

## Overview

- stored programs in database
- functionality close to data
- allows control flow and SQL queries
  - loops
  - branches

## (Stored) Procedures

- can be called standalone with arguments

```
CALL <proc_name>(<args>);
```

- procedures return no output
  - only modify data

```
CREATE PROCEDURE prepStud(a INT)
LANGUAGE PLPGSQL AS $$
BEGIN
    DELETE FROM Students;
    INSERT INTO Students
        SELECT * FROM NewStudents;
END; $$;
```

## Functions

- can be called standalone or inside queries
- functions are value mappings
- table functions can return sets of records with multiple attribute

```
CREATE FUNCTION sampleProp(FLOAT)
RETURNS FLOAT
AS 'SELECT $1 * (1 - $1);'
LANGUAGE SQL;
```

[[SQL]]