



TECHNICAL UNIVERSITY OF MOLDOVA

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## DB Laboratory 5

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*Submitted To:*

Maria Cojanu

Asst. Univ.

Computer Science

Department

*Submitted By :*

Sezgin Erol

Group FAF-161

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**General purpose:**

Learn about SQL Query Language

**Tasks:****Task Realization:**

In Figure 1 Is the result of Finding Max Number, I used 2 If statements to find that number.

```
38  
51  
32  
MAX=51
```

Figure 1: Finding Max number Using IF-Else

To Solve Next Task i Used WHILE statement, and i incremented the counter from 1 to 10 and printed each line one by one. Also I used variable to store the ID of the discipline "Baze de date".

	Prename_Student	Nume_Student	Nota
1	Alexandru	Matasari	10
	Prename_Student	Nume_Student	Nota
1	Andrei	Ghiran	10
	Prename_Student	Nume_Student	Nota
1	Constantin	Paros	10
	Prename_Student	Nume_Student	Nota
1	Florina	Dascal	10
	Prename_Student	Nume_Student	Nota
1	Maria	Mesanan	10
	Prename_Student	Nume_Student	Nota
1	Sergiu	Orian	10
	Prename_Student	Nume_Student	Nota
1	Stefana	Judea	10
	Prename_Student	Nume_Student	Nota
1	Alexandru	Pop	9
	Prename_Student	Nume_Student	Nota
1	Andrei	Irimus	9
	Prename_Student	Nume_Student	Nota

Figure 2: Top 10 Students, ad their marks

For this Task I used Case one statement. It Has Two decision making branches for b1 max and b2 max, and ELSE case when none of n1 or n2 are greater than n3

```

-4
1
0.5
MAX NUMBER IS 1

```

Figure 3: Finding Max Number Using CASE

Here I customized the way of selecting random number, so now i create two integer random numbers in the interval -5 to 5 and divide them one by another. In these way i hope i increase the randomization, But the second number can be 0. So i Try to catch Zero Division Error.

	ErrorNumber	ErrorSeverity	ErrorState	ErrorProcedure	ErrorLine	ErrorMessage
1	8134	16	1	NULL	9	Divide by zero error encountered.

Figure 4: Try Catch Block

In Last Task I did my own custom Error, and i try to catch that error. So in case when it cant find the ID of the discipline it means that it was inserted with some mistakes.

	ErrorNumber	ErrorSeverity	ErrorState	ErrorProcedure	ErrorLine	ErrorMessage
1	50000	12	1	NULL	15	Such Object can not be found

Figure 5: Custom Raise Error inside Try Catch Block

## Conclusion

During This lab work i find out how to define and Use System and custom/user's variables. I gained skills with Control-Flow Operands like If-Else or Case. Also I figured out how to handle exceptions in my SQL code. [1]

## References

- [1] SQL Server Management Studio 2017, Tutorials for Lab 5
- [2] MSSQL Official Documentation <https://docs.microsoft.com/en-us/sql/t-sql/language-elements/try-catch-transact-sql?view=sql-server-2017>