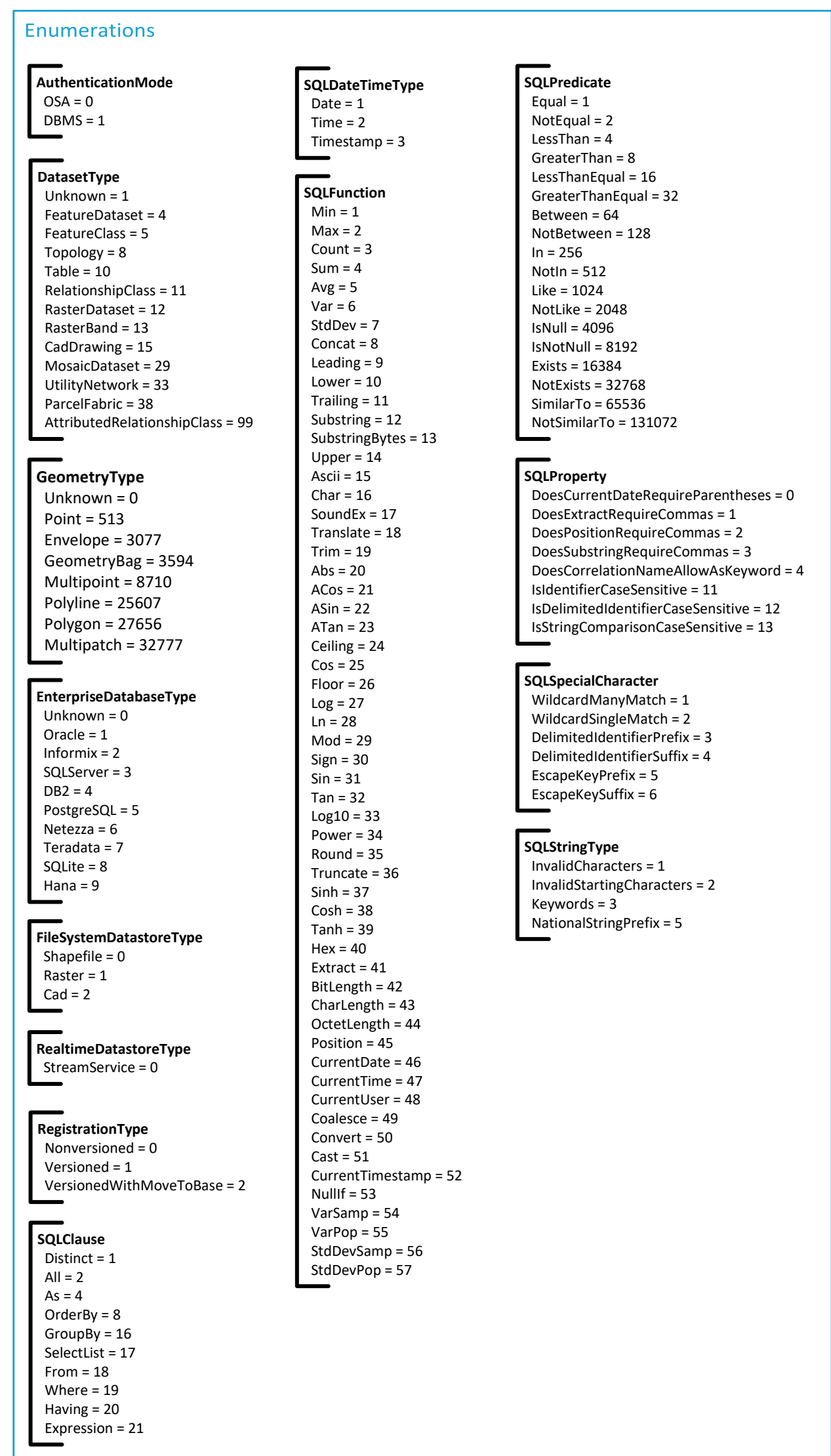
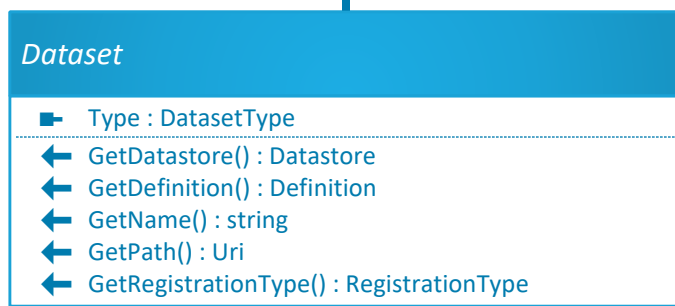
GetSQLSyntax



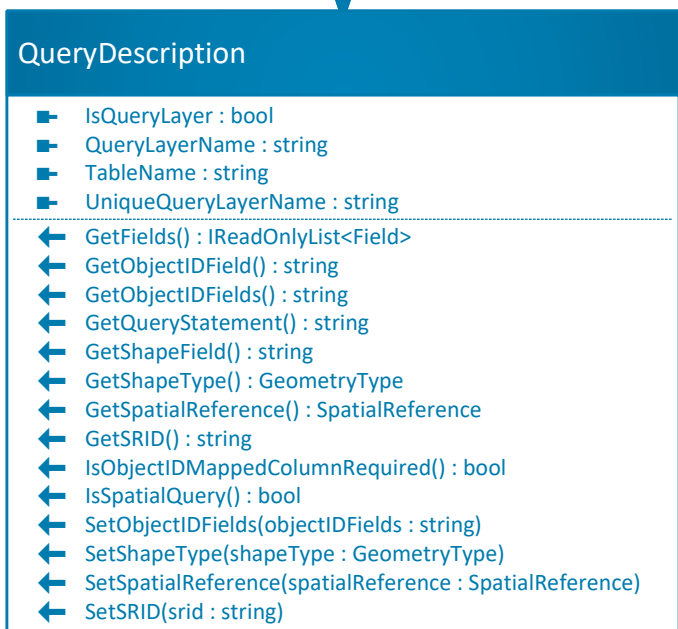
GetDefinition



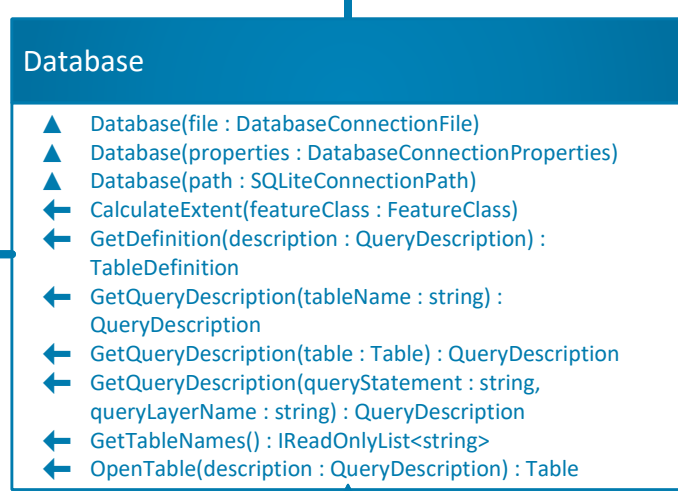
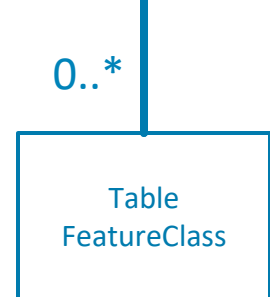
OpenDataset



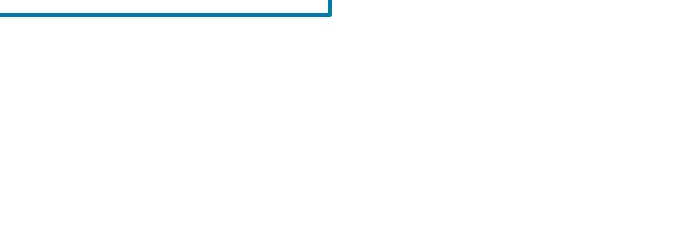
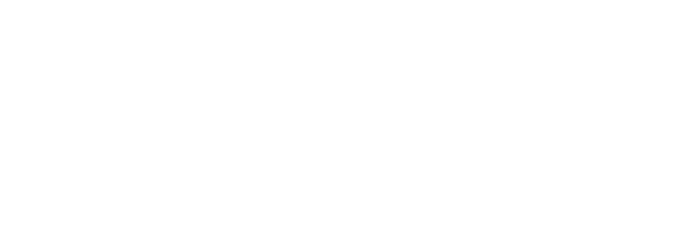
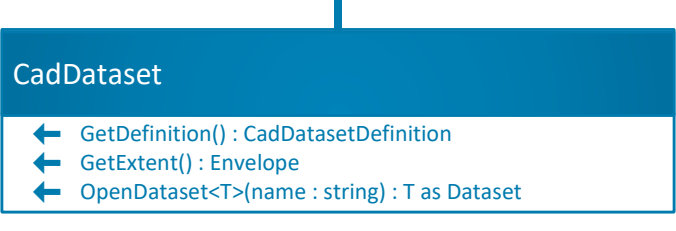
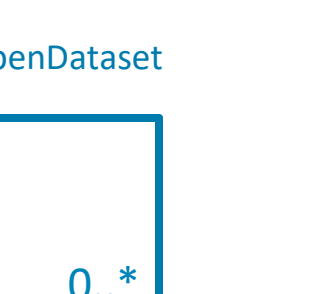
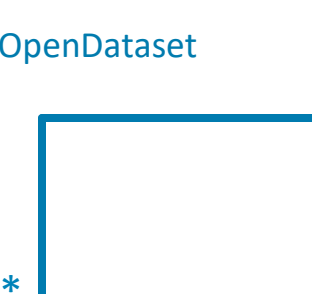
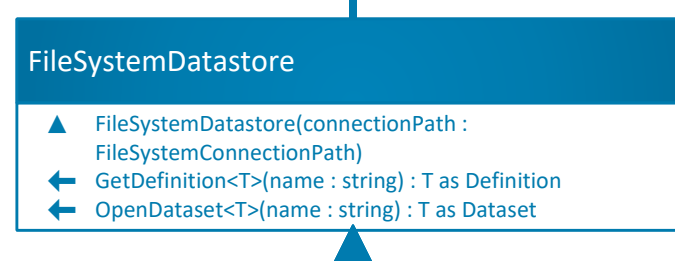
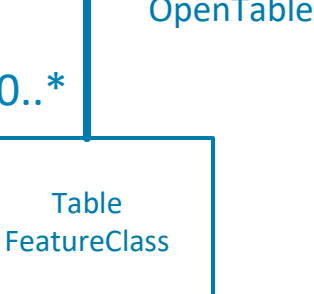
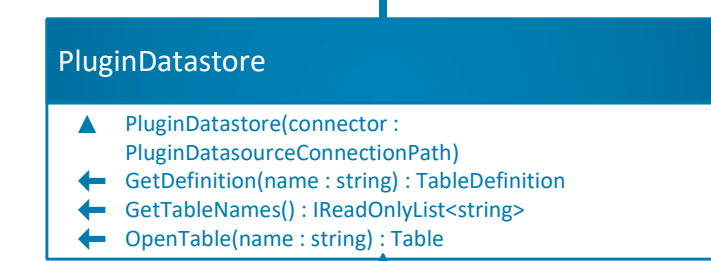
GetQueryDescription



OpenTable



OpenDataset  
OpenQueryTable  
OpenRelationshipClasses

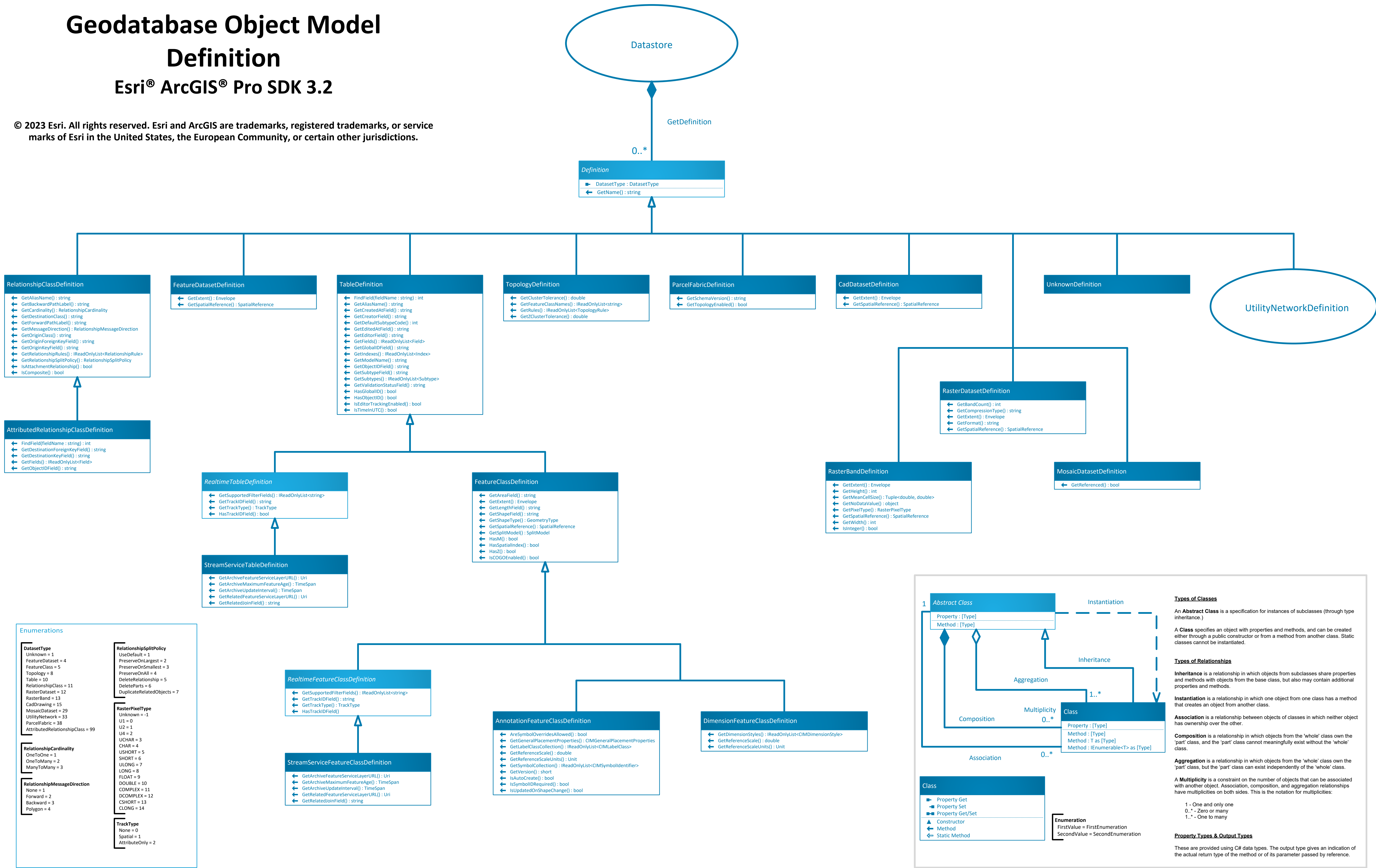




# Geodatabase Object Model Definition

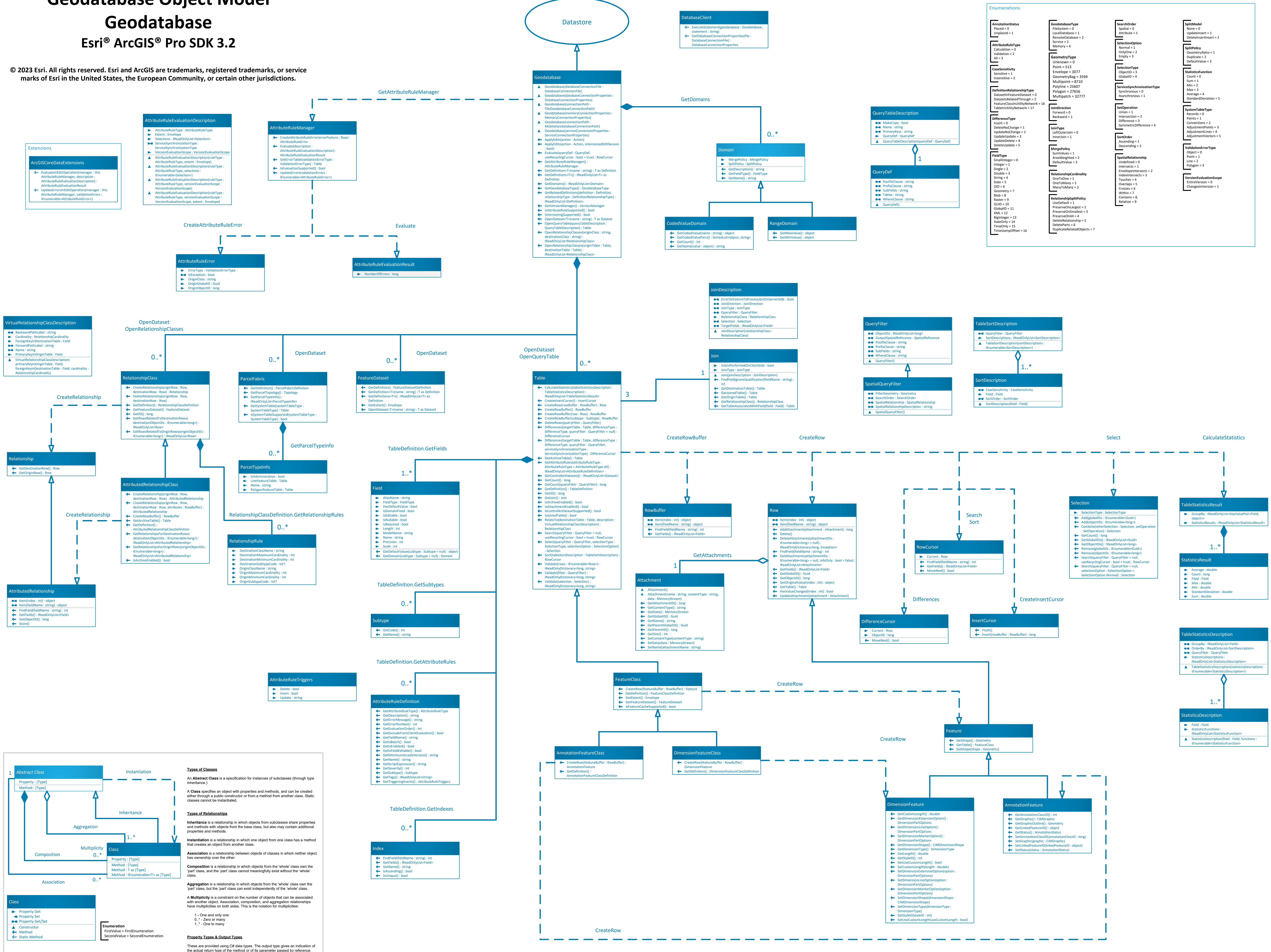
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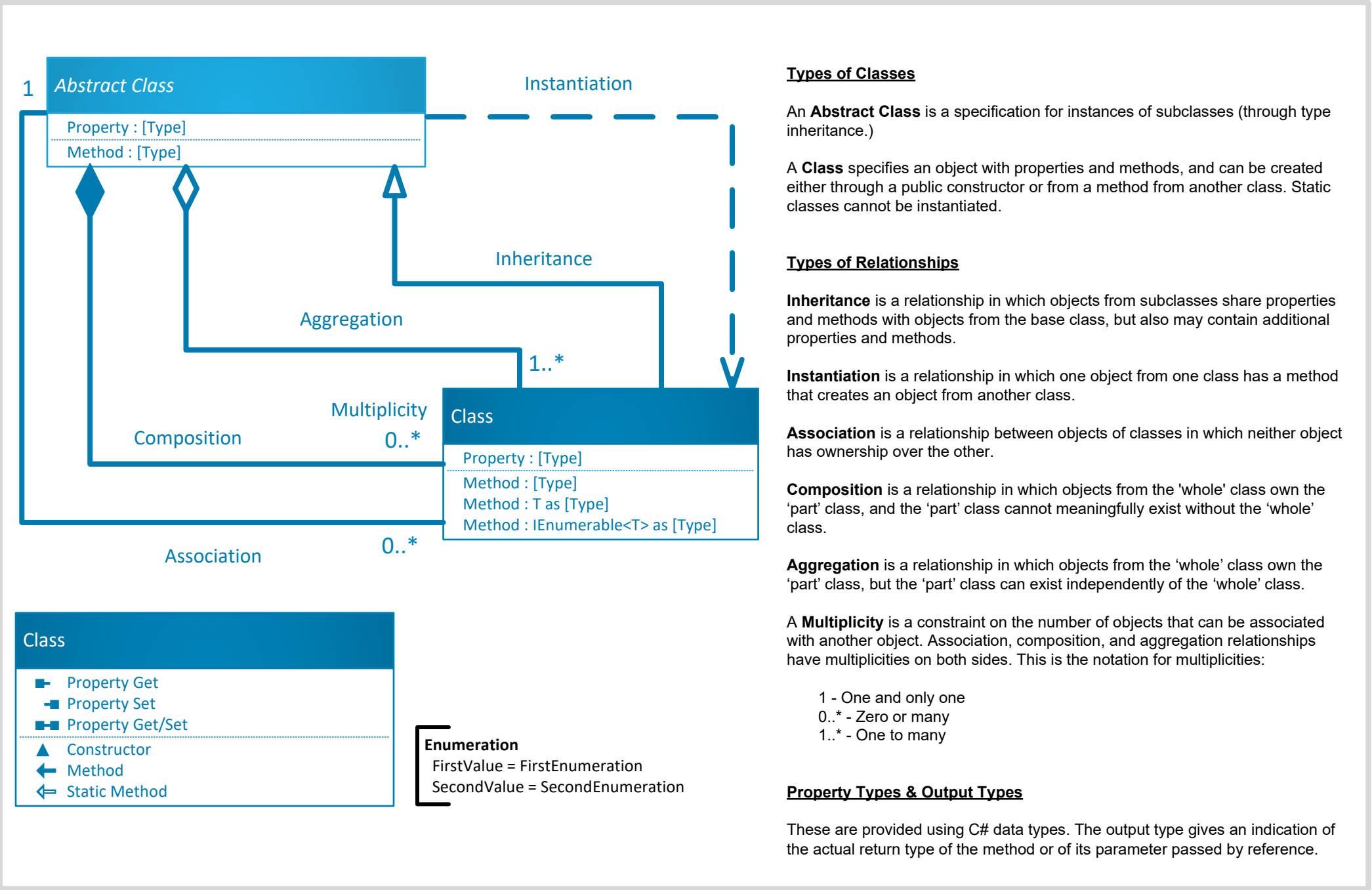




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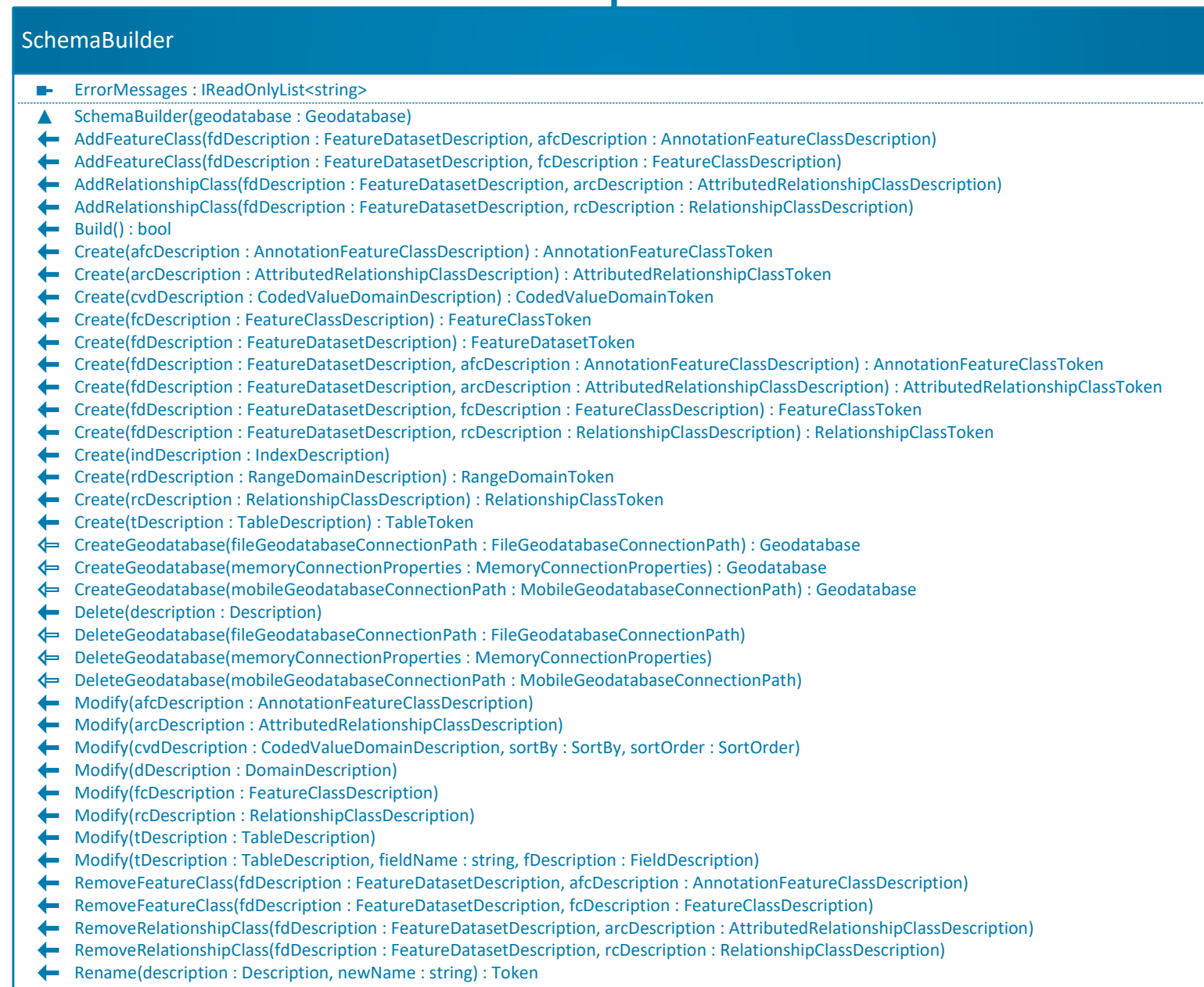
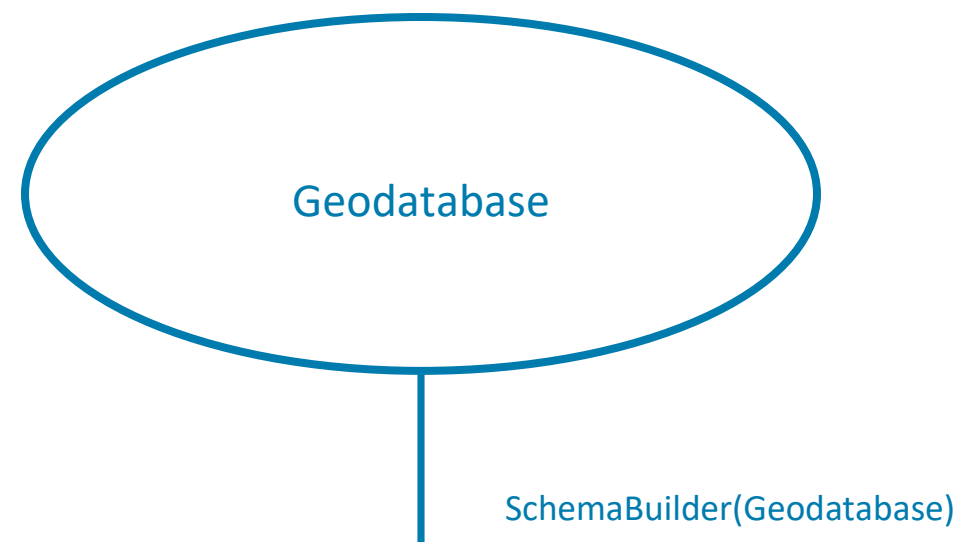


# Geodatabase Object Model

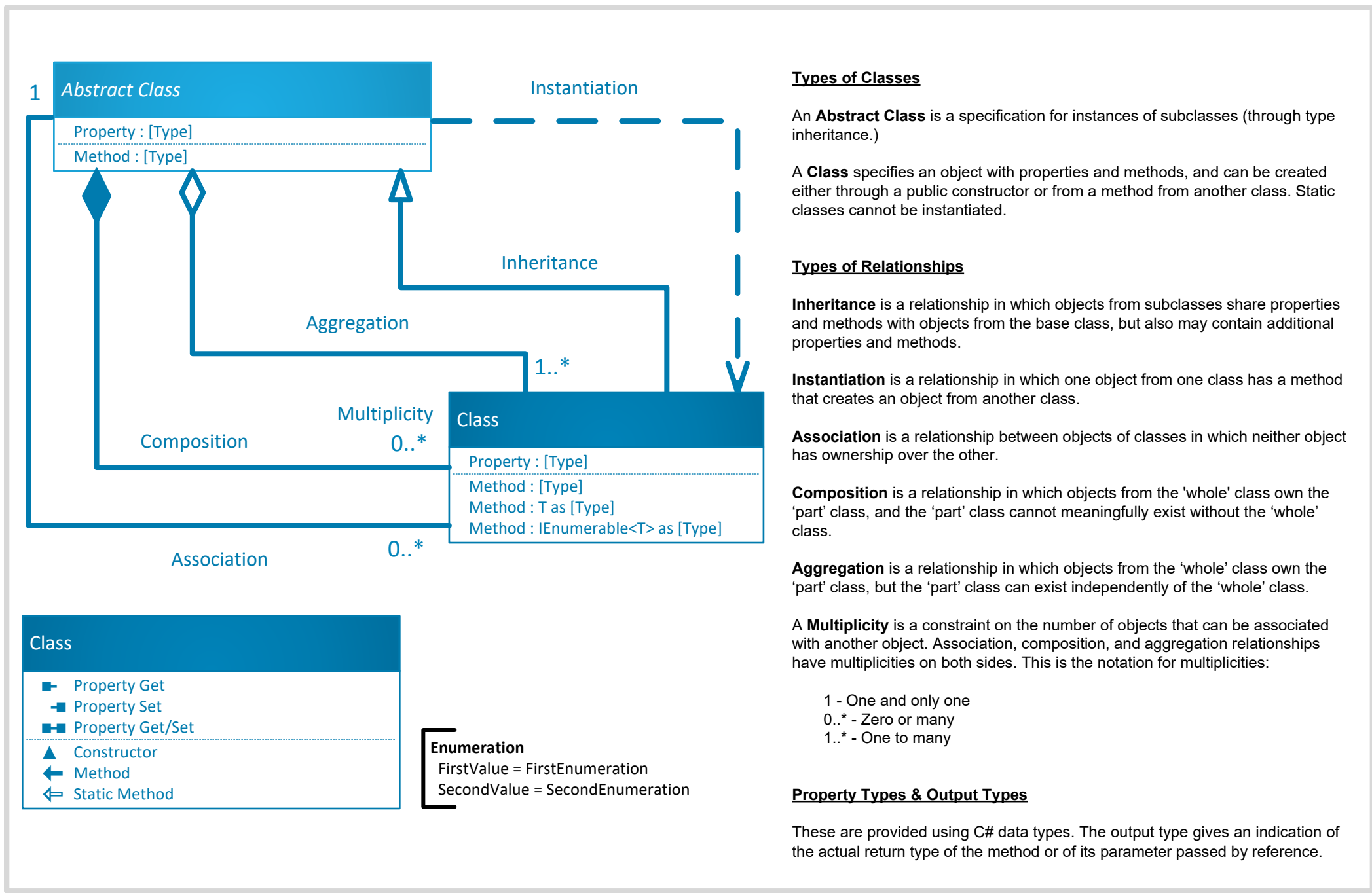
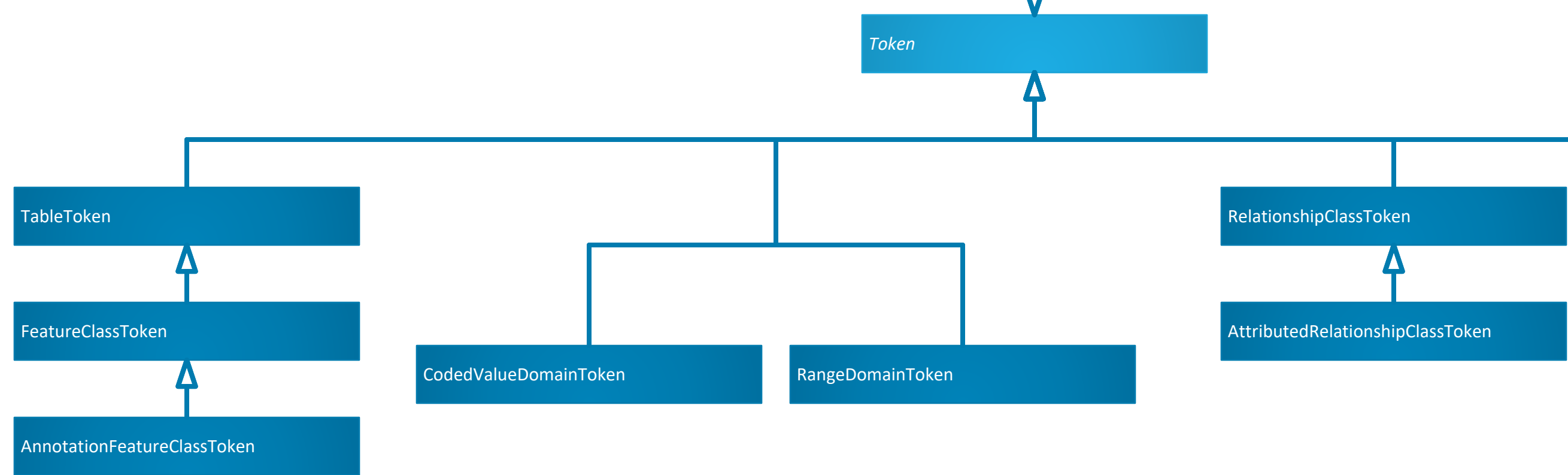
## DDL

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Create  
Rename



### Types of Classes

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

### 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.

**Composition** is a relationship in which objects from the 'whole' class own the 'part' class, and the 'part' class cannot meaningfully exist without the 'whole' class.

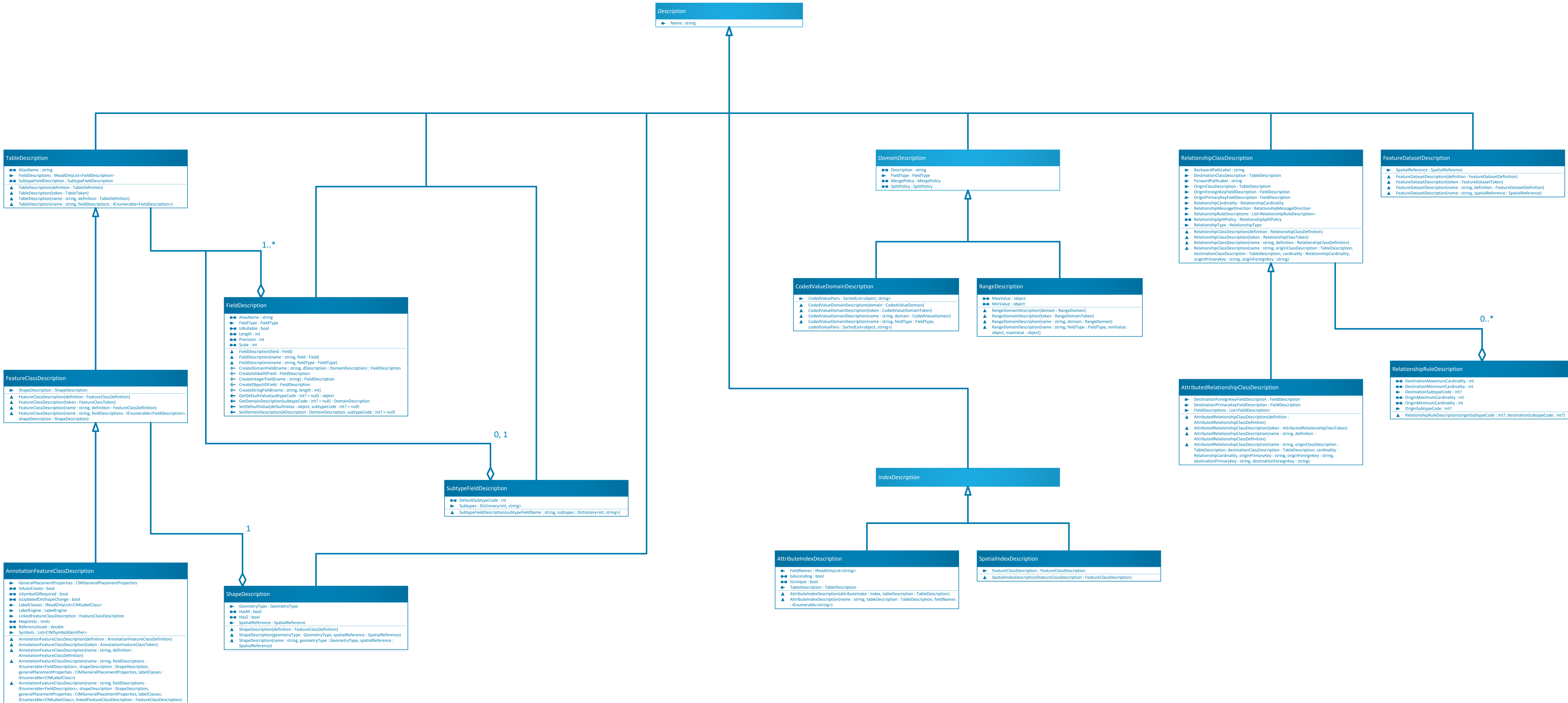
**Aggregation** is a relationship in which objects from the 'whole' class own the 'part' class, but the 'part' class can exist independently of the 'whole' class.

**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.



### Enumerations

**FieldType**  
SmallInteger = 0  
Integer = 1  
Single = 2  
Double = 3  
String = 4  
Date = 5  
OID = 6  
Geometry = 7  
Blob = 8  
Raster = 9  
GUID = 10  
GlobalID = 11  
XML = 12

**LabelEngine**  
Standard = 0  
Integer = 1  
Maplex = 1

**MergePolicy**  
SumValues = 1  
AreaWeighted = 2  
DefaultValue = 3

**Sortby**  
Code = 1  
Name = 2

**SortOrder**  
Ascending = 1  
Descending = 2

**SplitPolicy**  
GeometryRatio = 1  
Duplicate = 2  
DefaultValue = 3

**RelationshipType**  
Unknown = 0  
Point = 513  
Envelope = 3077  
GeometryBag = 3594  
Multipoint = 8710  
Polyline = 25607  
Polygon = 27656  
Multipatch = 32777

**RelationshipType**  
Simple = 1  
Composite = 2



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

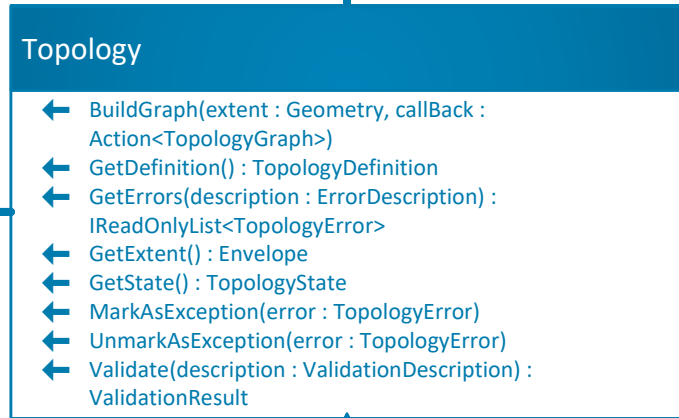
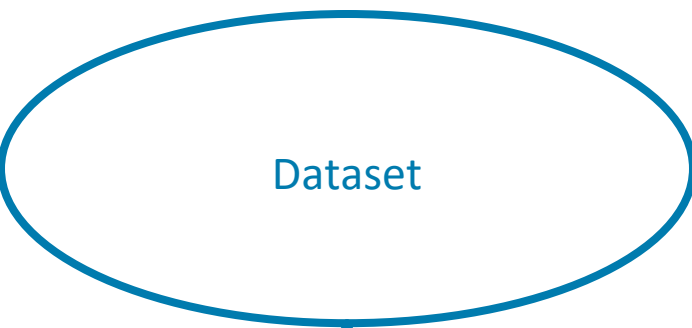
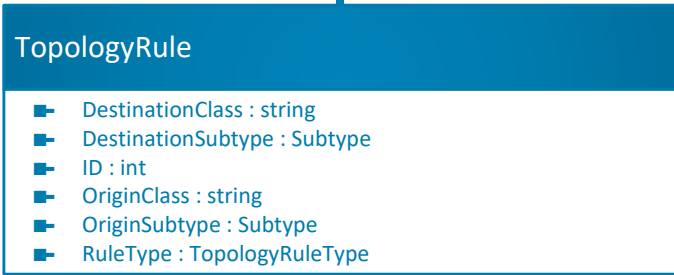
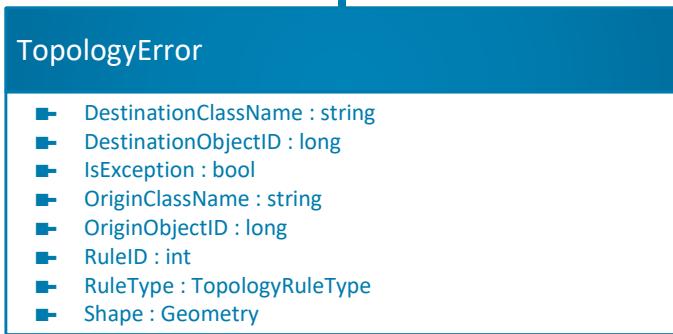
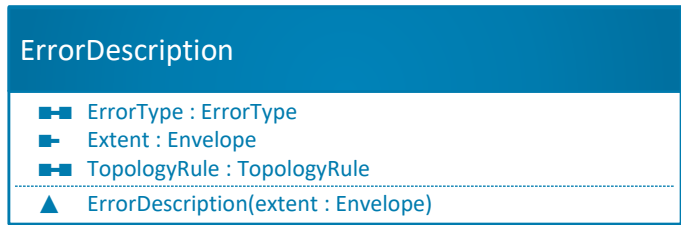
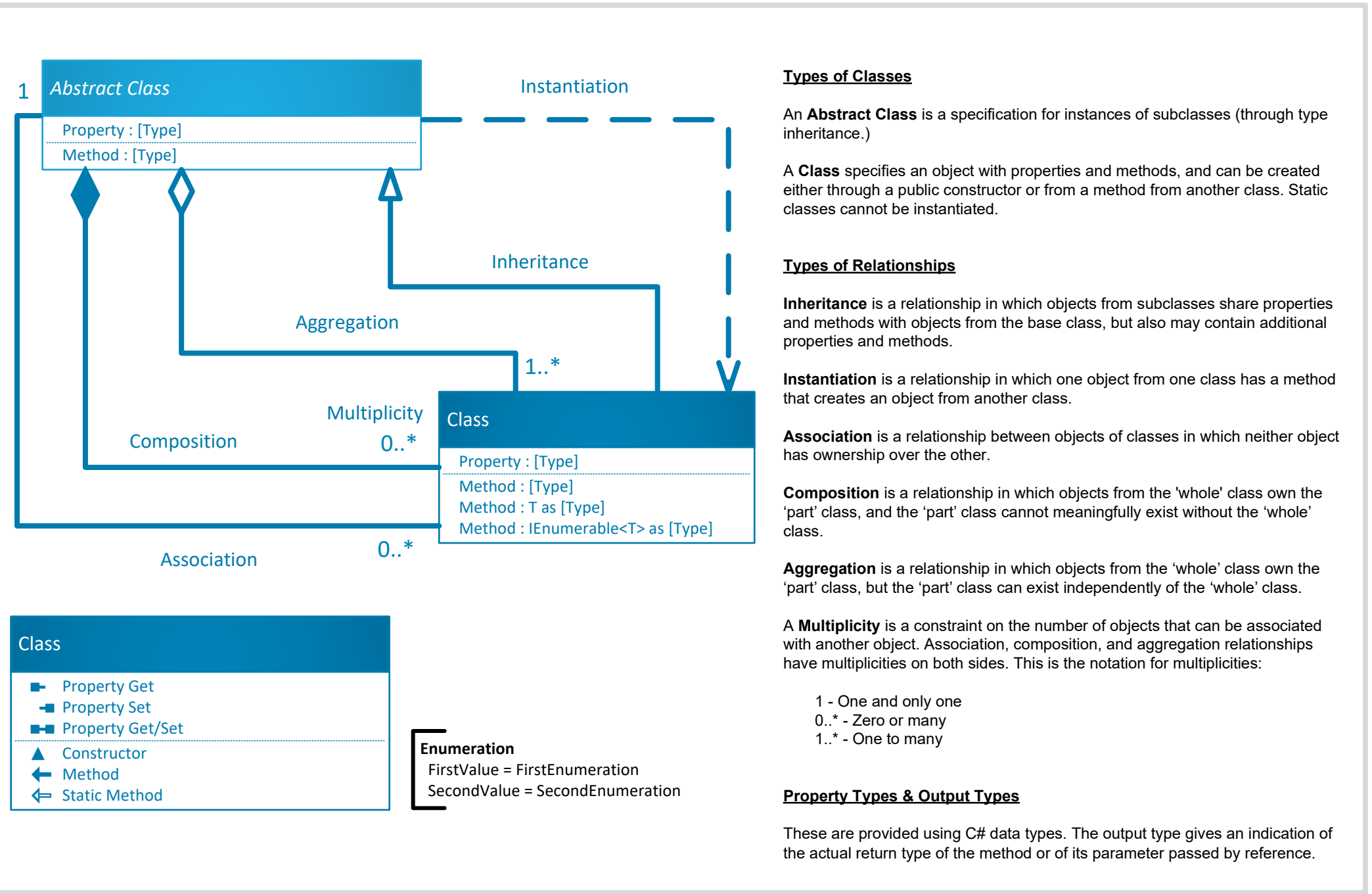
↔ MarkAsExceptionInEditOperation(topology : this  
Topology, topologyError : TopologyError)  
↔ UnmarkAsExceptionInEditOperation(topology :  
this Topology, topologyError : TopologyError)  
↔ ValidateInEditOperation(topology : this Topology,  
validationDescription : ValidationDescription) :  
ValidationResult

# Geodatabase Object Model

## Topology

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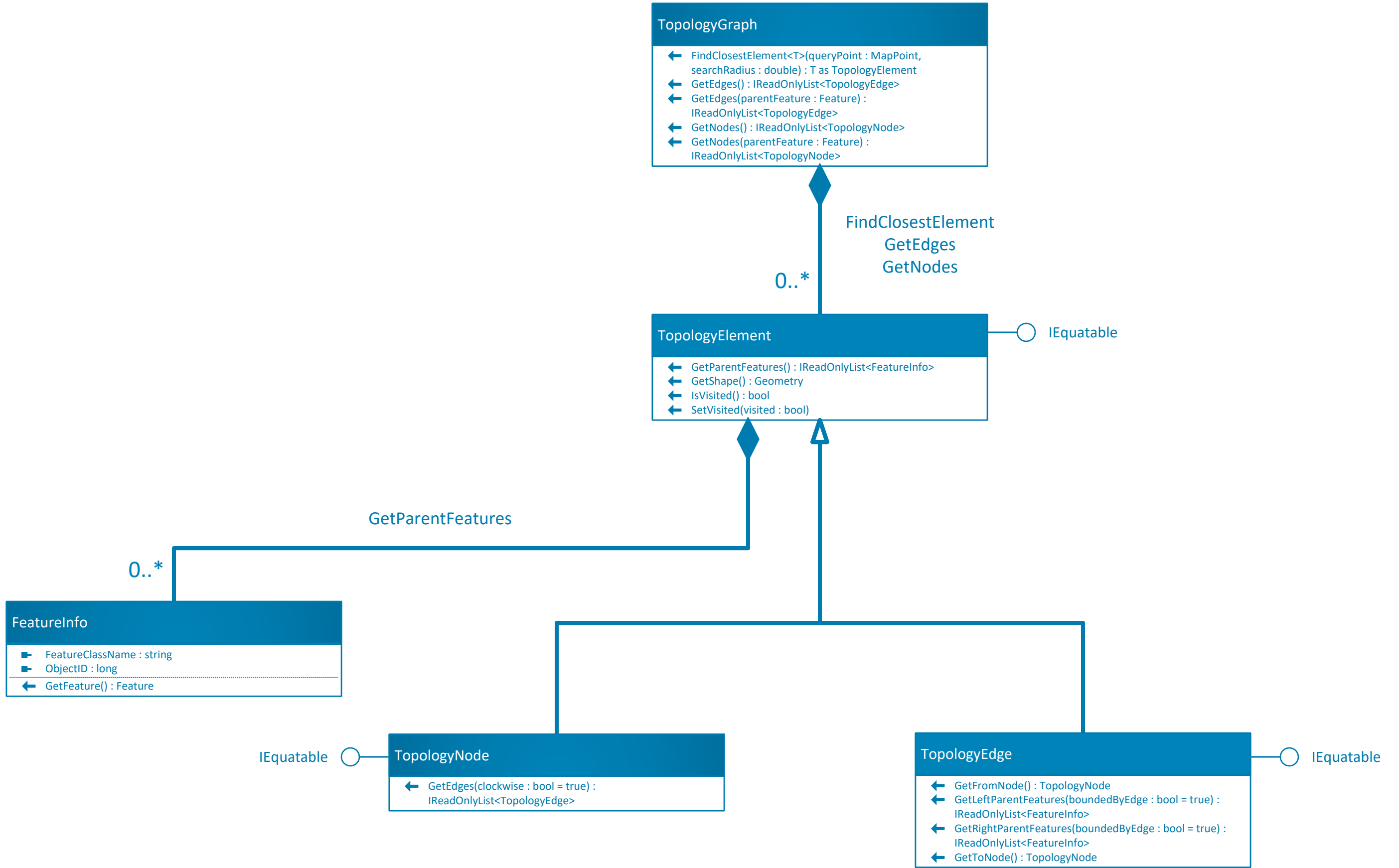
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Validate

GetErrors

TopologyDefinition.GetRules

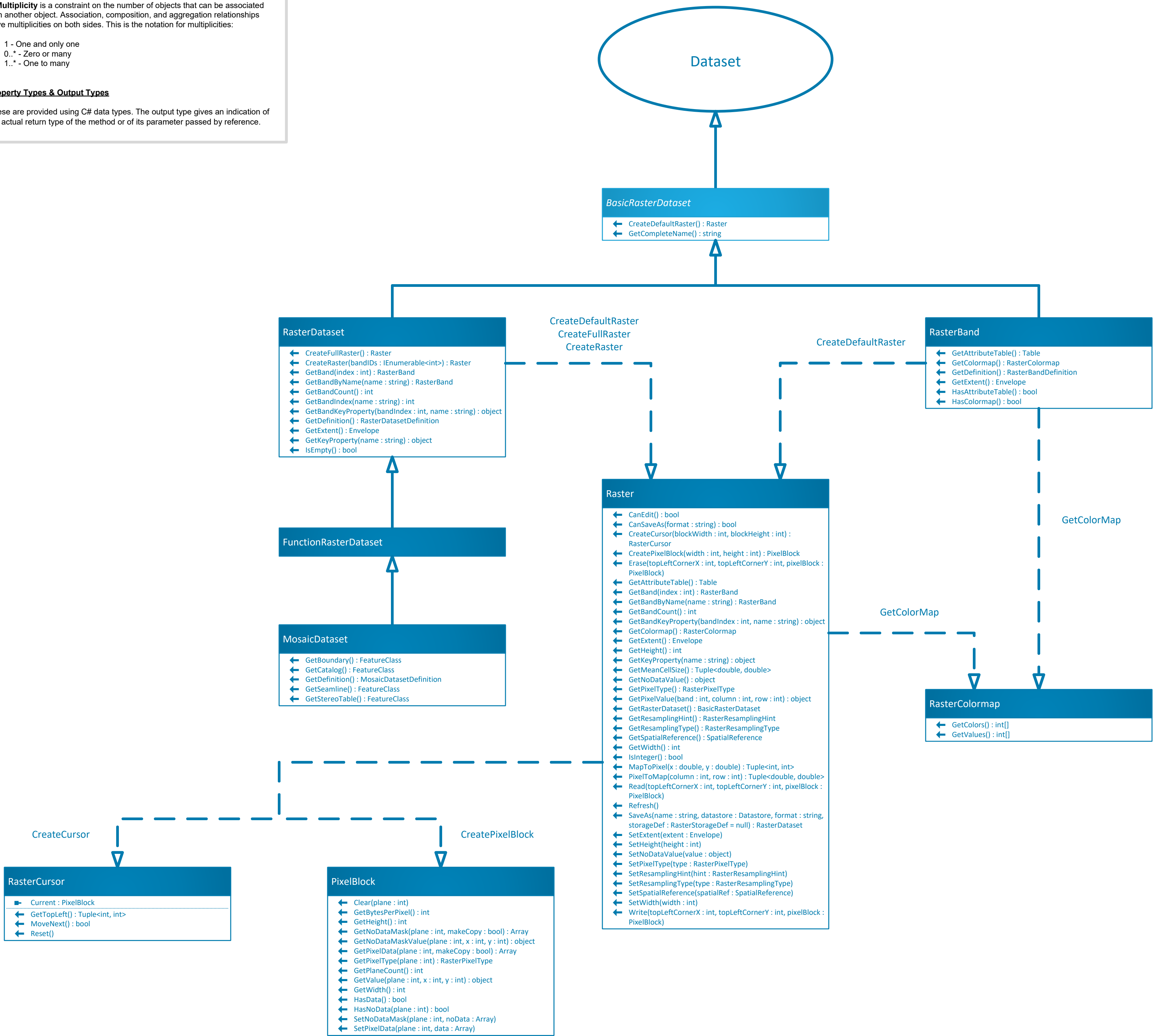
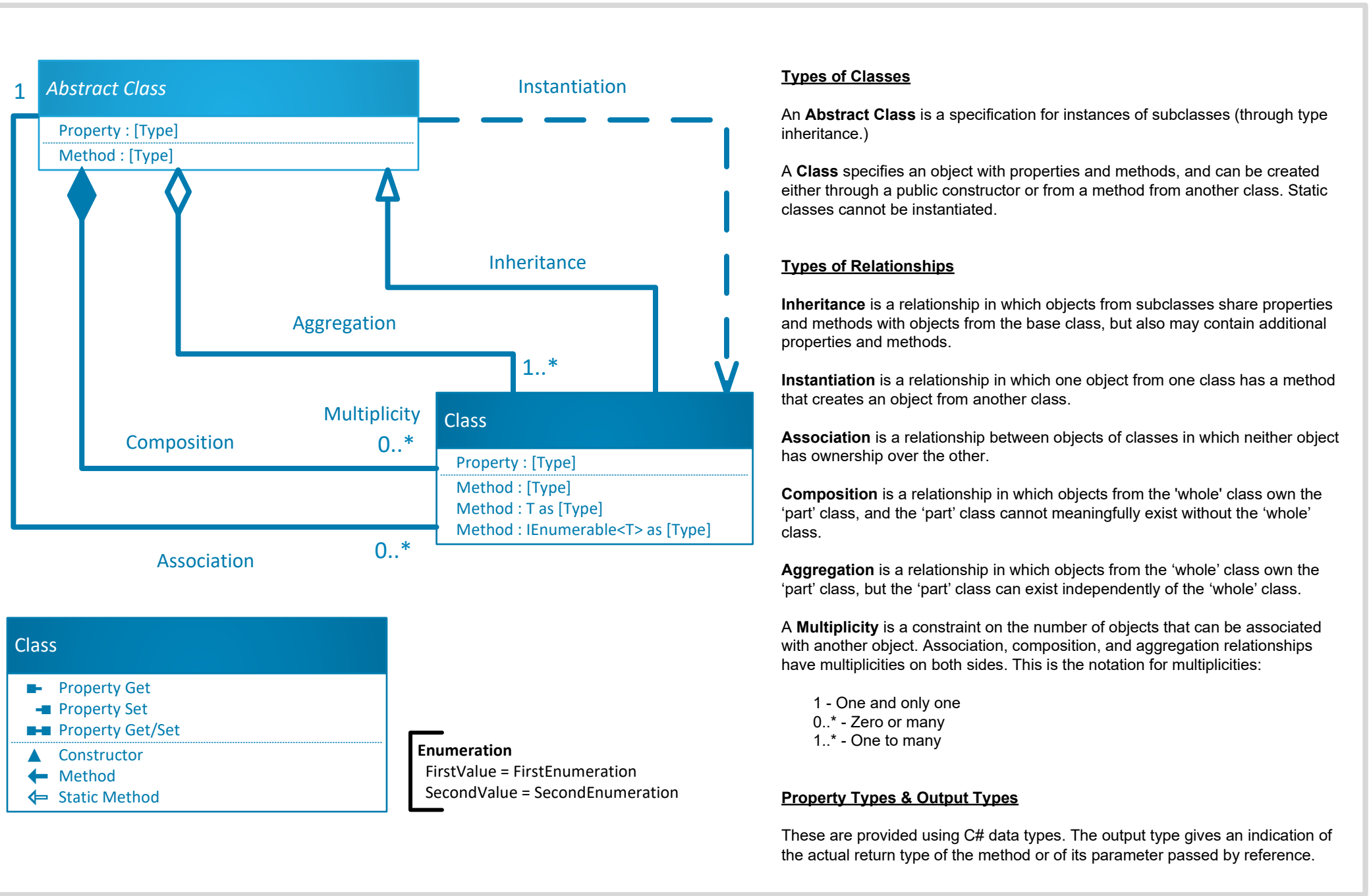


# Geodatabase Object Model

## Raster

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#### Enumerations

**RasterCompressionType**

- Unknown = -1
- Uncompressed = 0
- LZ77 = 1
- JPEG = 2
- JPEG2000 = 4
- PackBits = 5
- LZW = 6
- RLE = 7
- CCITTG3 = 8
- CCITTG4 = 9
- CCITTRLE = 10
- JPEGYCbCr = 11
- LERC = 12

**RasterResamplingType**

- NearestNeighbor = 0
- BilinearInterpolation = 1
- CubicConvolution = 2
- Majority = 3
- BilinearInterpolationPlus = 4
- Average = 7
- Minimum = 8
- Maximum = 9
- VectorAverage = 10

**RasterResamplingHint**

- Closest = 1
- Upsampling = 2
- Downsampling = 3
- Finest = 4

**RasterPixelType**

- Unknown = -1
- U1 = 0
- U2 = 1
- U4 = 2
- UCHAR = 3
- CHAR = 4
- USHORT = 5
- SHORT = 6
- ULONG = 7
- LONG = 8
- FLOAT = 9
- DOUBLE = 10
- COMPLEX = 11
- DCOMPLEX = 12
- CSHORT = 13
- CULONG = 14

#### RasterValue

- RasterValue()
- GetRasterDataset() : RasterDataset
- GetRasterStorageDef() : RasterStorageDef
- SetRasterDataset(rasterDataset : RasterDataset)
- SetRasterStorageDef(def : RasterStorageDef)

#### RasterStorageDef

- RasterStorageDef()
- GetCellSize() : Tuple<double, double>
- GetCompressionQuality() : int
- GetCompressionType() : RasterCompressionType
- GetOrigin() : MapPoint
- GetPyramidLevel() : int
- GetPyramidResampleType() : RasterResamplingType
- GetTitleHeight() : int
- GetTitleWidth() : int
- SetCellSize(x : double, y : double)
- SetCompressionQuality(quality : int)
- SetCompressionType(compression : RasterCompressionType)
- SetOrigin(origin : MapPoint)
- SetPyramidLevel(level : int)
- SetPyramidResampleType(resampling : RasterResamplingType)
- SetTitleHeight(height : int)
- SetTitleWidth(width : int)



# Geodatabase Object Model Plugin

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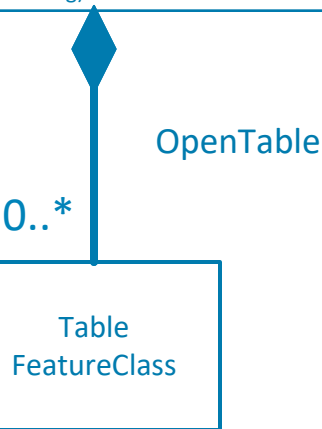
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## PluginDatasourceTemplate

```
CanOpen(connectionPath : Uri) : bool
Close()
GetDatasetDescription(datasetType : DatasetType) : string
GetDatasourceDescription(inPluralForm : bool) : string
GetTableNames() : IReadOnlyList<string>
IsQueryLanguageSupported() : bool
Open(connectionPath : Uri)
OpenTable(name : string) : PluginTableTemplate
```

## PluginDatastore

```
PluginDatastore(connector :
PluginDatasourceConnectionPath)
GetDefinition(name : string) : TableDefinition
GetTableNames() : IReadOnlyList<string>
OpenTable(name : string) : Table
```



## PluginTableTemplate

```
GetExtent() : Envelope
GetFields() : IReadOnlyList<PluginField>
GetLastModifiedTime() : DateTime
GetName() : string
GetNativeRowCount() : long
GetShapeType() : GeometryType
IsNativeRowCountSupported() : bool
Search(filter : QueryFilter) : PluginCursorTemplate
Search(filter : SpatialQueryFilter) : PluginCursorTemplate
```

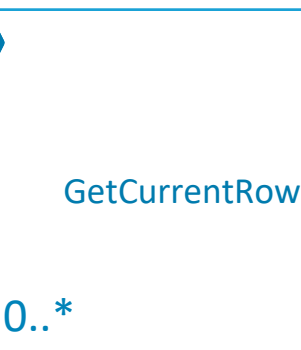


## PluginField

```
AliasName : string
FieldType : FieldType
Length : int
Name : string
PluginField()
PluginField(name : string, aliasName : string, fieldType : FieldType)
```

## PluginCursorTemplate

```
GetCurrentRow() : PluginRow
MoveNext() : bool
```



## PluginRow

```
Values : IReadOnlyList<object>
PluginRow()
PluginRow(values : IEnumerable<object>)
```

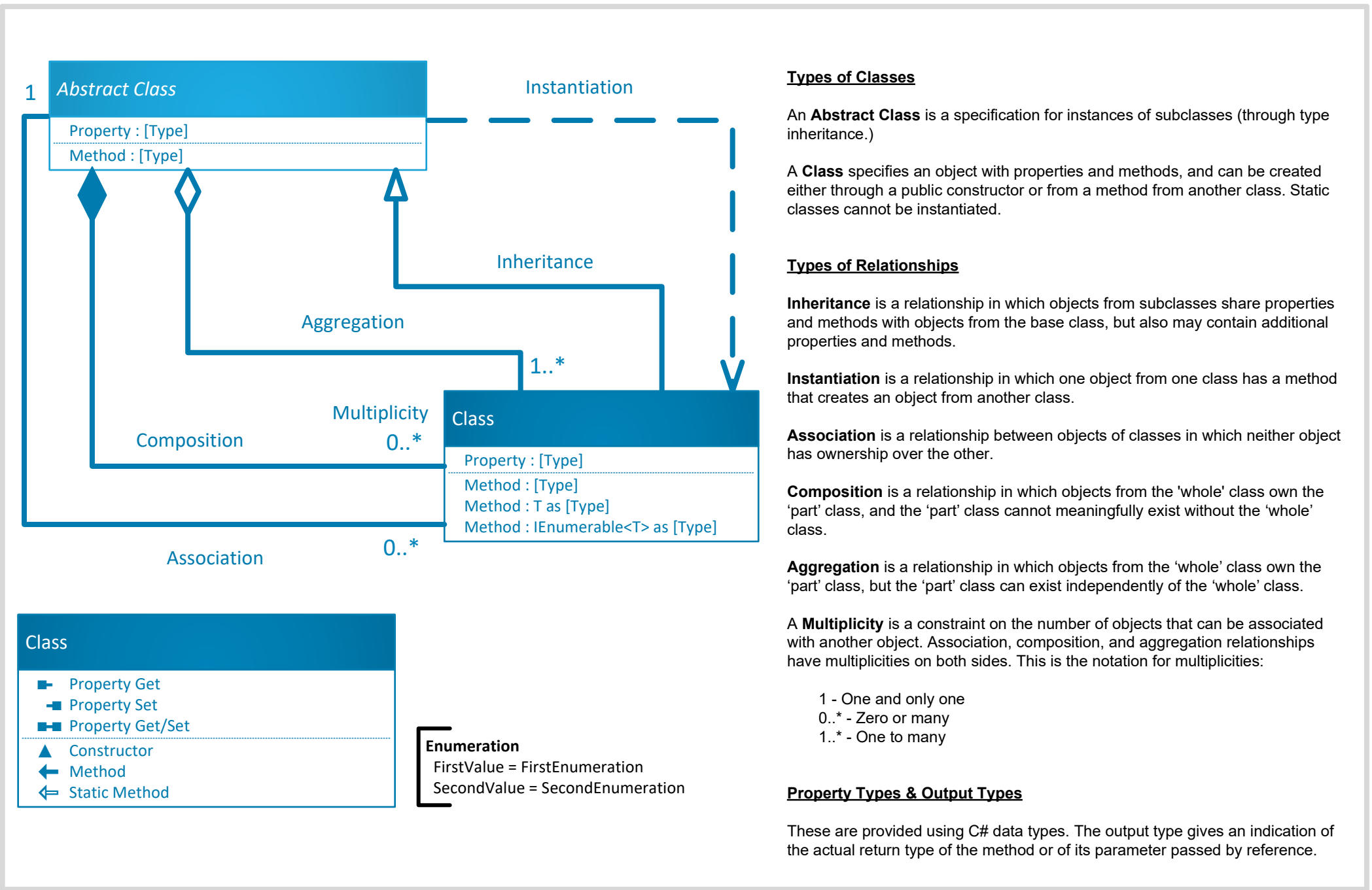
## Enumerations

### FieldType

```
SmallInteger = 0
Integer = 1
Single = 2
Double = 3
String = 4
Date = 5
OID = 6
Geometry = 7
Blob = 8
Raster = 9
GUID = 10
GlobalID = 11
XML = 12
```

### 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
```





# Geodatabase Object Model

## Realtime

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