All about Relational Database

As professionals in data analysis and manipulation, our primary responsibility is to identify and establish accurate relationships among data sets.

In everyday life, data elements are rarely organized in a manner comprehensible to databases. Therefore, they must be transformed from a conceptual model representing the real world into a physical model that fits the structure of the database.

The topics covered in this course will provide you with the essential knowledge and skills required to become a proficient data handler.

Date: June 3, 10, 17, and 24 2025   7pm to 9pm (2 hrs.) on Tuesdays

Location: Chelmsford MA (will be announced soon)

Notes

- Registration fee of $120 covers administration expenses.
- Bring your notebook computer with MS SQL Management Studio installed.
- Send your email registration to Taewon Jin taewonjin@phoenixbc.com . Please share briefly with your instructor what you expect from this fast-track course.

Course topics

Week one

- All about relational database design
- Entity Relationship - Relationship Cardinality
- Normalization
- Conceptual data model to Physical data model
- Table
  - Relation
  - Rows and Columns
  - Attribute (Tuple)
  - File, Records, and Items

- Data Modeling Samples
  - Summer Camp – Signup for activities.
  - Laundry business – Point of sales
  - Medical Claim Audit – Workflow manage.
  - Wage negotiation – Union contract

Week two

- Powerful Select statements.
- Built-in Functions
- Joining Tables (inner join and outer join)
- Set Operations
- Transactional SQL language

Week three

- MS SQL Server Management Studio – Express version (Free Download)
- Build your database model.
- Import and Export data.
- Backup and Restoring database.
- User permissions on SQL objects

Week four

- External Access to SQL views
- Database Transfer
- Executing SQL stored procedures with parameters from Microsoft Visual Studio
- MS SQL Server Intelligence Service

The presenter of this 4-week program is Mr. Taewon Jin, the founder of a database consulting company. With over 30 years of experience, Mr. Jin has developed databases for various industries.

Cigna Healthcare and United Healthcare, two of the largest health insurance companies, utilize Mr. Jin's workflow management applications across their organizations. Notably, Cigna has been using Smart Audit Master (SAM) for its entire claims system since 1998. United Healthcare implemented Mr. Jin's rule-based defect tracking solutions (SAM Edit Rules) for over a decade. These edit rules identify financial and procedural errors in claims adjudication processes and prevent payments to care providers using advanced, dynamic edit rules.

Mr. Jin firmly believes that identifying entity relationships within business processes establishes a strong and flexible foundation for application development. He is eager to share his insights and experiences with others.

Taewon Jin
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