**Video file :69**

**Code file :ch59**

**Working with Database Aggregate Function**

### **Working with Database Aggregate Functions in Django**

* **Definition**:  
  Aggregate functions in Django are used to perform **calculations on a set of values** (from model fields) and return a **single summary value** instead of a queryset.
* **Why use**:  
  Useful when you want to compute things like **total, average, maximum, minimum, or count** directly from the database.
* **How**:  
  Django provides the aggregate() and annotate() methods from django.db.models.
* **Common Aggregate Functions**:
  + Count() → Counts number of records.
  + Sum() → Returns the total sum.
  + Avg() → Returns the average value.
  + Max() → Returns the maximum value.
  + Min() → Returns the minimum value.

**Example**:

from django.db.models import Avg, Sum, Max, Min, Count

from school.models import Student

# Using aggregate

result = Student.objects.aggregate(

    total\_marks=Sum('marks'),

    avg\_marks=Avg('marks'),

    max\_marks=Max('marks'),

    min\_marks=Min('marks'),

    count\_students=Count('id')

)

print(result)

# Output: {'total\_marks': ..., 'avg\_marks': ..., 'max\_marks': ..., 'min\_marks': ..., 'count\_students': ...}

👉 This is the **short professional explanation** for your notes.