# magnitia
IT's next generation

## ETL Testing

Day-1

### Data Sources
- Databases
- Files

### Database Management Systems
- What is DBMS?
- Characteristics of DBMS.
- Normalization
- 1NF,2NF, 3NF
- Metadata

### Data ModellingER Models
- Relational Model
- Dimensional Model
- Star Schema
- Snowflake Schema
- Fact constellation schema

### Data ware house concepts
- What is Data ware house?

### Facts
### Dimensions
- Characteristics of Data ware house.
- Data ware house applications.
- Data staging and DataMart
- Difference between DataMart and Data ware house.
- Data ware house Architecture

### Types and components.
- Enterprise data ware house
- Single Department Data
- Multi-tiered Data ware house

### Slowly changing Dimensions
- SCD- Type-1
- SCD- Type-2
- SCD- Type-3
- SCD- Type-0

## Day-2

### SQL Basics
- Data Definition Language
- Data Manipulation Language
- Data Control Language
- Schemas, Tables, Rows and Columns.

### Constraints
### Primary Key
### Unique Not Null
### Check
### Default
- Set Operators

### Union
### Union All
### Difference between Union and Union All
### Except or Minus Query
### Intersect
- Sub Queries
- Group by and Having
- Rank and Partition functions.
- Views and Temporary tables
- Joins

### Inner Join
### Left outer Join
### Right outer Join
### Self-Joino
- Date functions

### Cast and Convert
- Case statement
- ETL Process

### Extract
### Transform
### Load
### ETL Vs ELT
### ETL Vs Database
### ETL tools
- Informatica
- Data stage
- ETL tools Vs BI tools

**Day-3**

**Introduction to ETL tool – Informatica**
- Informatica Powercenter Designer

**Source Qualifier**
**Source Definition**
**Target Definition**
**Import Source and Target definitions**

- Informatica Powercenter Workflow
Manager

**Task**
**Session**
**Workflow**
- Informatica Powercenter Workflow Monitor

**Session log / Error log**
- How to create a simple mapping?
- What is a transformation?
  Overview of Transformation.
- Expression Transformation
- Filter Transformation
- Router Transformation
- Aggregator Transformation
- Joiner Transformation

**Homogeneous Transformations**
- Database to Database

**Heterogeneous Transformations**
- Database and Flat files

**Master Outer**
**Detail Outer**
**Source Qualifier**

**Day-4**
- SDLC and Testing Life Cycle
- ETL Testing Technologies and Test
  Techniques
- Null check
- Duplicate check
- Data Quality Checks
- Constraint checks
- Precision checks
- Rounding checks
  ETL Testing Activities
  Phases of ETL Testing
- Staging  database validations

**Structure validations (Table to Table or File to table)**
**Data validation using Data sampling**
- Integration database validations

**Structure validations (Table to Table)**
**Data validation (Using Except query or Minus queries)**
- Target validations

**Structure validations (Table to Table for disparate sources)**
**Data validation using Data sampling**
**Data sampling techniques**
- ETL Testing Challenges
- Types of ETL testing
- Types of Projects
- Create a sample mapping using all the transformations (Hands on) and validating the data through sql queries