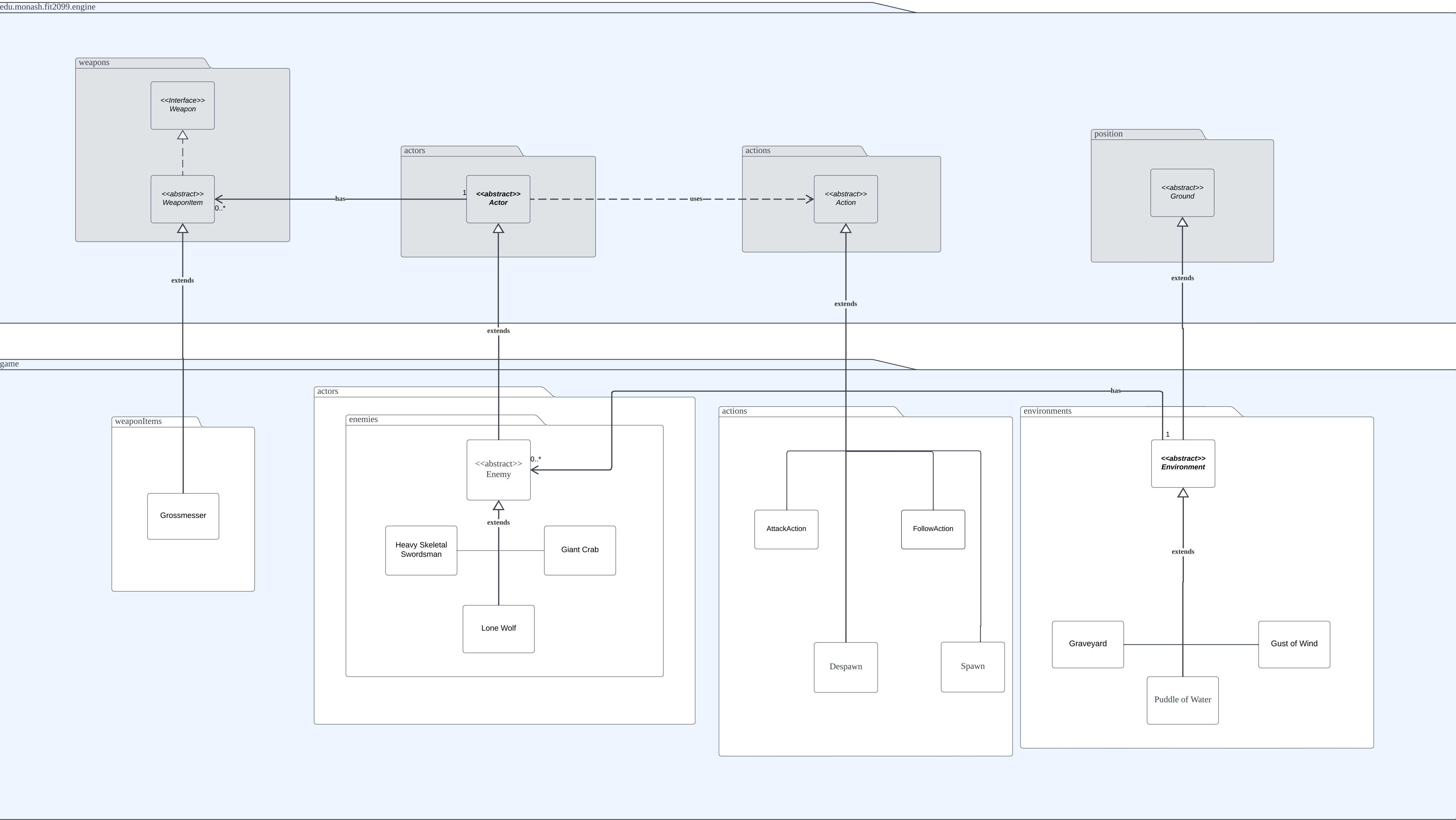
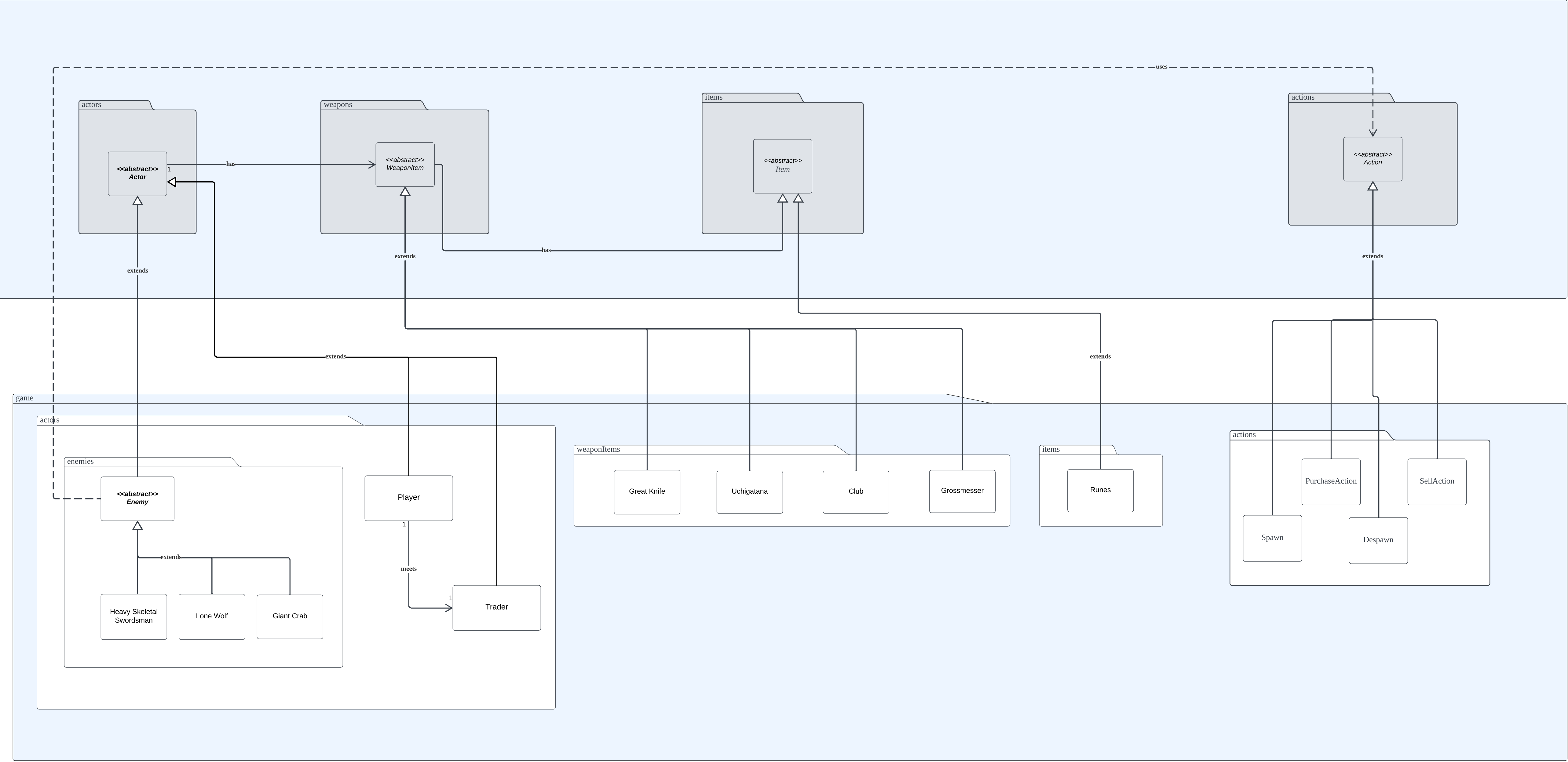


REQ1



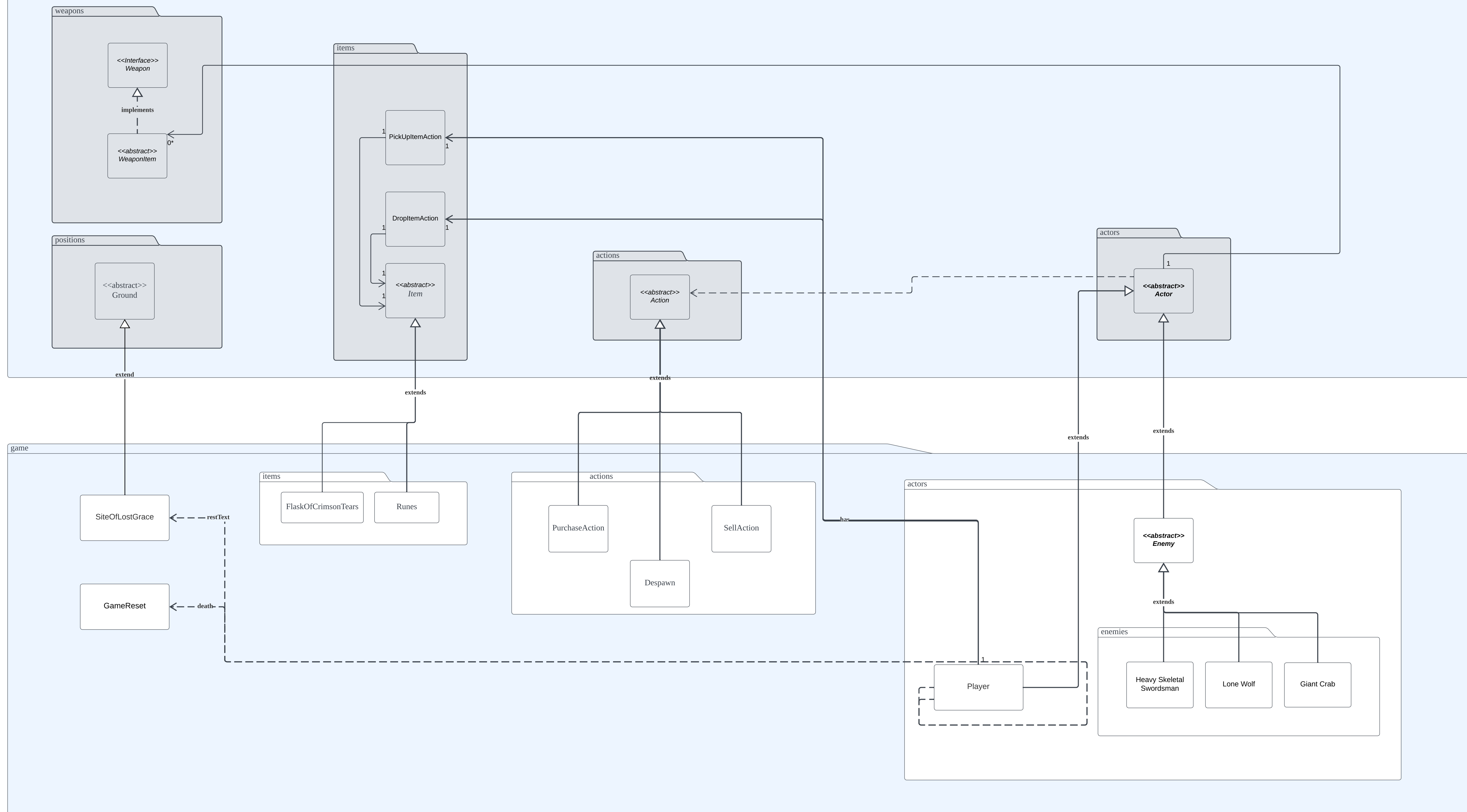
REQ2

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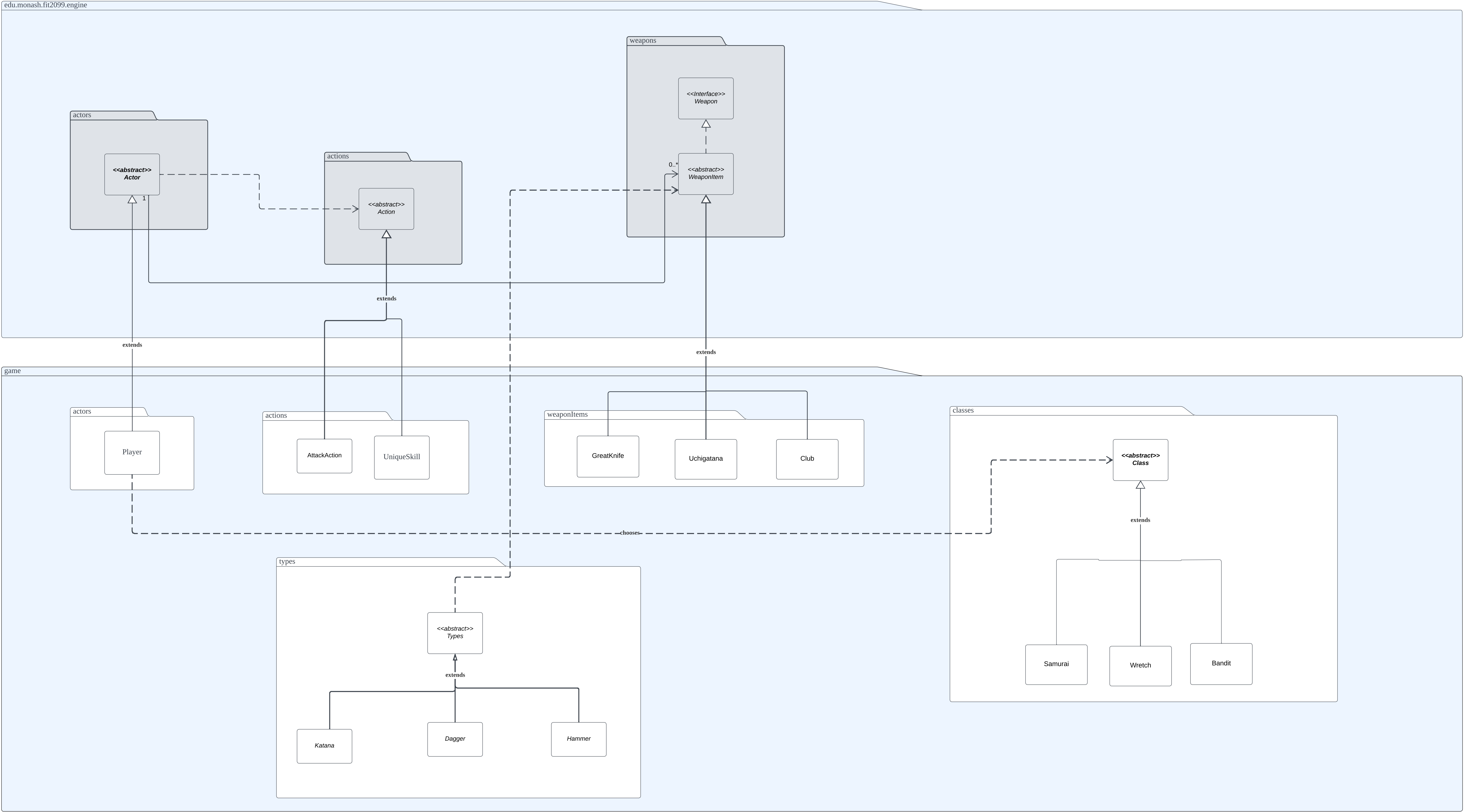


REQ3

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REQ4



UML class diagram illustrating the structure of a game engine, organized into packages (weapons, actors, positions, actions, items, game, weaponItems, enemies, environments, actions, items).

Weapons Package:

- `<<interface>> Weapon`
- `<<abstract>> WeaponItem` (implements `Weapon`)

Actors Package:

- `<<abstract>> Actor` (multiplicity 1)
- `<<abstract>> Ground` (implements `Actor`)

Positions Package:

- `GameMap` (depends on `Ground`)

Actions Package (Top):

- `<<abstract>> Action`

Items Package (Top):

- `<<abstract>> Item` (multiplicity 0..*)

Game Package:

- `Trader` (stores `WeaponItem`)
- `Player` (extends `Actor`)

WeaponItems Package:

- `Scimitar` (extends `WeaponItem`)

Enemies Package:

- `<<abstract>> Enemy` (multiplicity 0..*)
- `Lone Wolf` (extends `Enemy`)
- `Heavy Skeletal Swordsman` (extends `Enemy`)
- `Skeletal Bandit` (extends `Enemy`)
- `Giant Dog` (extends `Enemy`)
- `Giant Crab` (extends `Enemy`)
- `Giant Crayfish` (extends `Enemy`)

Environments Package:

- `<<abstract>> Environment` (multiplicity 1)
- `Graveyard` (extends `Environment`)
- `Puddle of Water` (extends `Environment`)
- `Gust of Wind` (extends `Environment`)

Actions Package (Bottom):

- `AttackAction` (extends `Action`)
- `FollowAction` (extends `Action`)
- `Spawn` (extends `Action`)
- `PurchaseAction` (extends `Action`)
- `Despawn` (extends `Action`)
- `SellAction` (extends `Action`)
- `UniqueSkill` (extends `Action`)

Items Package (Bottom):

- `Runes` (extends `Item`)

Relationships:

- `WeaponItem` stores `WeaponItem` (0..*).
- `WeaponItem` extends `WeaponItem`.
- `Actor` extends `Actor`.
- `Ground` extends `Ground`.
- `GameMap` depends on `Ground`.
- `Trader` stores `WeaponItem`.
- `Player` extends `Actor`.
- `Scimitar` extends `WeaponItem`.
- `Enemy` has `Environment` (1 to 0..*).
- `Enemy` extends `Enemy`.
- `Environment` extends `Environment`.
- `Action` extends `Action`.
- `Runes` extends `Item`.
- `Item` extends `Item` (0..*).