TEAM 1 - STUDIO SCUR

SE306 – Design Docs – UML Diagram

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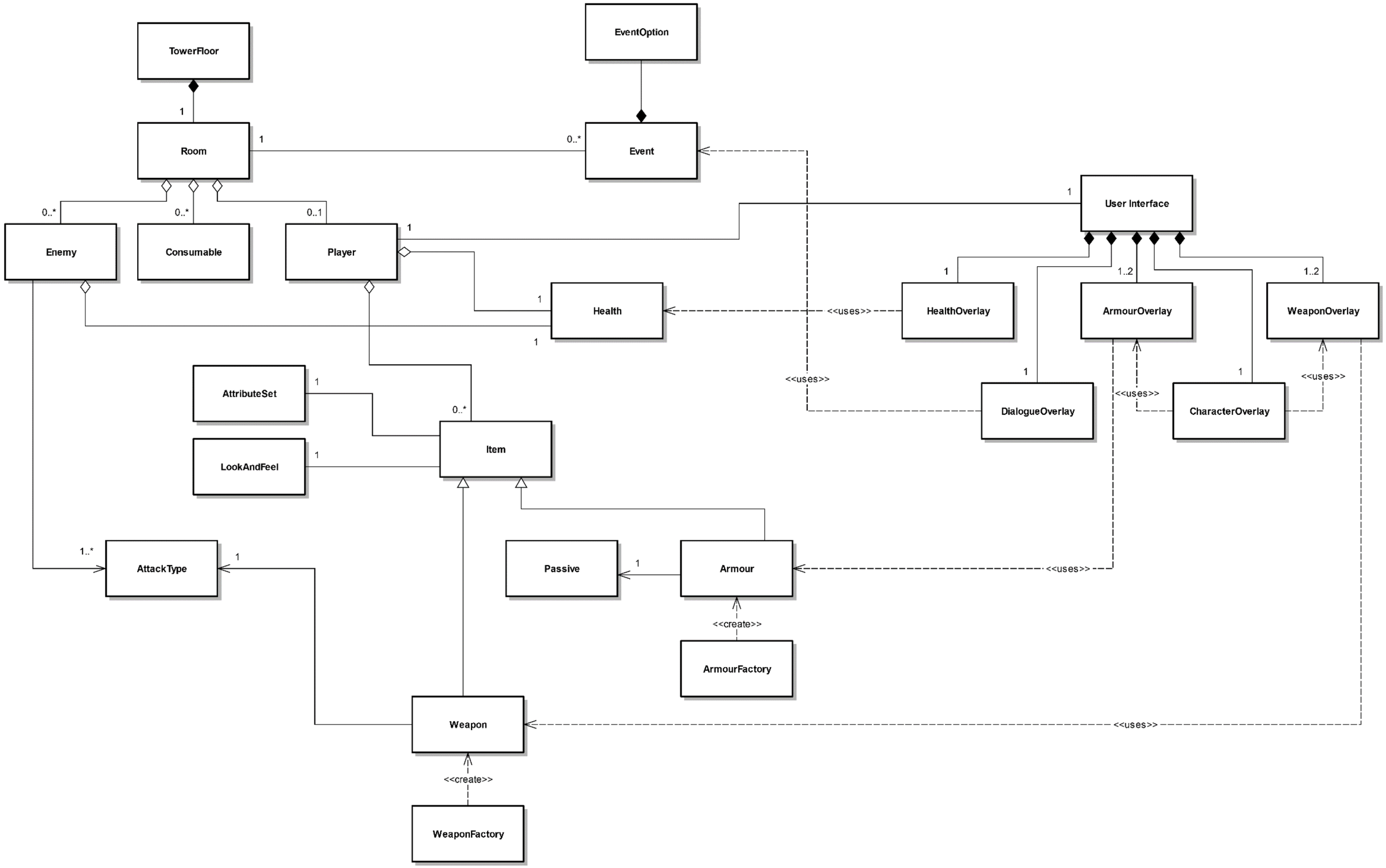
The Tower – UML Class Diagram



The Tower UML Class Diagram explanatory notes:

The game consists of TowerFloors which contain Rooms. Each Room has the Player and usually some Enemies as well as Consumables which are items the player can pick up. Rooms will also have Events, which consist of a set of EventOptions. Both Enemies and the Player will have Health.

The Player has a set of Items which have an AttributeSet which determine the item's stats and a LookAndFeel which will determine how the item appears in game.

An Item can be a Weapon or an Armour piece, each Weapon has an AttackType which will determine the type, spread, damage and fire rate of the projectile it fires. Armour can have a Passive which will provide various effects to the player. Each Weapon and Armour item will be created by a WeaponFactory and ArmourFactory respectively following the Factory design pattern.

The Player has a UserInterface, through which they play the game. The User Interface is composed of a number of overlays including the HealthOverlay, ArmourOverlay, WeaponOverlay, DialogueOverlay and CharacterOverlay which uses both the ArmourOverlay and WeaponOverlay.

The DialogueOverlay will be triggered by certain Events. The User interface employs the MVC (Model-view-controller) paradigm. The model are the Health, Weapons, Armour, Events and other state, which will be displayed consistently and is separate and distinct from the presentation view which are the User Interface elements. The User Interface is also the controller to change the state of the model.