What is SSIS?

* MSBI Tool by Microsoft
* Used in data migration activities

SSIS Components

* Control Flow
* Data Flow
* Package
* Event Handlers
* Log Provider
* Variables
* Connection Managers

Control Flow Tasks

* Containers
  + For loop container
  + For each loop container
  + Sequence container
* Tasks
  + Active X Script Task
  + Analysis Services Execute DDL Task
  + Analysis Services Processing Task
  + Bulk Insert Task
  + Data Flow Task
  + Data Mining Query Task
  + Data Profiling Task
  + Execute DTS 2000 Package Task
  + Execute Package Task
  + Execute Process Task
  + Execute SQL Task
  + File System Task
  + FTP Task
  + Message Queue Task
  + Script Task
  + Send Mail Task
  + Transfer Database Task
  + Transfer Error Messages Task
  + Transfer Jobs Task
  + Transfer Logins Task
  + Transfer Master Stored Procedures Task
  + Transfer SQL Server Objects Task
  + Web Service Task
  + WMI Data Reader Task
  + WMI Event Watcher Task
  + XML Task

Package Events

* OnError
* OnExecStatusChanged
* OnInformation
* OnPostExecute
* OnPostValidate
* OnPreExecute
* OnPreValidate
* OnProgress
* OnQueryCancel
* OnTaskFailed
* OnVariableValueChanged
* OnWarning

SSIS Transactions

* Every task runs in its own transaction
* Multiple tasks can be put under a single transaction by putting them in a sequence container

Event Handling in SSIS

* Every executable in SSIS has some events attached to it.
* These events can be handled by creating event handlers.

DisableEventHandlers Property

* It can be set to true if we don’t want to remove the event handlers but don’t want to call them.

Union All vs Merge Join

* Union All can accept more than two data sources
  + Merge Join only accepts two data sources
* Union All don’t require sorted inputs
  + Merge join requires sorted inputs
* Union All is partially blocking
  + Merge Join is partially blocking

Sort Transformation

* Sort Transformation is full blocking process. No rows will be transferred downstream until all rows have been sorted. To overcome this, we can use order by at source.