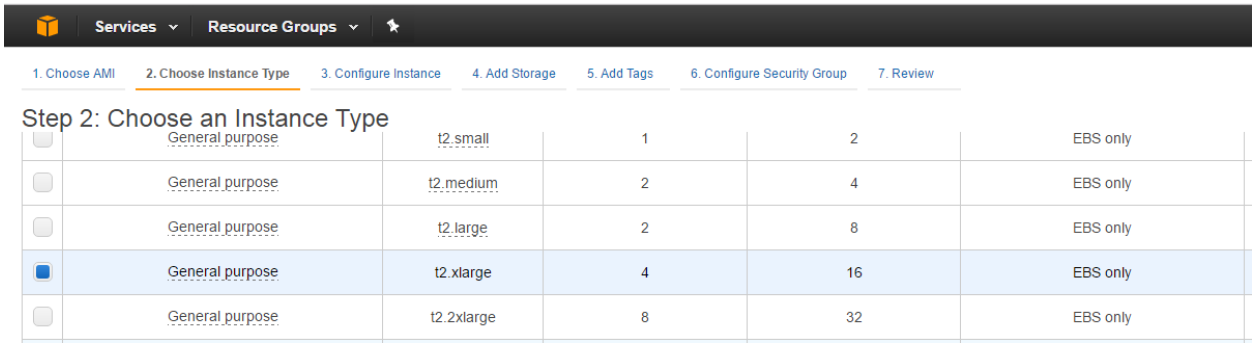
All code has been created in AWS. Requirements are to spin up a Windows EC2 server from an AMI image for all ETL and Analytics development via Pentaho EE (installed on the server). For the back-end database, a SQL Server Express Cloud instance has been used. The EC2 AMI as well as the SQL Server Express snapshot have been made public via AWS (see instructions below).

Setting up Windows EC2 Server

To find a shared public AMI using the console

1. Open the Amazon EC2 console at https://console.aws.amazon.com/ec2/.
2. In the navigation pane, choose **AMIs**.
3. In the first filter, choose **Public images**. To granulate your search, choose the Search bar and use the filter options provided in the menu.
4. Search for the public image (AMI ID: ami-9e68f2fe)
5. Once you have found the image, right click and select to launch.
6. Select the following EC2 instance type.



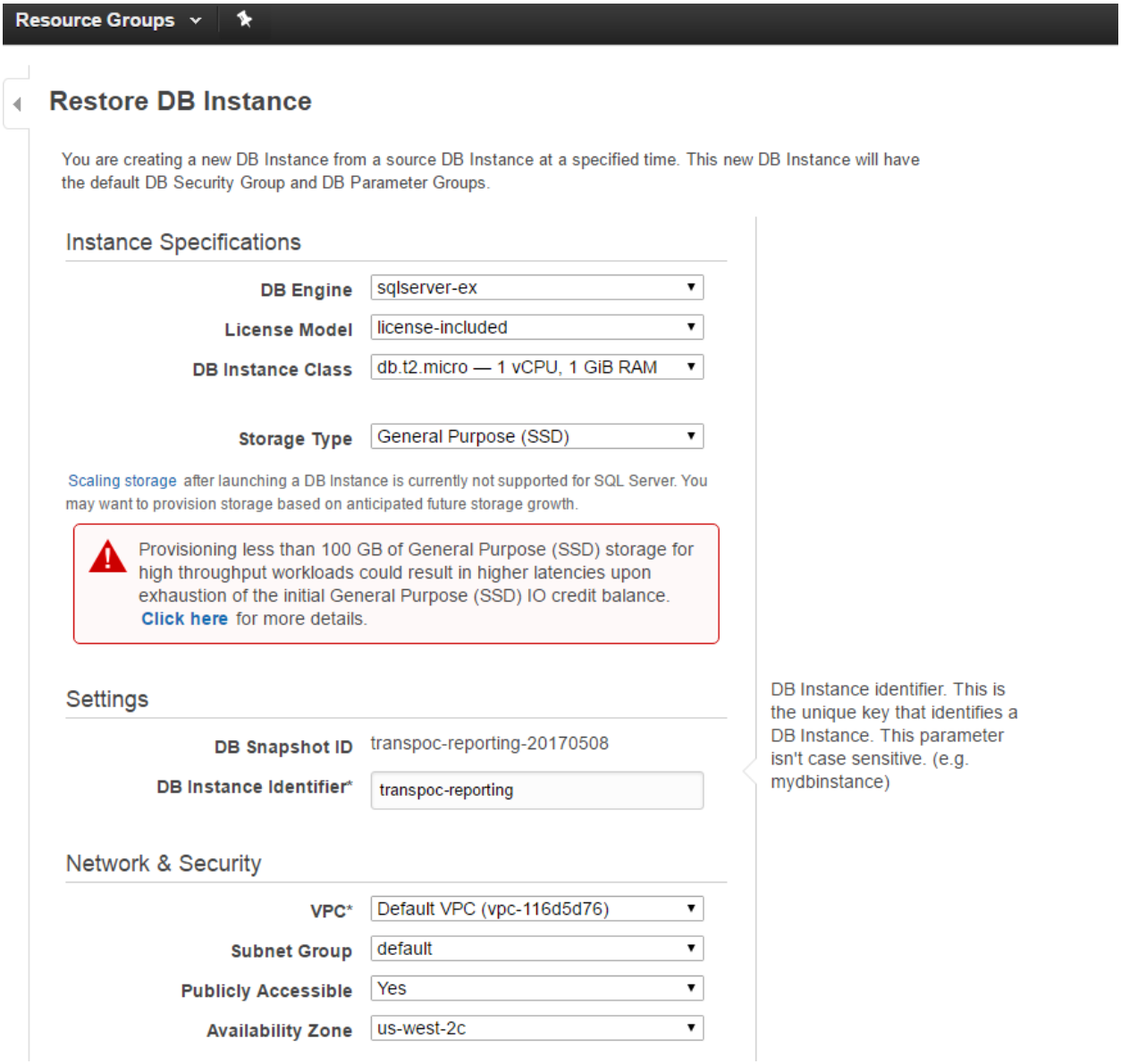
	General purpose	t2.small	1	2	EBS only
	General purpose	t2.medium	2	4	EBS only
	General purpose	t2.large	2	8	EBS only
■	General purpose	t2.xlarge	4	16	EBS only
	General purpose	t2.2xlarge	8	32	EBS only

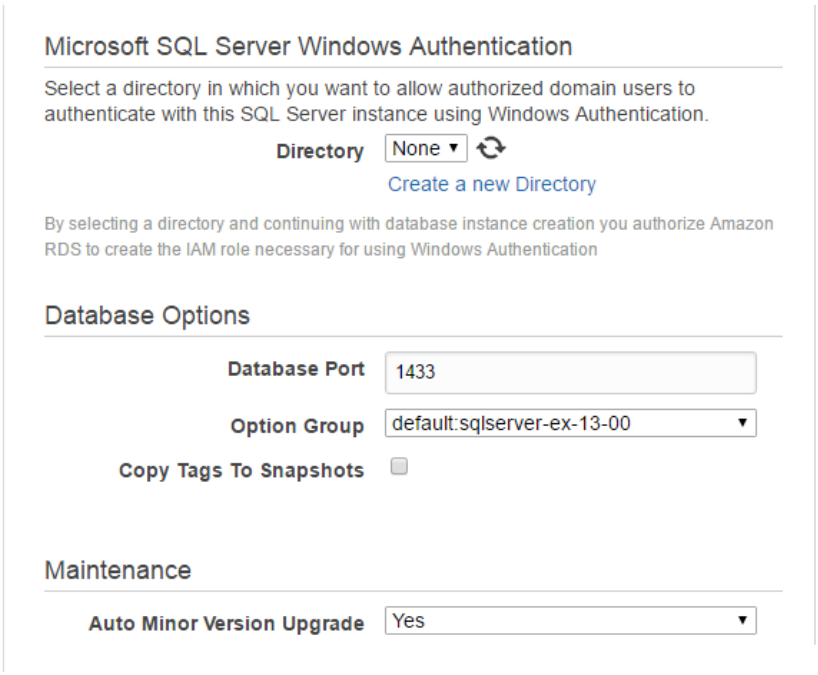
Setting up SQL Server Express Instance:

1. Open the Amazon RDS console at https://console.aws.amazon.com/rds/.
2. In the navigation pane, choose **Snapshots**
3. In the first filter, choose **All Public Snapshots**.
4. Search for the snapshot transpoc-reporting-20170508

5. Once you have found the image, right click and select to launch.

6. Set the options as shown below:





7. Click Restore DB Instance when ready.
8. Record the ARN of your SQL Server DB instance once ready as this will be needed when trying to connect.

Environment Configuration/Setup:

As a note, Pentaho will already be installed on the EC2 Windows instance. Also, all Kettle and Data Analysis/Visualization files will already be present as well following the Image restore.

The base code for the Pentaho transformations and jobs are located on the EC2 image in the following directory: C:\TransPOC
These base code files are also included in the GitHub repository
here: https://github.com/reddraider/TransPOC_1/tree/master/Pentaho_Code/Kettle_Code

The kettle.properties file is located
here: https://github.com/reddraider/TransPOC_1/tree/master/Pentaho_Code/Config_Files
This file will have to be modified with the SQL Server Express ARN as well as the NREL API Key. This file will need to be placed in the C:\Users\Administrator\.kettle EC2 directory (can overwrite existing file). This can be done by copying/pasting the file via RDP once you have modified it. Modify the following attributes in the kettle.properties file:

```
################################################################################
#SQL NREL Fuel Station Database
#Connection_URL=jdbc:sqlserver://reporting.caylwz8kpbxv.us-west-2.rds.amazonaws.com:1433;databaseName=reporting;selectMethod=cursor;
Connection_URL=can copy the string above and modify the database ARN connection
Driver_Class_Name=com.microsoft.sqlserver.jdbc.SQLServerDriver
User=reddraider
```

Password=

##NREL URL and API KEY
AgileBIDatabase=AgileBI
NREL_API=http://api.data.gov/nrel/alt-fuel-stations/v1.json?api_key=
API_Key=

##

Pentaho Analytics:

All reporting files exist within EC2 instance by going to the URL http://localhost:8080/pentaho/Home
User: admin
Pass: password

These files can also be found on Github
here: https://github.com/reddraider/TransPOC_1/tree/master/Pentaho_Code/Reports

Database Creation/DDL

The SQL Server Express database creation DDL is located
here: https://github.com/reddraider/TransPOC_1/tree/master/Pentaho_Code/DDL
Please let me know if you have any questions.