Test Assignment for position: SYSTEM SUPPORT ADMINISTRATOR

Objective

The objective of this assignment is to test your abilities to learn quickly about new technologies and work independently.

The Task

License Management is a critical issue in a typical IT-department. Understanding what is installed on all computers is harder than you might think but usually, inventory tools are there to scan all computers to see what is installed and how the software is being used. Comparing the number of installations with the purchased number of licenses is also important to make sure that you don't buy too few, or too many licenses.

Your task is to create a License compliance RDL-report using an Azure SQL Data source.

Things that the IT-department typically wants to see is:

- Do I have enough licenses versus installations?
- How is the software being used?
- Can I uninstall some unused software to save license costs?

Preparation

First, you have to download and install the free SQL Server Data Tools. You can use either version 2015 or 2017.

If you have never used Visual Studio or worked with report creation you might want to check this tutorial out.

Data Source

- The data source you will be using is a Microsoft SQL Server database and it is of type "Microsoft SQL Azure"
- Connection string is:
  Data Source=atea.database.windows.net;Initial Catalog=AssignmentDB;Encrypt=True;TrustServerCertificate=False
- The credentials to be used are: Username=AssignmentUser, Password=9utUyupUWE6p

For Information about the data in the data source, see Appendix 1.

Requirements

Feel free to make the report the way you want, but it should fit on an A4-format sheet and it should contain at least:

- 1 chart
- 1 table or matrix

Make sure your report answers at least **two** of the typical questions listed above.

Presentation

When you have completed the task, you should run the report, export it to pdf, docx or tiff (whichever looks best), and send it along with the rdl-file to recruitment@atea.com with the subject **BSC SAM Team - System Support Administrator Test Assignment.**

Assessment criteria

Your work will be evaluated based on the following parameters:

- Compliance with defined requirements
- Quality of SQL queries
- Report's design language
- Extra Mile

Questions

We encourage independent work, but if you have questions during this assignment, feel free to contact artis.mucenieks@atea.com

APPENDIX 1 – Explanation of data in the data source

Below you can find the description of data source contents:

Table **LicenseComplianceReport**

The table consists of a license compliance report, which shows for a customer their installed software statistic, as well as their usage, how many licenses they have purchased and the cost of each license.

Column	Description
PoolID	an ID for this software item
Name	the name of the software
Price	the unit-price for each software license
Installed	the total number of installations
Used _3_months	how many computers started the software within 3 months
Used_6_months	how many started the software within 6 months
Used_12_months	how many started the software within 12 months
Licenses	the number of purchased licenses for the software

Table **InstalledAndUsedSoftware**

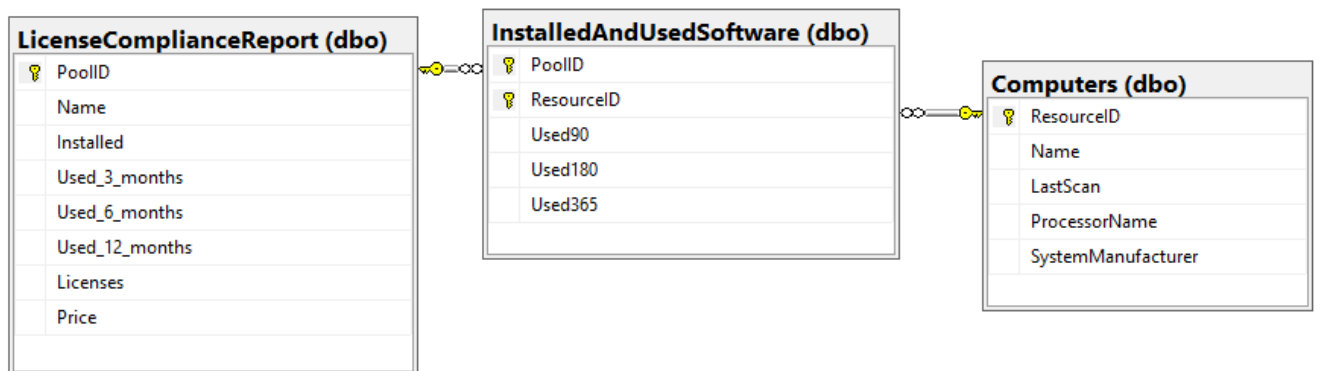Contains detailed usage information for each software item and computer.

Column	Description
PoolID	an ID for this software item
ResourceID	an ID for this computer
Used90	1 if computer started the software within 90 days (3 months), otherwise 0
Used180	1 if computer started the software within 180 days (6 months), otherwise 0
Used365	1 if computer started the software within 365 days (3 months), otherwise 0

Table **Computers**

Contains detailed information about each computer.

Column	Description
ResourceID	and ID for this computer
Name	the hostname of the computer
LastScan	last time when the computer was inventoried
ProcessorName	name of the CPU installed
SystemManufacture	name of computer's manufacturer

Table relation diagram:

APPENDIX 2 - Data samples

For the example of information contained in the tables please refer to the file **Test Assignment - Appendix 2.xlsx**