



1. Main page: <http://cortanaanalytics.com>
2. When you begin this Module, you should:
  1. Understand the Azure Platform
  2. Be able to instantiate IaaS VM's
  3. Be able to create Azure Data stores, understand the basic ingress and egress of data
  4. Be able to deploy an Azure Web Site
  5. Be Able to deploy an Azure Web Application
  6. Be able to access and use an Azure Service, such as HDInsight or Azure ML

## Module 4 Learning Objectives



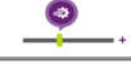
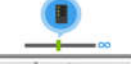







1. Understand the process of marrying a series of requirements to a series of capabilities within the Cortana Intelligence Suite
2. Be able to show the solution designed to a business and technical audience
3. Use the Graphical Tools for multiple Cortana Intelligence Suite products



When you are done with this module, you will be able to:

1. Understand the process of marrying a series of requirements to a series of capabilities within the Cortana Intelligence Suite
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# Cortana Intelligence Suite Stack

	Cortana
	Power BI
	Azure Stream Analytics
	Azure HDInsight
	Azure Machine Learning
	Azure SQL DB, Data Warehouse, DocumentDB
	Azure Data Lake
	Azure Event Hubs
	Azure Data Catalog
	Azure Data Factory
	Microsoft Azure

1. Platform and Storage: Microsoft Azure – <http://microsoftazure.com> Storage: <https://azure.microsoft.com/en-us/documentation/services/storage/> (Host It)
2. Azure Data Factory: <http://azure.microsoft.com/en-us/services/data-factory/> (Move It)
3. Azure Data Catalog: <http://azure.microsoft.com/en-us/services/data-catalog> (Doc It)
4. Azure Event Hubs: <http://azure.microsoft.com/en-us/services/event-hubs/> (Bring It)
5. Azure Data Lake: <http://azure.microsoft.com/en-us/campaigns/data-lake/> (Store It)
6. Azure DocumentDB: [https://azure.microsoft.com/en-us/services/documentdb/?WT.srch=1&WT.mc\\_ID=SEM\\_JQ3fO8dU](https://azure.microsoft.com/en-us/services/documentdb/?WT.srch=1&WT.mc_ID=SEM_JQ3fO8dU), Azure SQL Data Warehouse: <http://azure.microsoft.com/en-us/services/sql-data-warehouse/> (Relate It)
7. Azure Machine Learning: <http://azure.microsoft.com/en-us/services/machine-learning/> (Learn It)
8. Azure HDInsight: <http://azure.microsoft.com/en-us/services/hdinsight/> (Big It)
9. Azure Stream Analytics: <http://azure.microsoft.com/en-us/services/stream-analytics/> (Stream It)
10. Power BI: <https://powerbi.microsoft.com/> (See It)
11. Cortana: <http://blogs.windows.com/buildingapps/2014/09/23/cortana-integration-and-speech-recognition-new-code-samples/> and <https://blogs.windows.com/buildingapps/2015/08/25/using-cortana-to-interact-with-your-customers-10-by-10/> (Say It)

## Business Case

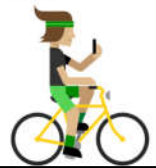
AdventureWorks is a company that makes and sells bicycles. The sales are conducted around the world. We also support our products. Interestingly, the issue we're facing is in our facilities.

We need to know a lot more about our HVAC systems – they are critical to the machinery that creates the fine-detail parts on our products. The HVAC systems have sensors that create a lot of data – several million records a day, in fact.

We have facilities around the world, and when a facility runs “hot”, we have to shift production to another part of the world. With our just-in-time manufacturing process, this has huge financial impacts. We've had situations where the systems ran hot and we shifted production to another location (at great cost), and then we found it was an anomaly in the reporting system.

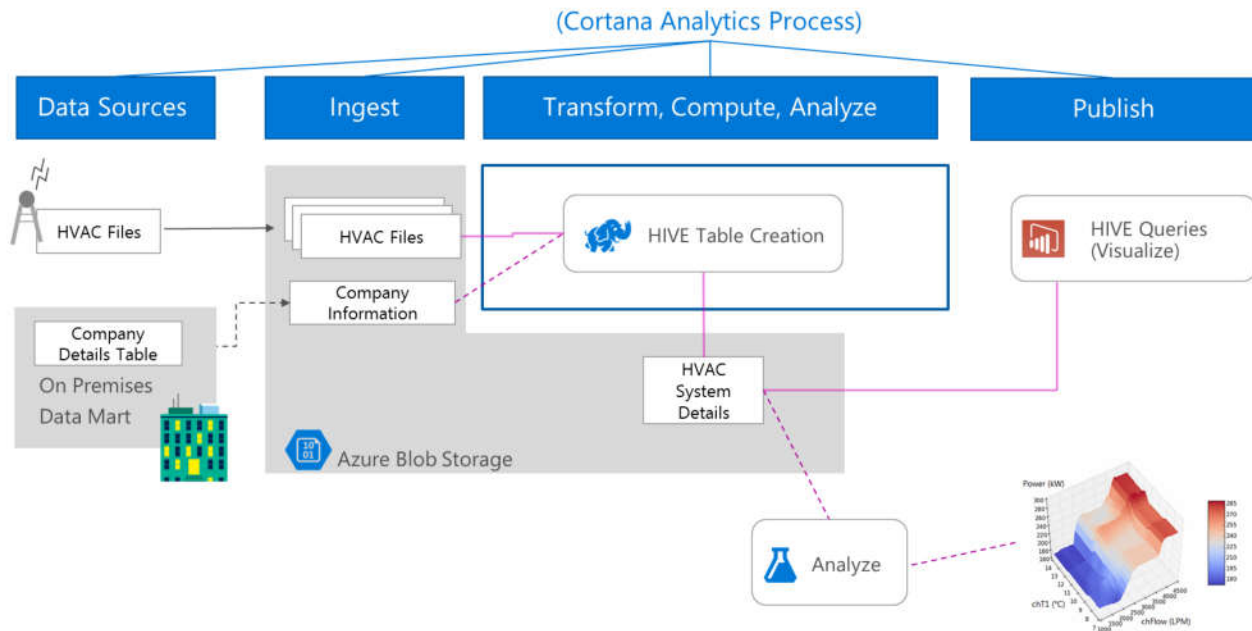
Ideally we want a graphic that shows our management team the map of where our HVAC systems are, and their daily status.

More on our in-house data: <https://technet.microsoft.com/en-us/library/ms124501%28v=sql.100%29.aspx>



1. The AdventureWorks Scenarios:  
<https://technet.microsoft.com/en-us/library/ms124501%28v=sql.100%29.aspx>

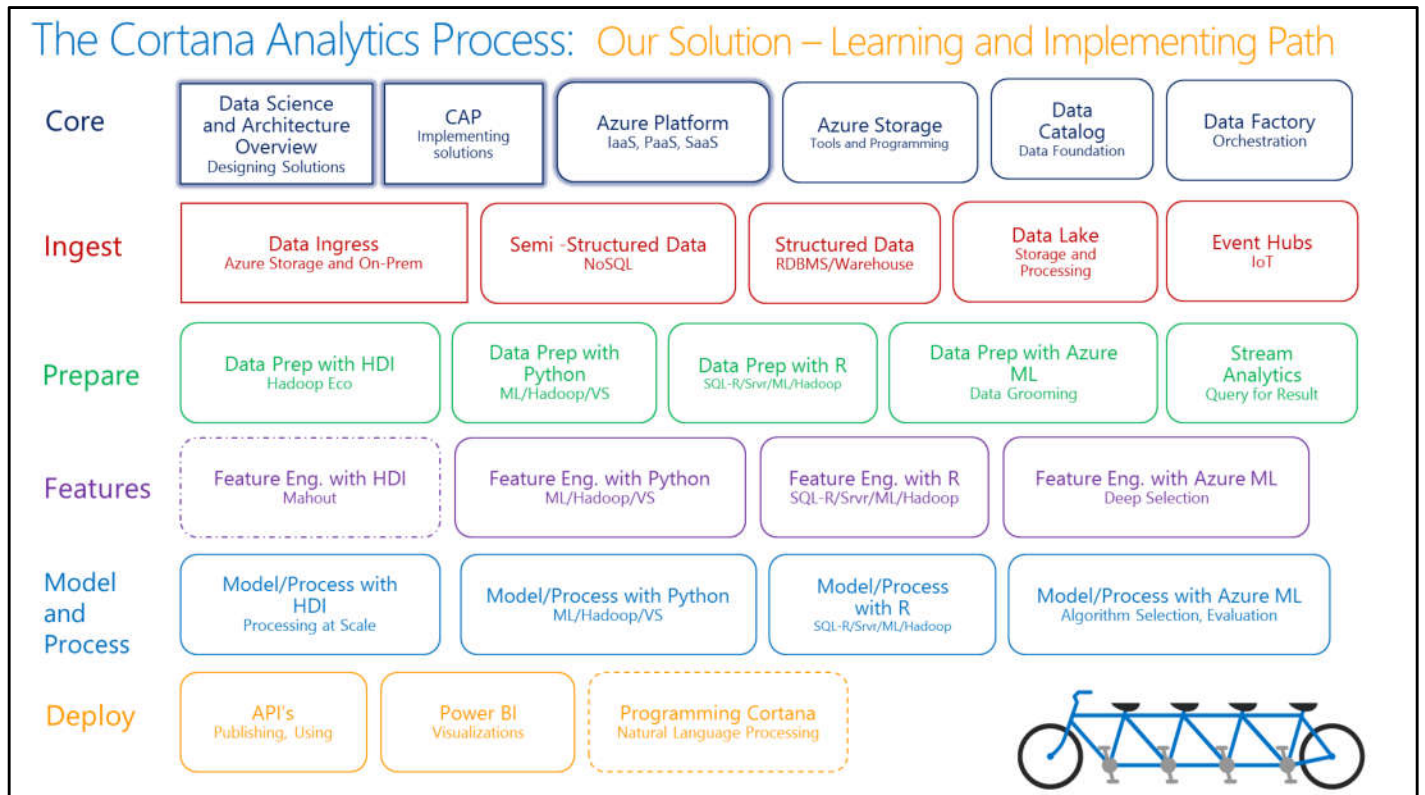
# Cortana Intelligence Suite Solution – HDInsight



1. Using the Optional Machine Learning Exercise in combination with this solution:

<https://gallery.cortanaanalytics.com/Experiment/modeling-for-HVAC-system-2>





1. The Cortana Analytics Process:  
<https://azure.microsoft.com/en-us/documentation/learning-paths/cortana-analytics-process/>

# Graphical Tools Tour

1. Azure Portal
2. Azure Data Catalog
3. Ambari
4. Azure ML
5. Visual Studio
6. Storage Explorers



1. A video of the new Portal:  
<https://channel9.msdn.com/Blogs/Windows-Azure/Azure-Preview-portal>
2. Build Custom Dashboards in the Microsoft Azure Portal: <https://channel9.msdn.com/Blogs/trevor-cloud/azure-portal-dashboards>



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