Final Words and Next Steps

Deborah Kurata

CONSULTANT | SPEAKER | AUTHOR | MVP | GDE

@deborahkurata | blogs.msmvps.com/deborahk/

Object-Oriented Programming (OOP)

Identifying classes

- Represents business entities
- Defines properties (data)
- Defines methods (actions/behavior)

Separating responsibilities

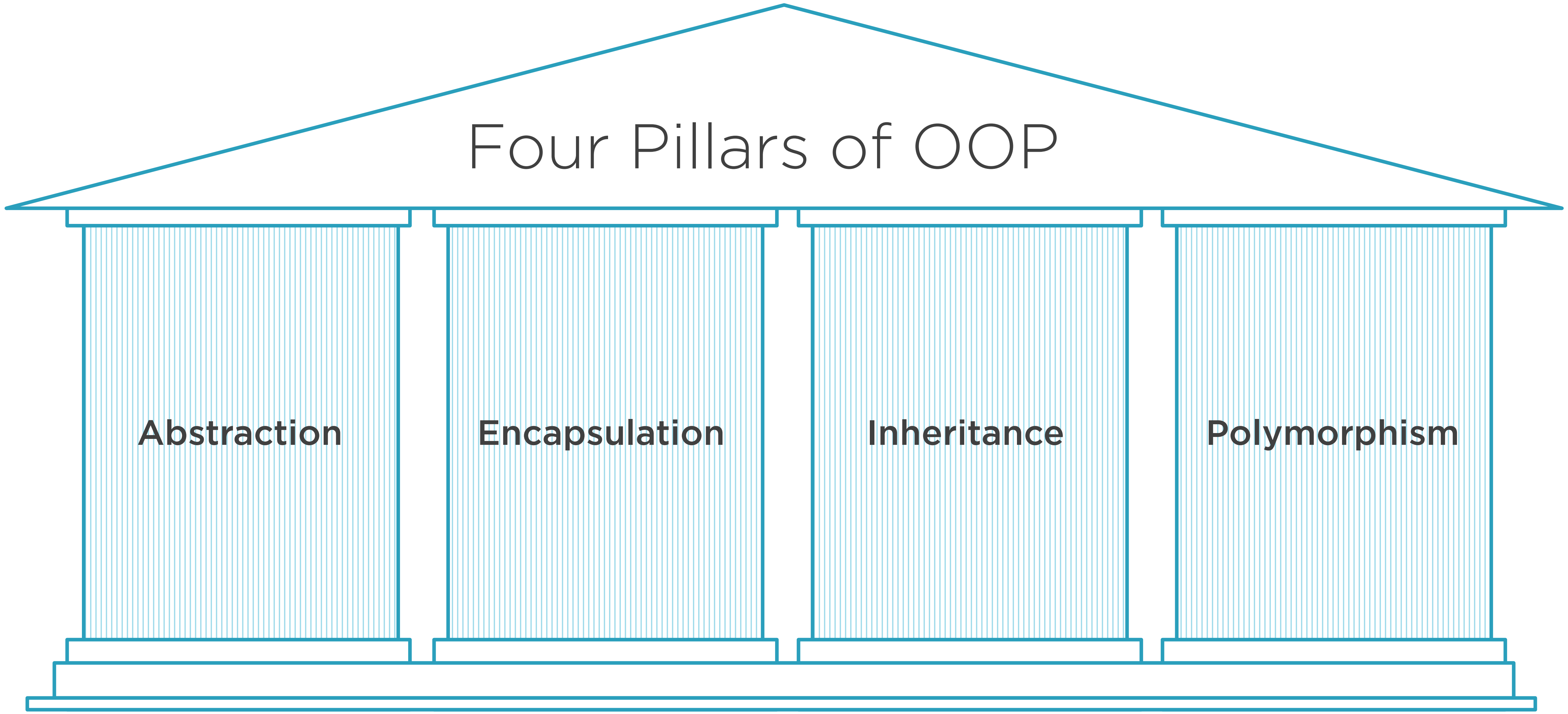
- Minimizes coupling
- Maximizes cohesion
- Simplifies maintenance
- Improves testability

Establishing relationships

- Defines how objects work together to perform the operations of the application

Leveraging reuse

- Involves extracting commonality
- Building reusable classes / components
- Defining interfaces


Four Pillars of OOP
Abstraction
Encapsulation
Inheritance
Polymorphism

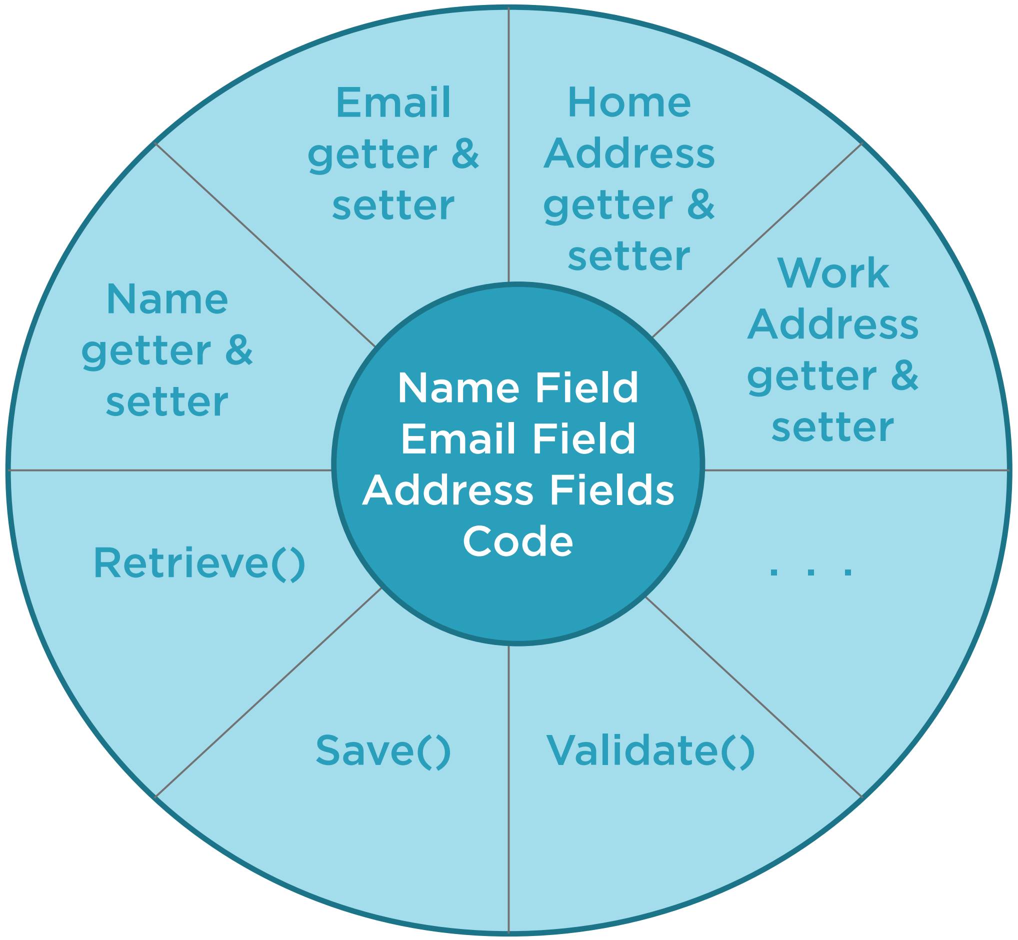
Abstraction

Simplifying reality

Ignoring extraneous details

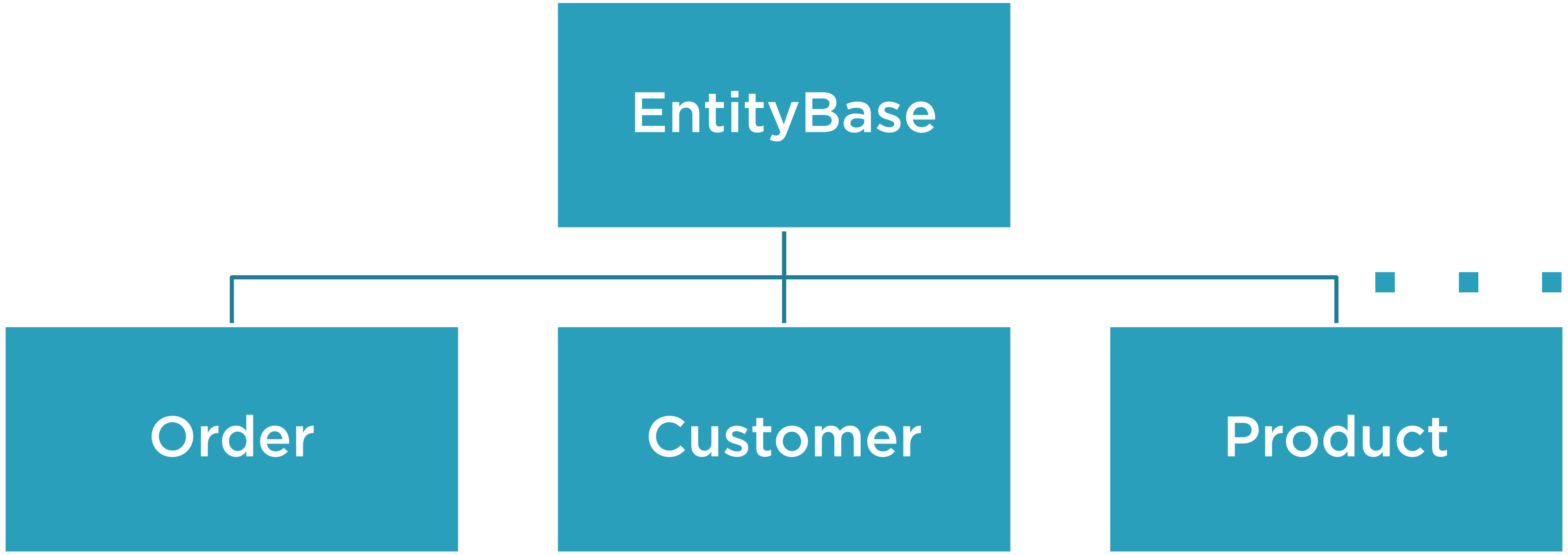
Focusing on what is important for a purpose

Encapsulation

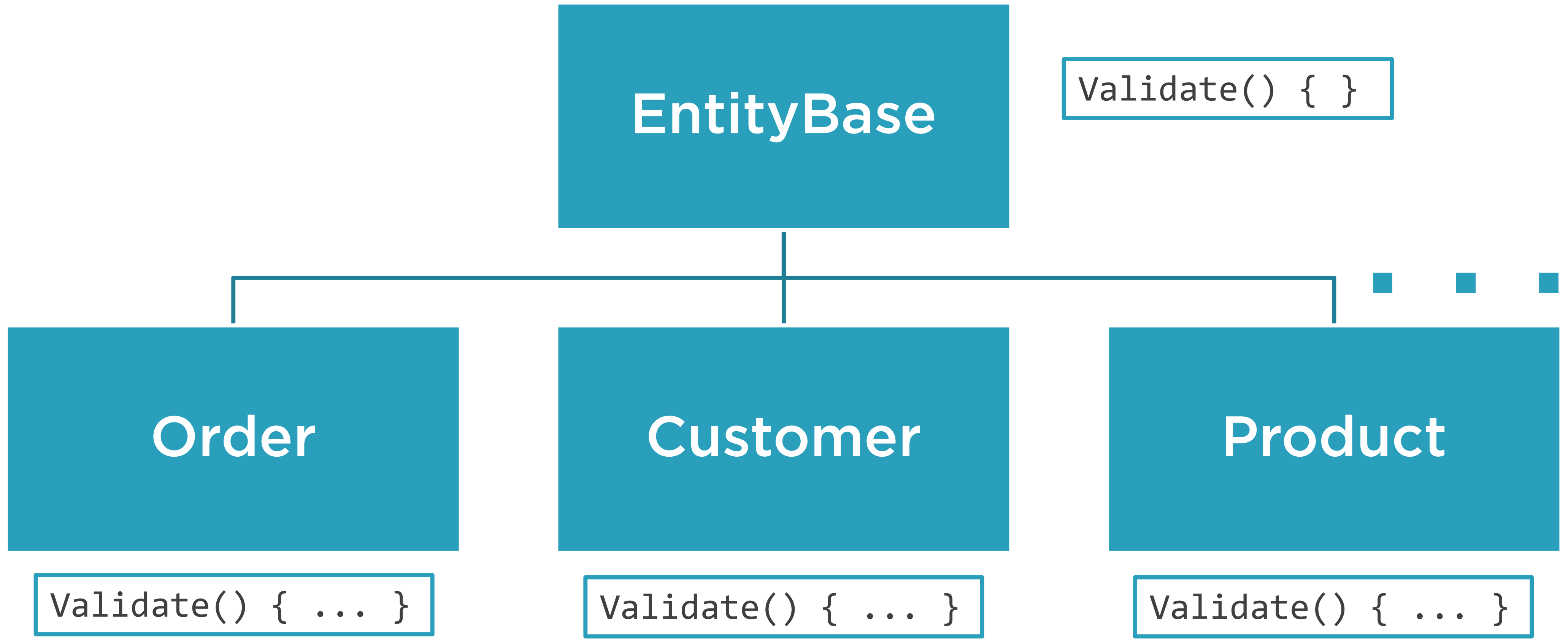


Customer Class

Inheritance

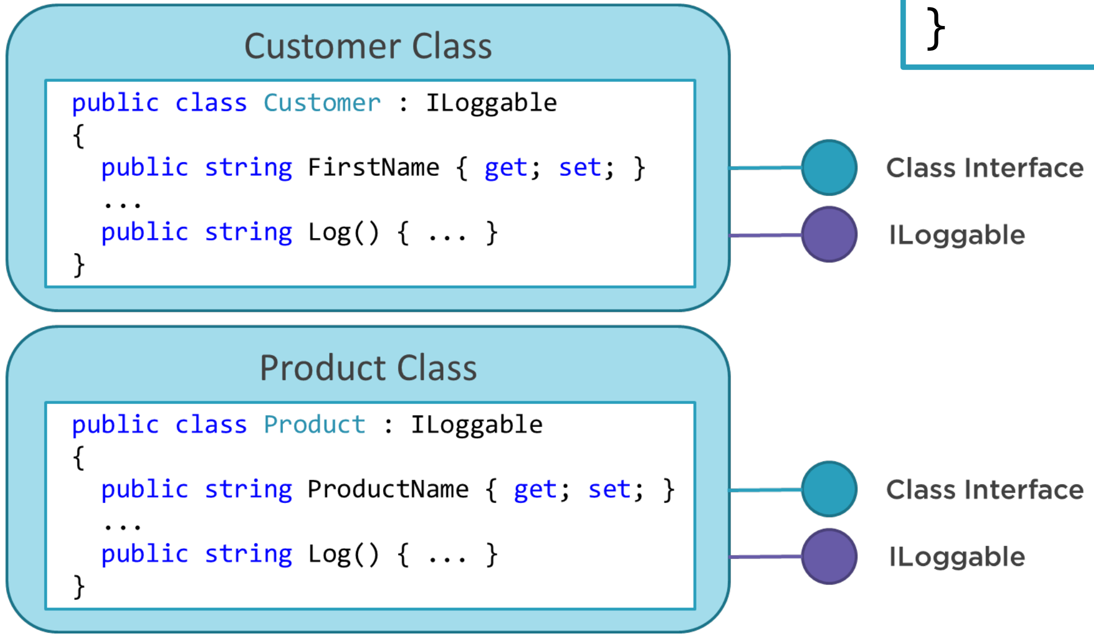


Inheritance-based Polymorphism



Interface-based Polymorphism

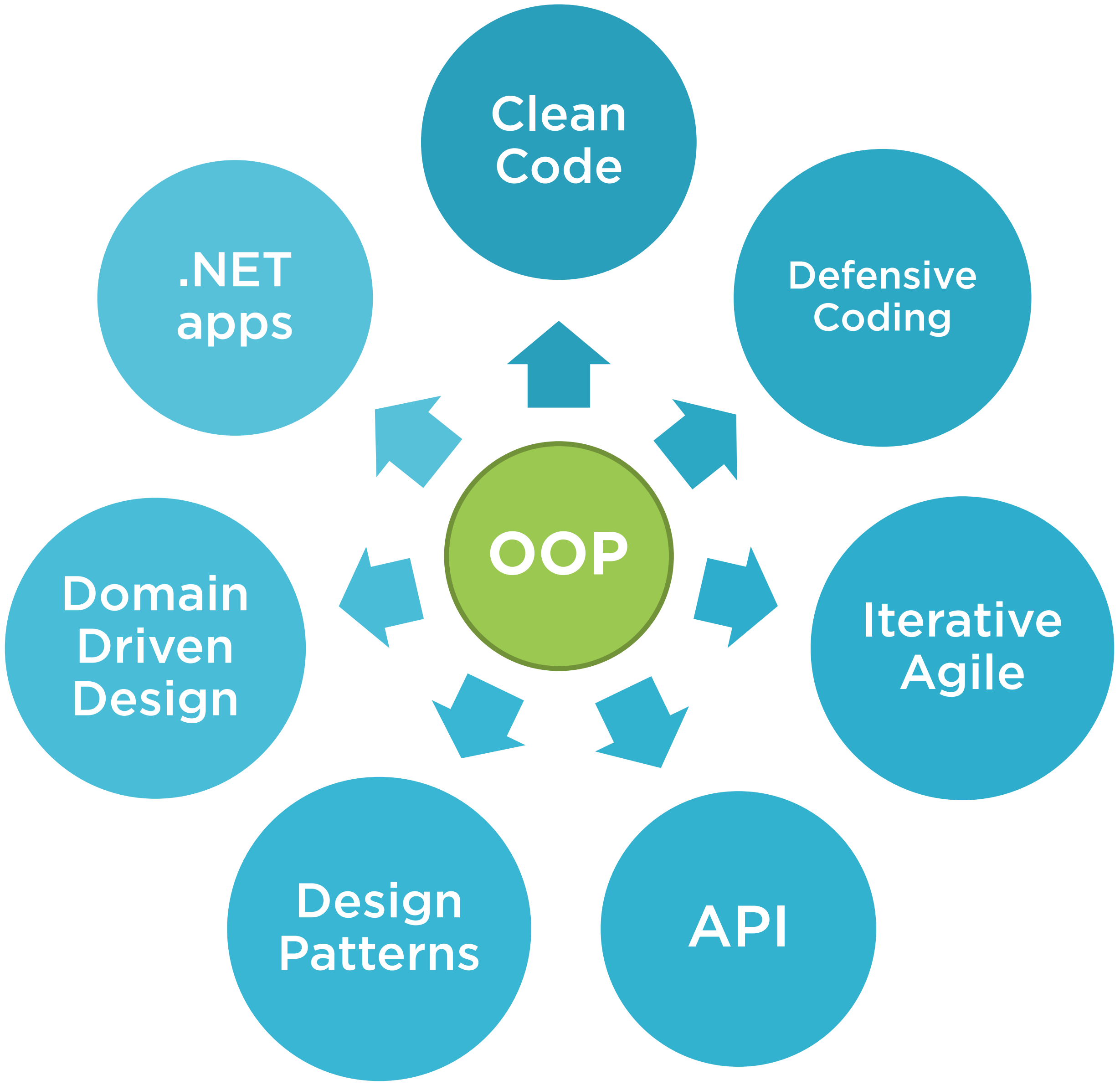
```
public void WriteToFile(List<ILoggable> itemsToLog)
{
    foreach (var item in itemsToLog)
    {
        Console.WriteLine(item.Log());
    }
}
```



```
public class Customer : ILoggable
{
  public string FirstName { get; set; }
  ...
  public string Log() { ... }
}
```

```
public class Product : ILoggable
{
  public string ProductName { get; set; }
  ...
  public string Log() { ... }
}
```

OOP Is the Foundation



Next Steps

Additional Pluralsight Courses

- Defensive Coding in C#
- Clean Code: Writing Code for Humans
- C# Interfaces
- Design Patterns On-Ramp
- C# Best Practices: Improving on the Basics
- C# Best Practices: Collections and Generics

Object-Oriented Programming (OOP)

Identifying classes

- Represents business entities
- Defines properties (data)
- Defines methods (actions/behavior)

Separating responsibilities

- Minimizes coupling
- Maximizes cohesion
- Simplifies maintenance
- Improves testability

Establishing relationships

- Defines how objects work together to perform the operations of the application

Leveraging reuse

- Involves extracting commonality
- Building reusable classes / components
- Defining interfaces