Conditional Logic

CASE Expressions and COALESCE Function

Conditional Logic

- Database tables often contain codes
- Want to write queries that display the interpretation of these codes
- SQL conditional logic to the rescue

SQL CASE Expression

```
SELECT StdSSN,
       ( CASE
         WHEN StdMajor = 'IS' THEN 'Info Sys'
         WHEN StdMajor = 'FIN' THEN 'Financial Mgmt'
         ELSE 'Unknown'
         END
       ) AS Major
   FROM Student
```

STDSSN	MAJOR
123456789	Info Sys
124567890	Financial Mgmt
234567890	Unknown
345678901	Info Sys
456789012	Financial Mgmt
567890123	Info Sys
678901234	Unknown
789012345	Financial Mgmt
876543210	Info Sys
890123456	Info Sys
901234567	Info Sys

Simplified Syntax

```
SELECT StdSSN,
      ( CASE StdMajor
         WHEN 'IS' THEN 'Info Sys'
         WHEN 'FIN' THEN 'Financial Mgmt'
         ELSE 'Unknown'
         END
      ) AS Major
   FROM Student
```

Dealing with NULL

```
SELECT OFFERNO,
    CASE WHEN FACSSN IS NOT NULL
       THEN FACSSN
        ELSE 'Unassigned'
     END
FROM Offering;
```

Dealing with NULL

```
SELECT OFFERNO,
    COALESCE(FACSSN, 'Unassigned')
FROM Offering;
```

The COALESCE function handles the previous CASE more succinctly.

Further Reading

- http://www.sql-statements.com/sql-case.html
- http://modern-sql.com/feature/case