

The diagram illustrates a game engine architecture with the following components and relationships:

- Game Engine Core:**
 - `Application` (Base Class)
 - `GameMap` (Inherits from `Application`)
 - `World` (Inherits from `Application`)
 - `Item` (Inherits from `Application`)
 - `WeaponItem` (Inherits from `Item`)
 - `Ground` (Inherits from `Item`)
 - `Location` (Inherits from `Item`)
 - `Exit` (Inherits from `Item`)
 - `Actor` (Inherits from `Application`)
 - `MoveActor/Action` (Inherits from `Actor`)
 - `Action` (Inherits from `Application`)
- Game Entities:**
 - `Dirt` (Inherits from `Application`)
 - `Tree` (Inherits from `Application`)
 - `Plank` (Inherits from `Application`)
 - `Food` (Inherits from `Application`)
 - `Crop` (Inherits from `Application`)
 - `Fence` (Inherits from `Application`)
 - `ZombieMace` (Inherits from `Application`)
 - `ZombieClub` (Inherits from `Application`)
 - `ZombieLimbs` (Inherits from `Application`)
 - `Player` (Inherits from `Human`)
 - `Human` (Inherits from `ZombieActor`)
 - `ZombieActor` (Inherits from `Application`)
 - `Zombie` (Inherits from `Human`)
- Behaviours and Actions:**
 - `AttackBehaviour` (Inherits from `AttackAction`)
 - `AttackAction` (Inherits from `Action`)
 - `EatBehaviour` (Inherits from `Behaviour`)
 - `WanderBehaviour` (Inherits from `Behaviour`)
 - `HuntBehaviour` (Inherits from `Behaviour`)
 - `ScreamBehaviour` (Inherits from `Behaviour`)
 - `PickUpBehaviour` (Inherits from `Behaviour`)
 - `HarvestBehaviour` (Inherits from `Behaviour`)
 - `SowBehaviour` (Inherits from `Behaviour`)
- Relationships:**
 - `Application` has `GameMap`, `World`, `Item`, `WeaponItem`, `Ground`, `Location`, `Exit`, `Actor`, `MoveActor/Action`, `Action`, `Dirt`, `Tree`, `Plank`, `Food`, `Crop`, `Fence`, `ZombieMace`, `ZombieClub`, `ZombieLimbs`, `Player`, `Human`, `ZombieActor`, `Zombie`, `AttackBehaviour`, `EatBehaviour`, `WanderBehaviour`, `HuntBehaviour`, `ScreamBehaviour`, `PickUpBehaviour`, `HarvestBehaviour`, `SowBehaviour`.
 - `Actor` has `MoveActor/Action`.
 - `Human` has `WanderBehaviour`, `HuntBehaviour`, `ScreamBehaviour`, `PickUpBehaviour`, `HarvestBehaviour`, `SowBehaviour`.
 - `Zombie` has `WanderBehaviour`, `HuntBehaviour`, `ScreamBehaviour`, `PickUpBehaviour`, `HarvestBehaviour`, `SowBehaviour`.
 - `Player` has `WanderBehaviour`, `HuntBehaviour`, `ScreamBehaviour`, `PickUpBehaviour`, `HarvestBehaviour`, `SowBehaviour`.
 - `ZombieActor` has `WanderBehaviour`, `HuntBehaviour`, `ScreamBehaviour`, `PickUpBehaviour`, `HarvestBehaviour`, `SowBehaviour`.
 - `AttackBehaviour` has `AttackAction`.
 - `EatBehaviour` has `Food`.
 - `WanderBehaviour` has `Location`.
 - `HuntBehaviour` has `Location`.
 - `ScreamBehaviour` has `Location`.
 - `PickUpBehaviour` has `Item`.
 - `HarvestBehaviour` has `Tree`.
 - `SowBehaviour` has `Tree`.
 - `HarvestBehaviour` creates `Food`.
 - `SowBehaviour` creates `Crop`.
 - `Player` drops `Item`.
 - `Zombie` drops `Item`.
 - `Human` drops `Item`.
 - `ZombieActor` drops `Item`.
 - `Player` has `ZombieLimbs`.
 - `Human` has `ZombieLimbs`.
 - `ZombieActor` has `ZombieLimbs`.
 - `Zombie` has `ZombieLimbs`.
 - `Player` has `Fence`.
 - `Human` has `Fence`.
 - `ZombieActor` has `Fence`.
 - `Zombie` has `Fence`.
 - `Player` has `ZombieMace`.
 - `Human` has `ZombieMace`.
 - `ZombieActor` has `ZombieMace`.
 - `Zombie` has `ZombieMace`.
 - `Player` has `ZombieClub`.
 - `Human` has `ZombieClub`.
 - `ZombieActor` has `ZombieClub`.
 - `Zombie` has `ZombieClub`.

