

# KPMVCWebAPIs

Sunday, May 26, 2019 10:39 AM

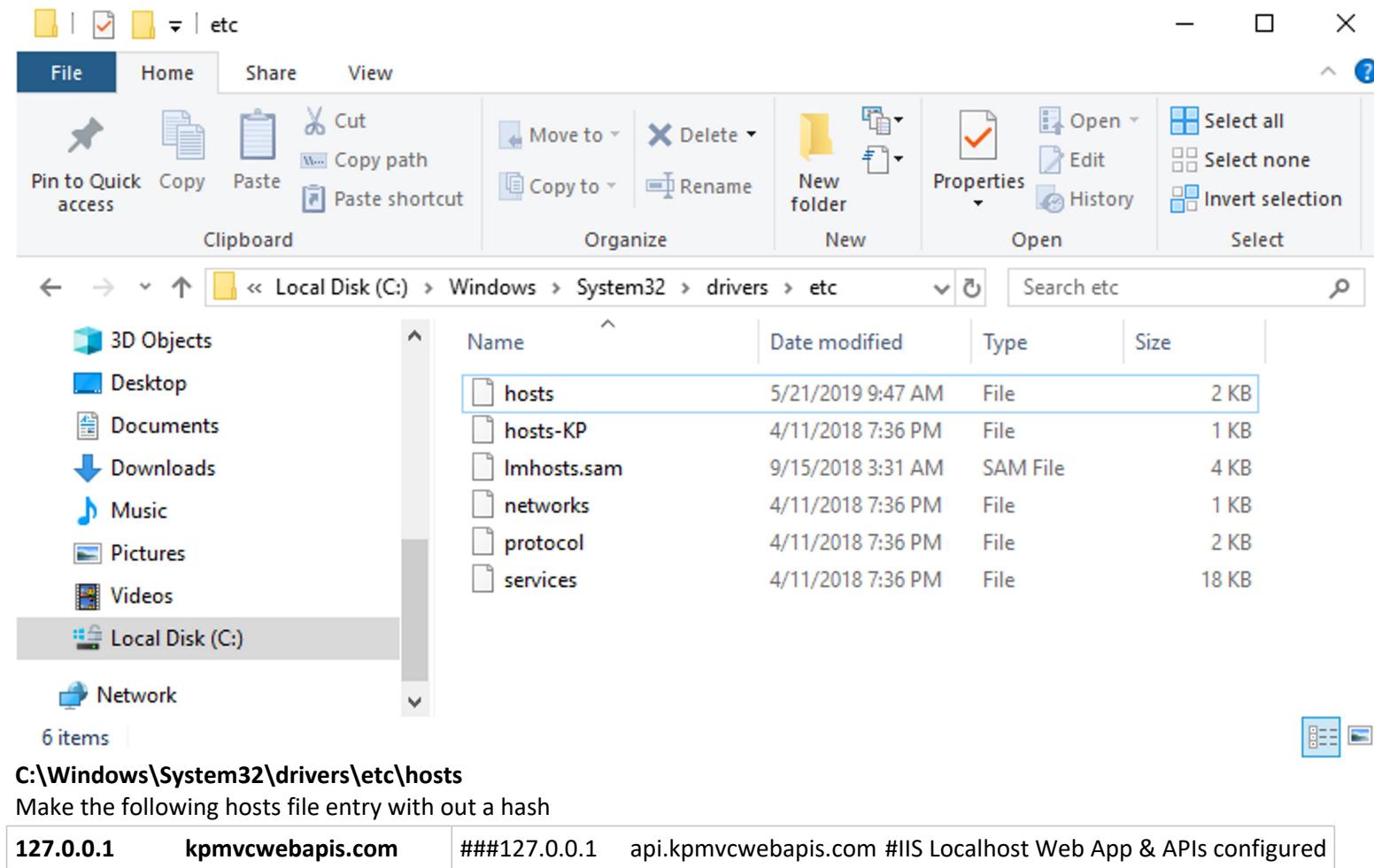
## KPMVCWebAPIs

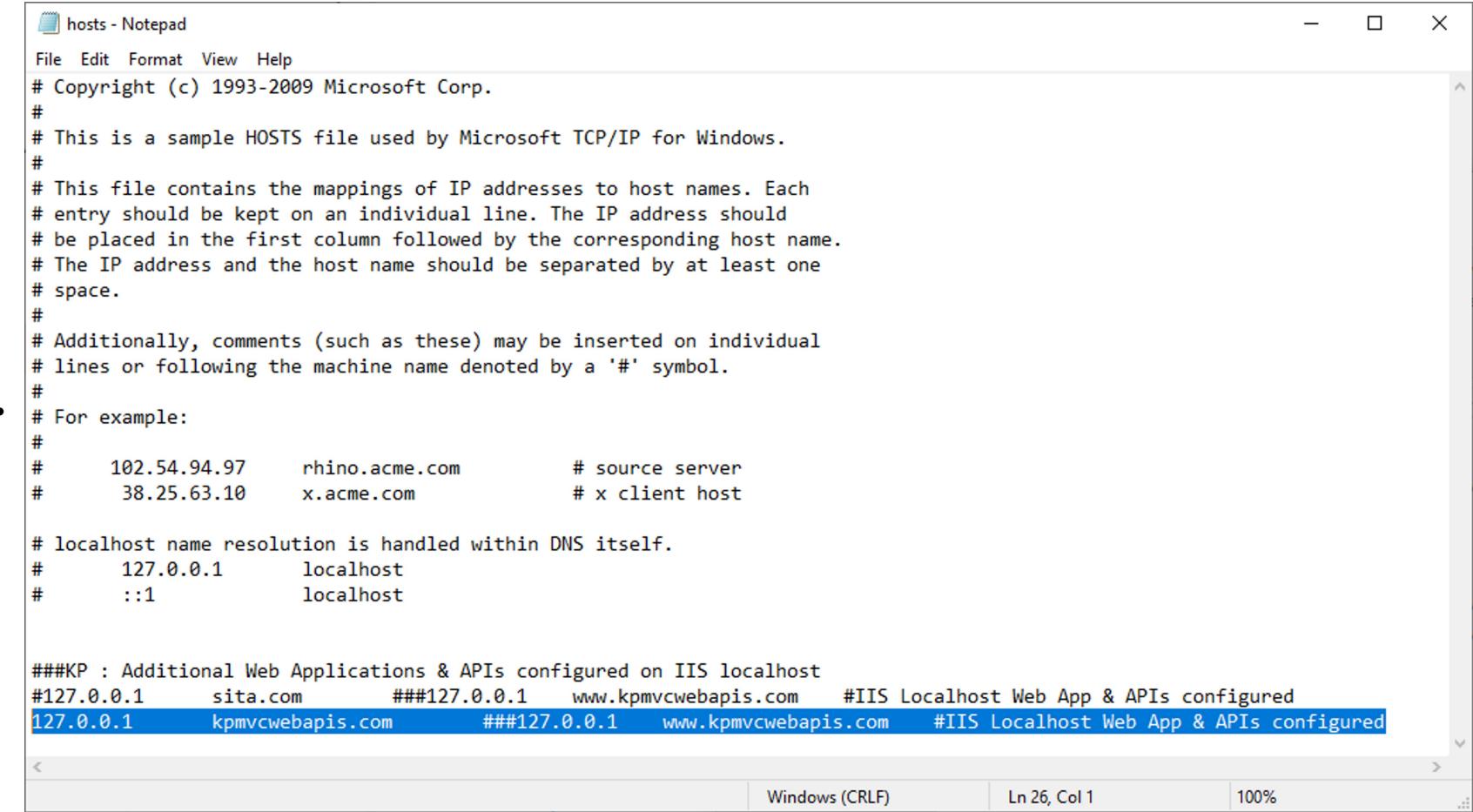
MVC Web-Site (or) MVC REST APIs can be hosted on IIS, the process consists of the following three steps.

- Application Pools : Setting-up Application Pools, so that Web-APIs layer can communicate with the backend database.
- Hosts File: Making hosts file entries with the IP Addresses and Physical URL paths.
- Virtual Directory : Creating a virtual directory on IIS and/or publishing the Web Site on IIS.

### Hosts File Entry :

- Every Web-site needs a host file entry.
- A 'hosts' file maps a specific 'IP Address" with a corresponding WebSite/WebAPP/WebAPIs.
- Open the 'hosts' file as in 'administrator' mode.
- Folder path for 'hosts' file location : C:\Windows\System32\drivers\etc\hosts





The screenshot shows a Notepad window with the title "hosts - Notepad". The window contains the standard Windows HOSTS file documentation and several entries. The entries include mappings for "rhino.acme.com", "x.acme.com", "localhost", and "kpmvcwebapis.com". The last two entries are highlighted in blue, indicating they are being edited or selected. The status bar at the bottom shows "Windows (CRLF)", "Ln 26, Col 1", and "100%".

```
# Copyright (c) 1993-2009 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
• # For example:
#
#      102.54.94.97      rhino.acme.com      # source server
#      38.25.63.10      x.acme.com          # x client host

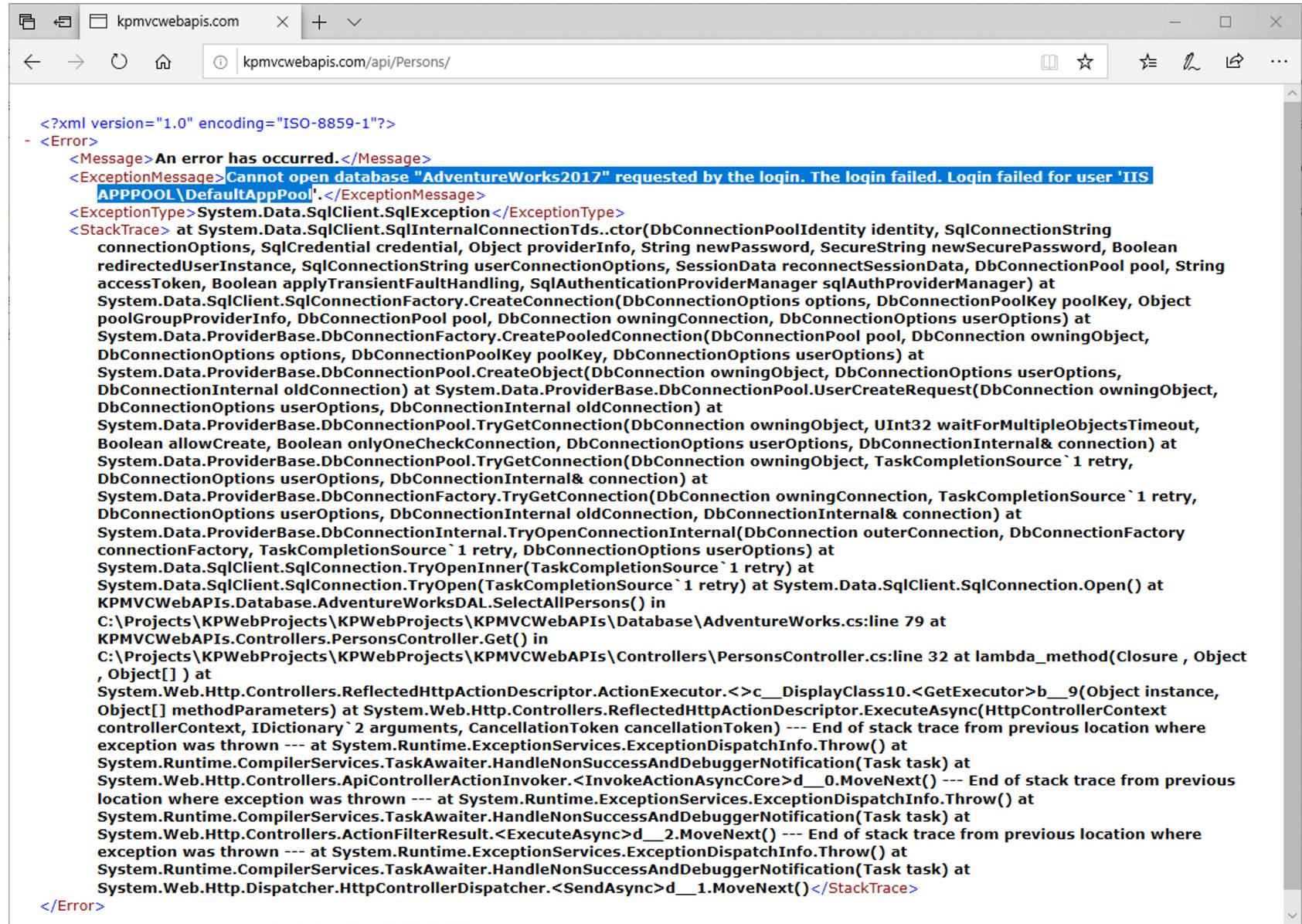
# localhost name resolution is handled within DNS itself.
#      127.0.0.1      localhost
#      ::1              localhost

####KP : Additional Web Applications & APIs configured on IIS localhost
#127.0.0.1      sita.com      ###127.0.0.1      www.kpmvcwebapis.com      #IIS Localhost Web App & APIs configured
127.0.0.1      kpmvcwebapis.com      ###127.0.0.1      www.kpmvcwebapis.com      #IIS Localhost Web App & APIs configured
```

#### Application Pools :

##### Default App Pool Errors :

- KPMVCWebAPIs when connecting to the backend DBs should have the App Pools configured.
- If App Pools have not been configured correctly following errors will be displayed.



The screenshot shows a browser window with the URL `kpmvcwebapis.com/api/Persons/`. The page content is an XML error response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Error>
  <Message>An error has occurred.</Message>
  <ExceptionMessage>Cannot open database "AdventureWorks2017" requested by the login. The login failed. Login failed for user 'IIS APPPOOL\DefaultAppPool'.</ExceptionMessage>
  <ExceptionType>System.Data.SqlClient.SqlException</ExceptionType>
  <StackTrace>
    at System.Data.SqlClient.SqlInternalConnectionTds..ctor(DbConnectionPoolIdentity identity, SqlConnectionString connectionOptions, SqlCredential credential, Object providerInfo, String newPassword, SecureString newSecurePassword, Boolean redirectedUserInstance, SqlConnectionString userConnectionString, SessionData reconnectSessionData, DbConnectionPool pool, String accessToken, Boolean applyTransientFaultHandling, SqlAuthenticationProviderManager sqlAuthProviderManager) at
    System.Data.SqlClient.SqlConnectionFactory.CreateConnection(DbConnectionOptions options, DbConnectionPoolKey poolKey, Object poolGroupProviderInfo, DbConnectionPool pool, DbConnection owningConnection, DbConnectionOptions userOptions) at
    System.Data.ProviderBase.DbConnectionFactory.CreatePooledConnection(DbConnectionPool pool, DbConnection owningObject, DbConnectionOptions options, DbConnectionPoolKey poolKey, DbConnectionOptions userOptions) at
    System.Data.ProviderBase.DbConnectionPool.CreateObject(DbConnection owningObject, DbConnectionOptions userOptions, DbConnectionInternal oldConnection) at System.Data.ProviderBase.DbConnectionPool.UserCreateRequest(DbConnection owningObject, DbConnectionOptions userOptions, DbConnectionInternal oldConnection) at
    System.Data.ProviderBase.DbConnectionPool.TryGetConnection(DbConnection owningObject, UInt32 waitForMultipleObjectsTimeout, Boolean allowCreate, Boolean onlyOneCheckConnection, DbConnectionOptions userOptions, DbConnectionInternal& connection) at
    System.Data.ProviderBase.DbConnectionPool.TryGetConnection(DbConnection owningObject, TaskCompletionSource`1 retry, DbConnectionOptions userOptions, DbConnectionInternal& connection) at
    System.Data.ProviderBase.DbConnectionFactory.TryGetConnection(DbConnection owningConnection, TaskCompletionSource`1 retry, DbConnectionOptions userOptions, DbConnectionInternal oldConnection, DbConnectionInternal& connection) at
    System.Data.ProviderBase.DbConnectionInternal.TryOpenConnectionInternal(DbConnection outerConnection, DbConnectionFactory connectionFactory, TaskCompletionSource`1 retry, DbConnectionOptions userOptions) at
    System.Data.SqlClient.SqlConnection.TryOpenInner(TaskCompletionSource`1 retry) at
    System.Data.SqlClient.SqlConnection.TryOpen(TaskCompletionSource`1 retry) at System.Data.SqlClient.SqlConnection.Open() at
    KPMVCWebAPIs.Database.AdventureWorksDAL.SelectAllPersons() in
    C:\Projects\KPWebProjects\KPWebProjects\KPMVCWebAPIs\Database\AdventureWorks.cs:line 79 at
    KPMVCWebAPIs.Controllers.PersonsController.Get() in
    C:\Projects\KPWebProjects\KPWebProjects\KPMVCWebAPIs\Controllers\PersonsController.cs:line 32 at lambda_method(Closure , Object , Object[] ) at
    System.Web.Http.Controllers.ReflectedHttpActionDescriptor.ActionExecutor.<>c__DisplayClass10.<GetExecutor>b__9(Object instance, Object[] methodParameters) at System.Web.Http.Controllers.ReflectedHttpActionDescriptor.ExecuteAsync(HttpControllerContext controllerContext, IDictionary`2 arguments, CancellationToken cancellationToken) --- End of stack trace from previous location where exception was thrown --- at System.Runtime.ExceptionServices.ExceptionDispatchInfo.Throw() at
    System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at
    System.Web.Http.Controllers.ApiControllerActionInvoker.<InvokeActionAsyncCore>d__0.MoveNext() --- End of stack trace from previous location where exception was thrown --- at System.Runtime.ExceptionServices.ExceptionDispatchInfo.Throw() at
    System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at
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    System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at
    System.Web.Http.Dispatcher.HttpControllerDispatcher.<SendAsync>d__1.MoveNext()</StackTrace>
  </Error>
```

- Default App Pools Error

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Error><Message>An error has occurred.</Message><ExceptionMessage>Cannot open database "AdventureWorks2017" requested by the login. The login failed. Login failed for user 'IIS APPPOOL\DefaultAppPool'.</ExceptionMessage><ExceptionType>System.Data.SqlClient.SqlException</ExceptionType><StackTrace>
  at System.Data.SqlClient.SqlInternalConnectionTds..ctor(DbConnectionPoolIdentity identity, SqlConnectionString connectionOptions, SqlCredential credential, Object providerInfo, String newPassword, SecureString newSecurePassword, Boolean redirectedUserInstance, SqlConnectionString userConnectionString, SessionData reconnectSessionData, DbConnectionPool pool, String accessToken, Boolean applyTransientFaultHandling, SqlAuthenticationProviderManager sqlAuthProviderManager) at
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  System.Data.ProviderBase.DbConnectionInternal.TryOpenConnectionInternal(DbConnection outerConnection, DbConnectionFactory connectionFactory, TaskCompletionSource`1 retry, DbConnectionOptions userOptions) at
  System.Data.SqlClient.SqlConnection.TryOpenInner(TaskCompletionSource`1 retry) at
  System.Data.SqlClient.SqlConnection.TryOpen(TaskCompletionSource`1 retry) at System.Data.SqlClient.SqlConnection.Open() at
  KPMVCWebAPIs.Database.AdventureWorksDAL.SelectAllPersons() in
  C:\Projects\KPWebProjects\KPWebProjects\KPMVCWebAPIs\Database\AdventureWorks.cs:line 79 at
  KPMVCWebAPIs.Controllers.PersonsController.Get() in
  C:\Projects\KPWebProjects\KPWebProjects\KPMVCWebAPIs\Controllers\PersonsController.cs:line 32 at lambda_method(Closure , Object , Object[] ) at
  System.Web.Http.Controllers.ReflectedHttpActionDescriptor.ActionExecutor.<>c__DisplayClass10.<GetExecutor>b__9(Object instance, Object[] methodParameters) at System.Web.Http.Controllers.ReflectedHttpActionDescriptor.ExecuteAsync(HttpControllerContext controllerContext, IDictionary`2 arguments, CancellationToken cancellationToken) --- End of stack trace from previous location where exception was thrown --- at System.Runtime.ExceptionServices.ExceptionDispatchInfo.Throw() at
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  System.Web.Http.Dispatcher.HttpControllerDispatcher.<SendAsync>d__1.MoveNext()</StackTrace>
</Error>
```

```
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poolGroupProviderInfo, DbConnectionPool pool, DbConnection owningConnection, DbConnectionOptions userOptions) at
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\AdventureWorks.cs:line 79 at KPMVCWebAPIs.Controllers.PersonsController.Get() in C:\Projects\KPWebProjects\KPWebProjects\KPMVCWebAPIs
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System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at
System.Web.Http.Dispatcher.HttpControllerDispatcher.<SendAsync>d__1.MoveNext()</StackTrace>
```

#### **Fixing Default App Pool Errors :**

- Open IIS Manager by typing the command in the run console -> inetmgr
- IIS Manager -> Application Pools

Internet Information Services (IIS) Manager

SITA > Application Pools

File View Help

Connections

SITA (SITA\admin)

Application Pools

Sites

Default Web Site

KPMVCWebAPIs

Application Pools

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

Filter: Show All Group by: No Grouping

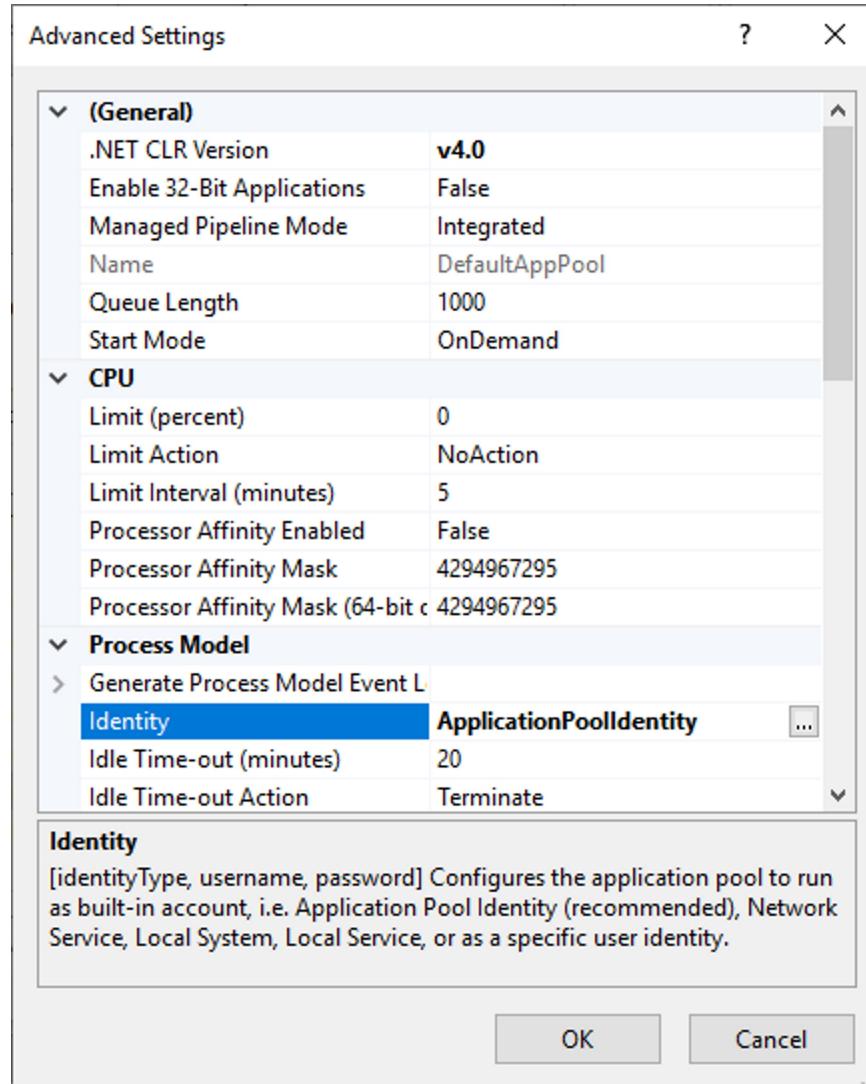
Name	Status	.NET CLR Version	Managed Pipeline Mode	Identity	Applications
.NET v2.0	Started	v2.0	Integrated	ApplicationPoolIdentity	0
.NET v2.0 Classic	Started	v2.0	Classic	ApplicationPoolIdentity	0
.NET v4.5	Started	v4.0	Integrated	ApplicationPoolIdentity	0
.NET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolIdentity	0
Classic .NET AppPool	Started	v2.0	Classic	ApplicationPoolIdentity	0
Default Web Site	Started	v4.0	Integrated	admin	2
<b>DefaultAppPool</b>	Started	v4.0	Integrated	ApplicationPoolIdentity	1
KPMVCWebAPIs	Started	v4.0	Integrated	ApplicationPoolIdentity	0

Features View Content View

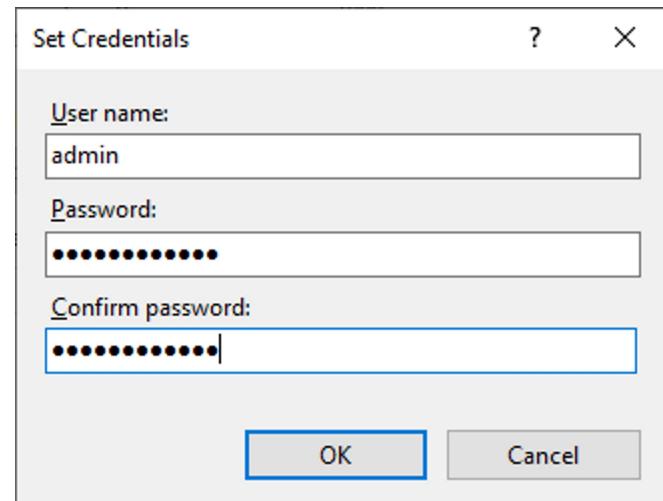
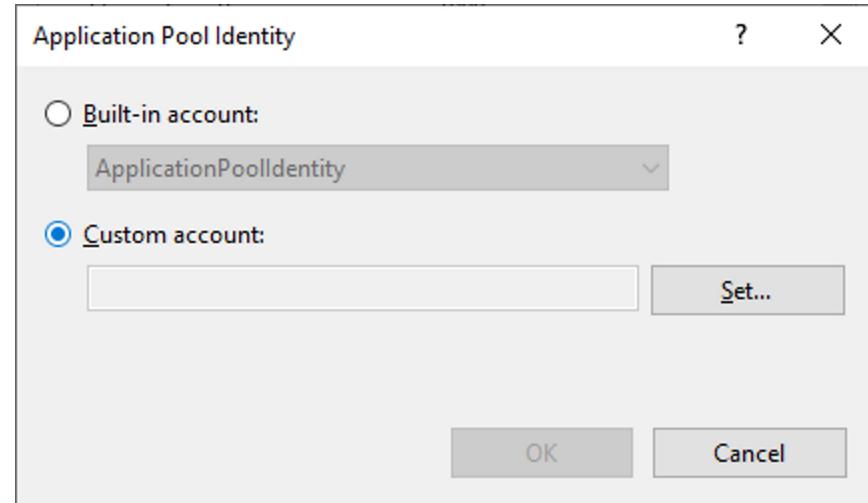
Actions

- Add Application Pool...
- Set Application Pool Defaults...
- Application Pool Tasks
  - Start
  - Stop
  - Recycle...
- Edit Application Pool
  - Basic Settings...
  - Recycling...
  - Advanced Settings...
  - Rename
- Remove
- View Applications
- Help

- Click 'DefaultAppPool' -> Advance Settings

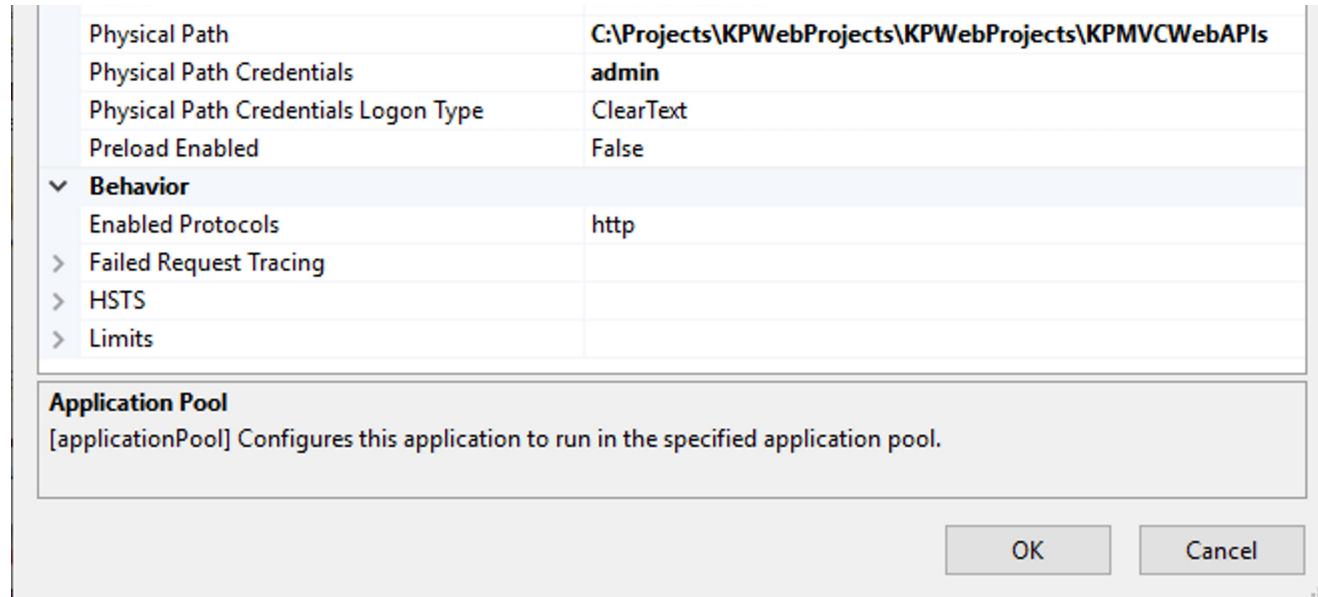


- Click 'DefaultAppPool -> Advance Settings -> Identity' to set the 'AppPoolIdentity' . (or) Create a new App Pool
- Create a new App Pool -> Application Pool -> KPMVCWebAPIs



- Create a new App Pool -> Application Pool -> KPMVCWebAPIs

Advanced Settings	
<b>(General)</b>	
Application Pool	KPMVCWebAPIs
Bindings	http:*:80:KPMVCWebAPIs.com
ID	1
Name	KPMVCWebAPIs
Physical Path	C:\Projects\KPWebProjects\KPWebProjects\KPMVCWebAPIs
Physical Path Credentials	admin



- Finally check if the either the 'DefaultAppPool' (or) newly created Application Pool 'KPMVCWebAPIs' has 'admin' (or) Service Account Credentials

Name	Status	.NET CLR Version	Managed Pipeline Mode	Identity	Applications
.NET v2.0	Started	v2.0	Integrated	ApplicationPoolIdentity	0
.NET v2.0 Classic	Started	v2.0	Classic	ApplicationPoolIdentity	0
.NET v4.5	Started	v4.0	Integrated	ApplicationPoolIdentity	0
.NET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolIdentity	0
Classic .NET AppPool	Started	v2.0	Classic	ApplicationPoolIdentity	0
Default Web Site	Started	v4.0	Integrated	LocalSystem	2
DefaultAppPool	Started	v4.0	Integrated	ApplicationPoolIdentity	0
<b>KPMVCWebAPIs</b>	Started	v4.0	Integrated	admin	1

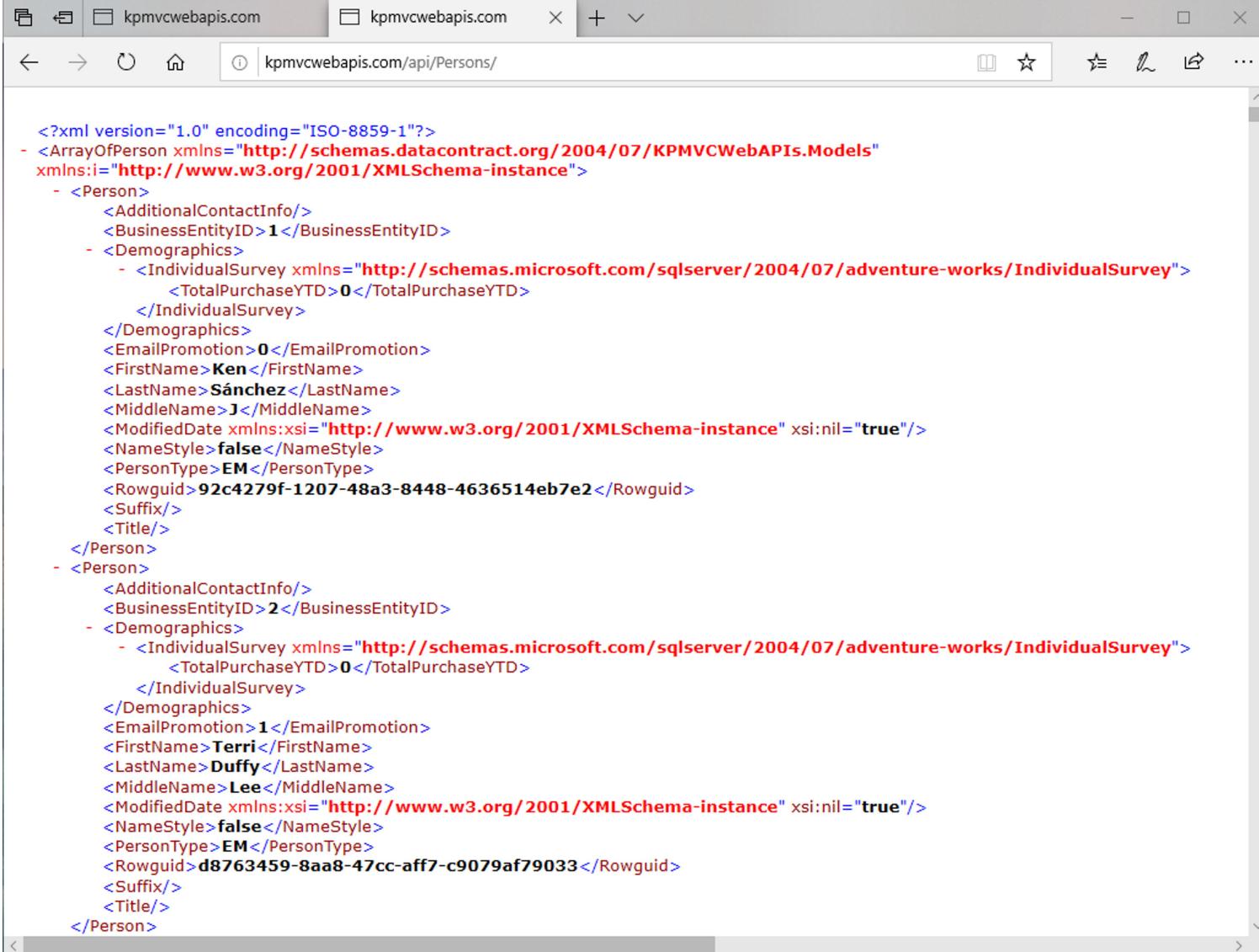
- Now launch the Web Site & Web APIs using the following URLs (or) URIs

- <http://localhost/KPMVCWebAPIs>

A screenshot of a Microsoft Edge browser window. The address bar shows 'localhost/KPMVCWebAPIs'. The page content is the ASP.NET homepage, featuring a large 'ASP.NET' logo and a brief description: 'ASP.NET is a free web framework for building great Web sites and Web applications using HTML, CSS, and JavaScript.' Below this is a blue 'Learn more »' button. The main content area has three sections: 'Getting started', 'Get more libraries', and 'Web Hosting', each with a 'Learn more »' button. At the bottom, there's a copyright notice: '© 2019 - My ASP.NET Application'.

- <http://localhost/KPMVCWebAPIs/api/Persons/>

A screenshot of a Microsoft Edge browser window. The address bar shows 'kpmvcwebapis.com/api/Persons/'. The page content is a simple JSON response: '[{"id": 1, "name": "John Doe"}]'. This indicates that the API endpoint '/api/Persons/' returns a list of persons, with the first entry being an object with id 1 and name 'John Doe'.



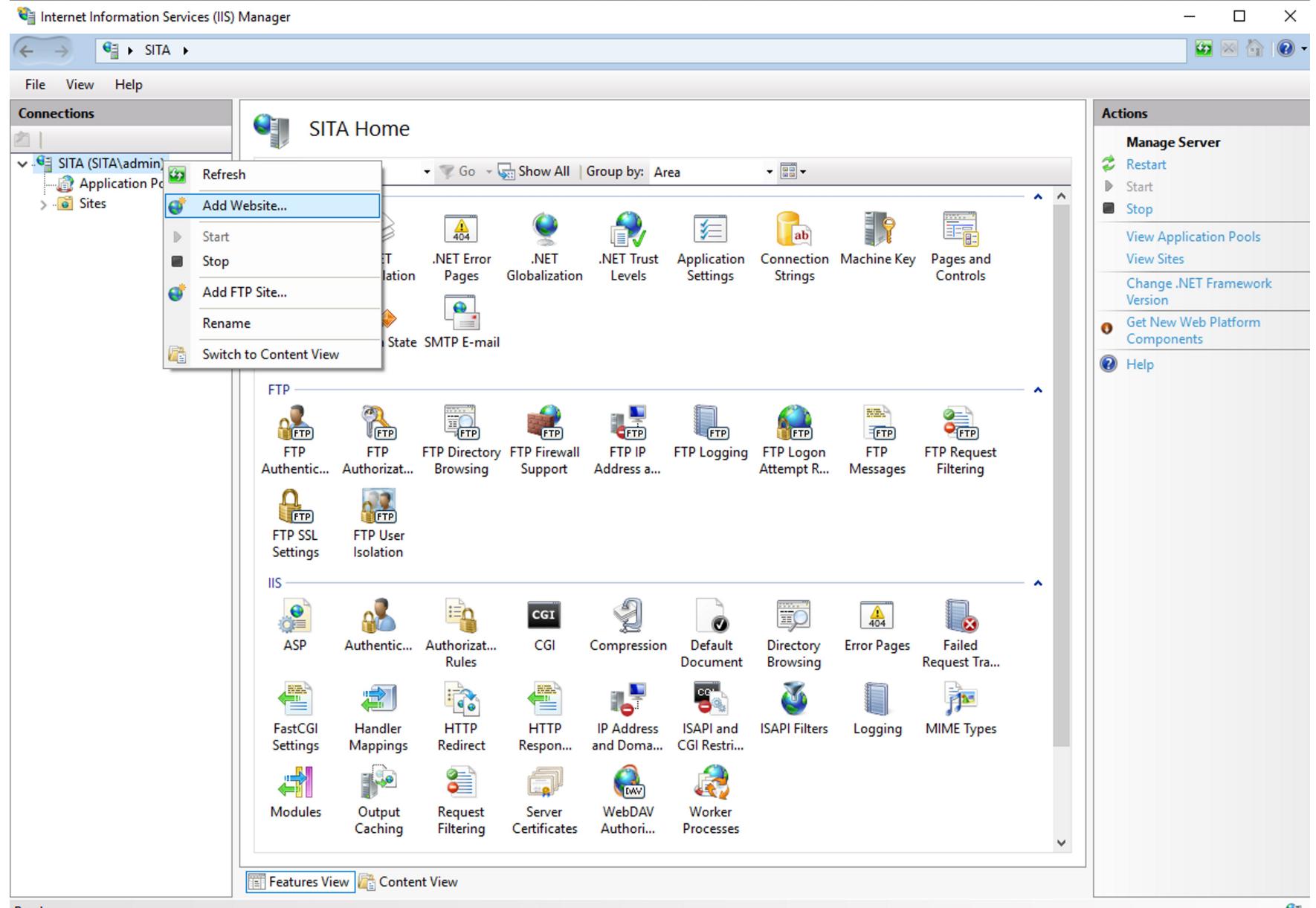
The screenshot shows a Microsoft Edge browser window with the URL <http://kpmvcwebapis.com/api/Persons/>. The page displays an XML response for two persons. The XML structure includes namespaces forDataContract.org and Microsoft SQL Server's schema instance. The first person has a BusinessEntityID of 1, a Rowguid of 92c4279f-1207-48a3-8448-4636514eb7e2, and a FirstName of Ken. The second person has a BusinessEntityID of 2, a Rowguid of d8763459-8aa8-47cc-aff7-c9079af79033, and a FirstName of Terri.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
- <ArrayOfPerson xmlns="http://schemas.datacontract.org/2004/07/KPMVCWebAPIs.Models"
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  - <Person>
    <AdditionalContactInfo/>
    <BusinessEntityID>1</BusinessEntityID>
    - <Demographics>
      - <IndividualSurvey xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventure-works/IndividualSurvey">
        <TotalPurchaseYTD>0</TotalPurchaseYTD>
      </IndividualSurvey>
    </Demographics>
    <EmailPromotion>0</EmailPromotion>
    <FirstName>Ken</FirstName>
    <LastName>Sánchez</LastName>
    <MiddleName>J</MiddleName>
    <ModifiedDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>
    <NameStyle>false</NameStyle>
    <PersonType>EM</PersonType>
    <Rowguid>92c4279f-1207-48a3-8448-4636514eb7e2</Rowguid>
    <Suffix/>
    <Title/>
  </Person>
  - <Person>
    <AdditionalContactInfo/>
    <BusinessEntityID>2</BusinessEntityID>
    - <Demographics>
      - <IndividualSurvey xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventure-works/IndividualSurvey">
        <TotalPurchaseYTD>0</TotalPurchaseYTD>
      </IndividualSurvey>
    </Demographics>
    <EmailPromotion>1</EmailPromotion>
    <FirstName>Terri</FirstName>
    <LastName>Duffy</LastName>
    <MiddleName>Lee</MiddleName>
    <ModifiedDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>
    <NameStyle>false</NameStyle>
    <PersonType>EM</PersonType>
    <Rowguid>d8763459-8aa8-47cc-aff7-c9079af79033</Rowguid>
    <Suffix/>
    <Title/>
  </Person>
</ArrayOfPerson>
```

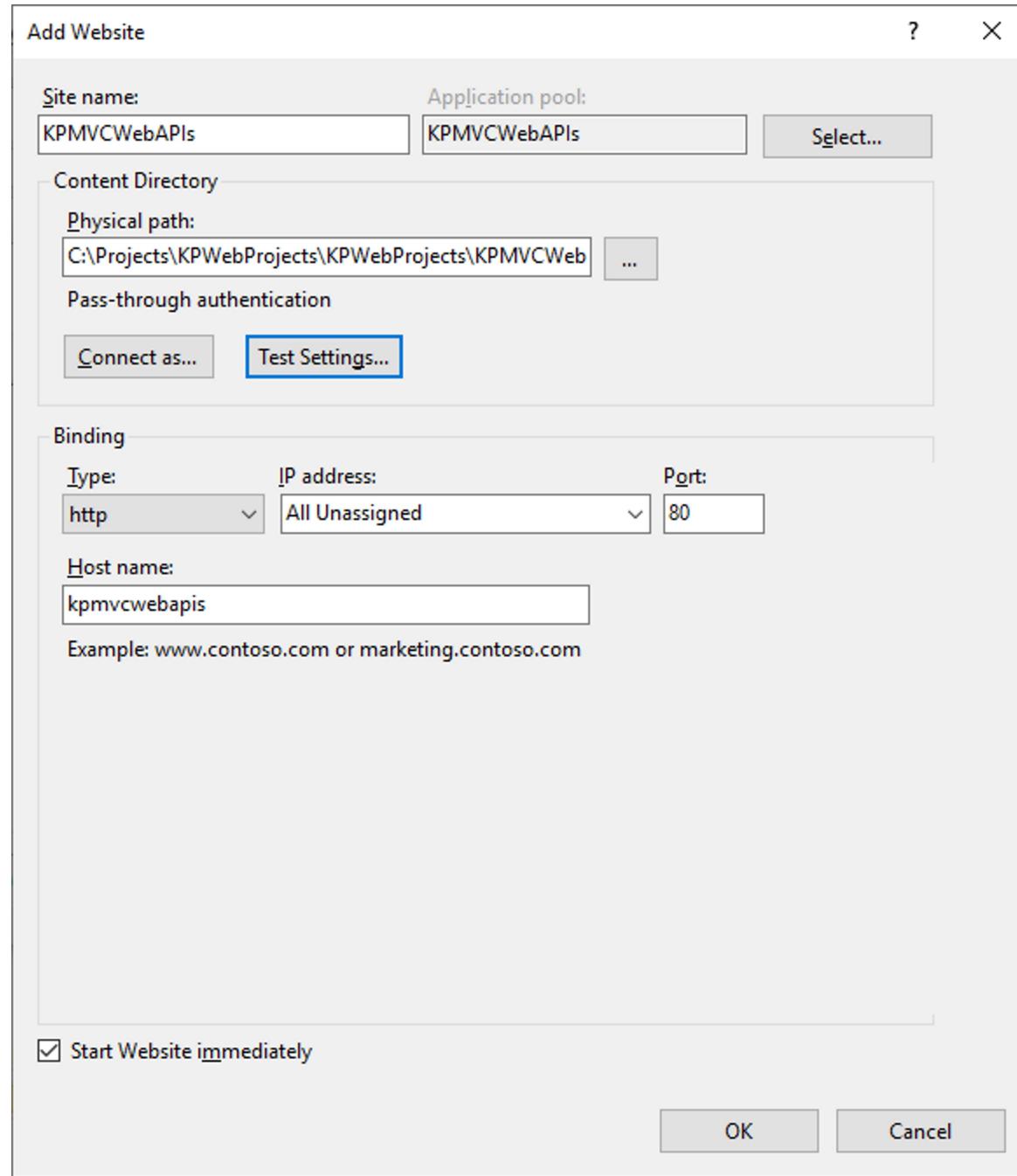
- <http://localhost/KPMVCWebAPIs/api/Persons/5>

#### Virtual Directory :

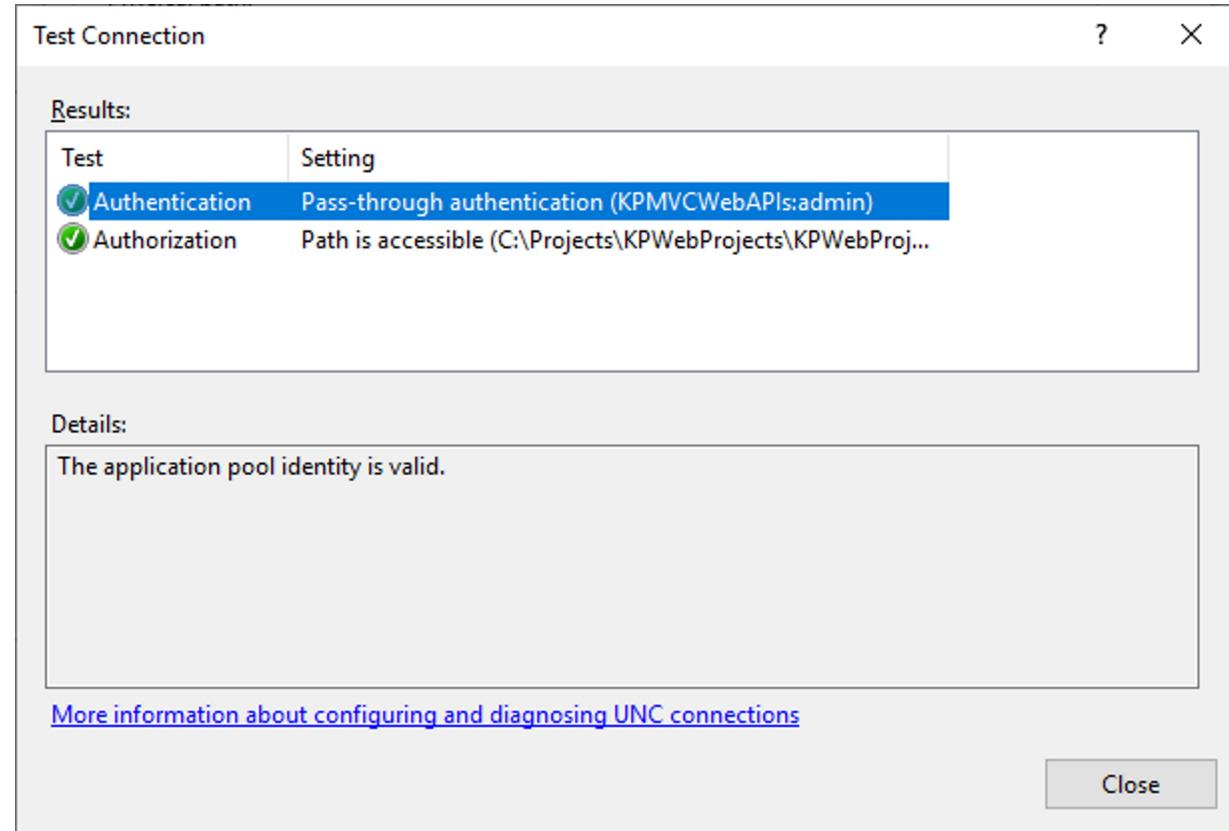
- Creating a Virtual Directory on IIS for publishing the Web-Site involves of the following steps.
- Open IIS Manager by typing the command in the run console -> inetmgr
- IIS Manager -> Sites -> Add Website...



- Add Website



- After entering the "AppPool Settings" Test Settings...



- Ensure both "Authentication & Authorization" fields are Green.