

Ed-Fi 2.x Grade Entity Mapping

Overview

Use this page to help understand and define the mapping of Aeries data to Ed-Fi data



Status

Ready for certification

Document Version 1.5

Last Updated 25 Feb 2020

Links

Entity

<https://mappingedu.ed-fi.org/#/entity/9486fca4-4ed2-e811-80d9-005056b36109/info?dataStandardId=db3697f4-4dd2-e811-80d9-005056b36109>

Scenarios

<https://techdocs.ed-fi.org/display/EDFICERT/StudentGrade+%3E+Grade+Scenarios>

Schema

<https://schema.ed-fi.org/datahandbook-v22/Ed-Fi-UDM-Handbook-Index.html#/Grade559>

Root Table

GRD

Join

STU, GRD, GRP, MST

Script

Scheduled

GRD_Functions.GetEdFiDataTable_Grades

```
WITH cteGRP ([SC], [KY], [DTS]
, [B1], [B2], [B3], [B4], [B5], [B6], [B7], [B8], [B9], [B10], [B11], [B12]
, [E1], [E2], [E3], [E4], [E5], [E6], [E7], [E8], [E9], [E10], [E11], [E12]
, [C1], [C2], [C3], [C4], [C5], [C6], [C7], [C8], [C9], [C10], [C11], [C12], RowNumber) AS
(
    SELECT [SC], [KY], [DTS]
    , [B1], [B2], [B3], [B4], [B5], [B6], [B7], [B8], [B9], [B10], [B11], [B12]
    , [E1], [E2], [E3], [E4], [E5], [E6], [E7], [E8], [E9], [E10], [E11], [E12]
    , [C1], [C2], [C3], [C4], [C5], [C6], [C7], [C8], [C9], [C10], [C11], [C12]
    , ROW_NUMBER() OVER(PARTITION BY [SC] ORDER BY [KY]) [RowNumber]
    FROM [GRP]
    WHERE [DEL] = 0 AND [SC] = @SC
)
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B1] GradingPeriodStartDate, cteGRP.[C1] GradingPeriodDescriptor, [GRD].[M1] CurrentMark
FROM ((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
```

[illegible]

```

UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B9] GradingPeriodStartDate, cteGRP.[C9] GradingPeriodDescriptor, [GRD].[M9] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M9] > ' ' AND cteGRP.C9 > ' '
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B10] GradingPeriodStartDate, cteGRP.[C10] GradingPeriodDescriptor, [GRD].[M10] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M10] > ' ' AND cteGRP.C10 > ' '
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B11] GradingPeriodStartDate, cteGRP.[C11] GradingPeriodDescriptor, [GRD].[M11] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M11] > ' ' AND cteGRP.C11 > ' '
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B12] GradingPeriodStartDate, cteGRP.[C12] GradingPeriodDescriptor, [GRD].[M12] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M12] > ' ' AND cteGRP.C12 > ' '

```

Real-Time

GRD_Functions.GetEdFiDataTable_Grades

```

WITH cteGRP ([SC], [KY], [DTS]
, [B1], [B2], [B3], [B4], [B5], [B6], [B7], [B8], [B9], [B10], [B11], [B12]
, [E1], [E2], [E3], [E4], [E5], [E6], [E7], [E8], [E9], [E10], [E11], [E12]
, [C1], [C2], [C3], [C4], [C5], [C6], [C7], [C8], [C9], [C10], [C11], [C12], RowNumber) AS
(
SELECT [SC], [KY], [DTS]
, [B1], [B2], [B3], [B4], [B5], [B6], [B7], [B8], [B9], [B10], [B11], [B12]
, [E1], [E2], [E3], [E4], [E5], [E6], [E7], [E8], [E9], [E10], [E11], [E12]
, [C1], [C2], [C3], [C4], [C5], [C6], [C7], [C8], [C9], [C10], [C11], [C12]
, ROW_NUMBER() OVER(PARTITION BY [SC] ORDER BY [KY]) [RowNumber]
FROM [GRP]
WHERE [DEL] = 0 AND [SC] = @SC
)
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B1] GradingPeriodStartDate, cteGRP.[C1] GradingPeriodDescriptor, [GRD].[M1] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M1] > ' ' AND cteGRP.C1 > ' '
AND [GRD].[DTS] >= @TimeSince

```

[illegible]

```

[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])))) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M8] > ' ' AND cteGRP.C8 > ' '
AND [GRD].[DTS] >= @TimeSince
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B9] GradingPeriodStartDate, cteGRP.[C9] GradingPeriodDescriptor, [GRD].[M9] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])))) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M9] > ' ' AND cteGRP.C9 > ' '
AND [GRD].[DTS] >= @TimeSince
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B10] GradingPeriodStartDate, cteGRP.[C10] GradingPeriodDescriptor, [GRD].[M10] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])))) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M10] > ' ' AND cteGRP.C10 > ' '
AND [GRD].[DTS] >= @TimeSince
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B11] GradingPeriodStartDate, cteGRP.[C11] GradingPeriodDescriptor, [GRD].[M11] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])))) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M11] > ' ' AND cteGRP.C11 > ' '
AND [GRD].[DTS] >= @TimeSince
UNION
SELECT [STU].[ID], [GRD].[SC], [GRD].[SC] SchoolID, C.StartDate, [GRD].[SE], [GRD].[PD], [MST].[RM], [GRD].
[CN], [MST].[SM], [MST].[SE], [MST].[BL], [MST].[DY]
, cteGRP.[B12] GradingPeriodStartDate, cteGRP.[C12] GradingPeriodDescriptor, [GRD].[M12] CurrentMark
FROM (((([GRD] INNER JOIN [STU] ON [GRD].[SC] = [STU].[SC] And [GRD].[SN] = [STU].[SN]) INNER JOIN [MST] ON
[GRD].[SC] = [MST].[SC] And [GRD].[SE] = [MST].[SE])))) INNER JOIN cteGRP ON [GRD].[SC] = cteGRP.[SC]
INNER JOIN (SELECT [SC], [SN], [SE], Max(DS) As StartDate FROM [CAR] WHERE [DEL] = 0 GROUP BY [SC], [SN],
[SE]) [C] ON [GRD].[SC] = [C].[SC] And [GRD].[SN] = [C].[SN] And [GRD].[SE] = [C].[SE]
WHERE [GRD].[DEL] = 0 And [STU].[DEL] = 0 And [MST].[DEL] = 0 And [GRD].[SC] = @SC And [GRD].[SC] = @SC And
[GRD].[M12] > ' ' AND cteGRP.C12 > ' '
AND [GRD].[DTS] >= @TimeSince

```

MappingCurrentMarkingPeriod

Parent	Properties	Type	Required	Table	Field	Other	Code
\	diagnosticStatement	String	Optional				
\	gradingPeriod Reference	GradingPeriod Reference	Identity				
gradingPeriod Reference	beginDate	Date	Identity	GRP	GRP.B# AS GradingPeriod StartDate		GetNullableDate(s("GradingPeriodStartDate"))
gradingPeriod Reference	descriptor	String	Identity	GRP	GRP.C# AS GradingPeriod Descriptor		GetEdFiCodeValue(GradingPeriodDescriptor, "GRP", "C1", rowGRD!GradingPeriodDescriptor)
gradingPeriod Reference	link	Link	Optional				

gradingPeriod Reference	schoolId	Integer	Identity	GRD	GRD.SC AS SchoolID		GetNullableInteger(s("SC")) For Current School (not District)
\	letterGradeEarned	String	Required	GRP	GRD.M# AS CurrentMark		if IsNumeric(rowGRD!CurrentMark) = false rowGRD!CurrentMark
\	numericGradeEarned	String	Required	GRP	GRD.M# AS CurrentMark		if IsNumeric(rowGRD!CurrentMark) = true rowGRD!CurrentMark
\	performanceBase ConversionType	String	Optional				
\	studentSection Association Reference	StudentSection Association Reference	Identity				
studentSection AssociationReference	beginDate	Date	Identity	CAR	CAR.DS AS StartDate		GetNullableDate(s("StartDate"))
studentSection AssociationReference	classPeriodName	String	Identity	GRD	GRD.PD, MST.BL, MST.DY		GetClassPeriodName(s("PD"), s("BL"), s("DY")) see function below
studentSection AssociationReference	classroom IdentificationCode	String	Identity	MST	MST.RM		GetClassroom IdentificationCode(s("RM")) see function below
studentSection AssociationReference	localCourseCode	String	Identity	GRD	GRD.CN		GetString(s("CN"))
studentSection AssociationReference	schoolId	Integer	Identity	GRD	GRD.SC		GetNullableInteger(s("SC"))
studentSection AssociationReference	schoolYear	Integer	Identity	CAR	CAR.DS AS StartDate		GetSchoolYear(s("StartDate")) see function below
studentSection AssociationReference	sequenceOfCourse	Integer	Identity			Hard code to 1	GetNullableInteger(1)
studentSection AssociationReference	studentUniqueld	String	Identity	STU	STU.ID		GetString(s("ID"))
studentSection AssociationReference	termDescriptor	String	Identity	MST	MST.SM		GetTermDescriptor(rowGRD!SC, rowGRD!SM) see function below
studentSection AssociationReference	uniqueSectionCode	String	Identity	MST	MST.SC & MST.SE		GetUniqueSectionCode(s("SC"), s("SE")) school & "-" & section see function below
\	type	String	Identity			Hard code to "Grading Period"	GetString("Grading Period")

Code

```
Public Shared Function GetClassPeriodName(ByVal period As Integer, ByVal block As Integer, ByVal day As
String) As String

    Return period & (IIf(block > 1, "-" & (period + block - 1), "")) & " " & day    'Examples: "1 MTWTF", "2-
3 MTWTF", "5 MW", "6 A-DAYS"

End Function

Public Shared Function GetClassroomIdentificationCode(ByVal room As String) As String

    Return IIf(String.IsNullOrEmpty(room), "Unassigned", room)

End Function

Public Shared Function GetSchoolYear(ByVal SchoolDate As String) As Integer?

    Dim schoolYear As Integer? = Nothing
    Dim schoolDateValue As Date

    If Date.TryParse(SchoolDate, schoolDateValue) Then
        schoolYear = EdFiV2Functions.GetSchoolYearFromDate(schoolDateValue)
    End If

    Return schoolYear

```

```

Public Shared Function GetSchoolYearFromDate(ByVal SchoolDate As Date) As Integer

    ' Ed-Fi sometimes uses a single year as 'school year'. It's actually, just the end year of a full school
    year in the form YYYY-YYYY
    Return GetEndYear(SchoolDate)

End Function

Public Shared Function GetEndYear(ByVal startDate As Date) As Integer

    Dim endYear As Integer = Nothing
    Dim startMonth As Integer = Month(startDate)

    If startMonth >= 7 Then                ' July-Dec = "this year" (i.e. 9/1/2012 = 2012-2013, so 2013)
        endYear = Year(startDate) + 1
    Else ' startMonth < 7                  ' Jan-June = "last year" (i.e. 3/1/2012 = 2011-2012, so 2012)
        endYear = Year(startDate)
    End If

    Return endYear

End Function

Public Shared Function GetTermDescriptor(ByVal SC As Integer, ByVal TM As String, ByVal ConnectionString As
String) As String

    Select Case TM
        Case "Y"
            Return "Year Round"
        Case "S"
            Return "Spring Semester"
        Case "F"
            Return "Fall Semester"
    End Select

    If Trimester(SC, ConnectionString) Then
        Select Case TM
            Case "1"
                Return "First Trimester"
            Case "2"
                Return "Second Trimester"
            Case "3"
                Return "Third Trimester"
        End Select
    Else
        Select Case TM
            Case "1"
                Return "First Quarter"
            Case "2"
                Return "Second Quarter"
            Case "3"
                Return "Third Quarter"
            Case "4"
                Return "Fourth Quarter"
        End Select
    End If

    Return TM

End Function

Public Shared Function GetUniqueSectionCode(ByVal school As String, ByVal section As String) As String

    Return school & "-" & section

End Function

```

