Exercise: Homework

• The College of Engineering is doing research on how much time students spend on homework every week. They are trying to track this information for every student and each of the classes that they are taking.

• Describe each class in English.

• Draw the class diagram, including association classes if required.

• Describe each association in English (both directions).

• Draw the relation scheme.

• The solution to this exercise will be discussed in class

**When can you use Triggers in the SQL Server?**

**Ans:**

• When there is a need for an audit trail of activity in a database

• Deriving additional data that is not available within a database

• When enforcing referential integrity

• To implement a business rule

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**What is COALESCE in SQL server and mention its few properties?**

**Ans:**It is an expression that evaluates arguments in a list and returns only the first value that is not NULL.

For example, consider the following statement

 SELECT COALESCE (NULL, 14, 15);

Now, the COALESCE expression returns the first value 14, which comes first after a NULL value.

Properties of COALESCE expression:

• The data type must be the same

• It can be a syntactic shortcut for the case expression

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**A table variable or a temporary table: which one is faster?**

**Ans:**A table variable functions faster than a temporary table because table variables are stored in memory, whereas temporary tables are stored in a disk. Moreover, if a table variable’s size exceeds the size of memory, then its speed decreases.

**How can you use the SCOPE\_IDENTITY function in the SQL server?**

**Ans:**This function returns the last identity value inserted into an identity column within the same scope. Here, the scope is nothing but a module, which will have a stored procedure, trigger, batch, and function. If two statements exist in the same stored procedure or batch or function, then it means that they are in the same scope.

The syntax for this function is provided as SCOPE\_IDENTITY ( )