

# Diagramme de classe ULM Tower Defense

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#### Field Level FactoryLevel - height:int + factory(int):Level - width:int - layout:Tile[][] - towers:ArravList<Tower> - enemy:ArrayList<Enemy> - projectiles:ArrayList<Projectile> - indiceX:int Tile - indiceY:int - pieces:int - c:Color - lives:int + center:Point - indiceCastleX:int - total:int = 1 - indiceCastley:int - id:int - waves::Wave∏ next:boolean∏ + side:int = 30 - occupied:boolean = false + placeTower(Tower, Point):boolean - shape:rectangle + addEnemy(Enemy) + addProjectile(Projectile) + getTile(Point):Tile + getNext(): boolean∏ - path() + getId():int - numberTilePath():int + resetTotal() + removeTower(Tower):boolean + removeEnemy(Enemy):boolean + initLevel(int) +gameOver():boolean

# LauncherFirst + main(String[])

+ main(String[]) + start(Stage) - showNext(Stage)

Launcher

# Sauvegarde

### Classe

length:intlist:JSONArray = newJSONArray

+ createJSON()
+ lire(String):JSONArray
+ decoder(JSONArray):boolean[]
+sauvegarde():boolean[]
+ miseAjour(boolean[])
+ newGame()

#### **TowerDefenseVisual**

#### abstract ControlSubThread

worker:Thread# interval:int# running:AtomicBoolean

+ start()
- interrupt()
- isRunning():boolean

#### **ApplicationLevel**

+ levels:Level[] = new Level[11] +autorisations:boolean[] = new boolean[11]

+ start(Stage)
- showNext(Stage, Scene, int)

## ApplicationFx

- time:Timeline
- I:Level
- enemyWave:wave[]
  - nbWaves
  - idLevel:int
- nblives:int
- + updateModel()
- gameOver(Stage)
- createLevel(int, int)
- loadLevelLayout()
- createTower(int), VBox,:ImageView
  - createEnemy(int)
  - + miseAjourLives()
  - + start(Stage)
  - + close(Stage)

# - snowivext(Stage, 3