

Bombberman

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# Chapter 1

## Hierarchical Index

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# Class Index

### 2.1 Class List

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## Chapter 4

# Class Documentation

### 4.1 Bomb Class Reference

classe de la bombe

```
#include <Bomb.h>
```

#### Public Member Functions

- [Bomb](#) ()  
*Construct a new [Bomb](#) object.*
- [Bomb](#) (int x, int y, int degat, int portee)  
*Construct a new [Bomb](#) object.*
- int [getPortee](#) () const  
*Get the Portee object.*
- int [getDegat](#) () const  
*Get the Degat object.*
- int [getX](#) () const
- int [getY](#) () const
- int [getVarb](#) () const  
*Get the Varb object.*
- int [getBomb](#) () const  
*Get the [Bomb](#) object.*
- int [getExplosionH](#) () const  
*Get the Explosion H object.*
- int [getExplosionV](#) () const  
*Get the Explosion V object.*
- int [getCompteur](#) () const  
*Get the Compteur object.*
- int [getTmpi](#) () const  
*Get the Tmpi object.*
- int [getTnpj](#) () const  
*Get the Tnpj object.*
- void [setPortee](#) (int portee)  
*Set the Portee object.*

- void `setDegat` (int degat)  
*Set the Degat object.*
- void `setX` (int x)
- void `setY` (int y)
- void `setCompteur` (int compteur)  
*Set the Compteur object.*
- void `setTmpi` (int tmpi)  
*Set the Tmpi object.*
- void `setTmpj` (int tmpj)  
*Set the Tmpj object.*
- void `BombePosee` ()

## Public Attributes

- bool `poser` = false

## Protected Attributes

- int `portee` = 1
- int `degat` = 50
- int `x`
- int `y`
- int `varb` = 11
- int `bomb` = 111
- int `explosionH` = 1111
- int `explosionV` = 11111
- int `compteur` = 0
- int `tmpi` = -1
- int `tmpj` = -1

## Friends

- std::ostream & `operator<<` (std::ostream &os, const `Bomb` &p)  
*surcharge de l'opérateur cout*
- std::istream & `operator>>` (std::istream &is, `Bomb` &p)  
*surcharge de l'opérateur cin*

### 4.1.1 Detailed Description

classe de la bombe

### 4.1.2 Constructor & Destructor Documentation



#### 4.1.2.1 Bomb() [1/2]

```
Bomb::Bomb ( )
```

Construct a new [Bomb](#) object.

Construct a new [Bomb](#):: [Bomb](#) object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

Sami DRIOUCHE & Walid AIT-ERRAMI

#### 4.1.2.2 Bomb() [2/2]

```
Bomb::Bomb (
    int x,
    int y,
    int degat,
    int portee )
```

Construct a new [Bomb](#) object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>x</i>	
<i>y</i>	
<i>degat</i>	
<i>portee</i>	

### 4.1.3 Member Function Documentation

#### 4.1.3.1 getBomb()

```
int Bomb::getBomb ( ) const
```

Get the [Bomb](#) object.

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

**4.1.3.2 getCompteur()**

```
int Bomb::getCompteur ( ) const
```

Get the Compteur object.

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

**4.1.3.3 getDegat()**

```
int Bomb::getDegat ( ) const
```

Get the Degat object.

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

**4.1.3.4 getExplosionH()**

```
int Bomb::getExplosionH ( ) const
```

Get the Explosion H object.

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

#### 4.1.3.5 getExplosionV()

```
int Bomb::getExplosionV ( ) const
```

Get the Explosion V object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.1.3.6 getPortee()

```
int Bomb::getPortee ( ) const
```

Get the Portee object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

int

#### 4.1.3.7 getTmpi()

```
int Bomb::getTmpi ( ) const
```

Get the Tmpi object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.1.3.8 getTmpj()

```
int Bomb::getTmpj ( ) const
```

Get the Tmpj object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.1.3.9 getVarb()

```
int Bomb::getVarb ( ) const
```

Get the Varb object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.1.3.10 getX()

```
int Bomb::getX ( ) const
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.1.3.11 getY()

```
int Bomb::getY ( ) const
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.1.3.12 setCompteur()

```
void Bomb::setCompteur (
    int compteur )
```

Set the Compteur object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>compteur</i>	
-----------------	--

#### 4.1.3.13 setDegat()

```
void Bomb::setDegat (
    int degat )
```

Set the Degat object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>degat</i>	
--------------	--

#### 4.1.3.14 setPortee()

```
void Bomb::setPortee (
    int portee )
```

Set the Portee object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>portee</i>	
<i>portee</i>	

#### 4.1.3.15 setTmpi()

```
void Bomb::setTmpi (
    int tmpi )
```

Set the Tmpi object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>tmpi</i>	
-------------	--

#### 4.1.3.16 setTmpj()

```
void Bomb::setTmpj (
    int tmpj )
```

Set the Tmpj object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>tmpj</i>	
-------------	--

#### 4.1.3.17 setX()

```
void Bomb::setX (
    int x )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

x	
---	--

#### 4.1.3.18 setY()

```
void Bomb::setY (
    int y )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

y	
---	--

### 4.1.4 Friends And Related Function Documentation

#### 4.1.4.1 operator<<

```
std::ostream & operator<< (
    std::ostream & os,
    const Bomb & p ) [friend]
```

surcharge de l'opérateur cout

##### Author

sami DRIOUCHE & walid AIT ERRAMI

**Parameters**

<i>os</i>	
<i>p</i>	

**Returns**

std::ostream&

**Parameters**

<i>os</i>	
<i>p</i>	

**Returns**

std::ostream&

**4.1.4.2 operator>>**

```
std::istream & operator>> (  
    std::istream & is,  
    Bomb & p ) [friend]
```

surcharge de l'opérateur cin

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Parameters**

<i>is</i>	
<i>p</i>	

**Returns**

std::istream&

**Parameters**

<i>is</i>	
<i>p</i>	



### Returns

std::istream&

The documentation for this class was generated from the following files:

- Joueur/entete/Bomb.h
- Joueur/Bomb.cpp

## 4.2 Bomberman Class Reference

classe du bomberman

```
#include <Bomberman.h>
```

### Public Member Functions

- **Bomberman** (std::string nom, int vie, int x, int y, int vitesse, int nbBomb, **Bomb** boom)  
*Construct a new **Bomberman** object.*
- **Bomberman** ()  
*Construct a new **Bomberman** object.*
- int **getX** () const
- int **getY** () const
- int **getVie** () const  
*Get the Vie object.*
- int **getVitesse** () const  
*Get the Vitesse object.*
- int **getNbBomb** () const  
*Get the Nb **Bomb** object.*
- int **getValeur** () const  
*Get the Valeur object.*
- void **setX** (int x)
- void **setY** (int y)
- void **setVie** (int vie)  
*Set the Vie object.*
- void **setVitesse** (int vitesse)  
*Set the Vitesse object.*
- void **setNbBomb** (int nbBomb)  
*Set the Nb **Bomb** object.*

### Public Attributes

- bool **Vivant** = false
- std::vector< **Bomb** > **tabB**
- **Bomb** **boom**

## Protected Attributes

- `std::string nom`
- `int vie = 100`
- `int x`
- `int y`
- `int vitesse = 1`
- `int nbBomb = 3`
- `int valeur = 1`

## Friends

- `std::ostream & operator<<` (`std::ostream &os`, `const Bomberman &p`)
- `std::istream & operator>>` (`std::istream &is`, `Bomberman &p`)

### 4.2.1 Detailed Description

classe du bomberman

Author

sami DRIOUCHE

### 4.2.2 Constructor & Destructor Documentation

#### 4.2.2.1 Bomberman() [1/2]

```
Bomberman::Bomberman (
    std::string nom,
    int vie,
    int x,
    int y,
    int vitesse,
    int nbBomb,
    Bomb boom )
```

Construct a new [Bomberman](#) object.

Author

sami DRIOUCHE

Parameters

<i>nom</i>	
<i>vie</i>	
<i>x</i>	
<i>y</i>	
<i>vitesse</i>	
<i>nbBomb</i>	
<i>boom</i>	

#### 4.2.2.2 Bomberman() [2/2]

```
Bomberman::Bomberman ( )
```

Construct a new [Bomberman](#) object.

##### Author

sami DRIOUCHE

### 4.2.3 Member Function Documentation

#### 4.2.3.1 getNbBomb()

```
int Bomberman::getNbBomb ( ) const
```

Get the Nb [Bomb](#) object.

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.2.3.2 getValeur()

```
int Bomberman::getValeur ( ) const
```

Get the Valeur object.

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.2.3.3 getView()

```
int Bomberman::getView ( ) const
```

Get the Vie object.

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.2.3.4 getVitesse()

```
int Bomberman::getVitesse ( ) const
```

Get the Vitesse object.

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.2.3.5 getX()

```
int Bomberman::getX ( ) const
```

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.2.3.6 getY()

```
int Bomberman::getY ( ) const
```

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.2.3.7 setNbBomb()

```
void Bomberman::setNbBomb (
    int nbBomb )
```

Set the Nb [Bomb](#) object.

##### Author

sami DRIOUCHE

##### Parameters

<i>nbBomb</i>	
---------------	--

#### 4.2.3.8 setVie()

```
void Bomberman::setVie (
    int vie )
```

Set the Vie object.

##### Author

sami DRIOUCHE

##### Parameters

<i>vie</i>	
------------	--

#### 4.2.3.9 setVitesse()

```
void Bomberman::setVitesse (
    int vitesse )
```

Set the Vitesse object.

##### Author

sami DRIOUCHE

##### Parameters

<i>vitesse</i>	
----------------	--

#### 4.2.3.10 setX()

```
void Bomberman::setX (
    int x )
```

##### Author

sami DRIOUCHE

##### Parameters

<i>x</i>	
----------	--

#### 4.2.3.11 setY()

```
void Bomberman::setY (
    int y )
```

##### Author

sami DRIOUCHE

##### Parameters

<i>y</i>	
----------	--

## 4.2.4 Friends And Related Function Documentation

### 4.2.4.1 operator<<

```
std::ostream & operator<< (  
    std::ostream & os,  
    const Bomberman & p ) [friend]
```

#### Author

sami DRIOUCHE

#### Parameters

<i>os</i>	
<i>p</i>	

#### Returns

std::ostream&

### 4.2.4.2 operator>>

```
std::istream & operator>> (  
    std::istream & is,  
    Bomberman & p ) [friend]
```

#### Author

sami DRIOUCHE

#### Parameters

<i>is</i>	
<i>p</i>	

#### Returns

std::istream&

The documentation for this class was generated from the following files:

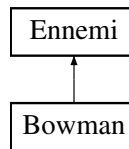
- Joueur/entete/Bomberman.h
- Joueur/Bomberman.cpp

## 4.3 Bowman Class Reference

classe du bowman

```
#include <Bowman.h>
```

Inheritance diagram for Bowman:



### Public Member Functions

- **Bowman** ()  
*Construct a new [Bowman](#) object.*
- **Bowman** (int x, int y)  
*Construct a new [Bowman](#) object.*
- void **attaquerPlayer** ([Bomberman](#) &b)  
*methode pour attaquer le player*
- void **recevoirDegat** ([Bomb](#) &boom)  
*methode pour recevoir les degats de la bombe*

### Friends

- std::ostream & **operator<<** (std::ostream &os, const [Bowman](#) &p)  
*surcharge de l'operateur de sortie cout*
- std::istream & **operator>>** (std::istream &is, [Bowman](#) &p)  
*surcharge de l'operateur d'entrée cin*

### Additional Inherited Members

#### 4.3.1 Detailed Description

classe du bowman

#### 4.3.2 Constructor & Destructor Documentation

##### 4.3.2.1 Bowman()

```
Bowman::Bowman (
    int x,
    int y )
```

Construct a new [Bowman](#) object.

Author

Walid AIT ERRAMI



## Parameters

<i>x</i>	
<i>y</i>	

### 4.3.3 Member Function Documentation

#### 4.3.3.1 attaquerPlayer()

```
void Bowman::attaquerPlayer (
    Bomberman & b ) [virtual]
```

methode pour attaquer le player

## Author

Walid AIT ERRAMI

## Parameters

<i>b</i>	
----------	--

Reimplemented from [Ennemi](#).

#### 4.3.3.2 recevoirDegat()

```
void Bowman::recevoirDegat (
    Bomb & boom ) [virtual]
```

methode pour recevoir les degats de la bombe

## Author

Walid AIT ERRAMI

## Parameters

<i>boom</i>	
-------------	--

Reimplemented from [Ennemi](#).

## 4.3.4 Friends And Related Function Documentation

### 4.3.4.1 operator<<

```
std::ostream & operator<< (  
    std::ostream & os,  
    const Bowman & p ) [friend]
```

surcharge de l'operateur de sortie cout

#### Parameters

<i>os</i>	
<i>p</i>	

#### Returns

std::ostream&

### 4.3.4.2 operator>>

```
std::istream & operator>> (  
    std::istream & is,  
    Bowman & p ) [friend]
```

surcharge de l'operateur d'entrée cin

#### Parameters

<i>is</i>	
<i>p</i>	

#### Returns

std::istream&

The documentation for this class was generated from the following files:

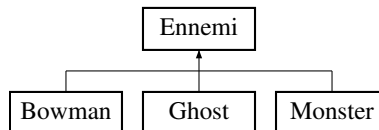
- Ennemi/entete/Bowman.h
- Ennemi/Bowman.cpp

## 4.4 Ennemi Class Reference

classe mère [Ennemi](#)

```
#include <Ennemi.h>
```

Inheritance diagram for Ennemi:



### Public Member Functions

- int [getX](#) () const
- int [getY](#) () const
- int [getNbvie](#) () const  
*Get the Nbvie object.*
- int [getNbattaque](#) () const  
*Get the Nbattaque object.*
- int [getValeur](#) () const  
*Get the Valeur object.*
- void [setX](#) (int x)  
*setter*
- void [setY](#) (int y)  
*setter*
- void [setNbvie](#) (int nbvie)  
*Set the Nbvie object.*
- void [setNbattaque](#) (int nbattaque)  
*Set the Nbattaque object.*
- virtual void [attaquerPlayer](#) ([Bomberman](#) &b)  
*methode virtual pour infliger des degats au joueur*
- virtual void [recevoirDegat](#) ([Bomb](#) &boom)  
*methode virtual pour recevoir des degats*

### Public Attributes

- int **tmp**
- bool **Vivant** = false

### Protected Attributes

- int **x**
- int **y**
- int **nbvie** = 20
- int **nbattaque** = 50
- int **valeur** = 6

### 4.4.1 Detailed Description

classe mère [Ennemi](#)

### 4.4.2 Member Function Documentation

#### 4.4.2.1 attaquerPlayer()

```
void Ennemi::attaquerPlayer (
    Bomberman & b ) [virtual]
```

methode virtual pour infliger des degats au joueur

##### Author

Walid AIT ERRAMI

##### Parameters

<i>b</i>	
----------	--

Reimplemented in [Bowman](#), [Ghost](#), and [Monster](#).

#### 4.4.2.2 getNbattaque()

```
int Ennemi::getNbattaque ( ) const
```

Get the Nbattaque object.

##### Author

Walid AIT ERRAMI

##### Returns

int

#### 4.4.2.3 getNbvie()

```
int Ennemi::getNbvie ( ) const
```

Get the Nbvie object.

##### Author

Walid AIT ERRAMI

##### Returns

int

#### 4.4.2.4 getValeur()

```
int Ennemi::getValeur ( ) const
```

Get the Valeur object.

##### Author

Walid AIT ERRAMI

##### Returns

int

#### 4.4.2.5 getX()

```
int Ennemi::getX ( ) const
```

##### Author

Walid AIT ERRAMI

##### Returns

int

#### 4.4.2.6 getY()

```
int Ennemi::getY ( ) const
```

##### Author

Walid AIT ERRAMI

##### Returns

int

#### 4.4.2.7 recevoirDegat()

```
void Ennemi::recevoirDegat (
    Bomb & boom ) [virtual]
```

methode virtual pour recevoir des degats

##### Author

Walid AIT ERRAMI

##### Parameters

<i>boom</i>	
-------------	--

Reimplemented in [Bowman](#), [Ghost](#), and [Monster](#).

#### 4.4.2.8 setNbattaque()

```
void Ennemi::setNbattaque (
    int nbattaque )
```

Set the Nbattaque object.

##### Author

Walid AIT ERRAMI

##### Parameters

<i>nbattaque</i>	
------------------	--

#### 4.4.2.9 setNbvie()

```
void Ennemi::setNbvie (
    int nbvie )
```

Set the Nbvie object.

##### Author

Walid AIT ERRAMI

##### Parameters

<i>nbvie</i>	
--------------	--

#### 4.4.2.10 setX()

```
void Ennemi::setX (
    int x )
```

setter

##### Author

Walid AIT ERRAMI

##### Parameters

<i>x</i>	
----------	--

#### 4.4.2.11 setY()

```
void Ennemi::setY (
    int y )
```

setter

##### Author

Walid AIT ERRAMI

## Parameters

<i>y</i>	
----------	--

The documentation for this class was generated from the following files:

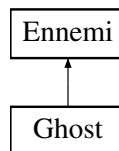
- Ennemi/entete/Ennemi.h
- Ennemi/Ennemi.cpp

## 4.5 Ghost Class Reference

classe du [Ghost](#)

```
#include <Ghost.h>
```

Inheritance diagram for Ghost:



### Public Member Functions

- [Ghost](#) ()  
*Construct a new [Ghost](#) object.*
- [Ghost](#) (int x, int y)  
*Construct a new [Ghost](#) object.*
- void [attaquerPlayer](#) ([Bomberman](#) &b)  
*methode pour attaquer le player*
- void [recevoirDegat](#) ([Bomb](#) &boom)  
*methode pour recevoir des degats*

### Friends

- std::ostream & [operator<<](#) (std::ostream &os, const [Ghost](#) &p)  
*surcharge operateur*
- std::istream & [operator>>](#) (std::istream &is, [Ghost](#) &p)  
*surcharge operateur*

### Additional Inherited Members

#### 4.5.1 Detailed Description

classe du [Ghost](#)



## 4.5.2 Constructor & Destructor Documentation

### 4.5.2.1 Ghost() [1/2]

```
Ghost::Ghost ( )
```

Construct a new [Ghost](#) object.

**Author**

sami DRIOUCHE

### 4.5.2.2 Ghost() [2/2]

```
Ghost::Ghost (
    int x,
    int y )
```

Construct a new [Ghost](#) object.

**Author**

sami DRIOUCHE

**Parameters**

<i>x</i>	
<i>y</i>	

## 4.5.3 Member Function Documentation

### 4.5.3.1 attaquerPlayer()

```
void Ghost::attaquerPlayer (
    Bomberman & b ) [virtual]
```

methode pour attaquer le player

**Author**

Walid AIT ERRAMI

**Parameters**

<i>b</i>	
----------	--

Reimplemented from [Ennemi](#).

**4.5.3.2 recevoirDegat()**

```
void Ghost::recevoirDegat (
    Bomb & boom ) [virtual]
```

methode pour recevoir des degats

**Author**

sami DRIOUCHE

**Parameters**

<i>boom</i>	
-------------	--

Reimplemented from [Ennemi](#).

**4.5.4 Friends And Related Function Documentation****4.5.4.1 operator<<**

```
std::ostream & operator<< (
    std::ostream & os,
    const Ghost & p ) [friend]
```

surcharge operateur

**Author**

sami DRIOUCHE

**Parameters**

<i>os</i>	
<i>p</i>	

**Returns**

std::ostream&

**Parameters**

<i>os</i>	
<i>p</i>	

**Returns**

std::ostream&

**4.5.4.2 operator>>**

```
std::istream & operator>> (  
    std::istream & is,  
    Ghost & p ) [friend]
```

surcharge operateur

**Author**

sami DRIOUCHE

**Parameters**

<i>is</i>	
<i>p</i>	

**Returns**

std::istream&

**Parameters**

<i>is</i>	
<i>p</i>	

**Returns**

std::istream&

The documentation for this class was generated from the following files:

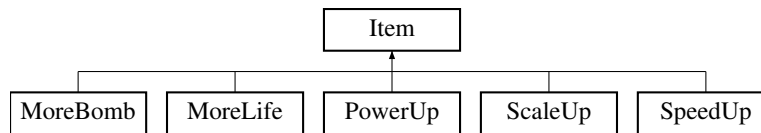
- Ennemi/entete/Ghost.h
- Ennemi/Ghost.cpp

## 4.6 Item Class Reference

classe mère item

```
#include <Item.h>
```

Inheritance diagram for Item:



### Public Member Functions

- int [getX](#) () const
- int [getY](#) () const
- int [getValeur](#) () const  
*Get the Valeur object.*
- void [setX](#) (int x)
- void [setY](#) (int y)
- void [setValeur](#) (int valeur)  
*Set the Valeur object.*
- virtual void [effetPlayer](#) ([Bomberman](#) &b)
- virtual void [effetBomb](#) ([Bomb](#) &b)

### Protected Attributes

- int **x**
- int **y**
- int **valeur** = 7

#### 4.6.1 Detailed Description

classe mère item

#### 4.6.2 Member Function Documentation

##### 4.6.2.1 effetBomb()

```
void Item::effetBomb (
    Bomb & b ) [virtual]
```

Author

sami DRIUCHE

## Parameters

<i>b</i>	
----------	--

Reimplemented in [PowerUp](#), and [ScaleUp](#).

**4.6.2.2 effetPlayer()**

```
void Item::effetPlayer (
    Bomberman & b ) [virtual]
```

## Author

sami DRIOUCHE

## Parameters

<i>b</i>	
----------	--

Reimplemented in [MoreBomb](#), [MoreLife](#), and [SpeedUp](#).

**4.6.2.3 getValeur()**

```
int Item::getValeur ( ) const
```

Get the Valeur object.

## Author

sami DRIOUCHE

## Returns

int

**4.6.2.4 getX()**

```
int Item::getX ( ) const
```

## Author

sami DRIOUCHE

## Returns

int

#### 4.6.2.5 getY()

```
int Item::getY ( ) const
```

##### Author

sami DRIOUCHE

##### Returns

int

#### 4.6.2.6 setValeur()

```
void Item::setValeur (
    int valeur )
```

Set the Valeur object.

##### Author

sami DRIOUCHE

##### Parameters

<i>valeur</i>	
---------------	--

#### 4.6.2.7 setX()

```
void Item::setX (
    int x )
```

##### Author

sami DRIOUCHE

##### Parameters

<i>x</i>	
----------	--

## 4.6.2.8 setY()

```
void Item::setY (
    int y )
```

## Author

sami DRIOUCHE

## Parameters

<i>y</i>	
----------	--

The documentation for this class was generated from the following files:

- Item/entete/Item.h
- Item/Item.cpp

## 4.7 Map Class Reference

classe [Map](#)

```
#include <Map.h>
```

## Public Member Functions

- [Map](#) (std::string nom)  
*Construct a new [Map](#) object.*
- void [afficher](#) ()
- void [creerMap](#) ()
- std::string [convertir](#) (int i, int j)
- void [remplirMur](#) (Tile w)
- void [remplirSable](#) (Tile w)
- void [remplirItem](#) (Item &k)
- void [remplirPlayer](#) (Bomberman &b)
- void [mouvementPlayer](#) (Bomberman &b, Bomb &bomb, Item &k1, Item &k2, Item &k3, Item &k4, Item &k5)
- void [remplirMonstre](#) (Ennemi &b)
- void [mouvementMonstre](#) (Ennemi &b, Bomberman &bo)
- void [effetMonstre](#) (Ennemi &b, Bomberman &bo, int DI, int DJ, int déplacement)
- void [explosionBombe](#) (Bomberman &b, Bomb &bomb)
- void [effetItem](#) (Bomberman &b, Bomb &bomb, Item &k1, Item &k2, Item &k3, Item &k4, Item &k5, int i, int j)
- void [tuerMonstre](#) ()
- bool [victoire](#) ()

## Public Attributes

- int **tab** [nbligne][nbcolonne]
- std::string **nom**
- [Monster](#) **mons**
- [Ghost](#) **ghos**
- [Bowman](#) **bowm**
- [Bomberman](#) **player1**
- [Bomb](#) **bomb1**
- [Wall](#) **wall**
- [Sand](#) **sand**
- [MoreLife](#) **morL**
- [MoreBomb](#) **morB**
- [SpeedUp](#) **spee**
- [ScaleUp](#) **scal**
- [PowerUp](#) **power**
- std::vector< [Ennemi](#) \* > **tabM**

## Static Public Attributes

- int static const **nbligne** = 14
- int static const **nbcolonne** = 14

### 4.7.1 Detailed Description

classe [Map](#)

### 4.7.2 Constructor & Destructor Documentation

#### 4.7.2.1 Map()

```
Map::Map (
    std::string nom )
```

Construct a new [Map](#) object.

#### Author

sami DRIOUCHE

#### Parameters

<i>nom</i>	
------------	--



### 4.7.3 Member Function Documentation

#### 4.7.3.1 afficher()

```
void Map::afficher ( )
```

##### Author

sami DRIOUCHE

#### 4.7.3.2 convertir()

```
string Map::convertir (
    int i,
    int j )
```

##### Author

sami DRIOUCHE

##### Parameters

<i>i</i>	
<i>j</i>	

##### Returns

std::string

#### 4.7.3.3 creerMap()

```
void Map::creerMap ( )
```

##### Author

sami DRIOUCHE

#### 4.7.3.4 effetItem()

```
void Map::effetItem (
    Bomberman & b,
    Bomb & bomb,
    Item & k1,
    Item & k2,
    Item & k3,
    Item & k4,
    Item & k5,
    int i,
    int j )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>b</i>	
<i>bomb</i>	
<i>k1</i>	
<i>k2</i>	
<i>k3</i>	
<i>k4</i>	
<i>k5</i>	
<i>i</i>	
<i>j</i>	

#### 4.7.3.5 effetMonstre()

```
void Map::effetMonstre (
    Ennemi & b,
    Bomberman & bo,
    int DI,
    int DJ,
    int displacement )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>b</i>	
<i>bo</i>	
<i>DI</i>	
<i>DJ</i>	
<i>displacement</i>	

#### 4.7.3.6 explosionBombe()

```
void Map::explosionBombe (
    Bomberman & b,
    Bomb & bomb )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>b</i>	
<i>bomb</i>	

#### 4.7.3.7 mouvementMonstre()

```
void Map::mouvementMonstre (
    Ennemi & b,
    Bomberman & bo )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>b</i>	
<i>bo</i>	

#### 4.7.3.8 mouvementPlayer()

```
void Map::mouvementPlayer (
    Bomberman & b,
    Bomb & bomb,
    Item & k1,
    Item & k2,
    Item & k3,
    Item & k4,
    Item & k5 )
```

##### Author

sami DRIOUCHE

## Parameters

<i>b</i>	
<i>bomb</i>	
<i>k1</i>	
<i>k2</i>	
<i>k3</i>	
<i>k4</i>	
<i>k5</i>	

**4.7.3.9 remplirItem()**

```
void Map::remplirItem (
    Item & k )
```

## Author

sami DRIOUCHE

## Parameters

<i>k</i>	
----------	--

**4.7.3.10 remplirMonstre()**

```
void Map::remplirMonstre (
    Ennemi & b )
```

## Author

sami DRIOUCHE & walid AIT ERRAMI

## Parameters

<i>b</i>	
----------	--

**4.7.3.11 remplirMur()**

```
void Map::remplirMur (
    Tile w )
```

**Author**

Walid AIT ERRAMI

**Parameters**

<i>w</i>	
----------	--

**4.7.3.12 remplirPlayer()**

```
void Map::remplirPlayer (
    Bomberman & b )
```

**Author**

sami DRIOUCHE

**Parameters**

<i>b</i>	
----------	--

**4.7.3.13 remplirSable()**

```
void Map::remplirSable (
    Tile w )
```

**Author**

Walid AIT ERRAMI

**Parameters**

<i>w</i>	
----------	--

**4.7.3.14 tuerMonstre()**

```
void Map::tuerMonstre ( )
```

**Author**

sami DRIOUCHE & walid AIT ERRAMI

#### 4.7.3.15 victoire()

```
bool Map::victoire ( )
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

true  
false

The documentation for this class was generated from the following files:

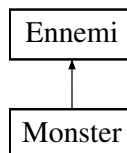
- Map/entete/Map.h
- Map/Map.cpp

## 4.8 Monster Class Reference

classe du monstre

```
#include <Monster.h>
```

Inheritance diagram for Monster:



### Public Member Functions

- [Monster](#) ()  
*Construct a new [Monster](#) object.*
- [Monster](#) (int x, int y)  
*Construct a new [Monster](#) object.*
- void [attaquerPlayer](#) ([Bomberman](#) &b)
- void [recevoirDegat](#) ([Bomb](#) &boom)

### Friends

- std::ostream & [operator<<](#) (std::ostream &os, const [Monster](#) &p)  
*surcharge de l'opérateur cout*
- std::istream & [operator>>](#) (std::istream &is, [Monster](#) &p)  
*surcharge de l'opérateur cin*

## Additional Inherited Members

### 4.8.1 Detailed Description

classe du monstre

### 4.8.2 Constructor & Destructor Documentation

#### 4.8.2.1 `Monster()` [1/2]

```
Monster::Monster ( )
```

Construct a new [Monster](#) object.

##### Author

sami DRIUCHE

#### 4.8.2.2 `Monster()` [2/2]

```
Monster::Monster (
    int x,
    int y )
```

Construct a new [Monster](#) object.

##### Author

sami DRIUCHE

##### Parameters

<i>x</i>	
<i>y</i>	

### 4.8.3 Member Function Documentation

#### 4.8.3.1 attaquerPlayer()

```
void Monster::attaquerPlayer (
    Bomberman & b ) [virtual]
```

##### Author

sami DRIOUCHE

##### Parameters

<i>b</i>	
----------	--

Reimplemented from [Ennemi](#).

#### 4.8.3.2 recevoirDegat()

```
void Monster::recevoirDegat (
    Bomb & boom ) [virtual]
```

##### Author

sami DRIOUCHE

##### Parameters

<i>boom</i>	
-------------	--

Reimplemented from [Ennemi](#).

### 4.8.4 Friends And Related Function Documentation

#### 4.8.4.1 operator<<

```
std::ostream & operator<< (
    std::ostream & os,
    const Monster & p ) [friend]
```

surcharge de l'opérateur cout

##### Parameters

<i>os</i>	
<i>p</i>	



**Returns**

std::ostream&

**4.8.4.2 operator>>**

```
std::istream & operator>> (  
    std::istream & is,  
    Monster & p ) [friend]
```

surcharge de l'opérateur cin

**Author**

sami DRIOUCHE

**Parameters**

<i>is</i>	
<i>p</i>	

**Returns**

std::istream&

**Parameters**

<i>is</i>	
<i>p</i>	

**Returns**

std::istream&

The documentation for this class was generated from the following files:

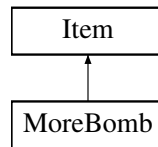
- Ennemi/entete/Monster.h
- Ennemi/Monster.cpp

## 4.9 MoreBomb Class Reference

classe morebomb

```
#include <MoreBomb.h>
```

Inheritance diagram for MoreBomb:



## Public Member Functions

- [MoreBomb](#) ()  
*Construct a new More [Bomb](#) object.*
- [MoreBomb](#) (int x, int y)  
*Construct a new More [Bomb](#) object.*
- void [effetPlayer](#) ([Bomberman](#) &b)

## Additional Inherited Members

### 4.9.1 Detailed Description

classe morebomb

### 4.9.2 Constructor & Destructor Documentation

#### 4.9.2.1 [MoreBomb](#)() [1/2]

```
MoreBomb::MoreBomb ( )
```

Construct a new More [Bomb](#) object.

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### 4.9.2.2 [MoreBomb](#)() [2/2]

```
MoreBomb::MoreBomb (
    int x,
    int y )
```

Construct a new More [Bomb](#) object.

#### Author

sami DRIOUCHE & walid AIT ERRAMI

## Parameters

<i>x</i>	
<i>y</i>	

### 4.9.3 Member Function Documentation

#### 4.9.3.1 effetPlayer()

```
void MoreBomb::effetPlayer (
    Bomberman & b ) [virtual]
```

## Author

sami DRIOUCHE & walid AIT ERRAMI

## Parameters

<i>b</i>	
----------	--

Reimplemented from [Item](#).

The documentation for this class was generated from the following files:

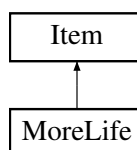
- Item/entete/MoreBomb.h
- Item/MoreBomb.cpp

## 4.10 MoreLife Class Reference

classe morelife

```
#include <MoreLife.h>
```

Inheritance diagram for MoreLife:



## Public Member Functions

- [MoreLife](#) ()  
*Construct a new More Life object.*
- [MoreLife](#) (int x, int y)  
*Construct a new More Life object.*
- void [effetPlayer](#) ([Bomberman](#) &b)

## Additional Inherited Members

### 4.10.1 Detailed Description

classe morelife

### 4.10.2 Constructor & Destructor Documentation

#### 4.10.2.1 [MoreLife\(\)](#) [1/2]

```
MoreLife::MoreLife ( )
```

Construct a new More Life object.

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### 4.10.2.2 [MoreLife\(\)](#) [2/2]

```
MoreLife::MoreLife (
    int x,
    int y )
```

Construct a new More Life object.

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### Parameters

x	
y	

### 4.10.3 Member Function Documentation

#### 4.10.3.1 effetPlayer()

```
void MoreLife::effetPlayer (
    Bomberman & b ) [virtual]
```

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### Parameters

<i>b</i>	
----------	--

Reimplemented from [Item](#).

The documentation for this class was generated from the following files:

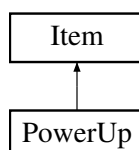
- Item/entete/MoreLife.h
- Item/MoreLife.cpp

## 4.11 PowerUp Class Reference

classe powerup

```
#include <PowerUp.h>
```

Inheritance diagram for PowerUp:



### Public Member Functions

- [PowerUp](#) ()  
*Construct a new Power Up object.*
- [PowerUp](#) (int x, int y)  
*Construct a new Power Up object.*
- void [effetBomb](#) ([Bomb](#) &b)

## Additional Inherited Members

### 4.11.1 Detailed Description

classe powerup

### 4.11.2 Constructor & Destructor Documentation

#### 4.11.2.1 PowerUp() [1/2]

```
PowerUp::PowerUp ( )
```

Construct a new Power Up object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

#### 4.11.2.2 PowerUp() [2/2]

```
PowerUp::PowerUp (
    int x,
    int y )
```

Construct a new Power Up object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>x</i>	
<i>y</i>	

### 4.11.3 Member Function Documentation

### 4.11.3.1 effetBomb()

```
void PowerUp::effetBomb (
    Bomb & b ) [virtual]
```

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### Parameters

<i>b</i>	
----------	--

Reimplemented from [Item](#).

The documentation for this class was generated from the following files:

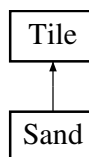
- Item/entete/PowerUp.h
- Item/PowerUp.cpp

## 4.12 Sand Class Reference

classe [Sand](#)

```
#include <Sand.h>
```

Inheritance diagram for Sand:



### Public Member Functions

- [Sand](#) ()  
*Construct a new [Sand](#) object.*
- [Sand](#) (int x, int y)  
*Construct a new [Sand](#) object.*
- int [getNbVie](#) () const  
*Get the Nb Vie object.*
- void [setNbVie](#) (int nbvie)  
*Set the Nb Vie object.*

### Public Attributes

- bool **Vivant** = false

## Protected Attributes

- `int nbvie = 5`

### 4.12.1 Detailed Description

classe [Sand](#)

### 4.12.2 Constructor & Destructor Documentation

#### 4.12.2.1 `Sand()` [1/2]

```
Sand::Sand ( )
```

Construct a new [Sand](#) object.

##### Author

walid AIT ERRAMI

#### 4.12.2.2 `Sand()` [2/2]

```
Sand::Sand (
    int x,
    int y )
```

Construct a new [Sand](#) object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>x</i>	
<i>y</i>	

### 4.12.3 Member Function Documentation



#### 4.12.3.1 getNbVie()

```
int Sand::getNbVie ( ) const
```

Get the Nb Vie object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Returns

int

#### 4.12.3.2 setNbVie()

```
void Sand::setNbVie (
    int nbvie )
```

Set the Nb Vie object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>nbvie</i>	
--------------	--

The documentation for this class was generated from the following files:

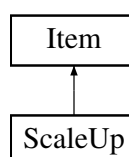
- Map/entete/Sand.h
- Map/Sand.cpp

## 4.13 ScaleUp Class Reference

classe scaleup

```
#include <ScaleUp.h>
```

Inheritance diagram for ScaleUp:



## Public Member Functions

- [ScaleUp](#) ()  
*Construct a new Scale Up object.*
- [ScaleUp](#) (int x, int y)  
*Construct a new Scale Up object.*
- void [effetBomb](#) ([Bomb](#) &b)

## Additional Inherited Members

### 4.13.1 Detailed Description

classe scaleup

### 4.13.2 Constructor & Destructor Documentation

#### 4.13.2.1 [ScaleUp](#)() [1/2]

```
ScaleUp::ScaleUp ( )
```

Construct a new Scale Up object.

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### 4.13.2.2 [ScaleUp](#)() [2/2]

```
ScaleUp::ScaleUp (
    int x,
    int y )
```

Construct a new Scale Up object.

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### Parameters

<i>x</i>	
<i>y</i>	

### 4.13.3 Member Function Documentation

#### 4.13.3.1 effetBomb()

```
void ScaleUp::effetBomb (
    Bomb & b ) [virtual]
```

#### Author

sami DRIOUCHE & walid AIT ERRAMI

#### Parameters

<i>b</i>	
----------	--

Reimplemented from [Item](#).

The documentation for this class was generated from the following files:

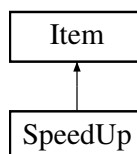
- Item/entete/ScaleUp.h
- Item/ScaleUp.cpp

## 4.14 SpeedUp Class Reference

classe speedup

```
#include <SpeedUp.h>
```

Inheritance diagram for SpeedUp:



### Public Member Functions

- [SpeedUp](#) ()  
*Construct a new Speed Up object.*
- [SpeedUp](#) (int x, int y)  
*Construct a new Speed Up object.*
- void [effetPlayer](#) ([Bombberman](#) &b)

## Additional Inherited Members

### 4.14.1 Detailed Description

classe speedup

### 4.14.2 Constructor & Destructor Documentation

#### 4.14.2.1 SpeedUp() [1/2]

```
SpeedUp::SpeedUp ( )
```

Construct a new Speed Up object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

#### 4.14.2.2 SpeedUp() [2/2]

```
SpeedUp::SpeedUp (
    int x,
    int y )
```

Construct a new Speed Up object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>x</i>	
<i>y</i>	

### 4.14.3 Member Function Documentation

#### 4.14.3.1 effetPlayer()

```
void SpeedUp::effetPlayer (
    Bomberman & b ) [virtual]
```

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>b</i>	
----------	--

Reimplemented from [Item](#).

The documentation for this class was generated from the following files:

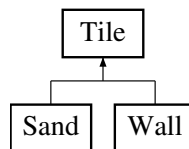
- Item/entete/SpeedUp.h
- Item/SpeedUp.cpp

## 4.15 Tile Class Reference

classe mère [Tile](#)

```
#include <Tile.h>
```

Inheritance diagram for Tile:



### Public Member Functions

- int [getX](#) () const
- int [getY](#) () const
- int [getValeur](#) () const  
*Get the Valeur object.*
- void [setX](#) (int x)
- void [setY](#) (int y)

### Protected Attributes

- int **x**
- int **y**
- int **valeur** = 2

### 4.15.1 Detailed Description

classe mère [Tile](#)

### 4.15.2 Member Function Documentation

#### 4.15.2.1 `getValeur()`

```
int Tile::getValeur ( ) const
```

Get the Valeur object.

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

#### 4.15.2.2 `getX()`

```
int Tile::getX ( ) const
```

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

#### 4.15.2.3 `getY()`

```
int Tile::getY ( ) const
```

**Author**

sami DRIOUCHE & walid AIT ERRAMI

**Returns**

int

#### 4.15.2.4 `setX()`

```
void Tile::setX (
    int x )
```

**Author**

sami DRIOUCHE & walid AIT ERRAMI

## Parameters

<i>x</i>	
----------	--

## 4.15.2.5 setY()

```
void Tile::setY (  
    int y )
```

## Author

sami DRIOUCHE & walid AIT ERRAMI

## Parameters

<i>y</i>	
----------	--

The documentation for this class was generated from the following files:

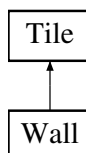
- Map/entete/Tile.h
- Map/Tile.cpp

## 4.16 Wall Class Reference

classe wall

```
#include <Wall.h>
```

Inheritance diagram for Wall:



### Public Member Functions

- [Wall](#) ()  
*Construct a new [Wall](#) object.*
- [Wall](#) (int x, int y)  
*Construct a new [Wall](#) object.*

## Additional Inherited Members

### 4.16.1 Detailed Description

classe wall

### 4.16.2 Constructor & Destructor Documentation

#### 4.16.2.1 Wall() [1/2]

```
Wall::Wall ( )
```

Construct a new [Wall](#) object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

#### 4.16.2.2 Wall() [2/2]

```
Wall::Wall (
    int x,
    int y )
```

Construct a new [Wall](#) object.

##### Author

sami DRIOUCHE & walid AIT ERRAMI

##### Parameters

<i>x</i>	
<i>y</i>	

The documentation for this class was generated from the following files:

- Map/entete/Wall.h
- Map/Wall.cpp



## Chapter 5

# File Documentation

### 5.1 Bowman.h

```
1 #ifndef __BOWMAN__
2 #define __BOWMAN__
3
4 #include "Ennemi.h"
5
10 class Bowman : public Ennemi
11 {
12
13 public:
14     Bowman();
15
26     Bowman(int x, int y);
27
33     void attaquerPlayer(Bomberman &b);
34
40     void recevoirDegat(Bomb &boom);
41
49     friend std::ostream &operator<<(std::ostream &os, const Bowman &p);
50
58     friend std::istream &operator>>(std::istream &is, Bowman &p);
59 };
60
61 #endif
```

### 5.2 Ennemi.h

```
1 #ifndef __ENNEMI__
2 #define __ENNEMI__
3
4 #include "../Joueur/entete/Bomberman.h"
5
6 using namespace std;
7
12 class Ennemi
13 {
14
15 protected:
16     int x;
17     int y;
18     int nbvie = 20;
19     int nbattaque = 50;
20     int valeur = 6;
21
22 public:
23     int tmp;
24     bool Vivant = false;
25
31     int getX() const;
32
38     int getY() const;
39
45     int getNbvie() const;
46
52     int getNbattaque() const;
```

```

53
59     int getValeur() const;
60
66     void setX(int x);
67
73     void setY(int y);
74
80     void setNbvie(int nbvie);
81
87     void setNbattaque(int nbattaque);
88
94     virtual void attaquerPlayer(Bomberman &b);
95
101     virtual void recevoirDegat(Bomb &boom);
102 };
103
104 #endif

```

## 5.3 Ghost.h

```

1 #ifndef __GHOST__
2 #define __GHOST__
3 #include "Ennemi.h"
4
9 class Ghost : public Ennemi
10 {
11
12 protected:
13 public:
18     Ghost();
19
26     Ghost(int x, int y);
27
33     void attaquerPlayer(Bomberman &b);
34
40     void recevoirDegat(Bomb &boom);
41
49     friend std::ostream &operator<<(std::ostream &os, const Ghost &p);
50
58     friend std::istream &operator>>(std::istream &is, Ghost &p);
59 };
60
61 #endif

```

## 5.4 Monster.h

```

1 #ifndef __MONSTER__
2 #define __MONSTER__
3
4 #include "Ennemi.h"
5
10 class Monster : public Ennemi
11 {
12
13 public:
18     Monster();
19
26     Monster(int x, int y);
27
33     void attaquerPlayer(Bomberman &b);
34
40     void recevoirDegat(Bomb &boom);
41
49     friend std::ostream &operator<<(std::ostream &os, const Monster &p);
50
58     friend std::istream &operator>>(std::istream &is, Monster &p);
59 };
60
61 #endif

```

## 5.5 Item.h

```

1 #ifndef __ITEM__
2 #define __ITEM__
3

```

```
4 #include "../Joueur/entete/Bomberman.h"
5
6 using namespace std;
7
12 class Item
13 {
14
15 protected:
16     int x;
17     int y;
18     int valeur = 7;
19
20 public:
26     int getX() const;
27
33     int getY() const;
34
40     int getValeur() const;
41
47     void setX(int x);
48
54     void setY(int y);
55
61     void setValeur(int valeur);
62
68     virtual void effetPlayer(Bomberman &b);
69
75     virtual void effetBomb(Bomb &b);
76 };
77
78 #endif
```

## 5.6 MoreBomb.h

```
1 #ifndef __MOREBOMB__
2 #define __MOREBOMB__
3
4 #include "Item.h"
5
6 using namespace std;
7
12 class MoreBomb : public Item
13 {
14
15 public:
21     MoreBomb();
22
30     MoreBomb(int x, int y);
31
38     void effetPlayer(Bomberman &b);
39 };
40
41 #endif
```

## 5.7 MoreLife.h

```
1 #ifndef __MORELIFE__
2 #define __MORELIFE__
3 #include "Item.h"
4
5 using namespace std;
6
11 class MoreLife : public Item
12 {
13
14 public:
20     MoreLife();
21
29     MoreLife(int x, int y);
30
37     void effetPlayer(Bomberman &b);
38 };
39
40 #endif
```

## 5.8 PowerUp.h

```
1 #ifndef __POWERUP__
2 #define __POWERUP__
3
4 #include "Item.h"
5
6 using namespace std;
7
12 class PowerUp : public Item
13 {
14
15 public:
21     PowerUp();
22
30     PowerUp(int x, int y);
31
38     void effetBomb(Bomb &b);
39 };
40
41 #endif
```

## 5.9 ScaleUp.h

```
1 #ifndef __SCALEUP__
2 #define __SCALEUP__
3 #include "Item.h"
4
5 using namespace std;
6
11 class ScaleUp : public Item
12 {
13
14 public:
20     ScaleUp();
21
29     ScaleUp(int x, int y);
30
37     void effetBomb(Bomb &b);
38 };
39
40 #endif
```

## 5.10 SpeedUp.h

```
1 #ifndef __SPEEDUP__
2 #define __SPEEDUP__
3 #include "Item.h"
4
5 using namespace std;
6
11 class SpeedUp : public Item
12 {
13
14 public:
20     SpeedUp();
21
29     SpeedUp(int x, int y);
30
37     void effetPlayer(Bomberman &b);
38 };
39
40 #endif
```

## 5.11 Bomb.h

```
1 #ifndef __BOMB__
2 #define __BOMB__
3
4 using namespace std;
5
10 class Bomb
11 {
12
13 protected:
```

```

14     int portee = 1;
15     int degat = 50;
16     int x;
17     int y;
18
19     int varb = 11;
20     int bomb = 111;
21     int explosionH = 1111;
22     int explosionV = 11111;
23
24     int compteur = 0;
25     int tmpi = -1;
26     int tmpj = -1;
27
28 public:
29     bool poser = false;
30     Bomb();
31
32     Bomb(int x, int y, int degat, int portee);
33
34     int getPortee() const;
35
36     int getDegat() const;
37
38     int getX() const;
39
40     int getY() const;
41
42     int getVarb() const;
43
44     int getBomb() const;
45
46     int getExplosionH() const;
47
48     int getExplosionV() const;
49
50     int getCompteur() const;
51
52     int getTmpi() const;
53
54     int getTmpj() const;
55
56     void setPortee(int portee);
57
58     void setDegat(int degat);
59
60     void setX(int x);
61
62     void setY(int y);
63
64     void setCompteur(int compteur);
65
66     void setTmpi(int tmpi);
67
68     void setTmpj(int tmpj);
69
70     void BombePosee();
71
72     friend std::ostream &operator<<(std::ostream &os, const Bomb &p);
73
74     friend std::istream &operator>>(std::istream &is, Bomb &p);
75 };
76 #endif

```

## 5.12 Bomberman.h

```

1 #ifndef __BOMBERMAN__
2 #define __BOMBERMAN__
3 #include <string>
4 #include "Bomb.h"
5 #include <vector>
6
7 class Bomberman
8 {
9 public:
10     std::string nom;
11     int vie = 100;
12     int x;
13     int y;
14     int vitesse = 1;
15     int nbBomb = 3;

```

```

21
22     int valeur = 1;
23
24 public:
25     bool Vivant = false;
26     std::vector<Bomb> tabB;
27
28     Bomb boom;
29
41     Bomberman(std::string nom, int vie, int x, int y, int vitesse, int nbBomb, Bomb boom);
42
47     Bomberman();
48
54     int getX() const;
55
61     int getY() const;
62
68     int getVie() const;
69
75     int getVitesse() const;
76
82     int getNbBomb() const;
83
89     int getValeur() const;
90
96     void setX(int x);
97
103     void setY(int y);
104
110     void setVie(int vie);
111
117     void setVitesse(int vitesse);
118
124     void setNbBomb(int nbBomb);
125
133     friend std::ostream &operator<<(std::ostream &os, const Bomberman &p);
134
142     friend std::istream &operator>>(std::istream &is, Bomberman &p);
143 };
144
145 #endif

```

## 5.13 Map.h

```

1 #ifndef __MAP__
2 #define __MAP__
3 #include <windows.h>
4 #include <sstream>
5 #include <cstring>
6 #include <iostream>
7
8 #include "../Item/entete/MoreLife.h"
9 #include "../Item/entete/SpeedUp.h"
10 #include "../Item/entete/MoreBomb.h"
11 #include "../Item/entete/ScaleUp.h"
12 #include "../Item/entete/PowerUp.h"
13
14 #include "Sand.h"
15 #include "Wall.h"
16
17 #include "../Ennemi/entete/Monster.h"
18 #include "../Ennemi/entete/Ghost.h"
19 #include "../Ennemi/entete/Bowman.h"
20
25 class Map
26 {
27 public:
28     int const static nbligne = 14;
29     int const static nbcolonne = 14;
30     int tab[nbligne][nbcolonne];
31     std::string nom;
32
33     Monster mons;
34     Ghost ghos;
35     Bowman bowm;
36
37     Bomberman player1;
38     Bomb bomb1;
39
40     Wall wall;
41     Sand sand;
42
43     MoreLife morL;

```

```

44     MoreBomb morB;
45     SpeedUp spee;
46     ScaleUp scal;
47     PowerUp power;
48
49     std::vector<Ennemi *> tabM;
50
51     Map(std::string nom);
52
53     void afficher();
54
55     void creerMap();
56
57     std::string convertir(int i, int j);
58
59     void remplirMur(Tile w);
60
61     void remplirSable(Tile w);
62
63     void remplirItem(Item &k);
64
65     void remplirPlayer(Bomberman &b);
66
67     void mouvementPlayer(Bomberman &b, Bomb &bomb, Item &k1, Item &k2, Item &k3, Item &k4, Item &k5);
68
69     void remplirMonstre(Ennemi &b);
70
71     void mouvementMonstre(Ennemi &b, Bomberman &bo);
72
73     void effetMonstre(Ennemi &b, Bomberman &bo, int DI, int DJ, int deplacement);
74
75     void explosionBombe(Bomberman &b, Bomb &bomb);
76
77     void effetItem(Bomberman &b, Bomb &bomb, Item &k1, Item &k2, Item &k3, Item &k4, Item &k5, int i,
78     int j);
79
80     void tuerMonstre();
81
82     bool victoire();
83 };
84
85 #endif

```

## 5.14 Sand.h

```

1  #ifndef __SAND__
2  #define __SAND__
3  #include "Tile.h"
4
5  using namespace std;
6
7  class Sand : public Tile
8  {
9
10 protected:
11     int nbvie = 5;
12
13 public:
14     bool Vivant = false;
15
16     Sand();
17
18     Sand(int x, int y);
19
20     int getNbVie() const;
21
22     void setNbVie(int nbvie);
23 };
24
25 #endif

```

## 5.15 Tile.h

```

1  #ifndef __TILE__
2  #define __TILE__
3
4  using namespace std;
5
6  class Tile

```

```
11 {
12 protected:
13     int x;
14     int y;
15     int valeur = 2;
16
17 public:
24     int getX() const;
25
32     int getY() const;
33
39     int getValeur() const;
40
47     void setX(int x);
48
55     void setY(int y);
56 };
57
58 #endif
```

## 5.16 Wall.h

```
1 #ifndef __WALL__
2 #define __WALL__
3 #include "Tile.h"
4
9 class Wall : public Tile
10 {
11 public:
17     Wall();
18
25     Wall(int x, int y);
26 };
27
28 #endif
```



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