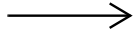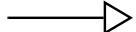ProgrammaArnaldo
2021 - Esercizio 3

THE TRINITY

TAMAGOLEM

Legenda

Associazione
→

Ereditarietà
▷

Aggregazione
◇

Composizione
◆

AbastractClass

Interface

EntryPoint
(it.unibs.fp.the_trinity.tamagolem)

+main(String[] args) : void

Menu
(it.unibs.fp.the_trinity.tamagolem)

-player1 : Player
-player2 : Player

+menu() : void
-setPlayersNames() : void
-getElementFromAbbreviation
(ArrayList<TamaElement>
elements, String abbreviation)
: String

Player
(it.unibs.fp.the_trinity.tamagolem)

-team : Stack<TamaGolem>
-name : String

+Player(String name)
+homonymFix() : void
+addTamaGolem(TamaGolem
golem) : void
+getTeam() :
Stack<TamaGolem>
+getName() : String
+getActiveGolem() : TamaGolem
+setName(String name) : void

TamaGolem
(it.unibs.fp.the_trinity.tamagolem)

-energy : int
-stones : int
-elements :
ArrayList<TamaElement>
-name : String

+TamaGolem(int energy,
int stones,
ArrayList<TamaElement>
elements, String name)
+getEnergy() : int
+getStones() : int
+getElements() :
ArrayList<TamaElement>
+getName() : String
+setName(String name) :
void

FightUtils
(it.unibs.fp.the_trinity.tamagolem)

+EASY_LEVEL : int
+NORMAL _LEVEL : int
+HARD_LEVEL : int
+MIN_ELEMENTS : int
...
+ENERGY : int

+howManyElements(int level) :
int
+generateRandomElements (int
elementsToExtract) :
ArrayList<TamaElement>
+howManyStones(int elements) :
int
+howManyTamagolems(int
elements, int stones) : int
...
+generateElementAndStonesMap
(ArrayList<TamaElement>
usedElements, int
stonesForEachElement) :
HashMap<TamaElement,
Integer>

FightHandler (it.unibs.fp.the_trinity.tamagolem)

-elements : int
-commonStones : int
-tamas : int
-golemStones : int
-playerA : Player
-playerB : Player
-usedElements : ArrayList<TamaElement>
-numberOfElementAndStones : HashMap<TamaElement, Integer>

+FightHandler(int matchLevel, Player playerA, Plater playerB)
+LetThemFight() : void
-addTamaGolems() : void
+getElements() : int
+getCommonStones() : int
+getTamas() : int
+getGolemStones() : int
+getPlayerA() : Player
+getPlayerB() : Player
+getUsedElements() : ArrayList<TamaElement>
+getNumberOfElementAndStones() : HashMap<TamaElement, Integer>

TamaElement
(it.unibs.fp.the_trinity.tamagolem)

+TamaElement : enum
-abbreviation : String
-index : int

+TamaElement(String
abbreviation, int index)
+containsAbbreviation(String
abbreviation) : boolean
+getAbbreviation() : String
+getIndex : int

Equilibrium   (it.unibs.fp.the_trinity.tamagolem)

-maxPower: int
-nElements : int
-matrix : int[][]
+IF_LOWER : int
+EACH_CASE : int
+IF_HIGHER : int

+Equilibrium(int maxPower, int nElements)
-generateMatrix() : void
-randomInteger(int min, int max, int... exclude)
-swapCells(int rowA, int colA, int rowB, int colB, int
CONDITION)
+getEquilibriumMatrix() : int[][]
+getnElements() : int
+calculateInteraction(TamaElement a, TamaElement b) : int

2

1

1

1

2

1

3..5

1..8

1