Map-Reduce Pattern in Domain Logic

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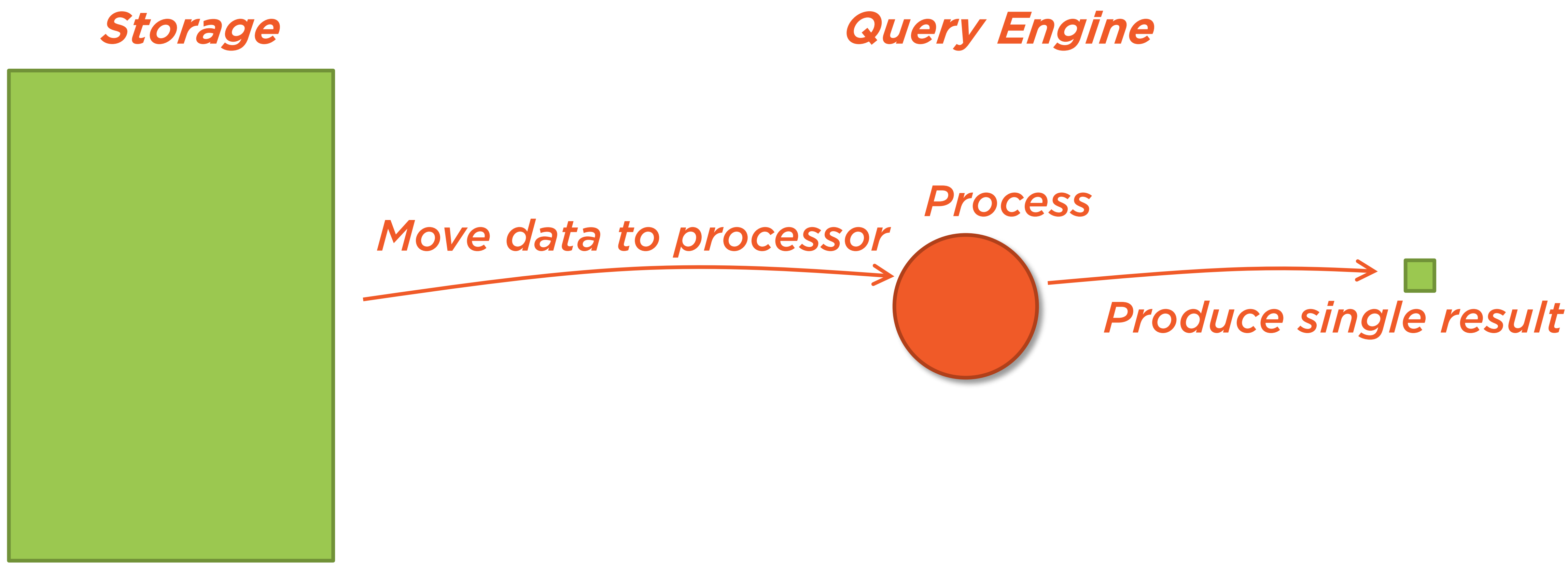
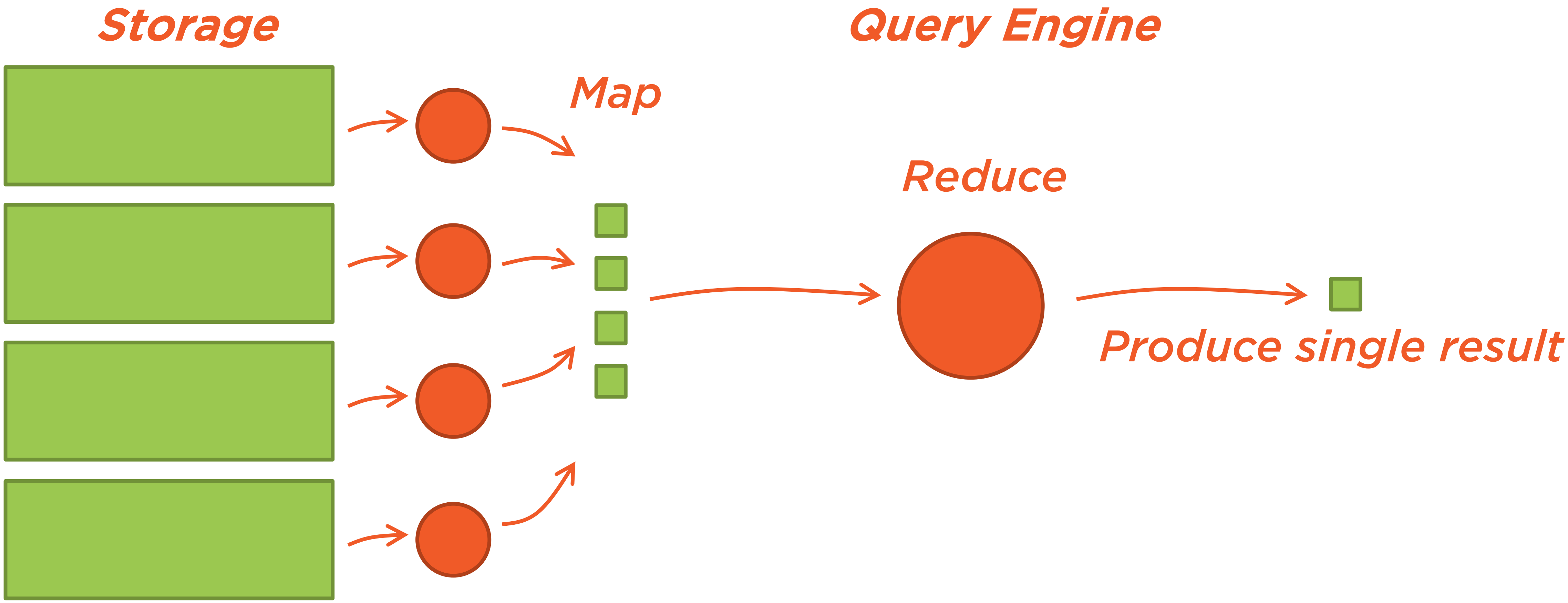
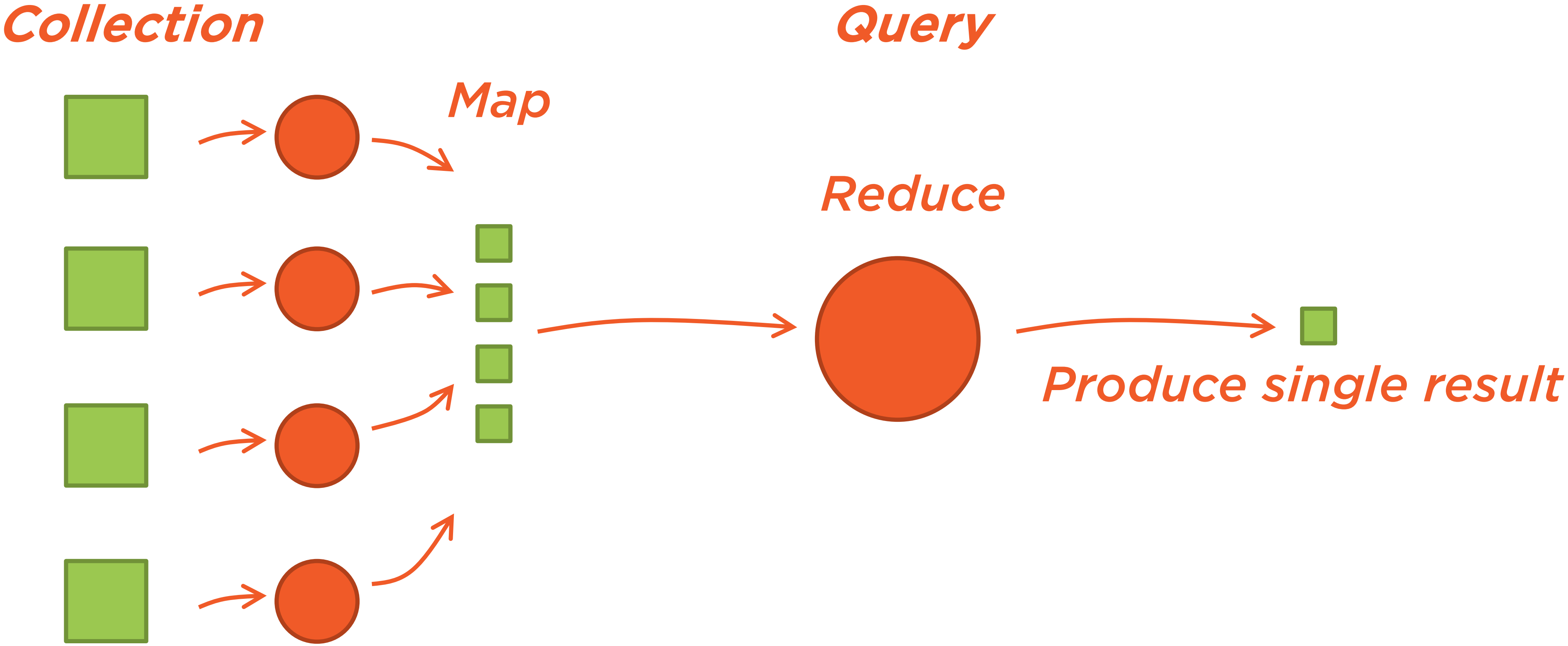
Big Data Processing



Big Data Processing



Collection Processing



Summary

Benefits of Map-Return pattern

- Simplified code
- Readable code
- Short implementation

Map-Reduce enforces object-oriented design

```
static int CalculateControlDigit(long number)
{

    int sum = 0;
    int factor = 1;

    do
    {

        int digit = (int) (number % 10);
        sum += factor * digit;
        factor = 4 - factor;
        number /= 10;

    }
    while (number > 0);

    int result = sum % 11;
    if (result == 10)
        result = 1;

    return result;

}
```

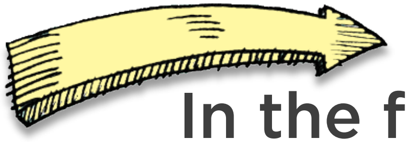
```
static int CalculateControlDigit(long number)
{

    int sum =
        number
        .GetDigitsFromLeastSignificant()
        .AddWeights(MultiplicativeFactors)
        .Sum();

    int result = sum % 11;
    if (result == 10)
        result = 1;

    return result;

}
```



In the following module:
Iterator pattern and sequences