Team Big Data

U-tification

Software Bill of Materials

Date: 12/10/2022

Team Leader: Joseph Armas

Team Members: Joshua Gherman

Rhoy Oviedo

Frank Curry

Ghabrille Ampo

David DeGirolamo

Git Repository: https://github.com/JosephArmas/cecs-491A-Team-Big-Data

Integrated Development Environment

Technology

a. Microsoft Visual Studio Community 2022
b. Jetbrains Rider 2022.2.4
c. Visual Studio Code 1.73.1

BackEnd

Technology

a. .NET (runtime) 6.0
   i. System 4.3.0
   ii. System.Collections.Generic 4.3.0
   iii. System.Linq 4.3.0
   iv. System.Text 4.3.0
   v. System.Threading.Task 4.3.0
   vi. System.Data.Common 4.3.0
   vii. System.Diagnostic 4.3.0
   viii. System.Security.Cryptography 4.3.0
   ix. System.Security.Principal 4.3.0
   x. NETStandard.Library 2.0.3
   xi. System.Collections 4.3.0
   xii. System.Collections.Concurrent 4.3.0
   xiii. System.Collections.Immutable 7.0.0
   xiv. System.Collections.NonGeneric 4.3.0
   xv. System.Collections.Specialized 4.3.0
   xvi. System.ComponentModel 4.3.0
   xvii. System.ComponentModel.Annotations 6.0.0
   xviii. System.ComponentModel.EventBasedAsync 4.3.0
   xix. System.ComponentModel.Primitives 4.3.0
   xx. System.ComponentModel.TypeConverter 4.3.0
   xxi. System.Configurations 7.0.0

xxii.	System.Console 4.3.1
xxiii.	System.Data.Common 4.3.0
xxiv.	System.Data.DataSetExtensions 4.6.0
xxv.	System.Diagnostics.Contracts 4.3.0
xxvi.	System.Diagnostics.Debug 4.3.0
xxvii.	System.Diagnostics.DiagnosticsSource 7.0.0
xxviii.	System.Diagnostics.EventLog 7.0.0
xxix.	System.Diagnostics.FileVersionInfo 4.3.0
xxx.	System.Diagnostics.Process 4.3.0
xxxi.	System.Diagnostics.StackTrace 4.3.0
xxxii.	System.Diagnostics.TextWriterTraceListener 4.3.0
xxxiii.	System.Diagnostics.Tools 4.3.0
xxxiv.	System.Diagnostics.TraceSource 4.3.0
xxxv.	System.Diagnostics.Tracing 4.3.0
xxxvi.	System.Drawing.Common 7.0.0
xxxvii.	System.Drawing.Primitives 7.0.0
xxxviii.	System.Formats.Asn1 7.0.0
xxxix.	System.Globalization 4.3.0
xl.	System.Globalization.Calendars 4.3.0
xli.	System.Globalization.Extensions 4.3.0
xlii.	System.IO 4.3.0
xliii.	System.IO.Compression 4.3.0
xliv.	System.IO.Compression.FileSystem 4.3.0
xlv.	System.IO.Compresion.ZipFile 4.3.0
xlvi.	System.IO.FileSystem 4.3.0
xlvii.	System.IO.FileSystem.AccessControl 6.0.0
xlviii.	System.IO.FileSystem.DriveInfo 4.3.1
xlix.	System.IO.Filesystem.Primitives 4.3.0
l.	System.IO.Watcher 4.3.0
li.	System.IO.IsolatedStorage 4.3.0
lii.	System.IO.MemoryMappedFiles 4.3.0
liii.	System.IO.Pipelines 7.0.0
liv.	System.IO.Pipes 4.3.0
lv.	System.IO.Pipes.AccessControl 6.0.0
lvi.	System.IO.UnmanagedMemoryStream 4.3.0
lvii.	System.Linq 4.3.0
lviii.	System.Linq.Expressions 4.3.0
lix.	System.Linq.Parallel 4.3.0
lx.	System.Linq.Queryable 4.3.0

lxi.	System.Memory 4.5.5
lxii.	System.Net.Http 4.3.4
lxiii.	System.Net.Json 7.0.0
lxiv.	System.Net.NameResolution 4.3.0
lxv.	System.Net.NetworkInformation 4.3.0
lxvi.	System.Net.Ping 4.3.0
lxvii.	System.Net.Primitives 4.3.1
lxviii.	System.Net.Requests 4.3.0
lxix.	System.Net.Security 4.3.2
lxx.	System.Net.Sockets 4.3.0
lxxi.	System.Net.WebSockets.WebClient 4.3.2
lxxii.	System.Net.WebHeaderCollections 4.3.0
lxxiii.	System.Net.WebSockets 4.3.0
lxxiv.	System.Net.WebSockets.Client 4.3.2
lxxv.	SystemNumerics.Vectors 4.5.0
lxxvi.	System.ObjectModel 4.3.0
lxxvii.	System.Reflection 4.3.0
lxxviii.	System.Reflection.DispatchProxy 5.0.0
lxxix.	System.Reflection.Emit 4.7.0
lxxx.	System.Reflection.Emit.ILGeneration 4.7.0
lxxxi.	System.Emit.Lightweight 4.7.0
lxxxii.	System.Reflection.Extensions 4.3.0
lxxxiii.	System.Reflection.Metadata 7.0.0
lxxxiv.	System.Reflection.Primitives 4.3.0
lxxxv.	System.Reflection.TypeExtensions 4.7.0
lxxxvi.	System.Resources.Reader 4.3.0
lxxxvii.	System.Resources.ResourceManager 4.3.0
lxxxviii.	System.Resources.Writer 4.3.0
lxxxix.	System.Runtime 4.3.1
xc.	System.Runtime.CompilerServices.Unsafe 7.0.0
xci.	System.RuntimeCompilerServices.VisualC 4.3.0
xcii.	System.Runtime.Extensions 4.3.1
xciii.	System.Runtime.Handles 4.3.0
xciv.	System.Runtime.InteropServices 4.3.0
xcv.	System.Runtime.InteropServices.RuntimeInformation 4.3.0
xcvi.	System.Runtime.Loader 4.3.0
xcvii.	System.Runtime.Numerics 4.3.0
xcviii.	System.Runtime.Serialization 7.0.0
xcix.	System.Runtime.Serialization.Formatters 4.3.0

c.	System.Runtime.Serialization.Json 4.3.0
ci.	System.Runtime.Serialization.Primitive 4.3.0
cii.	System.Runtime.Serialization.Xml 4.3.0
ciii.	System.Security.AccessControl 6.0.2
civ.	System.Security.Claims 4.3.0
cv.	System.Security.Cryptography.Algorithms 4.3.1
cvi.	System.Security.Cryptography.Cng 6.0.0
cvii.	System.Security.Cryptography.Csp 6.0.0
cviii.	System.Security.Cryptography.Encoding 4.3.0
cix.	System.Security.Cryptography.OpenSsl 6.0.0
cx.	System.Security.Cryptography.Primitives 4.3.0
cxi.	System.Security.Cryptography.X509Certificates 4.3.2
cxii.	System.Security.Cryptography.Xml 7.0.0
cxiii.	System.Security.Principal.Windows 6.0.0
cxiv.	System.Security.SecureString 4.3.0
cxv.	System.ServiceProcess.ServiceController 7.0.0
cxvi.	System.Text.Encoding 4.3.0
cxvii.	System.Text.Encoding.CodePages 7.0.0
cxviii.	System.Text.Encoding.Extensions 4.3.0
cxix.	System.Text.Encoding.Web 7.0.0
cxx.	System.Text.Json 7.0.0
cxxi.	System.Text.RegularExpressions 4.3.1
cxxii.	System.Threading 4.3.0
cxxiii.	System.Threading.Channels 7.0.0
cxxiv.	System.Threading.Overlapped 4.3.0
cxxv.	System.Threading.Tasks 4.3.0
cxxvi.	System.Threading.Tasks.Dataflow 7.0.0
cxxvii.	System.Threading.Tasks.Extensions 4.5.4
cxxviii.	System.Threading.Tasks.Parallel 4.3.0
cxxix.	System.Threading.Thread 4.3.0
cxxx.	System.Threading.ThreadPool 4.3.0
cxxxi.	System.Threading.Timer 4.3.0
cxxxii.	System.Xml.ReaderWriter 4.3.1
cxxxiii.	System.Xml.XDocument 4.3.0
cxxxiv.	System.Xml.XmlDocument 4.3.0
cxxxv.	System.Xml.XmlSerializer 4.3.0
cxxxvi.	System.Xml.XPath 4.3.0
cxxxvii.	System.Xml.XPath.XDocument 4.3.0

b. .NET SDK 6.01

c. ASP.NET CORE 6.0
 i. Microsoft.AspNetCore 2.2.0
 ii. Microsoft.AspNetCore.Antiforgery 2.2.0
 iii. Microsoft.AspNetCore.Authentication 2.2.0
 iv. Microsoft.AspNetCore.Authentication.Abstractions 2.2.0
 v. Microsoft.AspNetCore.Authentication.Cookies 2.2.0
 vi. Microsoft.AspNetCore.Authentication.Core 2.2.0
 vii. Microsoft.AspNetCore.OAuth 2.2.0
 viii. Microsoft.AspNetCore.Authorization 7.0
 ix. Microsoft.AspNetCore.Authorization.Policy 2.2.0
 x. Microsoft.AspNetCore.Components 7.0
 xi. Microsoft.AspNetCore.Components.Authorization 7.0
 xii. Microsoft.AspNetCore.Components.Forms 7.0
 xiii. Microsoft.AspNetCore.Components.Server 7.0
 xiv. Microsoft.AspNetCore.Components.Web 7.0
 xv. Microsoft.AspNetCore.Connections.Abstractions 7.0
 xvi. Microsoft.AspNetCore.CookiePolicy 2.2.8
 xvii. Microsoft.AspNetCore.Cors 2.2.0
 xviii. Microsoft.AspNetCore.Cryptography.Internal 7.0.0
 xix. Microsoft.AspNetCore.Cryptogrpahy.Key 7.0.0
 xx. Microsoft.AspNetCore.DataProtection 7.0.0
 xxi. Microsoft.AspNetCore.DataProtection.Abstractions 2.2.0
 xxii. Microsoft.AspNetCore.Dataprotection.Extensions 7.0.0
 xxiii. Microsoft.AspNetCore.Diagnostics 2.2.0
 xxiv. Microsoft.AspNetCore.Diagnostics.HealthChecks 2.2.0
 xxv. Microsoft.AspNetCore.HostFiltering 2.2.0
 xxvi. Microsoft.AspNetCore.Hosting 2.2.7
 xxvii. Microsoft.AspNetCore.Hosting.Abstractions 2.2.0
 xxviii. Microsoft.AspNetCore.Hosting.Server.Abstractions 2.2.0
 xxix. Microsoft.AspNetCore.Html.Abstractions 2.2.0
 xxx. Microsoft.AspNetCore.Http 2.2.2
 xxxi. Microsoft.AspNetCore.Http.Abstractions 2.2.0
 xxxii. Microsoft.AspNetCore.Http.Connections 1.1.0
 xxxiii. Microsoft.AspNetCore.Http.Connections.Common 7.0.0
 xxxiv. Microsoft.AspNetCore.Http.Extensions 2.2.0
 xxxv. Microsoft.AspNetCore.Http.Features 6.0.0
 xxxvi. Microsoft.AspNetCore.HttpOverrides 2.2.0
 xxxvii. Microsoft.AspNetCore.HttpsPolicy 2.2.0
 xxxviii. Microsoft.AspNetCore.Identity 2.2.0

xxxix.	Microsoft.AspNetCore.Localization 2.2.0
xl.	Microsoft.AspNetCore.Localization.Routing 2.2.0
xli.	Microsoft.AspNetCore.Metadata 7.0.0
xlii.	Microsoft.AspNetCore.Mvc 2.2.0
xliii.	Microsoft.AspNetCore.Mvc.Abstractions 2.2.0
xliv.	Microsoft.AspNetCore.Mvc.ApiExplorer 2.2.0
xlv.	Microsoft.AspNetCore.Mvc.Core 2.2.5
xlvi.	Microsoft.AspNetCore.Mvc.Cors 2.2.0
xlvii.	Microsoft.AspNetCore.Mvc.DataAnnotations 2.2.0
xlviii.	Microsoft.AspNetCore.Mvc.Formatters.Json 2.2.0
xlix.	Microsoft.AspNetCore.Mvc.Formatters.Xml 2.2.0
l.	Microsoft.AspNetCore.Mvc.Localization 2.2.0
li.	Microsoft.AspNetCore.Mvc.Razor 2.2.0
lii.	Microsoft.AspNetCore.Mvc.RazorPages 2.2.5
liii.	Microsoft.AspNetCore.Mvc.TagHelpers 2.2.0
liv.	Microsoft.AspNetCore.Mvc.ViewFeatures 2.2.0
lv.	Microsoft.AspNetCore.Razor 2.2.0
lvi.	Microsoft.AspNetCore.Razor.Runtime 2.2.0
lvii.	Microsoft.AspNetCore.ResponseCaching 2.2.0
lviii.	Microsoft.AspNetCore.ResponseCaching.Abstractions 2.2.0
lix.	Microsoft.AspNetCore.ResponseCachingCompression 2.2.0
lx.	Microsoft.AspNetCore.Rewrite 2.2.0
lxi.	Microsoft.AspNetCore.Routing 2.2.2
lxii.	Microsoft.AspNetCore.Routing.Abstractions 2.2.0
lxiii.	Microsoft.AspNetCore.Sever.HttpSys 2.2.6
lxiv.	Microsoft.AspNetCore.Sever.IIs 2.2.6
lxv.	Microsoft.AspNetCore.Sever.IISIntegreation 2.2.1
lxvi.	Microsoft.AspNetCore.Sever.Kestrel 2.2.0
lxvii.	Microsoft.AspNetCore.Sever.Kestrel.Core 2.2.0
lxviii.	Microsoft.AspNetCore.Sever.Kestrel.Transport.Quic 6.0.0
lxix.	Microsoft.AspNetCore.Sever.Kestrel.Transport.Sockets 2.2.1
lxx.	Microsoft.AspNetCore.Session 2.2.0
lxxi.	Microsoft.AspNetCore.SignalR 1.0.0
lxxii.	Microsoft.AspNetCore.SigalR.Common 7.0.0
lxxiii.	Microsoft.AspNetCore.SignalR.Core 1.1.0
lxxiv.	Microsoft.AspNetCore.SignalR.Protocols.Json 7.0.0
lxxv.	Microsoft.AspNetCore.StaticFiles 2.2.0
lxxvi.	Microsoft.AspNetCore.WebSockets 2.2.1
lxxvii.	Microsoft.AspNetCore.WebUtilities 2.2.0

lxxviii.	Microsoft.CSharp 4.7.0
lxxix.	Microsoft.Extensions.Caching.Abstractions 7.0.0
lxxx.	Microsoft.Extensions.Caching.Memory 7.0.0
lxxxi.	Microsoft.Extensions.Configuration 7.0.0
lxxxii.	Microsoft.Extensions.Configuration.Abstractions 7.0.0
lxxxiii.	Microsoft.Extensions.Configuration.Binder 7.0.0
lxxxiv.	Microsoft.Extensions.Configuration.EnvironementVariables 7.0.0
lxxxv.	Microsoft.Extensions.Configuration.FileExtensions7.0.0
lxxxvi.	Microsoft.Extensions.Configuration.Ini 7.0.0
lxxxvii.	Microsoft.Extensions.Configuration.Json 7.0.0
lxxxviii.	Microsoft.Extensions.Configuration.KeyPerFile 7.0.0
lxxxix.	Microsoft.Extensions.Configuration.UserSecrets 7.0.0
xc.	Microsoft.Extensions.Configuration.Xml 7.0.0
xci.	Microsoft.Extensions.DependencyInjection 7.0.0
xcii.	Microsoft.Extensions.DependencyInjections.Abstractions 7.0.0
xciii.	Microsoft.Extensions.Diagnostics.HealthChecks 7.0.0
xciv.	Microsoft.Extensions.Diagnostics.HealthChecks.Abstractions 7.0.0
xcv.	Microsoft.Extensions.Features 7.0.0
xcvi.	Microsoft.Extensions.FileProviders.Abstractions 7.0.0
xcvii.	Microsoft.Extensions.FileProviders.Composite 7.0.0
xcviii.	Microsoft.Extensions.FileProviders.Embedded 7.0.0
xcix.	Microsoft.Extensions.FileProviders.Physical 7.0.0
c.	Microsoft.Extensions.FileSystemGlobbing 7.0.0
ci.	Microsoft.Extensions.Hosting 7.0.0
cii.	Microsoft.Extensions.Hosting.Abstractions 7.0.0
ciii.	Microsoft.Extensions.Http 7.0.0
civ.	Microsoft.Extensions.Identity.Core 7.0.0
cv.	Microsoft.Extensions.Identity.Stores 7.0.0
cvi.	Microsoft.Extensions.Localization 7.0.0
cvii.	Microsoft.Extensions.Localization.Abstractions 7.0.0
cviii.	Microsoft.Extensions.Logging 7.0.0
cix.	Microsoft.Extensions.Logging.Abstractions 7.0.0
cx.	Microsoft.Extensions.Logging.Configuration 7.0.0
cxi.	Microsoft.Extensions.Logging.Console 7.0.0
cxii.	Microsoft.Extensions.Logging.Debug 7.0.0
cxiii.	Microsoft.Extensions.Logging.EventLog 7.0.0
cxiv.	Microsoft.Extensions.Logging.EventSource 7.0.0
cxv.	Microsoft.Extensions.Logging.TraceSource 7.0.0
cxvi.	Microsoft.Extensions.ObjectPool 7.0.0

cxvii.   Microsoft.Extensions.Options 7.0.0
cxviii.   Microsoft.Extensions.Options.ConfigurationsExtensions 7.0.0
cxix.   Microsoft.Extensions.Options.DataAnnotations 7.0.0
cxx.   Microsoft.Extensions.Primitives 7.0.0
cxxi.   Microsoft.Extensions.WebEncoders 7.0.0
cxxii.   Microsoft.JSInterop 7.0.0
cxxiii.   Microsoft.Net.Http.Headers 2.2.8
cxxiv.   Microsoft.VisualBasic 10.4.0
cxxv.   Microsoft.Win32.Primitives 4.3.0
cxxvi.   Microsoft.Win32.Registry 6.0.0

d. NuGet 6.3.1
   i. Microsoft.Data.SqlClient 5.0.1
   ii. Microsoft.Identity.Client 4.45.0
   iii. Microsoft.VisualStudio.TestTools.UnitTesting.Logging 1.0.0
   iv. MySql.Data.MySqlClient 8.0.31
   v. Mscorlib 1.0.1
   vi. System.Core 3.5.21022.801
   vii. System.ServiceModel.Web 1.0.0
   viii. System.Xml.Linq 3.4.21022.801

Languages

Technology

a. HTML 5.0
b. CSS 3.0
c. JavaScript 6.0
d. C# 10
e. ECMASCRIPT 11
f. TypeScript 4.9.3

DataStore

Technology

    a. Microsoft Sql Server Management Studio 2019
    b. Microsoft Sql Server 2019

Web Server

Technology

    a. IIS Windows Server 10
    b. Windows Server 2022

Web Browser

Technology	Version
a. Google Chrome	a. 102.0.5005.189

Cloud

Technology

- Amazon Web Service EC2 instance
  - Windows Server 2022
  - T2.micro
  - 1Gb memory
  - 30gb storage
  - Ip 10.30.2.2 (publicly accessible)
- Relational Database Service
  - Microsoft SQL Server 2019
  - Db.m6i.xlarge
  - 4 vCPU
  - 16gb ram
  - 200gb storage
  - Ip 10.30.1.2 (not publicly accessible)

Map API

Technology
a. Waiting for dar report approval