

# TSQL-II

T-SQL Enhancements



# Overview

- **TOP**
  - has improved syntax
  - wider usage
  - replaces some usages of set rowcount
- **Exceptions**
  - cleaner syntax for managing errors
  - better error coverage

# Exceptions

## ■ Error directed to handler

- `declare @@ERROR`
- `insert into Account values (1,100);`
- Try protects  
`set @@error = @@error;`
- Catch handles  
`if(@error != 0) go to errorHappened;`  
`insert into Account values (1, 100);`

`begin try`

```
insert into Account values (1, 100);  
insert into Account values (1, 200);  
insert into Account values (2, 150);
```

`end try`

`begin catch`

`end catch`

# Exception Functions

- **Catch block can access functions that describe the exception**

- ❑ `error_message()`
- ❑ `error_number()`
- ❑ `error_severity()`
- ❑ `error_state()`
- ❑ `error_procedure()`
- ❑ `error_line()`
- ❑ `xact_state()`

`raiserror(2627, 14, 1, ...)`

Msg 2627, Level 14, State 1, Procedure insertJohn, Line 3  
Violation of PRIMARY KEY constraint 'PK\_\_people\_\_3213E83F7F60ED59'. Cannot  
insert duplicate key in object 'dbo.people'.

# Summary

- **TOP can be parametrically set**
  - going forward use for limiting resources
- **Exceptions mirror other languages**
  - try/catch blocks
  - try protects
  - catch handles
  - batch ending errors handled