

# PL/pgSQL

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**PL/pgSQL (Procedural Language/PostgreSQL)** is a procedural programming language supported by the PostgreSQL. Implemented by **Jan Wieck**, PL/pgSQL first appeared with **PostgreSQL 6.4**, released on October 30, 1998. **Since PostgreSQL 9.0**, PL/pgSQL is installed by default. **PL/pgSQL**, as a **fully featured programming language**, allows much more procedural control than SQL, including the ability to use loops and other control structures. SQL statements and triggers can call functions created in the **PL/pgSQL** language. The design of PL/pgSQL aimed to allow PostgreSQL users to **perform more complex operations and computations than SQL, while providing ease of use.**

PL/pgSQL procedural language is similar to the Oracle PL/SQL. The following are reasons to learn PL/pgSQL.

- PL/pgSQL comes with PostgreSQL by default.
- PL/pgSQL inherits all **user-defined types, functions, and operators.**
- PL/pgSQL has **many features** that allow you to develop **complex functions** and **stored procedures.**

## Dollar-Quoted string constant

- `select 'String constant';`
- `select 'I'm a string constant';`
- `select 'I''m also a string constant';`
- `select E'I\'m also a string constant';`

The problem arises when the string constant contains many single quotes and backslashes. Doubling every single quote and backslash makes the string constant more difficult to read and maintain.

PostgreSQL **version 8.0** introduced the dollar quoting feature to make string constants more readable.

`$tag$<string_constant>$tag$`

# Anonymous block

**PL/pgSQL** is a **block-structured language**, a PL/pgSQL function or stored procedure is **organized into blocks**.

```
[ <<label>> ]  
[ declare  
  
    declarations ]  
begin  
    statements;  
    ...  
end [ label ];
```

To execute anonymous block use **DO**. The DO statement was introduced since **PostgreSQL 9.0**.

```
DO $$  
    <<fb>>  
        declare  
        begin  
            raise info 'Hello PDP';  
        end fb;  
    $$;
```

## Interview Questions