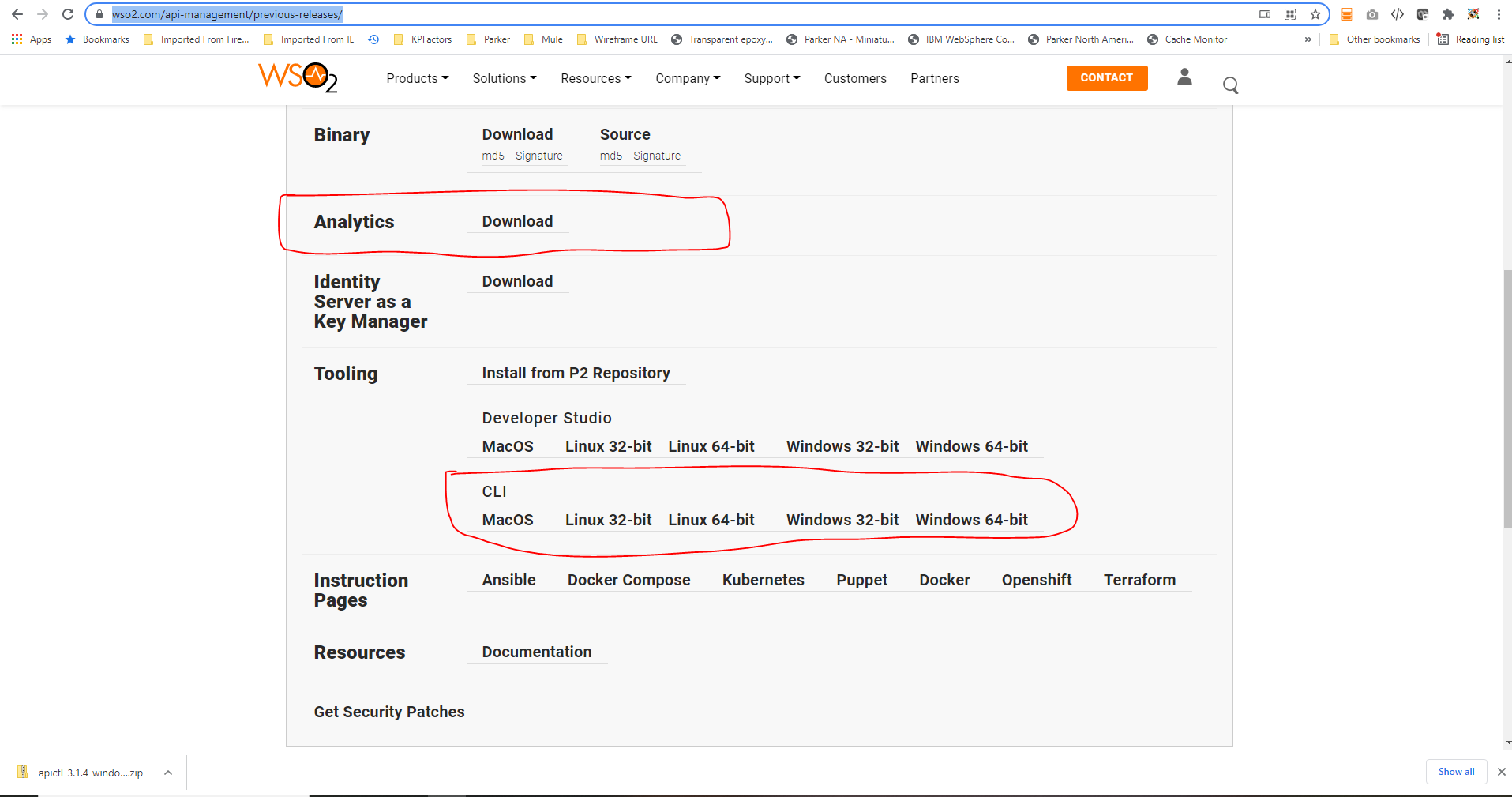
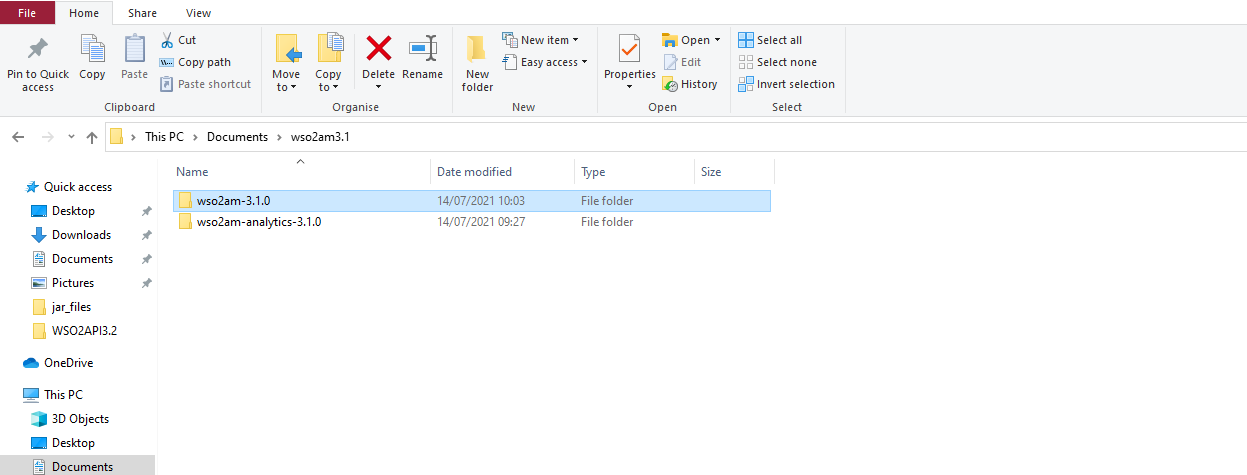
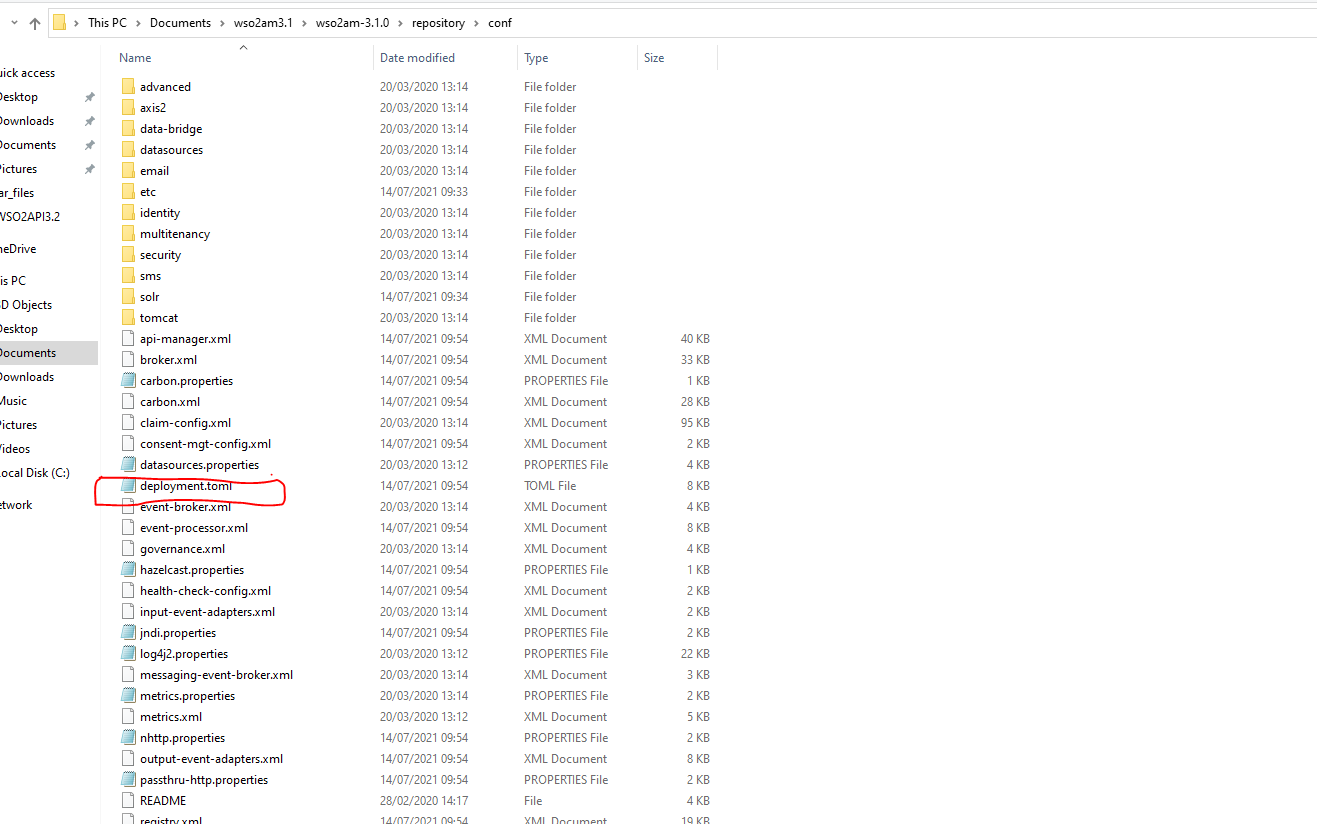
###### API Manager Configuration with API Analytics

Steps To configure API Manager with API Analytics:

1. Download APIM 3.1 and Same Analytics from WSO2 Product Website.
2. <https://wso2.com/api-management/previous-releases/>
3. 
4. Extract Products in One directory as below screenshot.



1. Go to APIM\_HOME/repository/conf/ and edit deployment.toml file



1. Make below parameter changes as

[apim.analytics]

enable = true

store\_api\_url = "https://localhost:7444"

username = "$ref{super\_admin.username}"

password = "$ref{super\_admin.password}"

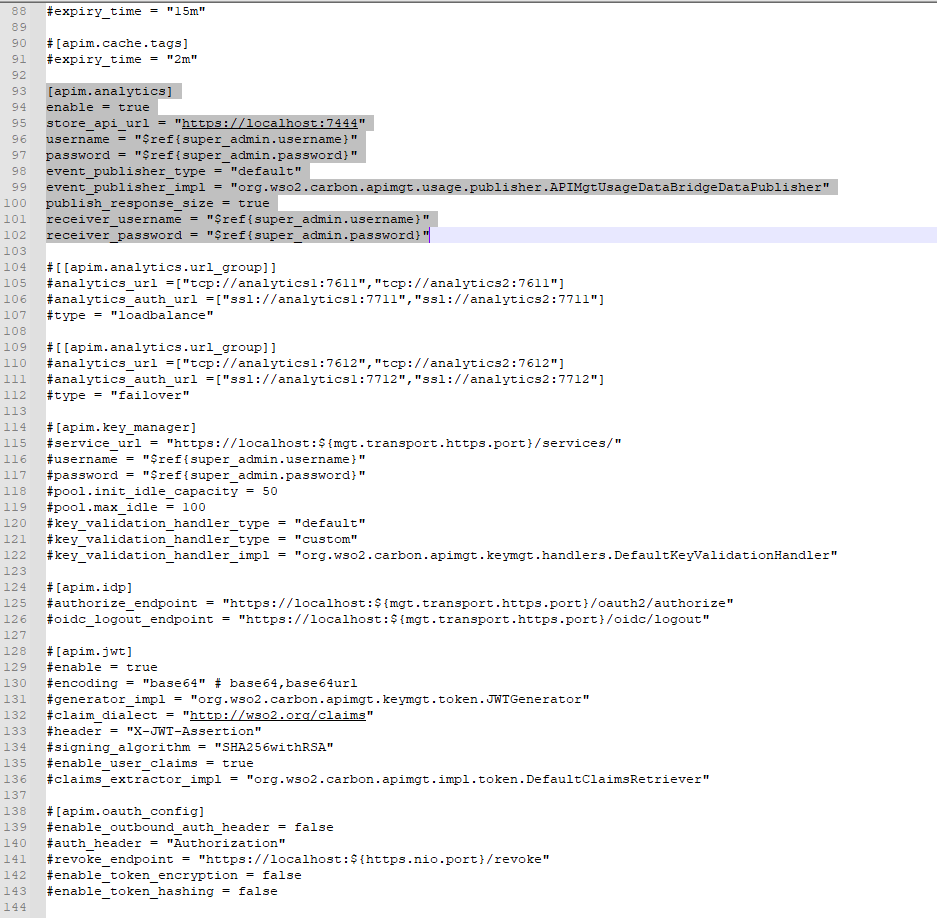
event\_publisher\_type = "default"

event\_publisher\_impl = "org.wso2.carbon.apimgt.usage.publisher.APIMgtUsageDataBridgeDataPublisher"

publish\_response\_size = true

receiver\_username = "$ref{super\_admin.username}"

receiver\_password = "$ref{super\_admin.password}"



1. Save and Close it.
2. Go to API\_ANALYTICS\_HOME/conf/dashboard/ and edit file deployment.yaml as below

################################################################################

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################################################################################

# Carbon Configuration Parameters

wso2.carbon:

type: wso2-apim-analytics

# value to uniquely identify a server

id: wso2-am-analytics

# server name

name: WSO2 API Manager Analytics Server

# enable/disable hostname verifier

hostnameVerificationEnabled: true

# ports used by this server

ports:

# port offset

offset: 3

# Configuration used for the databridge communication

databridge.config:

# No of worker threads to consume events

# THIS IS A MANDATORY FIELD

workerThreads: 10

# Maximum amount of messages that can be queued internally in MB

# THIS IS A MANDATORY FIELD

maxEventBufferCapacity: 10000000

# Queue size; the maximum number of events that can be stored in the queue

# THIS IS A MANDATORY FIELD

eventBufferSize: 2000

# Keystore file path

# THIS IS A MANDATORY FIELD

keyStoreLocation : ${sys:carbon.home}/resources/security/wso2carbon.jks

# Keystore password

# THIS IS A MANDATORY FIELD

keyStorePassword : wso2carbon

# Session Timeout value in mins

# THIS IS A MANDATORY FIELD

clientTimeoutMin: 30

# Data receiver configurations

# THIS IS A MANDATORY FIELD

dataReceivers:

-

# Data receiver configuration

dataReceiver:

# Data receiver type

# THIS IS A MANDATORY FIELD

type: Thrift

# Data receiver properties

properties:

tcpPort: '7611'

sslPort: '7711'

-

# Data receiver configuration

dataReceiver:

# Data receiver type

# THIS IS A MANDATORY FIELD

type: Binary

# Data receiver properties

properties:

tcpPort: '9611'

sslPort: '9711'

tcpReceiverThreadPoolSize: '100'

sslReceiverThreadPoolSize: '100'

hostName: 0.0.0.0

# Configuration of the Data Agents - to publish events through databridge

data.agent.config:

# Data agent configurations

# THIS IS A MANDATORY FIELD

agents:

-

# Data agent configuration

agentConfiguration:

# Data agent name

# THIS IS A MANDATORY FIELD

name: Thrift

# Data endpoint class

# THIS IS A MANDATORY FIELD

dataEndpointClass: org.wso2.carbon.databridge.agent.endpoint.thrift.ThriftDataEndpoint

# Data publisher strategy

publishingStrategy: async

# Trust store path

trustStorePath: '${sys:carbon.home}/resources/security/client-truststore.jks'

# Trust store password

trustStorePassword: 'wso2carbon'

# Queue Size

queueSize: 32768

# Batch Size

batchSize: 200

# Core pool size

corePoolSize: 1

# Socket timeout in milliseconds

socketTimeoutMS: 30000

# Maximum pool size

maxPoolSize: 1

# Keep alive time in pool

keepAliveTimeInPool: 20

# Reconnection interval

reconnectionInterval: 30

# Max transport pool size

maxTransportPoolSize: 250

# Max idle connections

maxIdleConnections: 250

# Eviction time interval

evictionTimePeriod: 5500

# Min idle time in pool

minIdleTimeInPool: 5000

# Secure max transport pool size

secureMaxTransportPoolSize: 250

# Secure max idle connections

secureMaxIdleConnections: 250

# secure eviction time period

secureEvictionTimePeriod: 5500

# Secure min idle time in pool

secureMinIdleTimeInPool: 5000

# SSL enabled protocols

sslEnabledProtocols: TLSv1.1,TLSv1.2

# Ciphers

ciphers: TLS\_ECDHE\_ECDSA\_WITH\_AES\_128\_CBC\_SHA256,TLS\_ECDHE\_RSA\_WITH\_AES\_128\_CBC\_SHA256,TLS\_DHE\_RSA\_WITH\_AES\_128\_CBC\_SHA256,TLS\_ECDHE\_ECDSA\_WITH\_AES\_128\_CBC\_SHA,TLS\_ECDHE\_RSA\_WITH\_AES\_128\_CBC\_SHA,TLS\_DHE\_RSA\_WITH\_AES\_128\_CBC\_SHA,TLS\_ECDHE\_ECDSA\_WITH\_AES\_128\_GCM\_SHA256,TLS\_ECDHE\_RSA\_WITH\_AES\_128\_GCM\_SHA256,TLS\_DHE\_RSA\_WITH\_AES\_128\_GCM\_SHA256

-

# Data agent configuration

agentConfiguration:

# Data agent name

# THIS IS A MANDATORY FIELD

name: Binary

# Data endpoint class

# THIS IS A MANDATORY FIELD

dataEndpointClass: org.wso2.carbon.databridge.agent.endpoint.binary.BinaryDataEndpoint

# Data publisher strategy

publishingStrategy: async

# Trust store path

trustStorePath: '${sys:carbon.home}/resources/security/client-truststore.jks'

# Trust store password

trustStorePassword: 'wso2carbon'

# Queue Size

queueSize: 32768

# Batch Size

batchSize: 200

# Core pool size

corePoolSize: 1

# Socket timeout in milliseconds

socketTimeoutMS: 30000

# Maximum pool size

maxPoolSize: 1

# Keep alive time in pool

keepAliveTimeInPool: 20

# Reconnection interval

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# Max idle connections

maxIdleConnections: 250

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evictionTimePeriod: 5500

# Min idle time in pool

minIdleTimeInPool: 5000

# Secure max transport pool size

secureMaxTransportPoolSize: 250

# Secure max idle connections

secureMaxIdleConnections: 250

# secure eviction time period

secureEvictionTimePeriod: 5500

# Secure min idle time in pool

secureMinIdleTimeInPool: 5000

# SSL enabled protocols

sslEnabledProtocols: TLSv1.1,TLSv1.2

# Ciphers

ciphers: TLS\_ECDHE\_ECDSA\_WITH\_AES\_128\_CBC\_SHA256,TLS\_ECDHE\_RSA\_WITH\_AES\_128\_CBC\_SHA256,TLS\_DHE\_RSA\_WITH\_AES\_128\_CBC\_SHA256,TLS\_ECDHE\_ECDSA\_WITH\_AES\_128\_CBC\_SHA,TLS\_ECDHE\_RSA\_WITH\_AES\_128\_CBC\_SHA,TLS\_DHE\_RSA\_WITH\_AES\_128\_CBC\_SHA,TLS\_ECDHE\_ECDSA\_WITH\_AES\_128\_GCM\_SHA256,TLS\_ECDHE\_RSA\_WITH\_AES\_128\_GCM\_SHA256,TLS\_DHE\_RSA\_WITH\_AES\_128\_GCM\_SHA256

# Deployment configuration parameters

wso2.artifact.deployment:

# Scheduler update interval

updateInterval: 5

# HA Configuration

state.persistence:

enabled: false

intervalInMin: 1

revisionsToKeep: 2

persistenceStore: org.wso2.carbon.streaming.integrator.core.persistence.FileSystemPersistenceStore

config:

location: siddhi-app-persistence

# Secure Vault Configuration

wso2.securevault:

secretRepository:

type: org.wso2.carbon.secvault.repository.DefaultSecretRepository

parameters:

privateKeyAlias: wso2carbon

keystoreLocation: ${sys:carbon.home}/resources/security/securevault.jks

secretPropertiesFile: ${sys:carbon.home}/conf/${sys:wso2.runtime}/secrets.properties

masterKeyReader:

type: org.wso2.carbon.secvault.reader.DefaultMasterKeyReader

parameters:

masterKeyReaderFile: ${sys:carbon.home}/conf/${sys:wso2.runtime}/master-keys.yaml

# Data Sources Configuration

wso2.datasources:

dataSources:

# Dashboard data source

- name: WSO2\_DASHBOARD\_DB

description: The datasource used for dashboard feature

jndiConfig:

name: jdbc/DASHBOARD\_DB

useJndiReference: true

definition:

type: RDBMS

configuration:

jdbcUrl: 'jdbc:h2:${sys:carbon.home}/wso2/${sys:wso2.runtime}/database/DASHBOARD\_DB;IFEXISTS=TRUE;DB\_CLOSE\_ON\_EXIT=FALSE;LOCK\_TIMEOUT=60000;MVCC=TRUE'

username: wso2carbon

password: wso2carbon

driverClassName: org.h2.Driver

maxPoolSize: 20

idleTimeout: 60000

connectionTestQuery: SELECT 1

validationTimeout: 30000

isAutoCommit: false

- name: BUSINESS\_RULES\_DB

description: The datasource used for dashboard feature

jndiConfig:

name: jdbc/BUSINESS\_RULES\_DB

useJndiReference: true

definition:

type: RDBMS

configuration:

jdbcUrl: 'jdbc:h2:${sys:carbon.home}/wso2/${sys:wso2.runtime}/database/BUSINESS\_RULES\_DB;DB\_CLOSE\_ON\_EXIT=FALSE;LOCK\_TIMEOUT=60000;MVCC=TRUE'

username: wso2carbon

password: wso2carbon

driverClassName: org.h2.Driver

maxPoolSize: 20

idleTimeout: 60000

connectionTestQuery: SELECT 1

validationTimeout: 30000

isAutoCommit: false

# carbon metrics data source

- name: WSO2\_METRICS\_DB

description: The datasource used for dashboard feature

jndiConfig:

name: jdbc/WSO2MetricsDB

definition:

type: RDBMS

configuration:

jdbcUrl: 'jdbc:h2:${sys:carbon.home}/wso2/dashboard/database/metrics;AUTO\_SERVER=TRUE'

username: wso2carbon

password: wso2carbon

driverClassName: org.h2.Driver

maxPoolSize: 20

idleTimeout: 60000

connectionTestQuery: SELECT 1

validationTimeout: 30000

isAutoCommit: false

- name: WSO2\_PERMISSIONS\_DB

description: The datasource used for dashboard feature

jndiConfig:

name: jdbc/PERMISSION\_DB

useJndiReference: true

definition:

type: RDBMS

configuration:

jdbcUrl: 'jdbc:h2:${sys:carbon.home}/wso2/${sys:wso2.runtime}/database/PERMISSION\_DB;IFEXISTS=TRUE;DB\_CLOSE\_ON\_EXIT=FALSE;LOCK\_TIMEOUT=60000;MVCC=TRUE'

username: wso2carbon

password: wso2carbon

driverClassName: org.h2.Driver

maxPoolSize: 10

idleTimeout: 60000

connectionTestQuery: SELECT 1

validationTimeout: 30000

isAutoCommit: false

#Data source for APIM Analytics

- name: APIM\_ANALYTICS\_DB

description: Datasource used for APIM Analytics

jndiConfig:

name: jdbc/APIM\_ANALYTICS\_DB

definition:

type: RDBMS

configuration:

jdbcUrl: 'jdbc:h2:${sys:carbon.home}/wso2/worker/database/APIM\_ANALYTICS\_DB;AUTO\_SERVER=TRUE'

username: wso2carbon

password: wso2carbon

driverClassName: org.h2.Driver

maxPoolSize: 50

idleTimeout: 60000

connectionTestQuery: SELECT 1

validationTimeout: 30000

isAutoCommit: false

#Main datasource used in API Manager

- name: AM\_DB

description: Main datasource used by API Manager

jndiConfig:

name: jdbc/AM\_DB

definition:

type: RDBMS

configuration:

jdbcUrl: "jdbc:h2:${sys:carbon.home}/../wso2am-3.1.0/repository/database/WSO2AM\_DB;AUTO\_SERVER=TRUE"

username: wso2carbon

password: wso2carbon

driverClassName: org.h2.Driver

maxPoolSize: 10

idleTimeout: 60000

connectionTestQuery: SELECT 1

validationTimeout: 30000

isAutoCommit: false

wso2.business.rules.manager:

datasource: BUSINESS\_RULES\_DB

# rule template wise configuration for deploying business rules

deployment\_configs:

-

# <IP>:<HTTPS Port> of the Worker node

localhost:9444:

# UUIDs of rule templates that are needed to be deployed on the node

- stock-data-analysis

- stock-exchange-input

- stock-exchange-output

- identifying-continuous-production-decrease

- popular-tweets-analysis

- http-analytics-processing

- message-tracing-source-template

- message-tracing-app-template

# credentials for worker nodes

username: admin

password: admin

wso2.transport.http:

transportProperties:

- name: "server.bootstrap.socket.timeout"

value: 60

- name: "client.bootstrap.socket.timeout"

value: 60

- name: "latency.metrics.enabled"

value: true

listenerConfigurations:

- id: "default"

host: "0.0.0.0"

port: 9089

- id: "default-https"

host: "0.0.0.0"

port: 9640

scheme: https

keyStoreFile: "${carbon.home}/resources/security/wso2carbon.jks"

keyStorePassword: wso2carbon

certPass: wso2carbon

## Dashboard data provider authorization

data.provider.configs:

authorizingClass: org.wso2.analytics.apim.dashboards.core.data.provider.Authorizer

## Additional APIs that needs to be added to the server.

## Should be provided as a key value pairs { API context path: Microservice implementation class }

## The configured APIs will be available as https://{host}:{port}/analytics-dashboard/{API\_context\_path}

additional.apis:

/apis/analytics/v1.0/apim: org.wso2.analytics.apim.rest.api.proxy.ApimApi

/apis/v1.0/report: org.wso2.analytics.apim.rest.api.report.ReportApi

report:

implClass: org.wso2.analytics.apim.rest.api.report.reportgen.DefaultReportGeneratorImpl

## Authentication configuration

auth.configs:

type: apim

ssoEnabled: true

properties:

adminScope: apim\_analytics:admin\_carbon.super

allScopes: apim\_analytics:admin apim\_analytics:product\_manager apim\_analytics:api\_developer apim\_analytics:app\_developer apim\_analytics:devops\_engineer apim\_analytics:analytics\_viewer apim\_analytics:everyone openid apim:api\_view apim:subscribe

adminUsername: admin

adminPassword: admin

kmDcrUrl: https://localhost:9443/client-registration/v0.16/register

kmTokenUrlForRedirection: https://localhost:9443/oauth2

kmTokenUrl: https://localhost:9443/oauth2

kmUsername: admin

kmPassword: admin

portalAppContext: analytics-dashboard

businessRulesAppContext : business-rules

cacheTimeout: 30

baseUrl: https://localhost:9643

grantType: authorization\_code

publisherUrl: https://localhost:9443

devPortalUrl: https://localhost:9443

externalLogoutUrl: https://localhost:9443/oidc/logout

wso2.dashboard:

roles:

creators:

- apim\_analytics:admin\_carbon.super

themeConfigProviderClass: org.wso2.carbon.dashboards.core.DefaultDashboardThemeConfigProvider

## RDBMS Data Provider configuration

wso2.rdbms.data.provider:

timeTypes:

- DATE

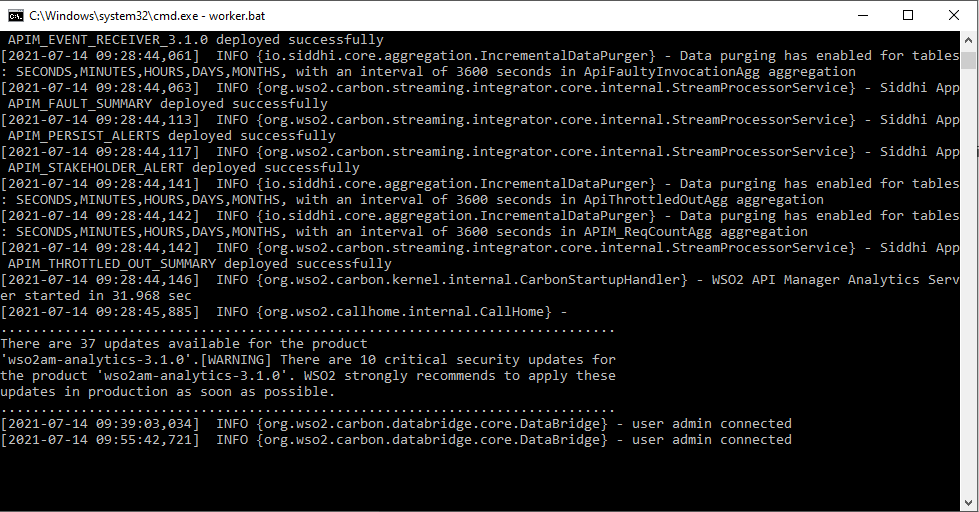
- TIME

- DATETIME

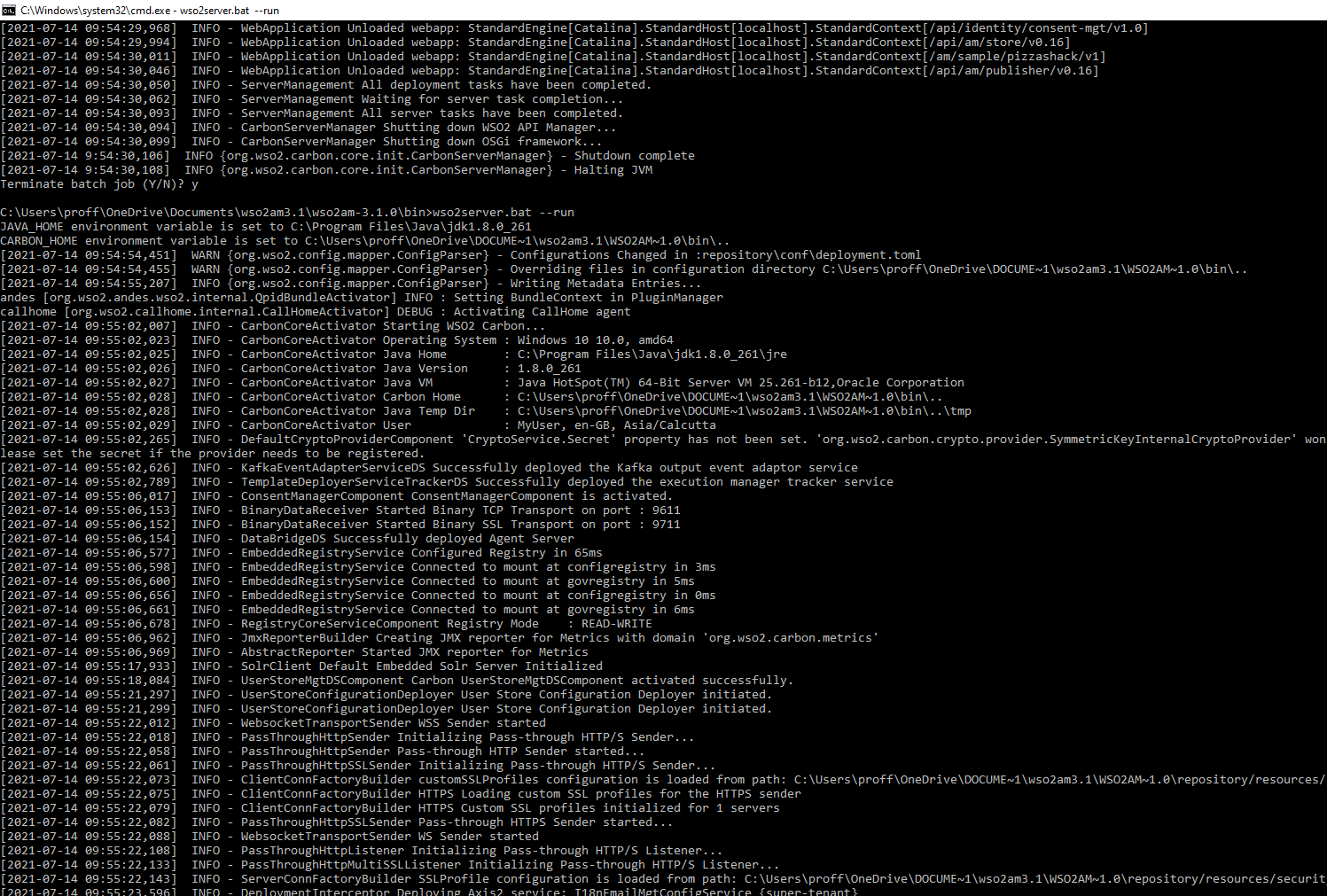
- TIMESTAMP

- TIMESTAMP WITHOUT TIME ZONE

Save it And Close.

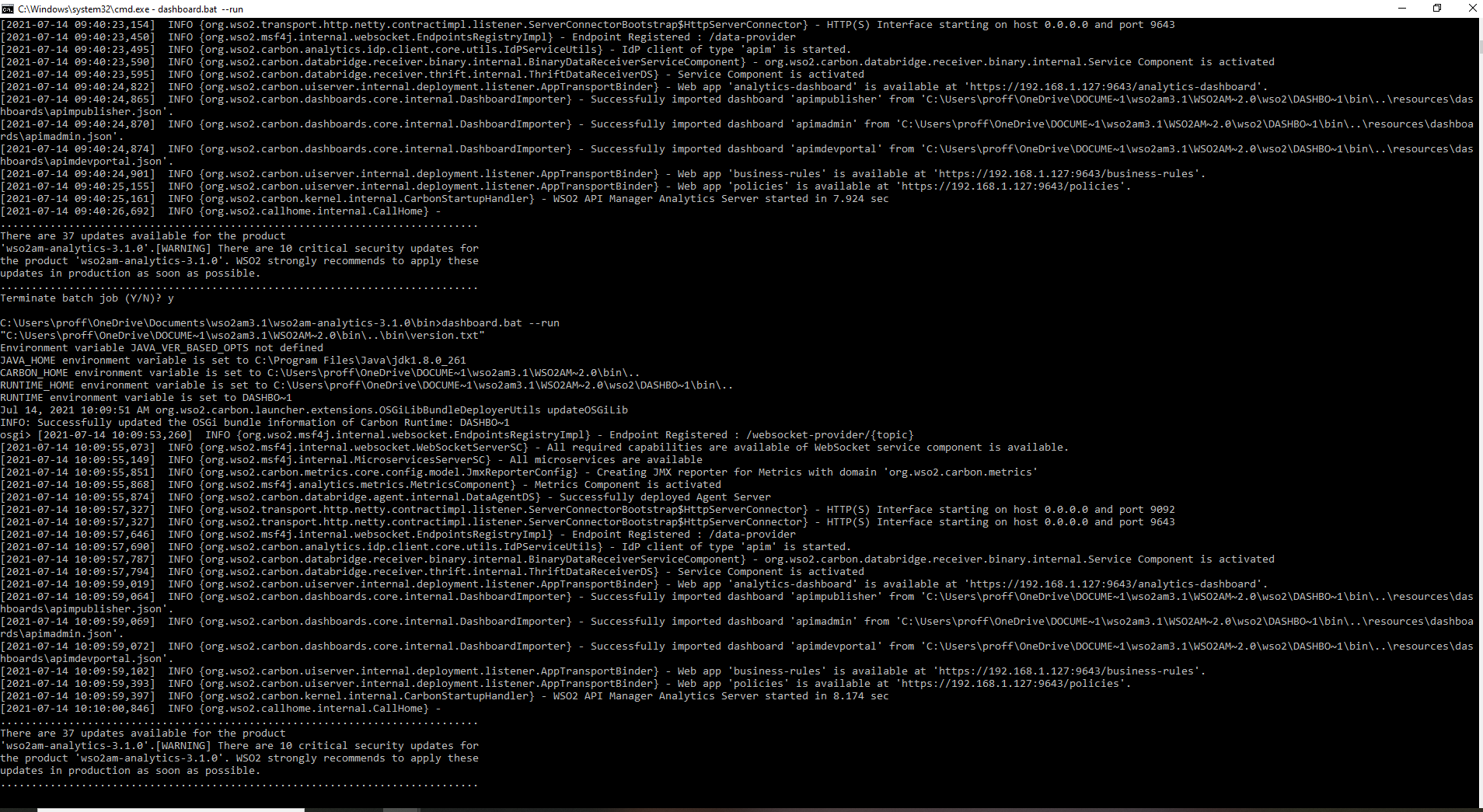
1. Then Start the API\_MANAGER analytics as below commend
2. wso2am3.1\wso2am-analytics-3.1.0\bin\worker.bat –run
3. 
4. After Successful start you have to start the API Manager as below command:

wso2am3.1\wso2am-3.1.0\bin\wso2server.bat –run

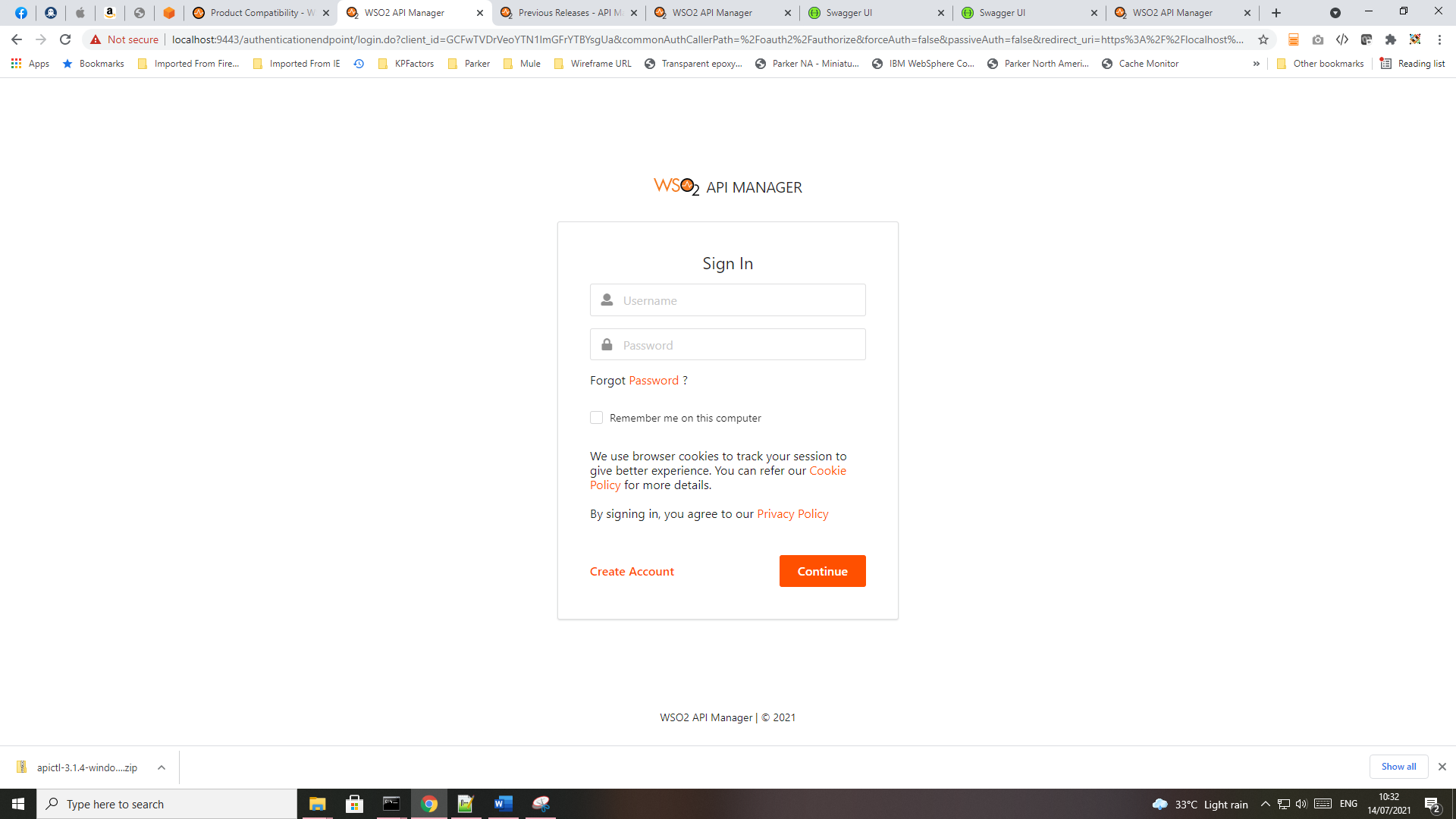


1. After successful Start of API Manager You have to Start the API\_ANALYTICS dashboard to see the Analytics dashboard.

wso2am3.1\wso2am-analytics-3.1.0\bin\dashboard.bat –run



After successful start you will see the URL’s in logs copy the url and Open in Browser.



Enter Username password as admin and admin click on login

