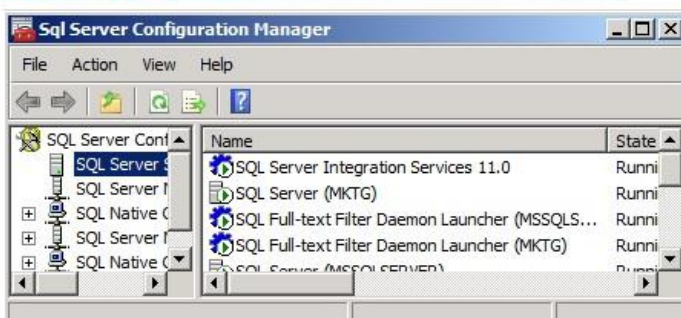
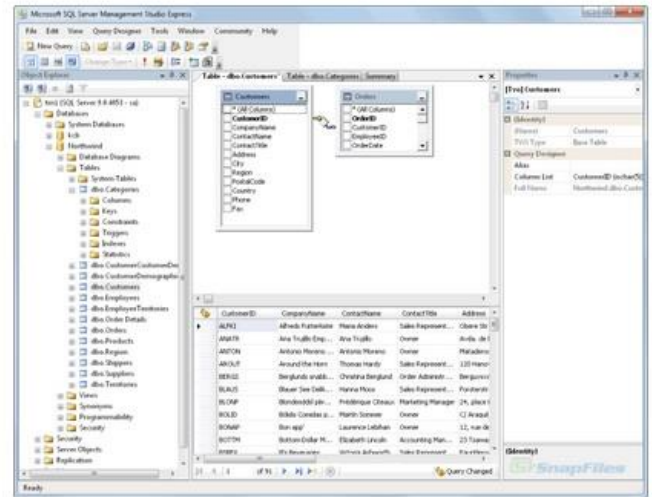
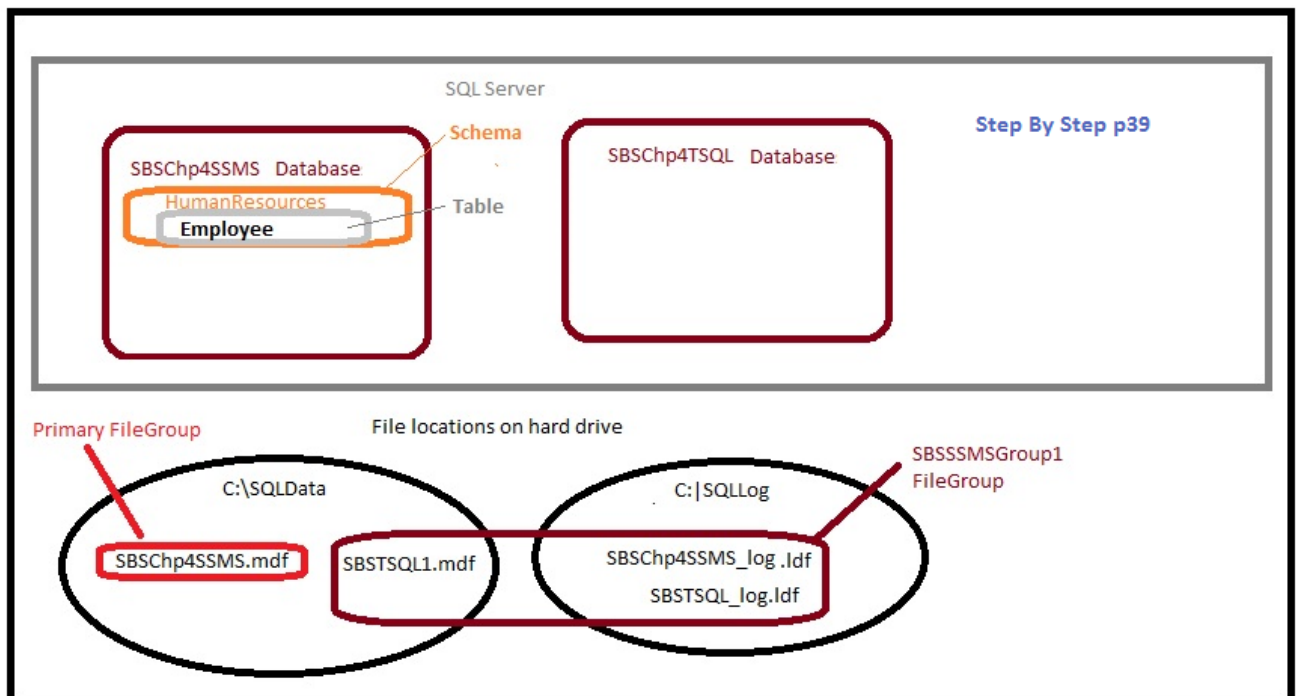


### IDE - Integrated Development Environment

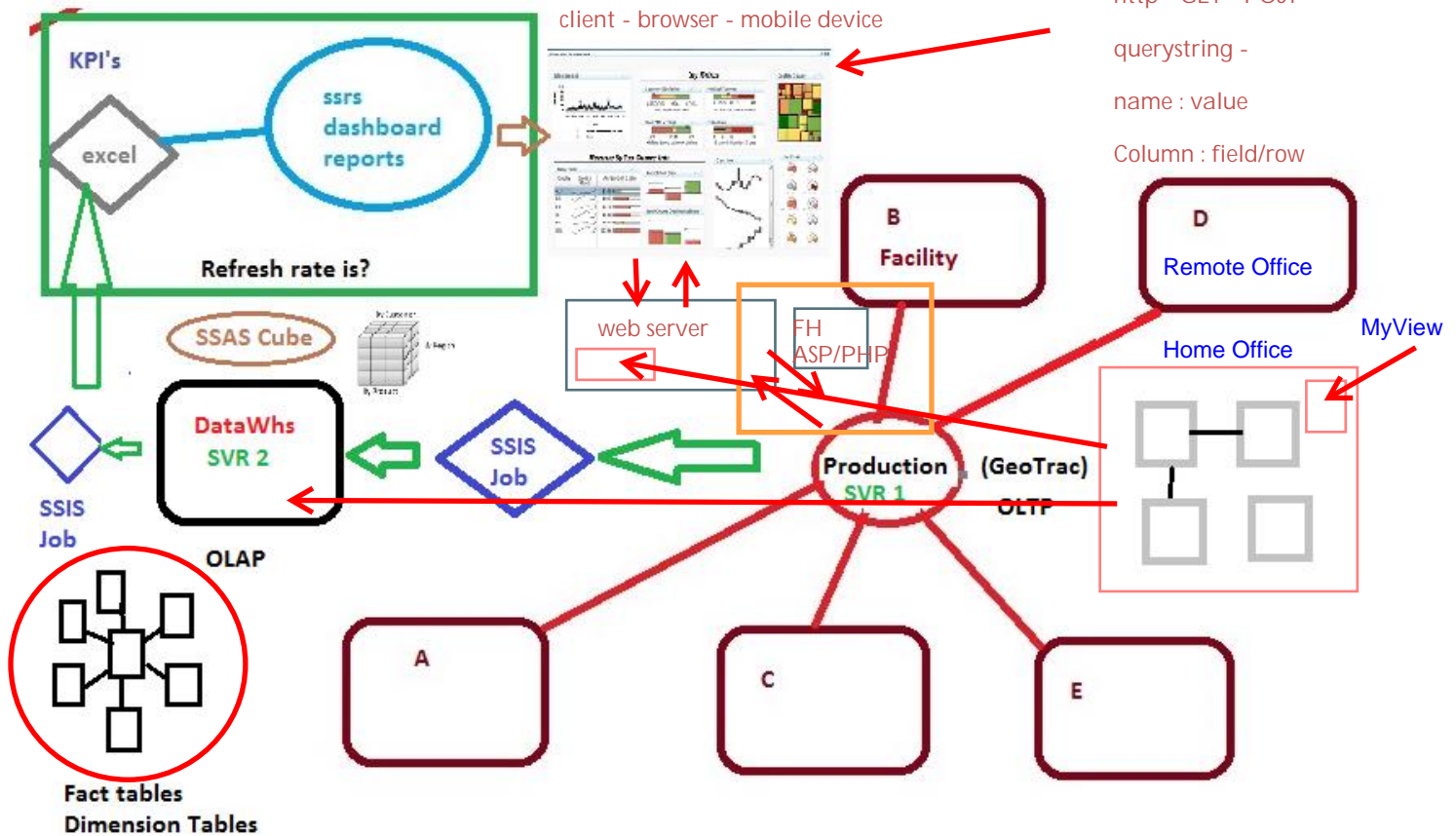
- Visual Studio - full app development - includes SQL express..
- SSMS - Visual Studio front end for managing SQL server & Dbases...
- SSDT - Visual Studio included with SQL installation as a feature with data tool templates installed..
- SSCM - SQL Configuration Manager - services & service accts & connections



Server

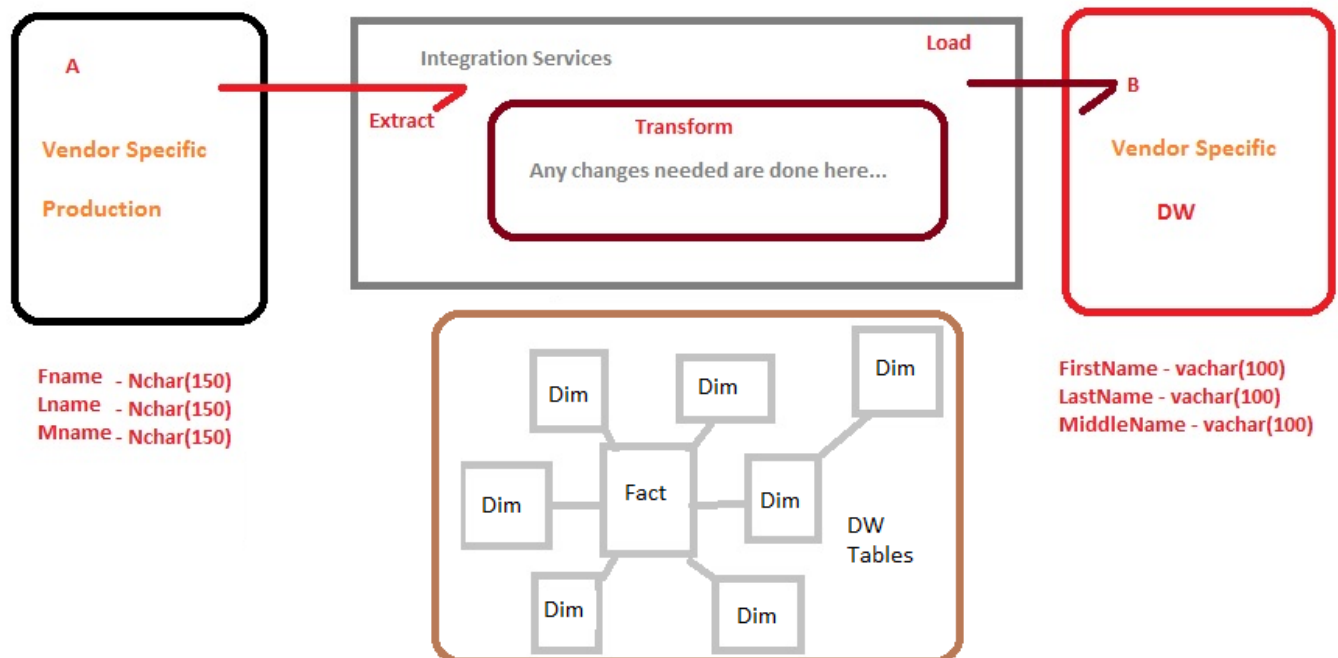


The Container Discussion: What happens to a security principles permissions with GRANT, REVOKE or DENY



## SSIS

ETL - Extract Transform Load

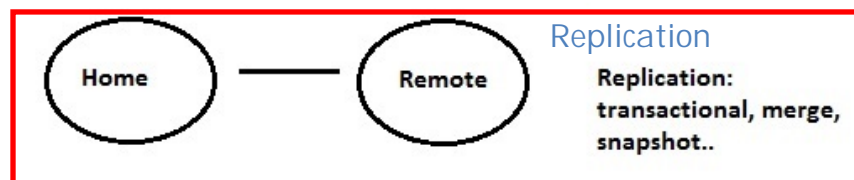
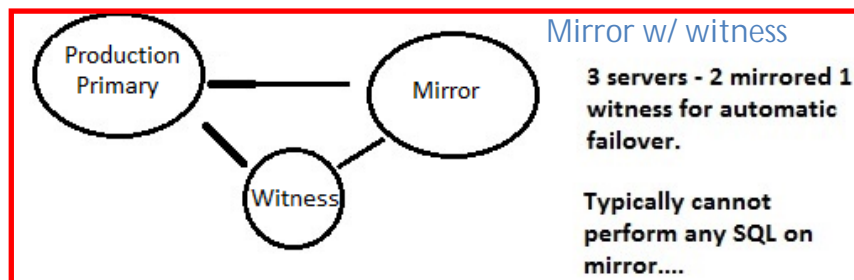
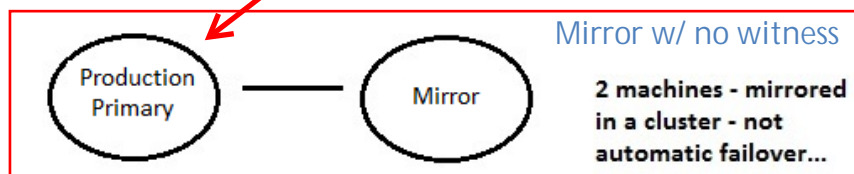




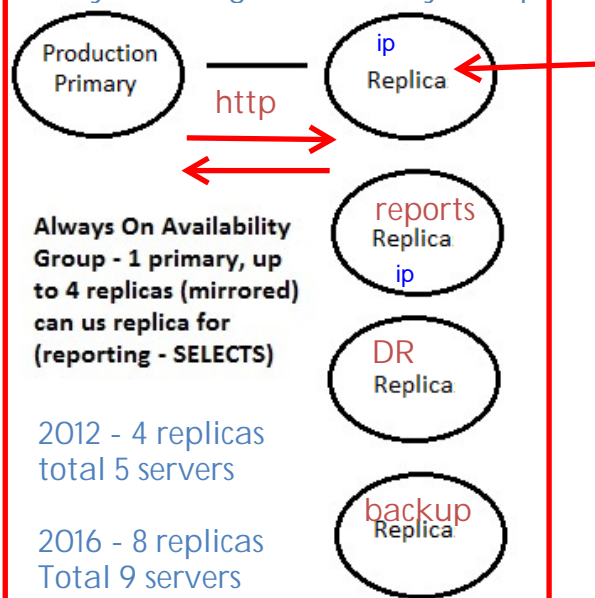
synch vs. asynch - t - logs

Tim's Notes

The\_Big\_Picture



## Always On / High Availability Group



## Mirroring vs. Replication vs. Window Clustering Services

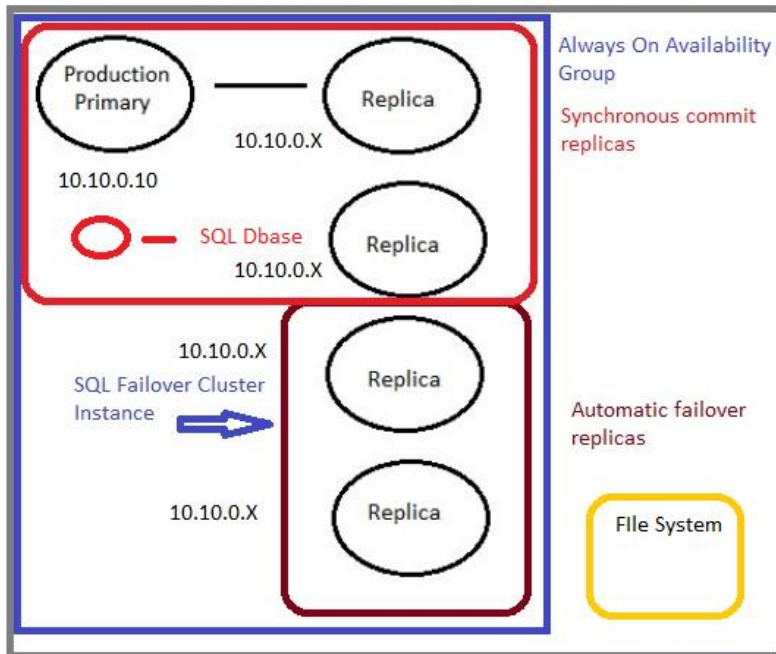
Know your SQL relationships: <http://stackoverflow.com/questions/8094156/know-relationships-between-all-the-tables-of-database-in-sql-server>

```

SELECT
    fk.name 'FK Name',
    tp.name 'Parent table',
    cp.name, cp.column_id,
    tr.name 'Refrenced table',
    cr.name, cr.column_id
FROM
    sys.foreign_keys fk
INNER JOIN
    sys.tables tp ON fk.parent_object_id = tp.object_id
INNER JOIN
    sys.tables tr ON fk.referenced_object_id = tr.object_id
INNER JOIN
    sys.foreign_key_columns fkc ON fkc.constraint_object_id = fk.object_id
INNER JOIN
    sys.columns cp ON fkc.parent_column_id = cp.column_id AND fkc.parent_object_id =
cp.object_id
INNER JOIN
    sys.columns cr ON fkc.referenced_column_id = cr.column_id AND
fkc.referenced_object_id = cr.object_id
ORDER BY
    tp.name, cp.column_id
  
```

Event Listener - single IP to all servers 192.168.21.45

Windows server failover cluster Setup - then create cluster with all nodes



**Always On Availability Group - 1 primary, up to 4 replicas (mirrored) can us replica for (reporting - SELECTS)**

Data synchronization

Moving data from Primary SQL database to all replicas that support the cluster....

Filestream/Filetable

Access unstructured data in the file system

Events:  
Server level  
Database  
Users  
Application  
Custom

Trigger that fires based on an event....