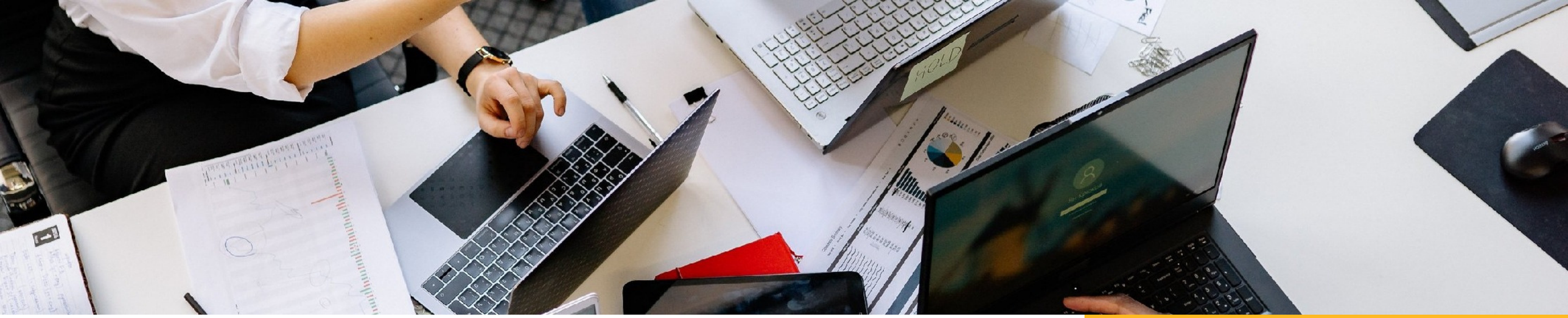

Stored Procedures

Group-2

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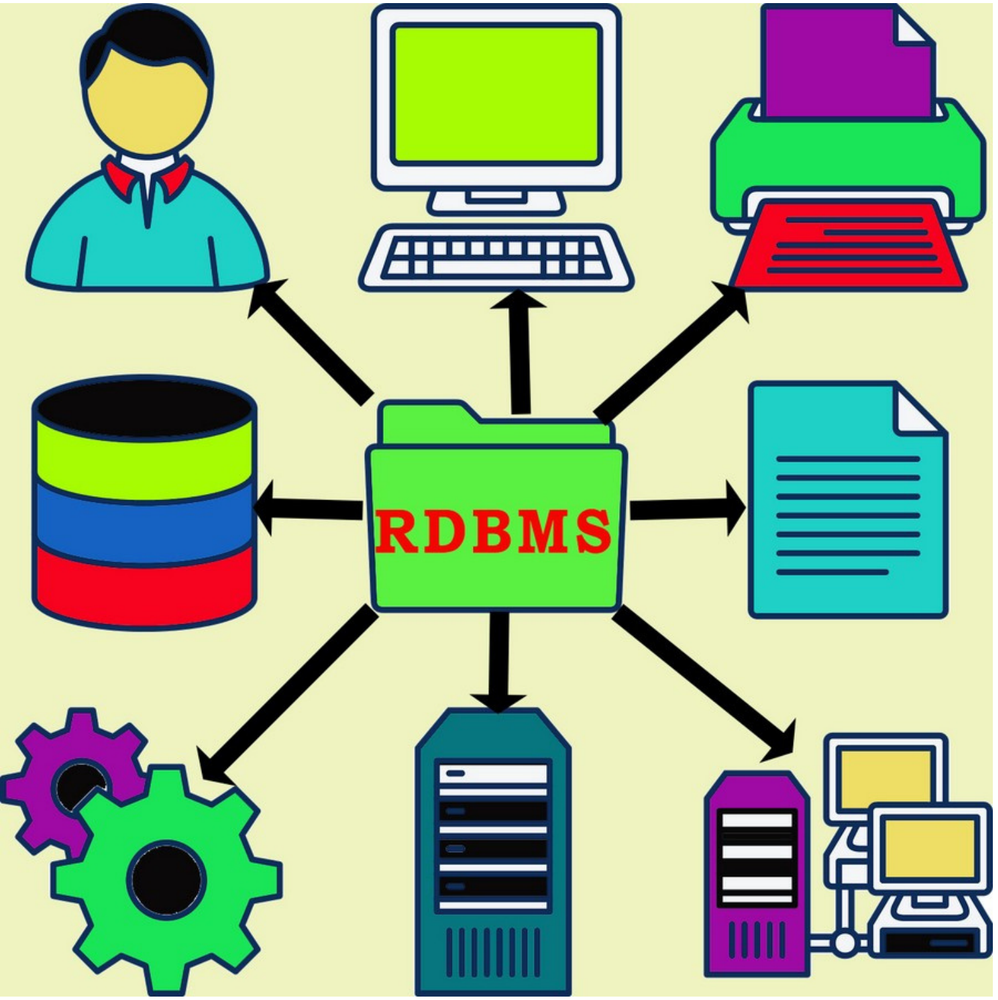


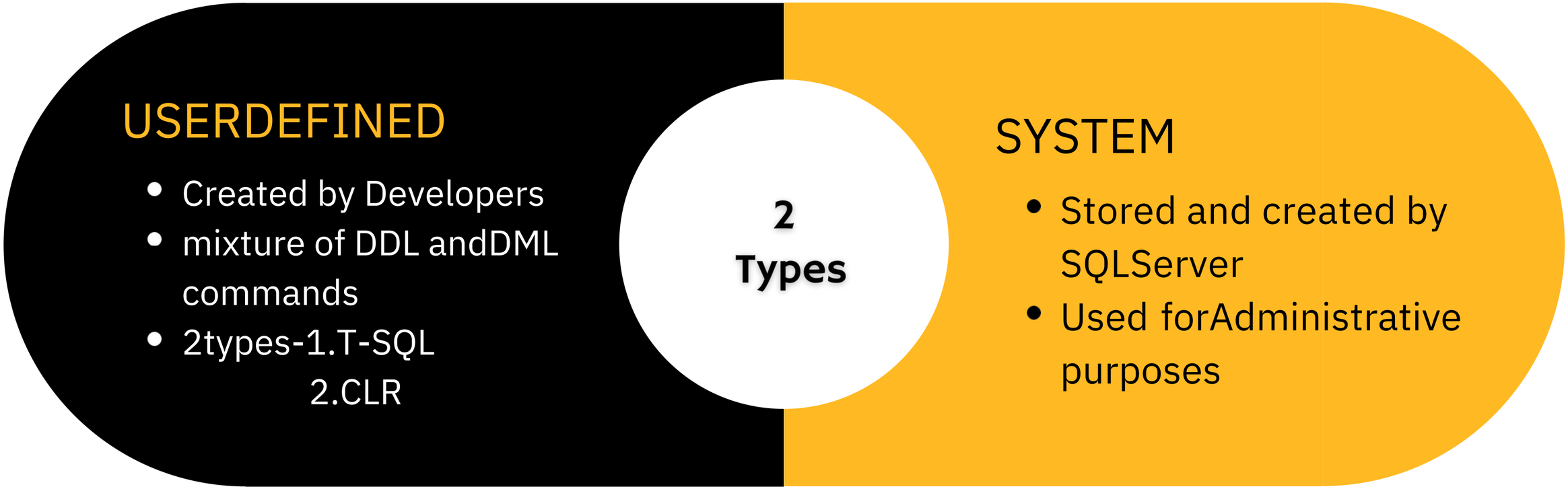
What isSP?

A stored procedure is a set of SQL statements with an assigned name, which are stored in a RDMBS as a group, so it can be reused and shared by multipleprograms.

The main purpose of stored procedure is to hide direct SQL queries from the code and improve performance of database operations such as SELECT, UPDATE, and DELETE. Stored Procedures can be cached and used too.

Types Of StoredProcedures

Basically divided into twotypes



Naming Conventions

1. sp_Name
2. spName
3. stpName
4. udstp_Name

Syntax:

CREATE

```
Create Proc Name
AS
BEGIN
        SET OFCOMANDS
END
```

ALTER

```
Alter Proc Name
AS
BEGIN
        SET OF COMANDS
        TO BE EDITED
END
```

DELETE

```
Drop ProcName

--The Stored
Procedure will be
deleted
```

Procedure with Parameters:

Syntax

```
CREATEProc spName
@param1 datatype,
@param2 datatype,
.
.,
@paramn datatype
AS
BEGIN
        SET OFCOMANDS
END
```

Example

```
CREATEProc spDisplayNameById
@Id int
AS
BEGIN
SELECT * FROM Students
WHEREId = @Id;
END
```

Output Parameters:

Syntax

```
CREATEProc spName
@param1 datatype,
@param2 datatype out
AS
BEGIN
        SET OFCOMANDS
END
```

Execution

```
DECLARE @variable datatype
EXEC ProcedureNameparam1, @param2out
Print @param2
```

Output Parameters Example:

Create

```
CREATEProc spGetNameById
@Idint,
@Name varchar(30) out
AS
BEGIN
      SELECT @Name = Name
FROM Students
WHERE Id = @Id;
END
```

Example

```
DECLARE @Name varchar(30)
EXEC spGetNameById10, @Name out
Print @Name
```

Stored Procedure with Return:

Create

CREATE proc spName
@param1 datatype
@param2 datatype
AS
DECLARE *@varname datatype*
BEGIN
SQL Commands
RETURN *@varname*
END

Execution

DECLARE *@variable datatype*
EXEC *@variable = spName param1,param2*
SELECT *@variable*

Stored Procedure with Return:

Create

```
CREATE proc spGetCustomers1 (@city varchar(15))
AS
BEGIN
        return (select count(*) from customer where city=@city)
END
```

Execution

```
DECLARE @count int
EXEC @count =spgetcustomers1 'New York’
Print @count
```

ADVANTAGES OF Stored Procedures

Code Reusability and
Better Maintainance

Reduce Network traffic

Better Performance

Better Security

Finer Grained Control

SQL Injection Attack

SQL INJECTION

```
Select * from tblProduct where Name='Pens';
Delete from tblproduct
```

```
Create Proc spProductbyName
@Name varchar(30)
As
Begin
        Select * from tblProduct where Name= @ Name
End
```


THANK YOU
ANY QUERIES