

# SQL Revision History

By Rory McGann

# SQL History

- *A Relational Model of Data for Large shared Data Banks* by Dr. E. F. Codd in 1970
- *SQL created by Donald Chamberlin and Raymond Boyce at IBM in early 1970's*
- *Standardized by ANSI in 1986, first version called SQL-86*
- *DML focus, changes contents of database (SELECT, UPDATE)*
- *Support for embedded SQL*
- *Criticized for not being orthogonal*

# SQL-89

- Was a minor revision
- Embedded SQL support for C and ADA
- Support for DDL which manipulates the schema of a database (create table, create view)
- Lots of integrity checks added
- Defined Primary keys, check constraints and referential integrity

# SQL-92

- Added more support for DDL (ALTER, DROP)
- New data types (Date and Time)
- Improvements to Orthogonality
  - Allowed to use subqueries
- New set operations (natural join, set difference)
- Attempts to be backwards compatible

# SQL-1999

- New data types – Boolean , Array
- Use of Predicates (IN, BETWEEN, LIKE)
- Recursive Queries
- Triggers
- Objects
  - User defined types
  - Typed tables

# SQL:2003

- Built in scalar functions (power, max)
- MERGE statement
- Sequence generator generator
- Support for XML

# SQL:2006

- Improvements in XML support
- Integration of XQuery

# SQL:2008

- Updated MERGE
- Truncate table
- INSTEAD OF trigger
- More Xquery support



# SQL:2011

- Temporal database support
- Valid time
- Transaction time

EmpID	Name	Department	Salary	ValidTimeStart	ValidTimeEnd
10	John	Research	11000	1985	1990
10	John	Sales	11000	1990	1993
10	John	Sales	12000	1993	INF
11	Paul	Research	10000	1988	1995
12	George	Research	10500	1991	INF
13	Ringo	Sales	15500	1988	INF