Create a larger virtual disk 5 gigs

diskmgmt.msc - action - create VHD - size - initialize – volume

create database – redirect both data and log files to this drive (W)

What is a page split?

- We talked about in the previous video that a page has 8060 bytes of free space for you to insert data rows and/or update existing rows. At times, when you insert more rows there may not enough room for the newly inserted row in the applicable data page.

- If this happens, then SQL Server will have to move some of the data from the current data page and move it to a new data page.

- This involves the normal I/O of inserting of a row, but at the same time involves updating any applicable indexes. This result in a lot of excessive I/O.

- While a certain amount of page splits is normal and expected, too many page splits can cause performance issues.

- In this video we shall set up a page split and in coming videos see ways to resolve excessive page splits

Diagram of a page split

- This diagram illustrates a page split.
- We can see that page 1:201 has five rows AAAA to FFFF not including DDDD
- When you insert a new row (DDDD) in a sequential order for the page that has NO MORE room for row DDDD, the SQL Server splits the page 1:201 in half and creates a NEW page 1:307 IN BETWEEN 1:201 and page 1:202. SQL server now has to read more pages and update the index also!