Service:	Engine
Observator:	Envi: [Engine] → Environment
	Entities: [Engine] → Array[Entity]
	getEntity: [Engine] × int → Entity
Constructor:	init: Environment → [Engine]
Operator:	removeEntity: [Engine] × int → [Engine]
	pre removeEntity(E,i) requires $0 \leq$ i $<$ size(Entities(E))
	addEntity: [Engine] × Entity → [Engine]
	step: [Engine] → [Engine]
	pre step() requires
	forall i **in** [0;size(Entities(E))-1], Entity::Hp(getEntity(E,i))>0

Observations:

[invariant]: **forall** i **in** [0;size(Entities(E))-1], Entity::Envi(getEntity(E,i))=Envi(E)

forall i **in** [0;size(Entities(E))-1], Entity::Col(getEntity(E,i))=x

   and Entity::Row(getEntity(E,i))=y

   implies Environment::CellContent(Envi(E),x,y) = getEntity(E,i)

[removeEntity]: size(Entities(removeEntity(E,i))) = size(Entities(E)) - 1

forall k **in** [0,i-1], getEntity(removeEntity(E,i),k)) = getEntity(E,k)

forall k **in** [i,size(Entities(E))-2],

   getEntity(removeEntity(E,i),k)) = getEntity(E,k+1)

[addEntity]: size(Entities(addEntity(E,e))) = size(Entities(E)) + 1

forall k **in** [0,size(Entities(E))-1], getEntity(addEntity(E,e),k)) = getEntity(E,k)

getEntity(addEntity(E,e),size(Entities(E))) = e