

Debugging and Troubleshooting Stored Procedures



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Debugging and Troubleshooting Stored Procedures

Using the Print Statement

**SQL Server Management
Studio Debugging Tools**

Try/Catch and Error Functions

**Transactions and
Defensive Coding**



When Print Isn't Enough



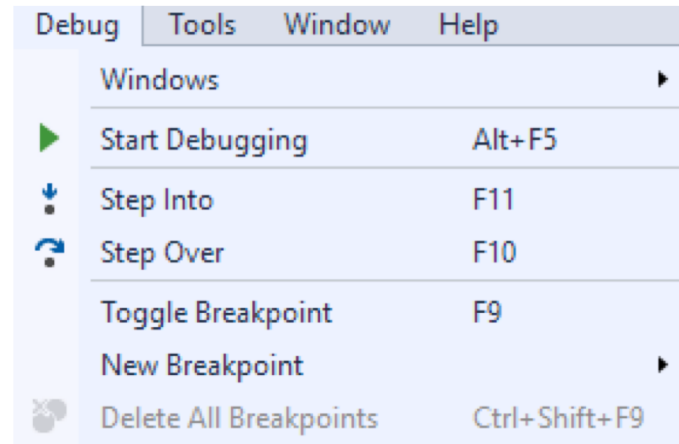
Challenging Problems



The Next Level



SQL Server Debugging Tools



Stepping Through Line by Line



Known and Unknown Factors

 Deleted permissions

 Disk unavailable

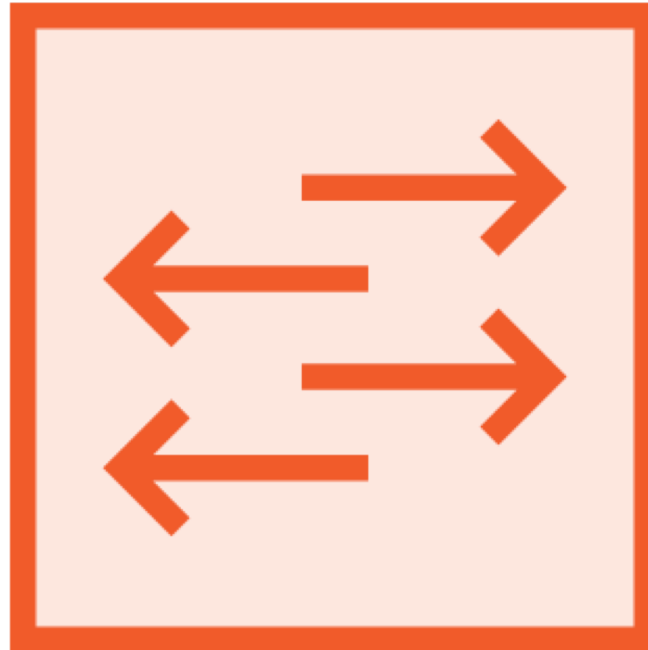
 Constraints

 Add error handling

Cast Out GoTo



Spaghetti Code



Error Functions



`ERROR_LINE()`



`ERROR_NUMBER()`



`ERROR_STATE()`



`ERROR_SEVERITY()`



`ERROR_PROCEDURE()`



`ERROR_MESSAGE()`



Return Codes

EXEC
Procedure1;



Return Value:
0



```
SELECT @RetVal =  
    CASE WHEN @Result BETWEEN 0 AND 99 THEN 10  
    ...  
        WHEN @Result BETWEEN 900 AND 999 THEN 100  
    END;  
  
RETURN @RetVal;
```

Return Codes

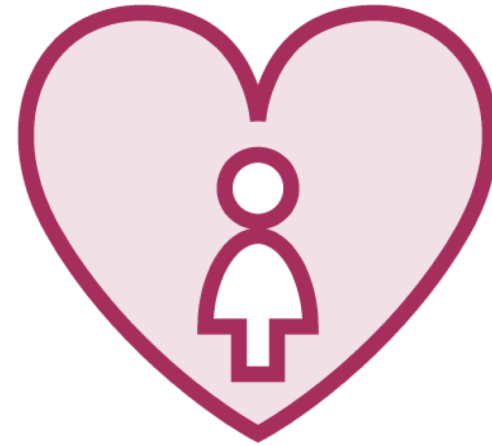
Provides the calling program with an informative return code integer, which can be interpreted to decide program flow



Dolly's Dolls



Grace



Dolly's Dolls

Summary



Print statement for quick feedback

Stepping into code with the debugger

Try/catch to handle runtime errors,
expected and unexpected

Always close transactions!

Write code to prevent errors
from occurring



Thanks for watching!

