namespace Calculation {

public static class PrebuiltExampleCases {

#region Common Methods

public static ExampleCases ExamplesCases( StudyModule module ) {

ExampleCases cases = new ExampleCases();

switch( module ) {

case StudyModule.ChestPain:

cases.Add(ChestPainExample1());

cases.Add(ChestPainExample2());

break;

case StudyModule.PediatricDyspnea:

cases.Add(PediatricDyspneaExample1());

break;

default: throw new ArgumentOutOfRangeException("module", module, "The Study Module was not recognized.");

}

return cases;

}

#endregion

#region Chest Pain Examples

public static ExampleCase ChestPainExample1( ) {

const StudyModule module = StudyModule.ChestPain;

const string shortDescription = "Not too shabby Male";

const string longDescription = "The 35 male patient reported back pain, but no fever. The two diagnoses being considered are Pneumonia (on the left side of the beam) and Pneumothorax (on the right).";

const byte diagnosis1ID = (byte)ChestPainDiagnosis.Pneum;

const byte diagnosis2ID = (byte)ChestPainDiagnosis.Ptx;

BeamDataSet.tblChestPainDataTable dtSensitivities = (BeamDataSet.tblChestPainDataTable)DataManager.ChooseCorrectTable(module);

ExampleCase exampleCase = new ExampleCase(shortDescription, longDescription, diagnosis1ID, diagnosis2ID, dtSensitivities, module);

exampleCase.Add(new Result(dtSensitivities.Over40Column, false));//Feature: This person is NOT over 40 years old.

exampleCase.Add(new Result(dtSensitivities.MaleColumn, true));//Feature: This person is male.

exampleCase.Add(new Result(dtSensitivities.LocationBackColumn, true));//Feature: Back pain.

exampleCase.Add(new Result(dtSensitivities.VitalSignsFeverColumn, false));//Feature: NO Fever.

return exampleCase;

}

public static ExampleCase ChestPainExample2( ) {

const StudyModule module = StudyModule.ChestPain;

const string shortDescription = "Not too shabby Female";

const string longDescription = "The 53 female patient reported back pain, but no fever. The two diagnoses being considered are Myocardial Infarction (on the left side of the beam) and Upper GI (on the right).";

const byte diagnosis1ID = (byte)ChestPainDiagnosis.Mi;

const byte diagnosis2ID = (byte)ChestPainDiagnosis.Ugi;

BeamDataSet.tblChestPainDataTable dtSensitivities = (BeamDataSet.tblChestPainDataTable)DataManager.ChooseCorrectTable(module);

ExampleCase exampleCase = new ExampleCase(shortDescription, longDescription, diagnosis1ID, diagnosis2ID, dtSensitivities, module);

exampleCase.Add(new Result(dtSensitivities.Over40Column, true));//Feature: This person is over 40 years old.

exampleCase.Add(new Result(dtSensitivities.MaleColumn, false));//Feature: This person is NOT male (ie, female)

exampleCase.Add(new Result(dtSensitivities.LocationBackColumn, true));//Feature: Back pain.

exampleCase.Add(new Result(dtSensitivities.VitalSignsFeverColumn, false));//Feature: NO Fever.

return exampleCase;

}

#endregion

#region Pediatric Dyspnea Examples

public static ExampleCase PediatricDyspneaExample1( ) {

const StudyModule module = StudyModule.PediatricDyspnea;

const string shortDescription = "Bad news bear";

const string longDescription = "The 7 year old male patient reported back pain, but no fever. The two diagnoses being considered are Bpn (on the left side of the beam) and Epig (on the right).";

const byte diagnosis1ID = (byte)PediatricDyspnea.Bpn;

const byte diagnosis2ID = (byte)PediatricDyspnea.Epig;

BeamDataSet.tblPediatricDyspneaDataTable dtSensitivities = (BeamDataSet.tblPediatricDyspneaDataTable)DataManager.ChooseCorrectTable(module);

ExampleCase exampleCase = new ExampleCase(shortDescription, longDescription, diagnosis1ID, diagnosis2ID, dtSensitivities, module);

exampleCase.Add(new Result(dtSensitivities.PhysicalTempAbove102Column, true));//Feature: high temp

exampleCase.Add(new Result(dtSensitivities.HistoryUnder12MonthsOldColumn, true));//Feature: under 12

exampleCase.Add(new Result(dtSensitivities.LabNeckXrayThumbSignColumn, true));//Feature: whatever this is.

exampleCase.Add(new Result(dtSensitivities.HistoryCoughWorseAtNightColumn, false));//Feature: coughing is NOT worse at night.

return exampleCase;

}

**public static ExampleCase ReplaceThisWithANewDyspneaExample( ) {**

**const StudyModule module = StudyModule.PediatricDyspnea;**

**const string shortDescription = "Add a short description (~5-10 words)";**

**const string longDescription = "Add a long description (a few sentences)";**

**const byte diagnosis1ID = (byte)PediatricDyspnea.Bpn; //Replace with Dx1**

**const byte diagnosis2ID = (byte)PediatricDyspnea.Epig; //Replace with Dx2**

**BeamDataSet.tblPediatricDyspneaDataTable dtSensitivities = (BeamDataSet.tblPediatricDyspneaDataTable)DataManager.ChooseCorrectTable(module);**

**ExampleCase exampleCase = new ExampleCase(shortDescription, longDescription, diagnosis1ID, diagnosis2ID, dtSensitivities, module);**

**//Add a new line for each feature; after each feature, type a “//” and add a short comment.**

**// To get the names of the features, start the program and look at the list in the right panel.**

**exampleCase.Add(new Result(dtSensitivities.PhysicalTempAbove102Column, true));//Feature: high temp**

**exampleCase.Add(new Result(dtSensitivities.HistoryUnder12MonthsOldColumn, true));//Feature: under 12**

**exampleCase.Add(new Result(dtSensitivities.LabNeckXrayThumbSignColumn, true));//Feature: whatever this is.**

**exampleCase.Add(new Result(dtSensitivities.HistoryCoughWorseAtNightColumn, false));//Feature: coughing is NOT worse at night.**

**return exampleCase;**

**}**

#endregion

}

}

//Abbreviations for diagnoses  
public enum ChestPainDiagnosis : byte {

Mi = 1,//make sure these values match the primary key value set in the Singleton's LoadData function.

Ang = 2,

Taa = 3,

Peri = 4,

Ugi = 5,

Pneum = 6,

Ptx = 7,

Musc = 8,

Pe = 9,

MAX = 9,

}

public enum PediatricDyspnea : byte {

Crp = 1,//make sure these values match the primary key value set in the Singleton's LoadData function.

Bron = 2,

Vpn = 3,

Bpn = 4,

Ast = 5,

Fb = 6,

Epig = 7,

MAX = 7,

}