**Inclass Exercise-2**

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**Difference between T-SQL and PL-SQL :**

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| **PL/SQL** | **T-SQL** |
| The full Form of PL/SQL is Procedural Language Structural Query Language. | The full Form of TL-SQL is Transact Structure Query language. |
| PL-SQL is developed by Oracle. | T-SQL was developed by Microsoft. |
| It is a natural programming language that is much compatible with the SQL and provides higher functionality. | T-SQL provides a higher degree of control to the programmers. |
| PL-SQL performs best with Oracle database server. | T-SQL performs best with Microsoft SQL server. |
| OOPS concepts like function overloading, information hiding and data encapsulation are supported by using PL/SQL. | With help of BULK INSERT statement in T-SQL users can input multiple rows. |
| It is considered more complex than T-SQL and more powerful. | It is much easier to understand and simple to use. |
| In PL/SQL INSERT INTO statement is to be be used. | In T-SQL SELECT INTO statement must be used. |
| In PL/SQL, subquery is needed to use data from another table in the operation. | In T-SQL, both the DELETE and UPDATE statements are improved to enable data from another table to be used in the operations, without using a subquery. |
| In PL/SQL AUTOCOMMIT can be used to automatically commit/save a transaction. | In T-SQL there is no AUTOCOMMIT command and transactions are saved by using COMMIT command manually after every transaction. |

**SYNTAX DIFFERENCE:-**

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| **Description** | **Oracle** | **MS SQL Server** |
| Modulus | MOD | % |
| Truncate number | TRUNC | <none> |
| Max or min number or string in list | GREATEST, LEAST | <none> |
| Translate NULL to n | NVL | ISNULL |
| String concatenation | CONCAT(str1,str2) | str1 + str2 |
| Convert ASCII to char | CHR | CHAR |
| Capitalize first letters of words | INITCAP | <none> |
| Find string in string | INSTR | CHARINDEX |
| String length | LENGTH | DATALENGTH |
| Trim leading or trailing chars other than blanks | LTRIM(str,chars), RTRIM(str,chars) | <none> |
| Replace chars in string | REPLACE | STUFF |
| Convert number to string | TO\_CHAR | STR, CAST |
| Convert string to number | TO\_NUMBER | CAST |
| Get substring from string | SUBSTR | SUBSTRING |
| Char for char translation in string | TRANSLATE | <none> |
| Date addition | ADD\_MONTH or + | DATEADD |
| Date subtraction | MONTHS\_BETWEEN or - | DATEDIFF |
| Last day of month | LAST\_DAY | <none> |
| Time zone conversion | NEW\_TIME | <none> |
| Next specified weekday after date | NEXT\_DAY | <none> |
| Convert date to string | TO\_CHAR | DATENAME, CONVERT |
| Convert string to date | TO\_DATE | CAST |
| Convert date to number | TO\_NUMBER(TO\_CHAR(d)) | DATEPART |
| Date round | ROUND | CONVERT |
| Date truncate | TRUNC | CONVERT |
| Current date | SYSDATE | GETDATE |
| Convert hex to binary | HEXTORAW | CAST |
| Convert binary to hex | RAWTOHEX | CONVERT |
| User's login id number or name | UID, USER | SUSER\_ID, SUSER\_NAME |
| User's database id number or name | UID, USER | USER\_ID, USR\_NAME |