SQL Server Developer

- **SQL Server Database - Introduction – <mark>Week 1 (Saturday) –4 hrs</mark>**

    - Database Concepts and Models
    - Introduction to Normalization rules
    - Introduction to Microsoft SQL Server 2008
    - Install and configure Microsoft SQL Server 2008(Express Edition)
    - Question and Answer session
    - Exercises

- **SQL Server Installation & Introducing Tables –<mark>Week 1 (Sunday) –4 hrs</mark>**

    - Install and configure Microsoft SQL Server 2008(Express Edition)
    - Different applications used to manage SQL Server
    - Data Types
    - Understanding Tables
    - Creating Tables
    - Question and Answer session
    - Exercises

- **Tables & Data Integrity & Working with query fundamentals <mark>Week 2 (Saturday) – 4 hrs</mark>**

    - Modifying and Deleting Tables
    - Viewing Tables
    - Types of Tables
    - Managing Data Integrity
    - Primary and foreign keys
    - Querying data
    - Question and Answer session
    - Exercises

- **Working with advanced query techniques** ==Week 2 (Sunday) – 4 hrs==

  - Joining tables
  - Migrate data between tables
  - Using system functions
  - Working with NULL values
  - Aggregate queries
  - Using Ranking functions
  - Modifying Data
  - Question and Answer session
  - Exercises

- **Working with advanced query techniques** ==Week 3 (Saturday) – 4hours==

  - Using Common Table Expressions in queries
  - Implementing Subqueries
  - Working with Correlated Subqueries
  - Working with XML
  - Managing Transactions
  - Cross tabulation techniques
  - Question and Answer session
  - Exercises

- **Using Programming objects for Data manipulation** ==Week 3 (Sunday) – 4hours==

  - Various programming constructs of Transact-SQL
  - Using local Variables
  - Using Global Variables
  - Using Local temporary tables
  - Using Global temporary tables
  - Handling errors and exceptions

- **Using Programming objects for Data manipulation – Stored Procedures** <mark>**Week 4 (Saturday) – 4hours**</mark>

    - Overview of Stored Procedures
    - Benefits of using stored procedures
    - Creating and maintaining Stored Procedures
    - Using Input parameters
    - Managing return and output parameters
    - Using dynamic queries
    - Question and Answer session
    - Exercises

- **Using Programming objects for Data manipulation – Stored Procedures & Views** <mark>**Week 4 (Sunday) – 4hours**</mark>

    - Stored procedure life cycle
    - Stored procedure dependencies
    - Performance considerations of Stored procedures
    - Overview of Views
    - Types of Views
    - Creating and maintaining Views
    - Question and Answer session
    - Exercises

- **Using Programming objects for Data manipulation – Functions** & Triggers & Cursors ==Week 5 (Saturday) – 4hours==

  - Overview of User Defined Functions
  - Types of Functions
  - Creating Functions
  - Overview of Triggers
  - Types of Triggers
  - Virtual tables
  - Creating Triggers
  - Managing Triggers
  - Overview of cursor
  - Using cursor
  - Question and Answer session
  - Exercises

- **Query Optimization techniques** ==Week 5 (Sunday) – 4hours==

  - Introduction to query optimization
  - Optimization techniques
  - Indices
  - Managing Indices
  - Statistics maintenance
  - Using SQL Profiler for identifying
  - Question and Answer session
  - Exercises

==**Total Hours:**==40