## **IEntity** - id: int - graph: IGraph\* + IEntity() + GetID(): int + GetPosition(): Vector3 +GetDirection(): Vector3 +GetDestination(): Vector3 +GetDetails(): JsonObject +GetSpeed(): float +GetAvailability(): bool +SetAvaliablility(bool): void +Update(double dt, std::vector<IEntity\*> scheduler): +SetGraph(IGraph\* graph): void +SetPosition(Vector3 pos\_): void +SetDirection(Vector dir\_\_): void +SetDestination(Vector3 des ): +Rotate(double dt): void Hoop - JsonObject: details - Vector3: position - Vector3: direction - float: jumpHeight - bool: goUp - Vector3: destination - float: speed - bool: available - bool: pickedUp - string: strategyName - IEntity: nearestEntity -IStrategy\*:toTargetPosStrategy -IStrategy:toTargetDestStrategy +Hoop() +~Hoop() +GetSpeed(): float +GetPosition(): Vector3 +GetDirection(): Vector3 +GetDestination(): Vector3 +GetDetails(): JsonObject +GetAvailability(): bool +Update(double dt, std::vector<IEntity\*> scheduler):

void

void

+SetPosition(Vector3 pos\_): void +SetDirection(Vector dir\_): void

+SetDestination(Vector3 des\_):

+Rotate(double angle): void

Basketball

- JsonObject: details

- Vector3: position

- Vector3: direction

float: jumpHeightbool: goUp

- float: speed

+Basketball()

+ ~Basketball()

+GetSpeed(): float

+GetPosition(): Vector3

+GetDirection(): Vector3

+GetDestination(): Vector3

+GetDetails(): JsonObject

+SetStrategyName(string

strategyName): void

std::vector<IEntity\*> scheduler):

+SetPosition(Vector3 pos\_): void

+SetDirection(Vector dir\_\_): void +SetDestination(Vector3 des\_):

+SetAvaliablility(bool choice): void +Rotate(double angle): void

+GetAvailability(): bool

+Update(double dt,

void

void

- bool: available

- bool: pickedUp

- Vector3: destination

- string: strategyName

- IEntity: nearestEntity

-IStrategy\*:toTargetPosStrategy

-IStrategy:toTargetDestStrategy