Assignment

# Installation

1. Install the SQL SERVER 2019 developer editions in your machine.
2. Install the important components like SSIS and SSAS in the same.
3. Install the SSDT Component to develop and design the BI Components?

# Database Creation and File Groups

1. Create Database with Any Name via SQL Window in SSMS?
2. Create Database with Any Name via GUI of SSMS?
3. Can you run alter command for the database object?
4. Create a database and change the location of its default MDF and LDF file systems?
5. Define a specific file group and create a database file inside that group?
6. Execute a simple query and check if you are able to see the transaction logs of the query?
7. Import an AdventureWorks Sample database?

# DDL & DML Syntax

1. Highlight/Use the AdventureWorksDW DB and solve below queries:
   1. Select the customers from table DimCustomer where customer key start from 11060 and ends with 11168.
   2. Select those customers where MaritialStatus is Married?
   3. Select all those customers where Marital Status is Married and Gender is Female?
   4. Select all customers where names start with ‘S’ and ends with “a”
   5. Select all customers in one go where occupation is Professional & Management?
   6. Select the occupation of customers and find out the total number of cars owned by each category?
   7. Select the English education and number of houses owned by each category?
   8. How many single ladies are in our customer who have the children to take care of?
   9. How many married men whose salary is more than 40000 and number of children is 0?
   10. What is equivalent of Spanish Education records “Estudios de postgrado” and “Estudios universitarios (en curso)” in French and English?
2. Use the Database Adventure Works and solve below queries?
   1. Fetch all records where Job Title is ‘Tool Designer’ and hire date is greater than 2009-01-16
   2. Fetch all employees records where salaried flag is 0
   3. Fetch all employees records and total leave hours
   4. Fetch all employees where gender is female
   5. Fetch all employees’ records where gender is female or marital status is ‘S’

# Theoretical Concepts (Note: Below assignment is just for student’s own benefit. Its not mandatory to submit Theory assignments.)

* 1. Can you please list down the type of databases and their special characteristics?
  2. What is the usage of Schema-less database? List down type of schema-less database?
  3. What is the difference between SQL SERVER 2017 and 2019? List down few advanced feature of 2019 editions?
  4. List down some sql services and their usage?
  5. Where database fits in a web application architecture, kindly define the flow of information?
  6. Difference between windows authentication and SQL Server authentication?
  7. Why we need NDF files? What is the usage of File Groups in SQL SERVER?
  8. What kind of information transactions logs stored in the database?
  9. What is the difference between EXIST and IN statement?
  10. How many different types of data types we have in SQL SERVER?