**Difference between Function and Procedure**

**Function vs. Procedure: Know the Difference between Function and Procedure**

**Both are concepts used in computer programming languages. However, there is a significant difference between function and procedure. In this article, we are going to discuss the same.**

**The functions calculate the results of a program based on the given input. A function would return the returning value/control to the code or calling function. The procedures perform certain tasks in a particular order based on the given inputs. A procedure, on the other hand, would return the control, but would not return any value to the calling function or the code.**

**What is a Function?**

**In computer programming languages, a function refers to a set of various instructions that receive input from users for performing certain tasks. These functions then serve their purpose in the program accordingly and return a value.**

**In simpler words, functions are used in computer programs to calculate anything out of the given input. Thus, it has got its name/ term from Mathematics. These are fundamentals used in computer programming, and these can be either predefined or user defined. A function performs certain tasks using a block of code in it.**

**What is a Procedure?**

**Procedures refer to a set of various instructions that receive input for performing any given task. In SQL, a procedure would not return any value after receiving the input. On the other hand, a function and procedure behave the same way in the Java language. These are, thus, known as subroutines.**

**In simpler words, a procedure refers to a set of instructions used in programming languages. These are also known as subprograms.**

**Difference Between Function and Procedure**

**Let us talk about the differences between Function and Procedure.**

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| **Parameters** | **Function** | **Procedure** |
| Basics | Functions calculate the results of a program based on the given input. | Procedures perform certain tasks in a particular order based on the given inputs. |
| Try-Catch Blocks | Functions do not provide support for the try-catch Blocks. | Procedures provide support for the try-catch Blocks. |
| SQL Query | We can call a function in a SQL Query. | We cannot call a procedure in a SQL Query. |
| SELECT | The SELECT statements can have function calls. | The SELECT statements can never have procedure calls. |
| Return | A function would return the returning value/control to the code or calling function. | A procedure, on the other hand, would return the control, but would not return any value to the calling function or the code. |
| DML Statements | We cannot use the DML statements in a function, (functions such as Update, Delete, and Insert). | We can always use the DML statements in the case of a procedure. |
| Call | A function can be called using a procedure. | A procedure cannot be called using any function. |
| Compilation | The compilation of a function occurs when we call them in a program. | The compilation of the procedures needs to occur once, and in case it is necessary, these can be called repeatedly, and we don’t have to compile them every single time. |
| Expression | A function must deal with expressions. | A procedure need not deal with expressions. |
| Explicit Transaction Handling | Functions cannot have explicit transaction handling. | Explicit transaction handling exists in the case of a procedure. |