

**SOEN 6441 (Advance Programming Practices)**

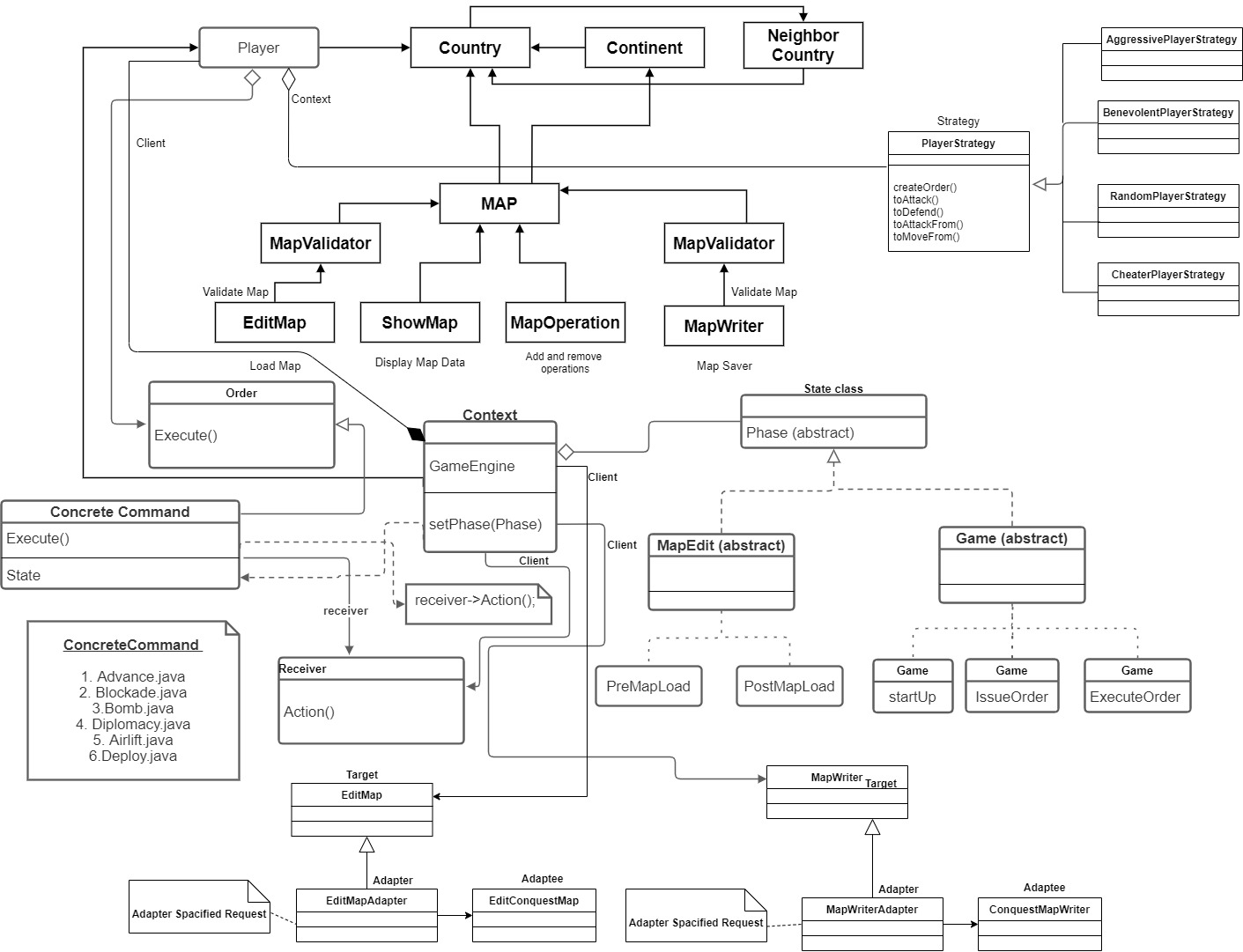
**Build - 3**

**Professor:** Dr. Joey Paquet

**Team 19**

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* **Architectural Diagram:**

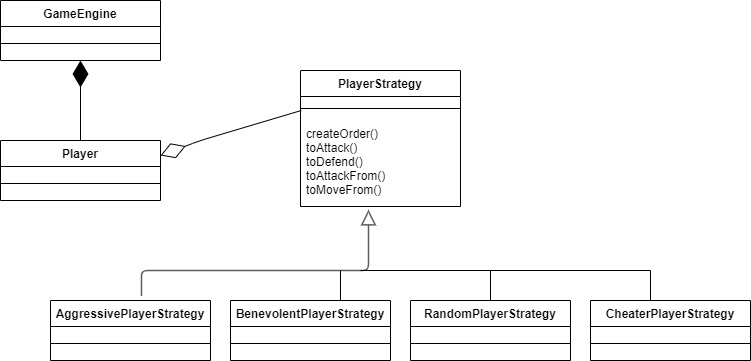
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**Architectural Diagram**

* In build 3 we have main **5 major changes** in our existing code which are as below: -

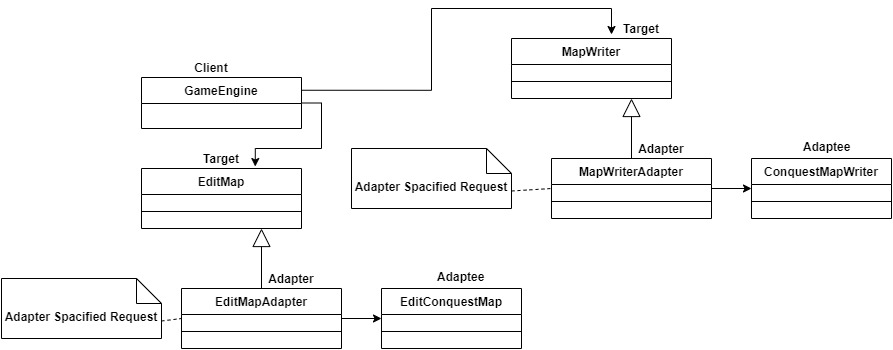
1. **Implementation of Strategy Pattern**
2. **Implementation of Adapter Pattern**
3. **Implementation of Single mode & Tournament Mode**
4. **Implementation of Game save/load**
5. **Refactoring existing code**

* **Strategy Pattern:**

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**Strategy Pattern**

* Here GameEngine works as a client.
* Player class works as a context.
* PlayerStrategy works as a strategy class and it contain mainly 5 methods
  + CreateOrder()
  + toAttack()
  + toDefend()
  + toAttackFrom()
  + toMoveFrom()
* There are mainly four concrete strategy which are as below:
* AggressivePlayerStrategy,java
* BenevolentPlayerStrategy,java
* RandomPlayerStrategy.java
* CheaterPlayerStrategy.java
* **Adapter Pattern**

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**Adapter Pattern**

* Here GameEngine class work as a client.
* Here we use mainly two targets: MapWriter & EditMap.
* Here we use mainly two adapters: MapWriterAdapter & EditMapAdapter
* Here we use mainly two adaptees: ConsquestMapWriter & EditConsquestMap