T-SQL 1

T-SQL Enhancements

Overview

- Row constructors
- Output clause
- Large datatypes
- Covering indexes

Table Row Constructor

- Cleaner syntax for multi-row insert

```
insert into Accounts (1, 50)
```

Output

- **OUTPUT clause accesses inserted and deleted rows**
  - acts like select embedded in an insert, update, or delete
  - single statement

```
begin tran
select * into #deleted from Accounts where balance < 100


commit tran
```

Large Data Types

- **T-SQL supports large character and binary data types**
  - no 8000 byte limit
  - first class scalar data type
- **Text, ntext, and image are deprecated**
- **Max sizes large data type**
  - varchar(max)
  - nvarchar(max)
  - varbinary(max)
- **.WRITE modifies large data type**
  - can insert data
  - can delete data

```
create function gettext(@t text)
returns text
begin
return @t;
end
```

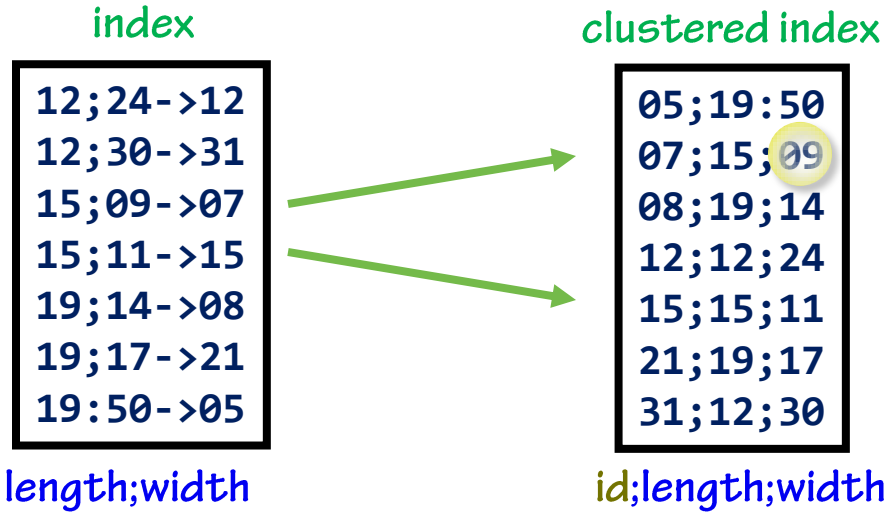
```
create table documents
(
id int identity primary key,
name varchar(20),
document image
)
```

Covering Index

- **An index may cover a query**
  - index contains value being queried
  - improves performance by avoiding table lookup
- **Include adds covered columns to index**

```
create table sizes
(
id int primary key,
length int,
width int
)
```

```
select width from sizes
where length = 15
```



Summary

- Row constructors make for less typing
- Output clause useful for identity columns and seeing what changed
- Large datatypes to store/manipulate binary data and text
- Covering index idiom has been improved

References

- Directory Opus from GP Software http://www.gpsoft.com.au/