

Prerequisites:

Bare Metal HPCC Installation
WsSQL Web Service part of ESP
Power BI Installed

```

welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.133.1-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

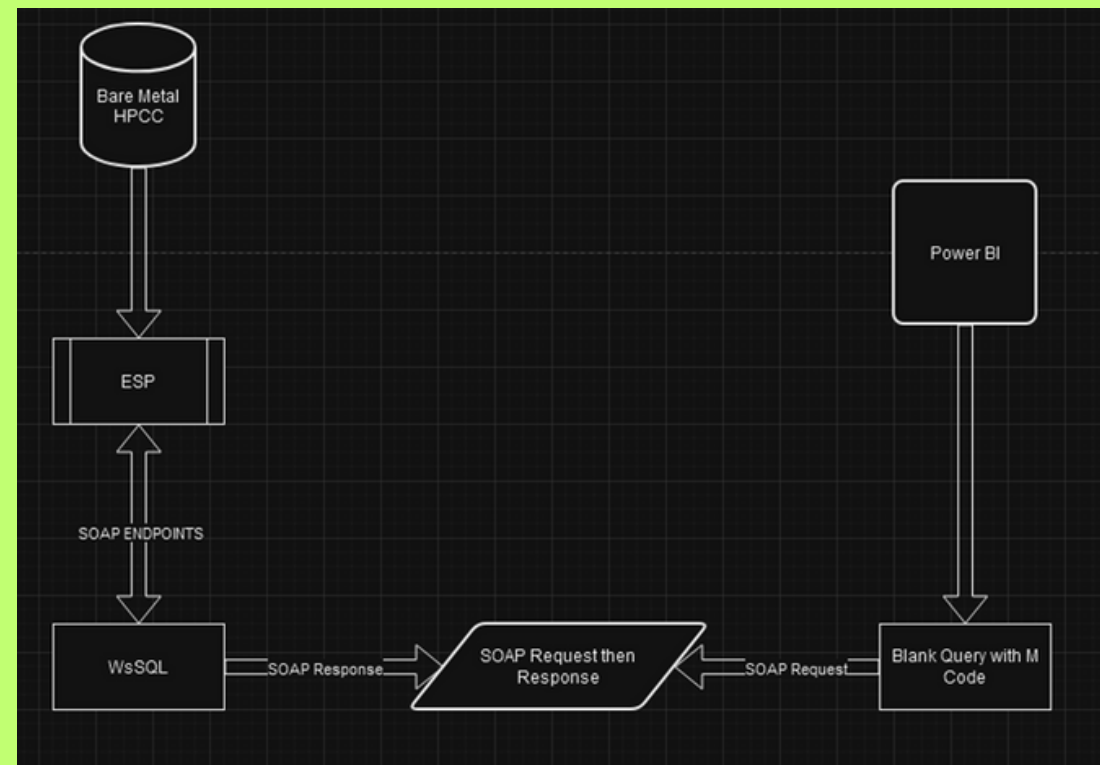
This message is shown once a day. To disable it please create the
/home/gsharma/.hushlogin file.
gsharma@R15-qs363R167V:~$ sudo su
root@R15-qs363R167V:/home/gsharma# cd /root/
root@R15-qs363R167V:~# systemctl start hpccsystems-platform.target
A dependency job for hpccsystems-platform.target failed. See 'journalctl -xe' for details.
root@R15-qs363R167V:~#
  
```



The Connection is between 2
HTTP Endpoints, which are
WsSQL and Power Query Code
inside Power BI, from which we
can send a SOAP Request and
receive a SOAP Response.

We can Parameterize the SOAP
Envelope which we will send from
Power BI, to ensure we just need to
modify this, and nothing else as the
code remains constant irrespective
of size of data.

Connection Architecture



```

let
    url = "&link&",

    SOAPEnvelope =

        "<?xml version='&version&'>
        <soap:Envelope xmlns:soap='&soap&' xmlns:SOAP-ENC='&soapenc&' xmlns='&wssql&'>
        <soap:Body>
            <ExecuteSQLRequest>
                <SqlText>SELECT * FROM gps::movielens::stagingmovies</SqlText>
                <UserName>'&names&'</UserName>
                <TargetCluster>'&cluster&'</TargetCluster>
                <AlternateClusters>
                    <AlternateCluster/>
                </AlternateClusters>
                <TargetQuerySet/>
                <SuppressResults>0</SuppressResults>
                <SuppressXmlSchema>0</SuppressXmlSchema>
                <Wait>-1</Wait>
                <resultlimit>0</resultlimit>
                <ResultWindowStart>0</ResultWindowStart>
                <ResultWindowCount>0</ResultWindowCount>
                <IgnoreCache/>
            </ExecuteSQLRequest>
        </soap:Body>
        </soap:Envelope>",

    options = [
        #"Content-Type"= "text/xml; charset=utf-8"
    ],
  
```

SOAP Envelope

```

responseBinary = Web.Contents(url, [Content=Text.ToBinary(SOAPEnvelope), Headers=options]),

responseText = Text.FromBinary(responseBinary, TextEncoding.Ascii),

startPos = Text.PositionOf(responseText, "Dataset name=&apos;wssqlResult&apos; xmlns=&quot;wssqlResultSchema&quot;&gt;") + Text.Length("Dataset name=&apos;wssqlResult&apos; xmlns=&quot;wssqlResultSchema&quot;&gt;"),
endPos = Text.PositionOf(responseText, "&lt;/Dataset&gt;"),
resultXmlText = Text.Middle(responseText, startPos, endPos - startPos),

// Decode the HTML entities
decodedXmlContent = Text.Replace(Text.Replace(Text.Replace(Text.Replace(resultXmlText, "&lt;"; "<"), "&gt;"; ">"), "&quot;"; """), "&apos;"; "'"),

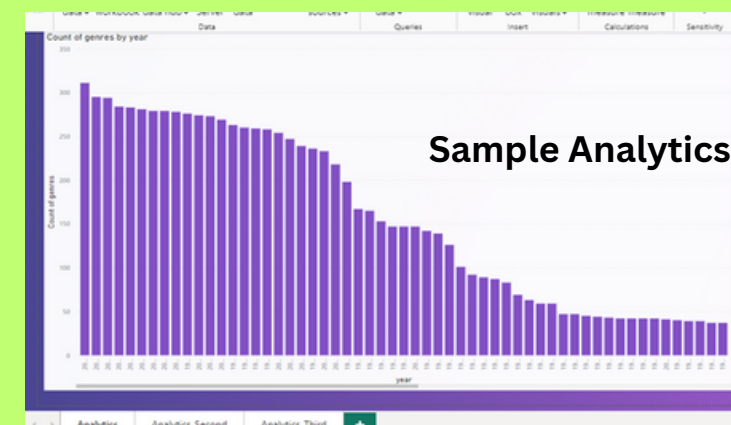
// Wrap the XML content with a single root element
xmlWithRoot = "<Root>" & decodedXmlContent & "</Root>",

// Parse the XML content into a table
xmlTable = Xml.Tables(xmlWithRoot){0},
// Parse the XML content into a table
Table = xmlTable[Table]

Table
  
```

Decoding SOAP Response

The 2 code snippets are part of the Power Query Code used to send the
SOAP Request as the SOAP Envelope and then decode the SOAP
Response into Table format which is useful for analytics



title.Element:Text	year	genres
Toy Story	1995	Adventure Animation Children Comedy Fantasy
Jumanji	1995	Adventure Children Fantasy
Grumpier Old Men	1995	Comedy Romance
Waiting to Exhale	1995	Comedy Drama Romance
Father of the Bride Part II	1995	Comedy
Heat	1995	Action Crime Thriller
Sabrina	1995	Comedy Romance
Tom and Huck	1995	Adventure Children
Sudden Death	1995	Action
GoldenEye	1995	Action Adventure Thriller
American President, The	1995	Comedy Drama Romance
Dracula: Dead and Loving It	1995	Comedy Horror
Batman	1995	Adventure Animation Children
Nixon	1995	Drama
Cutthroat Island	1995	Action Adventure Romance
Casino	1995	Crime Drama
Sense and Sensibility	1995	Drama Romance
Four Rooms	1995	Comedy
Ace Ventura: When Nature Calls	1995	Comedy
Money Train	1995	Action Comedy Crime Drama Thriller
Get Shorty	1995	Comedy Crime Thriller
Copcat	1995	Crime Drama Horror Mystery Thriller
Assassins	1995	Action Crime Thriller

Sample Data Output from Code

References:

1. WsSQL ESP Web Service Guide
2. Installation and Running the HPCC Platform