**Assignment 4**

1. Explain different types of views. Demonstrate with suitable examples.
2. There are two types of views in the SQL server, namely system defined views and user defined views. This section contains a description of these two types.
3. System defined views:- There are three types of system defined views, information schema, catalog view, and dynamic management view.
4. User defined views:- these are the types that are defined by the users. There are two types under user defined views. Simple view and complex view.
5. What is the difference between function and stored procedure? Write syntax for creating functions and stored procedures.

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| Stored procedure | Function procedures |
| 1.Always a value is returned. | 1.We cannot be sure of a return value. |
| 2.only input values are allowed. | 2.Both i/o values are allowed. |
| 3.transations are not allowed. | 3.transations are allowed. |
| 4.it cannot call stored procedures. | 4.it can call functions. |

Syntax:-

 CREATE FUNCTION [schema\_name.] function\_name ( [ @parameter [ AS ] [type\_schema\_name.] datatype [ = default ] [ READONLY ] , @parameter [ AS ] [type\_schema\_name.]

**CREATE { PROCEDURE | PROC } [schema\_name.]** **procedure\_name [ @parameter [type\_schema\_name.]**

1. What is an index in SQL? What are the different types of indexes in SQL?
2. Indexes are used to retrieve data from the database mare quickly than otherwise. The users cannot see the indexes, they are just used to speed up searches/queries.

There are two types of Indexes in SQL Server: **Clustered Index**. **Non-Clustered Index**.

1. Showcase an example of exception handling in SQL stored procedure.
2. The return type of ERROR\_PROCEDURE is nvarchar(128). Return value returns the stored procedure name if an error in a stored procedure or trigger and the catch block is called. It returns NULL if the error did not occur within a Stored Procedure or trigger or it isb called outside the scope of a CATCH block.
3. Create a SQL function to split strings into rows on a given character?

Input String: Stephen;peter;berry;Olivier;caroline;

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| Stephen |
| Peter |
| Berry |
| Oliver |
| Caroline |

1. INSTR searches for a substring within a string and returns its starting location in the string, using the syntax INSTR(string,substring). This means that if you tell INSTR to look for “berry” in “strawberry” it will return 6, because “berry” starts at position 6 in “strawberry”:
2. What is a temporary and a variable table? Write suitable syntax to create temporary tables and variable tables.
3. Temporary Tables are physically created in the tempdb database. These tables act as the normal table and also can have constraints, index like normal tables. Table variable acts like a variable and exists for a particular batch of query execution. It gets dropped once it comes out of batch