**Week 4: 09/23/2024**

Query Language

* Language that allows users to manipulate data
* Unary operations
  + Takes one operand
* Can have conditions
  + Greater than, less than, etc
* Projection (pi)
  + Unary operation
  + Duplicate results removed
* Rename (rho)
  + Unary operation
  + Change the attributes name
* Cartesian product (x)
  + Binary operation
  + Combine two relations

Relational Algebra

* Union
* Intersection
* Difference
* Requirements
  + Same number of attributes
  + Same domain/compatible data types
  + Same order
* Conditional
  + Binary operations
  + Merge relations on the specified condition
  + Equi-join
  + Division