## Katana

Generated by Doxygen 1.9.8

1	Hierarchical Index	1
	1.1 Class Hierarchy	1
2	Class Index	3
	2.1 Class List	3
3	File Index	5
	3.1 File List	5
4	Class Documentation	7
	4.1 Action Class Reference	7
	4.1.1 Detailed Description	8
	4.1.2 Constructor & Destructor Documentation	8
	4.1.2.1 Action()	8
	4.1.3 Member Function Documentation	8
	4.1.3.1 getActionType()	8
	4.1.3.2 getIndex()	9
	4.2 Button Class Reference	9
	4.2.1 Detailed Description	9
	4.2.2 Constructor & Destructor Documentation	9
	4.2.2.1 Button()	9
	4.2.3 Member Function Documentation	10
	4.2.3.1 draw()	10
	4.2.3.2 getShape()	10
	4.2.3.3 isClicked()	10
	4.2.3.4 isHovered()	11
	4.3 Card Class Reference	11
	4.3.1 Detailed Description	12
	4.3.2 Constructor & Destructor Documentation	12
	4.3.2.1 Card()	12
	4.3.3 Member Function Documentation	12
	4.3.3.1 getIndex()	12
	4.3.3.2 getType()	12
	4.4 Character Class Reference	13
	4.4.1 Detailed Description	13
	4.4.2 Constructor & Destructor Documentation	13
	4.4.2.1 Character()	13
	4.4.3 Member Function Documentation	13
	4.4.3.1 getHP()	13
	4.4.3.2 getIndex()	14
	4.4.3.3 getName()	14
	4.4.3.4 getType()	14
	4.5 Game Class Reference	14

4.5.1 Detailed Description	 16
4.5.2 Member Function Documentation	 16
4.5.2.1 attack()	 16
4.5.2.2 calculateDistance()	 16
4.5.2.3 canBlock()	 17
4.5.2.4 discard()	 17
4.5.2.5 geishaFunction()	 17
4.5.2.6 getCards()	 18
4.5.2.7 getDiscards()	 18
4.5.2.8 getIndexActualPlayer()	 18
4.5.2.9 getIndexPlayerAttacked()	 18
4.5.2.10 getLogs()	 18
4.5.2.11 getNbPlayers()	 19
4.5.2.12 getPlayers()	 19
4.5.2.13 isGameOver()	 19
4.5.2.14 pick()	 19
4.5.2.15 setNbPlayers()	 19
4.5.3 Member Data Documentation	 20
4.5.3.1 isCarteDuBushidoInGame	 20
4.6 Menu Class Reference	 20
4.6.1 Detailed Description	 20
4.6.2 Constructor & Destructor Documentation	 20
4.6.2.1 Menu()	 20
4.6.3 Member Function Documentation	 21
4.6.3.1 display()	 21
4.6.3.2 getNbPlayers()	 21
4.7 Permanent Class Reference	 21
4.7.1 Detailed Description	 23
4.7.2 Constructor & Destructor Documentation	 23
4.7.2.1 Permanent()	 23
4.7.3 Member Function Documentation	 23
4.7.3.1 getIndex()	 23
4.7.3.2 getPermanentType()	 23
4.8 Player Class Reference	 24
4.8.1 Detailed Description	 24
4.8.2 Constructor & Destructor Documentation	 25
4.8.2.1 Player()	 25
4.8.3 Member Function Documentation	 25
4.8.3.1 armureFunction()	 25
4.8.3.2 asCodeDuBushido()	 25
4.8.3.3 attackRapideFunction()	 25
4.8.3.4 getCharacter()	 26

4.8.3.5 getHand()	. 26
4.8.3.6 getMaxNbAttack()	. 26
4.8.3.7 getPermanentCardsPlayed()	. 26
4.8.3.8 getRole()	. 26
4.8.3.9 isDown()	. 27
4.8.4 Member Data Documentation	. 27
4.8.4.1 asAttacked	. 27
4.8.4.2 honorPoints	. 27
4.8.4.3 HP	. 27
4.8.4.4 nbAttack	. 27
4.9 Role Class Reference	. 27
4.9.1 Detailed Description	. 28
4.9.2 Constructor & Destructor Documentation	. 28
4.9.2.1 Role()	. 28
4.9.3 Member Function Documentation	. 28
4.9.3.1 getIndex()	. 28
4.9.3.2 getLevel()	. 29
4.9.3.3 getName()	. 29
4.9.3.4 getType()	. 29
4.10 UI Class Reference	. 29
4.10.1 Detailed Description	. 30
4.10.2 Constructor & Destructor Documentation	. 31
4.10.2.1 UI()	. 31
4.10.3 Member Function Documentation	. 31
4.10.3.1 handleClickDiscardingBtn()	. 31
4.10.3.2 handleClickEndTurnBtn()	. 31
4.10.3.3 handleClickHandCard()	. 32
4.10.3.4 handleClickLogBtn()	. 32
4.10.3.5 handleClickNobunaga()	. 32
4.10.3.6 handleClickPassParadeBtn()	. 32
4.10.3.7 menu()	. 33
4.10.3.8 setSpriteHonorCharactersHP()	. 33
4.11 Weapon Class Reference	. 33
4.11.1 Detailed Description	. 35
4.11.2 Constructor & Destructor Documentation	. 35
4.11.2.1 Weapon()	. 35
4.11.3 Member Function Documentation	. 35
4.11.3.1 getDamage()	. 35
4.11.3.2 getIndex()	. 35
4.11.3.3 getRange()	. 36
4.11.3.4 getWeaponType()	. 36

5 File Documentation	37
5.1 src/Card/Action/Action.h File Reference	37
5.1.1 Detailed Description	38
5.1.2 Enumeration Type Documentation	39
5.1.2.1 ActionType	39
5.2 Action.h	39
5.3 src/Card/Card.h File Reference	39
5.3.1 Detailed Description	40
5.3.2 Enumeration Type Documentation	40
5.3.2.1 CardType	40
5.4 Card.h	41
5.5 src/Card/Permanent/Permanent.h File Reference	41
5.5.1 Detailed Description	42
5.5.2 Enumeration Type Documentation	43
5.5.2.1 PermanentType	43
5.6 Permanent.h	43
5.7 src/Card/Weapon/Weapon.h File Reference	43
5.7.1 Detailed Description	45
5.7.2 Enumeration Type Documentation	45
5.7.2.1 WeaponType	45
5.8 Weapon.h	45
5.9 src/Character/Character.h File Reference	46
5.9.1 Detailed Description	47
5.9.2 Enumeration Type Documentation	48
5.9.2.1 CharacterType	48
5.10 Character.h	48
5.11 src/Game/Game.h File Reference	49
5.11.1 Detailed Description	50
5.12 Game.h	50
5.13 src/includes/InitCard.h File Reference	51
5.13.1 Detailed Description	53
5.13.2 Macro Definition Documentation	53
5.13.2.1 Armure	53
5.13.2.2 AttaqueRapide	53
5.13.2.3 Bo	53
5.13.2.4 Bokken	54
5.13.2.5 CeremonieDuThe	54
5.13.2.6 CodeDuBushido	54
5.13.2.7 Concentration	54
5.13.2.8 CriDeGuerre	54
5.13.2.9 Daikyu	54
5.13.2.10 Daimyo	54

5.13.2.11 Diversion	54
5.13.2.12 Geisha	55
5.13.2.13 JuJitsu	55
5.13.2.14 Kanabo	55
5.13.2.15 Katana	55
5.13.2.16 Kiseru	55
5.13.2.17 Kusarigama	55
5.13.2.18 Meditation	55
5.13.2.19 Nagayari	55
5.13.2.20 Naginata	56
5.13.2.21 NB_COPY_ARMURE	56
5.13.2.22 NB_COPY_ATTAQUE_RAPIDE	56
5.13.2.23 NB_COPY_BO	56
5.13.2.24 NB_COPY_BOKKEN	56
5.13.2.25 NB_COPY_CEREMONIE_DU_THE	56
5.13.2.26 NB_COPY_CODE_DU_BUSHIDO	56
5.13.2.27 NB_COPY_CONCENTRATION	56
5.13.2.28 NB_COPY_CRI_DE_GUERRE	57
5.13.2.29 NB_COPY_DAIKYU	57
5.13.2.30 NB_COPY_DAIMYO	57
5.13.2.31 NB_COPY_DIVERSION	57
5.13.2.32 NB_COPY_GEISHA	57
5.13.2.33 NB_COPY_JU_JITSU	57
5.13.2.34 NB_COPY_KANABO	57
5.13.2.35 NB_COPY_KATANA	57
5.13.2.36 NB_COPY_KISERU	58
5.13.2.37 NB_COPY_KUSARIGAMA	58
5.13.2.38 NB_COPY_MEDITATION	58
5.13.2.39 NB_COPY_NAGAYARI	58
5.13.2.40 NB_COPY_NAGINATA	58
5.13.2.41 NB_COPY_NODACHI	58
5.13.2.42 NB_COPY_PARADE	58
5.13.2.43 NB_COPY_SHURIKEN	58
5.13.2.44 NB_COPY_TANEGASHIMA	59
5.13.2.45 NB_COPY_WAKIZASHI	59
5.13.2.46 Nodachi	59
5.13.2.47 Parade	59
5.13.2.48 Shuriken	59
5.13.2.49 Tanegashima	59
5.13.2.50 Wakizashi	59
5.14 InitCard.h	60
5.15 src/includes/InitCharacter.h File Reference	60

5.15.1 Detailed Description	62
5.15.2 Macro Definition Documentation	62
5.15.2.1 Benkei	62
5.15.2.2 Chiyome	62
5.15.2.3 Ginchyo	62
5.15.2.4 Goemon	62
5.15.2.5 Hanzo	62
5.15.2.6 Hideyoshi	63
5.15.2.7 leyasu	63
5.15.2.8 Kojiro	63
5.15.2.9 Musashi	63
5.15.2.10 Nobunaga	63
5.15.2.11 Tomoe	63
5.15.2.12 Ushiwaka	63
5.16 InitCharacter.h	64
5.17 src/includes/InitRole.h File Reference	64
5.17.1 Detailed Description	65
5.17.2 Macro Definition Documentation	65
5.17.2.1 NinjaOne	65
5.17.2.2 NinjaThree	66
5.17.2.3 NinjaTwo	66
5.17.2.4 Ronin	66
5.17.2.5 Samurai	66
5.17.2.6 Shogun	66
5.18 InitRole.h	66
5.19 src/main.cpp File Reference	67
5.19.1 Detailed Description	67
5.19.2 Function Documentation	67
5.19.2.1 main()	67
5.20 src/Player/Player.h File Reference	68
5.20.1 Detailed Description	68
5.21 Player.h	69
5.22 src/Role/Role.h File Reference	69
5.22.1 Detailed Description	71
5.22.2 Enumeration Type Documentation	71
5.22.2.1 RoleType	71
5.23 Role.h	71
5.24 src/UI/Button/Button.h File Reference	72
5.24.1 Detailed Description	73
5.25 Button.h	73
5.26 src/UI/Menu/Menu.h File Reference	73
5.26.1 Detailed Description	74

Index	79
5.29 Ul.h	76
5.28.2.1 FPS	76
5.28.2 Macro Definition Documentation	76
5.28.1 Detailed Description	76
5.28 src/UI/UI.h File Reference	75
5.27 Menu.h	75
5.26.2.2 SCREEN_WIDTH	74
5.26.2.1 SCREEN_HEIGHT	74
5.26.2 Macro Definition Documentation	74

# **Chapter 1**

# **Hierarchical Index**

## 1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

n	. 9
	11
ction	. 7
ermanent	. 21
'eapon	. 33
acter	
9	. 14
r	24
	27
	. 29

2 Hierarchical Index

# **Chapter 2**

## **Class Index**

## 2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Action		
	Action card in the game. This class inherits from the Card class and adds an ActionType attribute. It provides methods to get the action type and the index of the card	7
Button	The provided meaneds to get the determination and the state of the determination	•
	Represents a graphical button element	9
Card		
	Card in the game	11
Characte		40
Game	Character in the game	13
Game	Represents the game state and logic	14
Menu	Troprosonts the game state and logic	
	Represents a menu in the game	20
Permane	ent in the control of	
	Permanent card in the game. This class inherits from the Card class and adds functionality	
	specific to permanent cards	21
Player		0.4
Role	Represents a player in the game	24
noie	Role in the game	27
UI	Thou in the game	
	Represents the user interface of the game	29
Weapon		
	Weapon card in the game	33

4 Class Index

# **Chapter 3**

# File Index

## 3.1 File List

Here is a list of all documented files with brief descriptions:

src/main.cpp	
The main function of the game	67
src/Card/Card.h	
This file contains the declaration of the Card class and the enum class CardType	39
src/Card/Action/Action.h	
This file contains the declaration of the Action class and the enum class ActionType	37
src/Card/Permanent/Permanent.h	
This file contains the declaration of the Permanent class and the enum class PermanentType .	41
src/Card/Weapon/Weapon.h	
This file contains the declaration of the Weapon class and the enum class WeaponType	43
src/Character/Character.h	
This file contains the declaration of the Character class and the enum class CharacterType	46
src/Game/Game.h	
This file contains the declaration of the Game class	49
src/includes/InitCard.h	
This file contains the initialization of various cards, actions, permanents, and weapons	51
src/includes/InitCharacter.h	
This file contains the initialization of character objects	60
src/includes/InitRole.h	
This file contains the initialization of roles	64
src/Player/Player.h	
This file contains the declaration of the Player class	68
src/Role/Role.h	
This file contains the declaration of the Role class and the enum class RoleType	69
src/UI/UI.h	
This file contains the declaration of the UI class	75
src/UI/Button/Button.h	70
This file contains the declaration of the Button class	72
src/UI/Menu/Menu.h	
This file contains the declaration of the Menu class and of the constants SCREEN_WIDTH and	70
SCREEN_HEIGHT	73

6 File Index

## **Chapter 4**

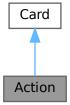
## **Class Documentation**

## 4.1 Action Class Reference

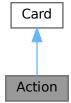
The Action class represents an action card in the game. This class inherits from the Card class and adds an ActionType attribute. It provides methods to get the action type and the index of the card.

#include <Action.h>

Inheritance diagram for Action:



Collaboration diagram for Action:



#### **Public Member Functions**

Action (ActionType actionType)

Constructs an Action object with the specified action type.

• ActionType getActionType () const

Gets the action type of the card.

• int getIndex () override

Gets the index of the card.

## **Public Member Functions inherited from Card**

Card (CardType type)

Constructs a Card object with the specified type.

• CardType getType () const

Gets the type of the card.

virtual ∼Card ()

Destroys the Card object.

## 4.1.1 Detailed Description

The Action class represents an action card in the game. This class inherits from the Card class and adds an ActionType attribute. It provides methods to get the action type and the index of the card.

#### 4.1.2 Constructor & Destructor Documentation

#### 4.1.2.1 Action()

Constructs an Action object with the specified action type.

## **Parameters**

actionType	The type of the action.

## 4.1.3 Member Function Documentation

## 4.1.3.1 getActionType()

```
ActionType Action::getActionType ( ) const
```

Gets the action type of the card.

#### Returns

The action type of the card.

4.2 Button Class Reference 9

#### 4.1.3.2 getIndex()

```
int Action::getIndex ( ) [override], [virtual]
```

Gets the index of the card.

Returns

The index of the card.

Reimplemented from Card.

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

- src/Card/Action/Action.h
- src/Card/Action/Action.cpp

## 4.2 Button Class Reference

Represents a graphical button element.

```
#include <Button.h>
```

#### **Public Member Functions**

• Button (sf::Vector2f position, sf::Vector2f size, sf::Font \*font, std::string text, int fontSize)

Constructs a Button object.

• sf::RectangleShape getShape () const

Gets the shape of the button.

• bool isHovered (sf::RenderWindow &window) const

Checks if the button is being hovered over.

· bool isClicked (sf::RenderWindow &window) const

Checks if the button is being clicked.

void draw (sf::RenderWindow &window)

Draws the button on the specified render window.

## 4.2.1 Detailed Description

Represents a graphical button element.

## 4.2.2 Constructor & Destructor Documentation

## 4.2.2.1 Button()

Constructs a Button object.

#### **Parameters**

position	The position of the button.
size	The size of the button.
font	A pointer to the font used for the button text.
text	The text displayed on the button.
fontSize	The font size of the button text.

## 4.2.3 Member Function Documentation

## 4.2.3.1 draw()

Draws the button on the specified render window.

#### **Parameters**

The render window to draw on.	window
-------------------------------	--------

## 4.2.3.2 getShape()

```
sf::RectangleShape Button::getShape ( ) const
```

Gets the shape of the button.

#### Returns

The shape of the button.

## 4.2.3.3 isClicked()

Checks if the button is being clicked.

#### **Parameters**

window	The render window to check against.

#### Returns

True if the button is being clicked, false otherwise.

4.3 Card Class Reference

#### 4.2.3.4 isHovered()

Checks if the button is being hovered over.

#### **Parameters**

window	The render window to check against.
--------	-------------------------------------

#### Returns

True if the button is being hovered over, false otherwise.

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

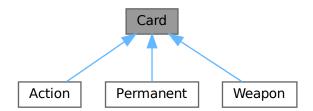
- src/UI/Button/Button.h
- src/UI/Button/Button.cpp

## 4.3 Card Class Reference

The Card class represents a card in the game.

```
#include <Card.h>
```

Inheritance diagram for Card:



## **Public Member Functions**

- Card (CardType type)
  - Constructs a Card object with the specified type.
- CardType getType () const
  - Gets the type of the card.
- virtual int getIndex ()
  - Gets the index of the card.
- virtual  $\sim$  Card ()
  - Destroys the Card object.

## 4.3.1 Detailed Description

The Card class represents a card in the game.

This class provides the basic functionality of a card, such as the type of the card.

## 4.3.2 Constructor & Destructor Documentation

## 4.3.2.1 Card()

Constructs a Card object with the specified type.

#### **Parameters**

```
type The type of the card.
```

Note

This constructor is used by the derived classes to set the type of the card.

## 4.3.3 Member Function Documentation

#### 4.3.3.1 getIndex()

```
int Card::getIndex ( ) [virtual]
```

Gets the index of the card.

Returns

The index of the card.

Reimplemented in Action, Permanent, and Weapon.

#### 4.3.3.2 getType()

```
CardType Card::getType ( ) const
```

Gets the type of the card.

Returns

The type of the card.

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

- src/Card/Card.h
- src/Card/Card.cpp

## 4.4 Character Class Reference

The Character class represents a character in the game.

```
#include <Character.h>
```

#### **Public Member Functions**

• Character (CharacterType type, int HP)

Constructs a new Character object.

CharacterType getType () const

Gets the type of the character.

• int getIndex () const

Gets the index of the character.

• int getHP () const

Gets the hit points of the character.

• std::string getName () const

Gets the name of the character.

## 4.4.1 Detailed Description

The Character class represents a character in the game.

This class stores information about the character's type, HP (hit points), and provides methods to access and modify these attributes.

## 4.4.2 Constructor & Destructor Documentation

## 4.4.2.1 Character()

Constructs a new Character object.

## **Parameters**

type	The type of the character.
HP	The initial hit points of the character.

## 4.4.3 Member Function Documentation

## 4.4.3.1 getHP()

```
int Character::getHP ( ) const
```

Gets the hit points of the character.

#### Returns

The character's hit points.

## 4.4.3.2 getIndex()

```
int Character::getIndex ( ) const
```

Gets the index of the character.

## Returns

The character index.

## 4.4.3.3 getName()

```
std::string Character::getName ( ) const
```

Gets the name of the character.

#### Returns

The character's name.

## 4.4.3.4 getType()

```
CharacterType Character::getType ( ) const
```

Gets the type of the character.

## Returns

The character type.

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

- src/Character/Character.h
- src/Character/Character.cpp

## 4.5 Game Class Reference

Represents the game state and logic.

```
#include <Game.h>
```

4.5 Game Class Reference 15

#### **Public Member Functions**

· Game ()

Constructs a new Game object.

· void initRole ()

Initializes the roles in the game.

• void initCharacter ()

Initializes the characters in the game.

· void initCard ()

Initializes the cards in the game.

• void initPlayer ()

Initializes the players in the game.

void setNbPlayers (int nbPlayers)

set the number of players in the game.

• int getNbPlayers () const

get the number of players in the game.

• int getIndexActualPlayer () const

get the index of the actual player.

• int getIndexPlayerAttacked () const

get the index of the player attacked.

std::vector< Player \* > \* getPlayers () const

get the players in the game.

std::vector < Card \* > \* getCards () const

get the cards in the stack

std::vector< Card \* > \* getDiscards () const

get the discards in the game.

• std::vector< std::string \* > \* getLogs () const

get the logs of the game.

• void updateHonorPointsHP ()

update the honor points and health points of the players.

· void recoverHP ()

recover the players' health points.

• void pick (Player \*player, int nbCard)

pick a card from the stack.

bool attack (Weapon \*card, Player \*player)

attack the player with a weapon card

• int calculateDistance (Player \*playerTarget)

calculate the distance between the actual player and the target player.

bool canBlock (Player \*player)

if the player can block the attack.

void discard (Player \*player, Card \*card)

discard a card from the player's hand.

void recoverCards ()

take the cards from the discard stack.

void changePlayer ()

change the actual player.

void criDeGuerreFunction ()

action of cri de guerre action card.

• void daimyoFunction ()

action of the daimyo action card.

void geishaFunction (Player \*player=nullptr)

action of the geisha action card.

 $\bullet \ \ \mathsf{void} \ \boldsymbol{\mathsf{ceremonieDuTheFunction}} \ ()$ 

action of the ceremonie du the action card.

void juJitsuFunction ()

action of the ju jitsu action card.

• void codeDuBushidoFunction ()

action of the code du bushido permanent card.

• bool isGameOver ()

verification of the end of the game.

•  $\sim$ Game ()

destructs a Game object.

## **Public Attributes**

· bool isCarteDuBushidoInGame

## 4.5.1 Detailed Description

Represents the game state and logic.

The Game class manages the game state and provides methods for initializing the game, performing game actions, and checking game conditions.

## 4.5.2 Member Function Documentation

## 4.5.2.1 attack()

attack the player with a weapon card

#### **Parameters**

card	The weapon card used to attack.
player	The player attacked.

#### Returns

True if the attack is successful, false otherwise.

## 4.5.2.2 calculateDistance()

calculate the distance between the actual player and the target player.

4.5 Game Class Reference 17

#### **Parameters**

player rarger   The larger player.	playerTarget	The target player.
------------------------------------	--------------	--------------------

## Returns

The distance between the actual player and the target player.

## 4.5.2.3 canBlock()

if the player can block the attack.

## **Parameters**

player	The player who can block the attack.
--------	--------------------------------------

#### Returns

True if the player can block the attack, false otherwise.

## 4.5.2.4 discard()

discard a card from the player's hand.

#### **Parameters**

player	The player who discards the card.
card	The card to discard.

## 4.5.2.5 geishaFunction()

action of the geisha action card.

## **Parameters**

player	The player who uses the geisha card.

## 4.5.2.6 getCards()

```
\label{eq:std:card} {\tt std::vector} < {\tt Card} \ * \ > \ * \ {\tt Game::getCards} \ (\ ) \ {\tt const} get the cards in the stack
```

Returns

The list of cards.

## 4.5.2.7 getDiscards()

```
\label{eq:std::card} {\tt std::vector} < {\tt Card} \ * \ > \ * \ {\tt Game::getDiscards} \ (\ ) \ {\tt const} get the discards in the game.
```

Returns

The list of discarded cards.

## 4.5.2.8 getIndexActualPlayer()

```
int Game::getIndexActualPlayer ( ) const
get the index of the actual player.
```

Returns

The index of the actual player.

## 4.5.2.9 getIndexPlayerAttacked()

```
int Game::getIndexPlayerAttacked ( ) const
get the index of the player attacked.
```

Returns

The index of the player attacked.

## 4.5.2.10 getLogs()

```
\label{eq:std:std:string} \texttt{std::string} \ \texttt{*} \ \texttt{*} \ \texttt{Game::getLogs} \ \texttt{( )} \ \texttt{const} get the logs of the game.
```

Returns

The list of logs.

4.5 Game Class Reference

## 4.5.2.11 getNbPlayers()

```
int Game::getNbPlayers ( ) const
```

get the number of players in the game.

Returns

The number of players.

## 4.5.2.12 getPlayers()

```
std::vector < Player * > * Game::getPlayers ( ) const
```

get the players in the game.

Returns

The list of players.

## 4.5.2.13 isGameOver()

```
bool Game::isGameOver ( )
```

verification of the end of the game.

Returns

True if the game is over, false otherwise.

## 4.5.2.14 pick()

pick a card from the stack.

## **Parameters**

player	The player who picks the card.
nbCard	The number of cards to pick.

## 4.5.2.15 setNbPlayers()

```
void Game::setNbPlayers (
```

```
int nbPlayers )
```

set the number of players in the game.

#### **Parameters**

```
nbPlayers The number of players.
```

#### 4.5.3 Member Data Documentation

#### 4.5.3.1 isCarteDuBushidoInGame

```
bool Game::isCarteDuBushidoInGame
```

Boolean to know if the Carte du Bushido is in the game

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

- · src/Game/Game.h
- · src/Game/Game.cpp

## 4.6 Menu Class Reference

Represents a menu in the game.

```
#include <Menu.h>
```

## **Public Member Functions**

• Menu (sf::Font \*font, sf::Image \*leftImage, sf::Image \*rightImage)

Constructs a new Menu object.

• int getNbPlayers () const

Get the number of players selected.

void display (sf::RenderWindow &window)

Display the menu on a given window.

•  $\sim$ Menu ()

Destructor for the Menu object.

## 4.6.1 Detailed Description

Represents a menu in the game.

The Menu class is responsible for displaying a menu with buttons and images. It allows the user to interact with the menu and retrieve the number of players selected.

## 4.6.2 Constructor & Destructor Documentation

#### 4.6.2.1 Menu()

Constructs a new Menu object.

#### **Parameters**

font	The font used for the title and buttons.
leftlmage	The image for the left side of the menu.
rightImage	The image for the right side of the menu.

#### 4.6.3 Member Function Documentation

## 4.6.3.1 display()

Display the menu on a given window.

#### **Parameters**

window	The window to display the menu on.
--------	------------------------------------

## 4.6.3.2 getNbPlayers()

```
int Menu::getNbPlayers ( ) const
```

Get the number of players selected.

## Returns

int The number of players.

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

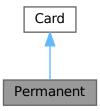
- src/UI/Menu/Menu.h
- src/UI/Menu/Menu.cpp

## 4.7 Permanent Class Reference

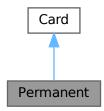
The Permanent class represents a permanent card in the game. This class inherits from the Card class and adds functionality specific to permanent cards.

```
#include <Permanent.h>
```

Inheritance diagram for Permanent:



## Collaboration diagram for Permanent:



#### **Public Member Functions**

- Permanent (PermanentType permanentType)
  - Constructs a new Permanent object with the specified permanent type.
- PermanentType getPermanentType () const
  - Gets the type of the permanent card.
- int getIndex () override

Gets the index of the card.

## **Public Member Functions inherited from Card**

• Card (CardType type)

Constructs a Card object with the specified type.

CardType getType () const

Gets the type of the card.

virtual ∼Card ()

Destroys the Card object.

## 4.7.1 Detailed Description

The Permanent class represents a permanent card in the game. This class inherits from the Card class and adds functionality specific to permanent cards.

#### 4.7.2 Constructor & Destructor Documentation

## 4.7.2.1 Permanent()

Constructs a new Permanent object with the specified permanent type.

#### **Parameters**

permanentType	The type of the permanent card.
---------------	---------------------------------

## 4.7.3 Member Function Documentation

## 4.7.3.1 getIndex()

```
int Permanent::getIndex ( ) [override], [virtual]
```

Gets the index of the card.

Returns

The index of the card.

Reimplemented from Card.

## 4.7.3.2 getPermanentType()

```
PermanentType Permanent::getPermanentType ( ) const
```

Gets the type of the permanent card.

Returns

The permanent type.

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

- src/Card/Permanent/Permanent.h
- src/Card/Permanent/Permanent.cpp

## 4.8 Player Class Reference

Represents a player in the game.

```
#include <Player.h>
```

#### **Public Member Functions**

• Player (Role \*role, Character \*character)

Constructs a new Player object.

• Role \* getRole () const

Get the role of the player.

• Character \* getCharacter () const

Get the character of the player.

std::vector< Card \* > \* getHand () const

Get the hand of the player.

• std::vector< Permanent \* > \* getPermanentCardsPlayed () const

Get the permanent cards played by the player.

• int getMaxNbAttack () const

Get the maximum number of attacks the player can perform.

void meditationFunction ()

the action of the mediation action card

• int attackRapideFunction ()

the action of the attack rapide permanent card

std::pair< Permanent \*, int > asCodeDuBushido ()

the action of the code du bushido permanent card

• int armureFunction ()

the action of the armure permanent card

• void concentrationFunction ()

the action of the concentration permanent card

• bool isDown () const

if the player is down

· void recover ()

recover all the HP of is character maxHP

∼Player ()

Destructor for the Player object.

#### **Public Attributes**

- int HP
- · int honorPoints
- · bool asAttacked
- int nbAttack

## 4.8.1 Detailed Description

Represents a player in the game.

## 4.8.2 Constructor & Destructor Documentation

#### 4.8.2.1 Player()

Constructs a new Player object.

#### **Parameters**

role	The role of the player.
character	The character of the player.

## 4.8.3 Member Function Documentation

#### 4.8.3.1 armureFunction()

```
int Player::armureFunction ( )
```

the action of the armure permanent card

#### Returns

int The number of armor points the player has.

#### 4.8.3.2 asCodeDuBushido()

```
std::pair < Permanent *, int > Player::asCodeDuBushido ( )
```

the action of the code du bushido permanent card

#### Returns

std::pair<Permanent\*, int> The code du bushido card and its index in the permanent cards played.

## 4.8.3.3 attackRapideFunction()

```
int Player::attackRapideFunction ( )
```

the action of the attack rapide permanent card

#### Returns

int The number of damage the player can deal with all the attack rapide cards played.

## 4.8.3.4 getCharacter()

```
Character * Player::getCharacter ( ) const
```

Get the character of the player.

Returns

Character\* The character of the player.

## 4.8.3.5 getHand()

```
std::vector < Card * > * Player::getHand ( ) const
```

Get the hand of the player.

Returns

std::vector<Card\*>\* The hand of the player.

## 4.8.3.6 getMaxNbAttack()

```
int Player::getMaxNbAttack ( ) const
```

Get the maximum number of attacks the player can perform.

Returns

int The maximum number of attacks the player can perform.

## 4.8.3.7 getPermanentCardsPlayed()

```
std::vector< Permanent * > * Player::getPermanentCardsPlayed ( ) const
```

Get the permanent cards played by the player.

Returns

std::vector<Permanent\*>\* The permanent cards played by the player.

## 4.8.3.8 getRole()

```
Role * Player::getRole ( ) const
```

Get the role of the player.

Returns

Role\* The role of the player.

4.9 Role Class Reference 27

#### 4.8.3.9 isDown()

```
bool Player::isDown ( ) const
```

if the player is down

Returns

bool if the player is down

#### 4.8.4 Member Data Documentation

#### 4.8.4.1 asAttacked

```
bool Player::asAttacked
```

Whether the player has attacked or not

#### 4.8.4.2 honorPoints

int Player::honorPoints

Honor points of the player

## 4.8.4.3 HP

int Player::HP

Health points of the player

#### 4.8.4.4 nbAttack

int Player::nbAttack

Number of attacks the player can perform

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

- src/Player/Player.h
- src/Player/Player.cpp

# 4.9 Role Class Reference

The Role class represents a role in the game.

#include <Role.h>

28 Class Documentation

#### **Public Member Functions**

• Role (RoleType type, int level=0)

Constructs a new Role object.

• RoleType getType () const

Gets the type of the role.

• int getLevel () const

Gets the level of the role.

• int getIndex () const

Gets the index of the role.

• std::string getName () const

Gets the name of the role.

# 4.9.1 Detailed Description

The Role class represents a role in the game.

A role has a type and a level. The type determines the role's abilities and characteristics, while the level represents the role's progression or experience.

#### 4.9.2 Constructor & Destructor Documentation

#### 4.9.2.1 Role()

Constructs a new Role object.

#### **Parameters**

type	The type of the role.
level	The level of the role (default is 0).

# 4.9.3 Member Function Documentation

## 4.9.3.1 getIndex()

```
int Role::getIndex ( ) const
```

Gets the index of the role.

#### Returns

The index of the role.

4.10 UI Class Reference 29

## 4.9.3.2 getLevel()

```
int Role::getLevel ( ) const
```

Gets the level of the role.

Returns

The level of the role.

#### 4.9.3.3 getName()

```
std::string Role::getName ( ) const
```

Gets the name of the role.

Returns

The name of the role.

# 4.9.3.4 getType()

```
RoleType Role::getType ( ) const
```

Gets the type of the role.

Returns

The type of the role.

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

- src/Role/Role.h
- src/Role/Role.cpp

# 4.10 UI Class Reference

Represents the user interface of the game.

```
#include <UI.h>
```

30 Class Documentation

#### **Public Member Functions**

• UI (sf::Font \*font, sf::Image \*HPImage, sf::Image \*HonorImage, sf::Image \*backRoleImage, sf::Image \*backCardImage, std::vector< sf::Image \* > \*cardImages, std::vec

Constructs a new UI object.

• void menu (sf::Image \*leftImage, sf::Image \*rightImage)

the menu screen

· void start ()

the game screen

· void update ()

update the UI

· void display ()

display the UI

void setPlayersSprites ()

set the player sprite other than the actual player

void setSpriteHonorCharactersHP (int index)

set the honor points and health points of the players other than the actual player

void setActualPlayerSprite ()

set the actual player sprite, honor points and health points

• void setHandSprite ()

set the actual player card sprites

void setStackSprite ()

set the stack sprites

void setDiscardStackSprite ()

set the discard stack sprites

void setLogsTexts ()

set the logs texts and logs background

 $\bullet \ \ \mathsf{void} \ \textbf{setPermanentCircleSprites} \ ()$ 

set the red circle that indicates the shogun player if is not is turn

void handleClickLogBtn (sf::Event event)

handle the click event on the logs button

void handleClickHandCard (sf::Event event)

handle the click event on the hand cards

void handleClickPassParadeBtn (sf::Event event)

handle the click event on the parade pass button

void handleClickEndTurnBtn (sf::Event event)

handle the click event on the end turn button

void handleClickDiscardingBtn (sf::Event event)

handle the click event on the discard button

void handleClickNobunaga (sf::Event event)

handle the click event on the Nobunage character if the actual player is Nobunaga

• void score ()

score screen at end of the game

•  $\sim$ UI ()

destroy the UI

## 4.10.1 Detailed Description

Represents the user interface of the game.

The UI class handles the rendering and interaction with the game's graphical user interface. It manages the window, fonts, textures, sprites, buttons, and other UI elements. It also provides methods for updating and displaying the UI, as well as handling user input.

4.10 UI Class Reference 31

## 4.10.2 Constructor & Destructor Documentation

#### 4.10.2.1 UI()

Constructs a new UI object.

#### **Parameters**

font	The font used for the text.
HPImage	The image for the health points.
HonorImage	The image for the honor points.
backRoleImage	The image for the back of the role cards.
backCardImage	The image for the back of the cards.
rolelmages	The images for the role cards.
cardImages	The images for the cards.
characterImages	The images for the characters.

#### 4.10.3 Member Function Documentation

#### 4.10.3.1 handleClickDiscardingBtn()

handle the click event on the discard button

## Parameters

```
event The sfml event
```

#### 4.10.3.2 handleClickEndTurnBtn()

handle the click event on the end turn button

32 Class Documentation

#### **Parameters**

#### 4.10.3.3 handleClickHandCard()

handle the click event on the hand cards

#### **Parameters**

```
event The sfml event
```

## 4.10.3.4 handleClickLogBtn()

handle the click event on the logs button

#### **Parameters**

```
event The sfml event
```

# 4.10.3.5 handleClickNobunaga()

handle the click event on the Nobunage character if the actual player is Nobunaga

#### **Parameters**

event The sfml event

#### 4.10.3.6 handleClickPassParadeBtn()

handle the click event on the parade pass button

#### **Parameters**

event	The sfml event
-------	----------------

## 4.10.3.7 menu()

the menu screen

#### **Parameters**

leftImage	The	e image for the left side of the menu
rightImag	e The	e image for the right side of the menu

# 4.10.3.8 setSpriteHonorCharactersHP()

set the honor points and health points of the players other than the actual player

#### **Parameters**

index	The index of the player
	ind mack or and player

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

- src/UI/UI.h
- src/UI/UI.cpp

# 4.11 Weapon Class Reference

The Weapon class represents a weapon card in the game.

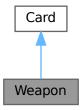
```
#include <Weapon.h>
```

34 Class Documentation

Inheritance diagram for Weapon:



#### Collaboration diagram for Weapon:



### **Public Member Functions**

• Weapon (WeaponType weaponType, int damage, int range)

Constructs a new Weapon object.

• WeaponType getWeaponType () const

Gets the weapon type.

• int getDamage () const

Gets the damage value of the weapon.

• int getRange () const

Gets the range value of the weapon.

• int getIndex () override

Gets the index of the weapon.

## **Public Member Functions inherited from Card**

• Card (CardType type)

Constructs a Card object with the specified type.

CardType getType () const

Gets the type of the card.

- virtual  $\sim$  Card ()

Destroys the Card object.

# 4.11.1 Detailed Description

The Weapon class represents a weapon card in the game.

This class inherits from the Card class and provides additional functionality specific to weapons, such as weapon type, damage, and range.

#### 4.11.2 Constructor & Destructor Documentation

## 4.11.2.1 Weapon()

Constructs a new Weapon object.

#### **Parameters**

weaponType	The type of the weapon.
damage	The damage value of the weapon.
range	The range value of the weapon.

## 4.11.3 Member Function Documentation

#### 4.11.3.1 getDamage()

```
int Weapon::getDamage ( ) const
```

Gets the damage value of the weapon.

#### Returns

The damage value.

#### 4.11.3.2 getIndex()

```
int Weapon::getIndex ( ) [override], [virtual]
```

Gets the index of the weapon.

#### Returns

The index of the weapon.

Reimplemented from Card.

36 Class Documentation

# 4.11.3.3 getRange()

```
int Weapon::getRange ( ) const
```

Gets the range value of the weapon.

Returns

The range value.

## 4.11.3.4 getWeaponType()

```
WeaponType Weapon::getWeaponType ( ) const
```

Gets the weapon type.

Returns

The weapon type.

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

- src/Card/Weapon/Weapon.h
- src/Card/Weapon/Weapon.cpp

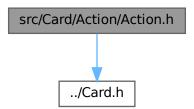
# **Chapter 5**

# **File Documentation**

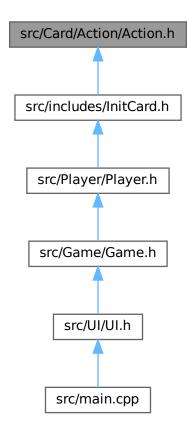
# 5.1 src/Card/Action/Action.h File Reference

This file contains the declaration of the Action class and the enum class ActionType.

#include "../Card.h"
Include dependency graph for Action.h:



This graph shows which files directly or indirectly include this file:



## **Classes**

· class Action

The Action class represents an action card in the game. This class inherits from the Card class and adds an Action 
Type attribute. It provides methods to get the action type and the index of the card.

#### **Enumerations**

enum class ActionType {
 CRI\_DE\_GUERRE, DAIMYO, DIVERSION, GEISHA,
 MEDITATION, PARADE, CEREMONIE\_DU\_THE, JU\_JITSU}

Represents the type of an Action.

# 5.1.1 Detailed Description

This file contains the declaration of the Action class and the enum class ActionType.

5.2 Action.h 39

# 5.1.2 Enumeration Type Documentation

#### 5.1.2.1 ActionType

```
enum class ActionType [strong]
```

Represents the type of an Action.

Note

The type of an Action is also the index of the Action in the Image List and as the name of the Action

#### **Enumerator**

CRI_DE_GUERRE	CRI_DE_GUERRE action type
DAIMYO	DAIMYO action type
DIVERSION	DIVERSION action type
GEISHA	GEISHA action type
MEDITATION	MEDITATION action type
PARADE	PARADE action type
CEREMONIE_DU_THE	CEREMONIE_DUTHE action type
JU_JITSU	JU_JITSU action type

# 5.2 Action.h

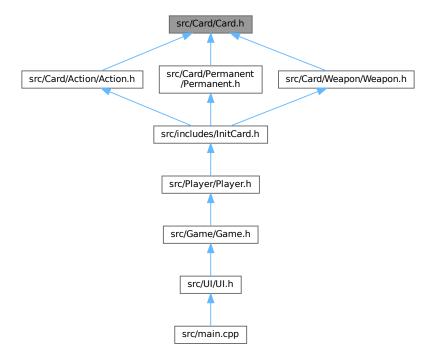
#### Go to the documentation of this file.

```
00001
00006 #ifndef ACTION_H
00007 #define ACTION_H
80000
00009 #include "../Card.h"
00010
00017 enum class ActionType {
         CRI_DE_GUERRE,
00018
00020
         DIVERSION,
00021
         GEISHA,
         MEDITATION,
00022
00023
         PARADE,
CEREMONIE_DU_THE,
00024
00025
          JU_JITSU
00026 };
00027
00034 class Action : public Card {
00035
      private:
00036
             ActionType actionType;
       public:
00038
             Action(ActionType actionType);
00045
00051
             ActionType getActionType() const;
00052
00058
             int getIndex() override;
00059 };
00061 #endif // ACTION_H
```

# 5.3 src/Card/Card.h File Reference

This file contains the declaration of the Card class and the enum class CardType.

This graph shows which files directly or indirectly include this file:



#### Classes

class Card

The Card class represents a card in the game.

## **Enumerations**

enum class CardType { ACTION , PERMANENT , WEAPON }
 Represents the type of a card.

## 5.3.1 Detailed Description

This file contains the declaration of the Card class and the enum class CardType.

# **5.3.2 Enumeration Type Documentation**

## 5.3.2.1 CardType

enum class CardType [strong]

Represents the type of a card.

5.4 Card.h 41

#### Enumerator

ACTION	Action card type
PERMANENT	Permanent card type
WEAPON	Weapon card type

# 5.4 Card.h

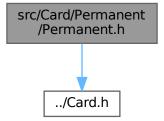
Go to the documentation of this file.

```
00006 #ifndef CARD_H
00007 #define CARD_H
00008
00013 enum class CardType {
         ACTION,
00014
         PERMANENT,
00016
         WEAPON
00017 };
00018
00026 class Card {
00027
       private:
00028
             CardType type;
       public:
00030
00036
             Card(CardType type);
00037
00042
             CardType getType() const;
00043
00048
             virtual int getIndex();
00049
00053
              virtual ~Card();
00054 };
00055
00056 #endif // CARD_H
```

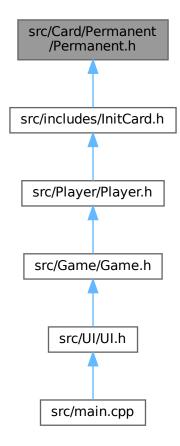
# 5.5 src/Card/Permanent/Permanent.h File Reference

This file contains the declaration of the Permanent class and the enum class PermanentType.

```
#include "../Card.h"
Include dependency graph for Permanent.h:
```



This graph shows which files directly or indirectly include this file:



## Classes

class Permanent

The Permanent class represents a permanent card in the game. This class inherits from the Card class and adds functionality specific to permanent cards.

# **Enumerations**

• enum class PermanentType { ATTAQUE\_RAPIDE , CODE\_DU\_BUSHIDO , ARMURE , CONCENTRATION } Represents the type of a Permanent.

# 5.5.1 Detailed Description

This file contains the declaration of the Permanent class and the enum class PermanentType.

5.6 Permanent.h 43

## 5.5.2 Enumeration Type Documentation

## 5.5.2.1 PermanentType

```
enum class PermanentType [strong]
```

Represents the type of a Permanent.

Note

The type of a Permanent is also the index of the Permanent in the Image List and as the name of the Permanent

## Enumerator

ATTAQUE_RAPIDE	ATTAQUE_RAPIDE permanent type
CODE_DU_BUSHIDO	CODE_DU_BUSHIDO permanent type
ARMURE	ARMURE permanent type
CONCENTRATION	CONCENTRATION permanent type

## 5.6 Permanent.h

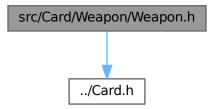
#### Go to the documentation of this file.

```
00001
00006 #ifndef PERMANENT_H
00007 #define PERMANENT_H
80000
00009 #include "../Card.h"
00010
00017 enum class PermanentType {
        ATTAQUE_RAPIDE,
00018
         CODE_DU_BUSHIDO,
00020
         ARMURE,
00021
         CONCENTRATION
00022 };
00023
00029 class Permanent : public Card {
       private:
00031
             PermanentType permanentType;
00033
        public:
00039
             Permanent (PermanentType permanentType);
00040
00046
             PermanentType getPermanentType() const;
00047
00053
             int getIndex() override;
00054 };
00055
00056 #endif // PERMANENT_H
```

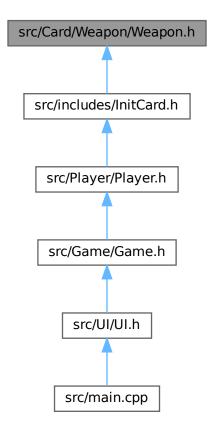
# 5.7 src/Card/Weapon/Weapon.h File Reference

This file contains the declaration of the Weapon class and the enum class WeaponType.

#include "../Card.h"
Include dependency graph for Weapon.h:



This graph shows which files directly or indirectly include this file:



#### Classes

• class Weapon

The Weapon class represents a weapon card in the game.

5.8 Weapon.h 45

#### **Enumerations**

enum class WeaponType {
 NODACHI , NAGINATA , NAGAYARI , TANEGASHIMA ,
 DAIKYU , BO , KUSARIGAMA , KATANA ,
 SHURIKEN , KANABO , BOKKEN , KISERU ,
 WAKIZASHI }

Represents the type of a Weapon.

# 5.7.1 Detailed Description

This file contains the declaration of the Weapon class and the enum class WeaponType.

# 5.7.2 Enumeration Type Documentation

#### 5.7.2.1 WeaponType

```
enum class WeaponType [strong]
```

Represents the type of a Weapon.

Note

The type of a Weapon is also the index of the Weapon in the Image List and as the name of the Weapon

## Enumerator

NODACHI	NODACHI weapon type
NAGINATA	NAGINATA weapon type
NAGAYARI	NAGAYARI weapon type
TANEGASHIMA	TANEGASHIMA weapon type
DAIKYU	DAIKYU weapon type
ВО	BO weapon type
KUSARIGAMA	KUSARIGAMA weapon type
KATANA	KATANA weapon type
SHURIKEN	SHURIKEN weapon type
KANABO	KANABO weapon type
BOKKEN	BOKKEN weapon type
KISERU	KISERU weapon type
WAKIZASHI	WAKIZASHI weapon type

# 5.8 Weapon.h

Go to the documentation of this file.

00000 #ifndef WEAPON\_H

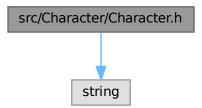
```
00007 #define WEAPON_H
80000
00009 #include "../Card.h"
00010
00017 enum class WeaponType {
00018
         NODACHI,
00019
         NAGINATA,
00020
         NAGAYARI,
         TANEGASHIMA,
00021
00022
         DAIKYU,
         BO,
KUSARIGAMA,
00023
00024
00025
          KATANA,
00026
          SHURIKEN,
00027
          KANABO,
00028
          BOKKEN,
00029
          KISERII.
00030
          WAKIZASHI
00031 };
00032
00041 class Weapon : public Card {
00042
       private:
00043
             WeaponType weaponType;
00044
             int damage;
00045
              int range;
00047
        public:
00055
             Weapon(WeaponType weaponType, int damage, int range);
00056
00062
              WeaponType getWeaponType() const;
00063
00069
             int getDamage() const;
00070
00076
              int getRange() const;
00077
00083
              int getIndex() override;
00084 };
00085
00086 #endif // WEAPON_H
```

# 5.9 src/Character/Character.h File Reference

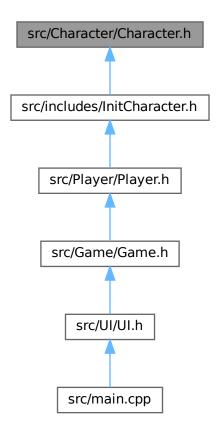
This file contains the declaration of the Character class and the enum class CharacterType.

```
#include <string>
```

Include dependency graph for Character.h:



This graph shows which files directly or indirectly include this file:



## Classes

· class Character

The Character class represents a character in the game.

#### **Enumerations**

enum class CharacterType {
 HANZO , USHIWAKA , CHIYOME , HIDEYOSHI ,
 GINCHIYO , GOEMON , NOBUNAGA , TOMOE ,
 IEYASU , BENKEI , MUSASHI , KOJIRO }

Represents the type of a Character.

# 5.9.1 Detailed Description

This file contains the declaration of the Character class and the enum class CharacterType.

# 5.9.2 Enumeration Type Documentation

#### 5.9.2.1 CharacterType

```
enum class CharacterType [strong]
```

Represents the type of a Character.

Note

The type of a Character is also the index of the Character in the Image List and as the name of the Character

#### Enumerator

HANZO	HANZO character type
USHIWAKA	USHIWAKA character type
CHIYOME	CHIYOME character type
HIDEYOSHI	HIDEYOSHI character type
GINCHIYO	GINCHIYO character type
GOEMON	GOEMON character type
NOBUNAGA	NOBUNAGA character type
TOMOE	TOMOE character type
IEYASU	IEYASU character type
BENKEI	BENKEI character type
MUSASHI	MUSASHI character type
KOJIRO	KOJIRO character type

## 5.10 Character.h

#### Go to the documentation of this file.

```
00006 #ifndef CHARACTER_H
00007 #define CHARACTER_H
80000
00009 #include <string>
00010
00017 enum class CharacterType {
        HANZO,
00019
         USHIWAKA,
00020
          CHIYOME,
00021
         HIDEYOSHI,
00022
          GINCHIYO,
00023
          GOEMON,
00024
          NOBUNAGA,
00025
          TOMOE,
00026
          IEYASU,
00027
          BENKEI,
00028
          MUSASHI,
00029
          KOJIRO
00030 };
00039 class Character {
00040 private:
00041
            CharacterType type;
00042
              int HP;
00044
         public:
00051
             Character(CharacterType type, int HP);
00052
00058
              CharacterType getType() const;
```

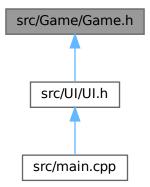
# 5.11 src/Game/Game.h File Reference

This file contains the declaration of the Game class.

```
#include <iostream>
#include <random>
#include <algorithm>
#include <string>
#include "../Player/Player.h"
Include dependency graph for Game.h:
```



This graph shows which files directly or indirectly include this file:



#### Classes

• class Game

Represents the game state and logic.

# 5.11.1 Detailed Description

This file contains the declaration of the Game class.

# 5.12 Game.h

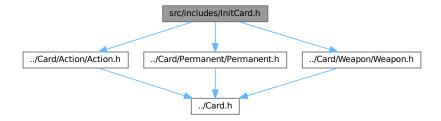
#### Go to the documentation of this file.

```
00001
00006 #ifndef GAME_H
00007 #define GAME_H
80000
00009 #include <iostream>
00010 #include <random>
00011 #include <algorithm>
00012 #include <string>
00013 #include "../Player/Player.h"
00014
00022 class Game {
        private:
00024
               std::vector<Role*> *roles;
00025
               std::vector<Character*> *characters;
               std::vector<Card*> *cards;
std::vector<Card*> *discards;
00026
00027
00028
               std::vector<Player*> *players;
00029
               std::vector<std::string*> *logs;
00030
               int nbPlayers;
00031
               int indexActualPlayer;
          public:
00033
              bool isCarteDuBushidoInGame;
00034
00039
               Game();
00040
00044
               void initRole();
00045
00049
               void initCharacter();
00050
00054
               void initCard();
00055
00059
               void initPlayer();
00060
00065
               void setNbPlayers(int nbPlayers);
00066
00071
               int getNbPlayers() const;
00072
00077
               int getIndexActualPlayer() const;
00078
00083
               int getIndexPlayerAttacked() const;
00084
00089
               std::vector<Player*> *getPlayers() const;
00090
00095
               std::vector<Card*> *getCards() const;
00096
00101
               std::vector<Card*> *getDiscards() const;
00102
00107
               std::vector<std::string*> *getLogs() const;
00108
               void updateHonorPointsHP();
00112
00113
00117
               void recoverHP();
00118
               void pick(Player *player, int nbCard);
00124
00125
00132
               bool attack(Weapon *card, Player *player);
00133
00139
               int calculateDistance(Player *playerTarget);
00140
               bool canBlock(Player *player);
00146
00147
               void discard(Player *player, Card* card);
00153
00154
00158
               void recoverCards();
00159
00163
               void changePlayer();
00164
00168
               void criDeGuerreFunction();
00169
00173
               void daimyoFunction();
00174
00179
               void geishaFunction(Player *player = nullptr);
00180
```

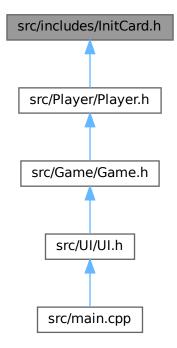
# 5.13 src/includes/InitCard.h File Reference

This file contains the initialization of various cards, actions, permanents, and weapons.

```
#include "../Card/Action/Action.h"
#include "../Card/Permanent/Permanent.h"
#include "../Card/Weapon/Weapon.h"
Include dependency graph for InitCard.h:
```



This graph shows which files directly or indirectly include this file:



#### Macros

- #define CriDeGuerre Action(ActionType::CRI\_DE\_GUERRE)
- #define Daimyo Action(ActionType::DAIMYO)
- #define Diversion Action(ActionType::DIVERSION)
- #define Geisha Action(ActionType::GEISHA)
- #define Meditation Action(ActionType::MEDITATION)
- #define Parade Action(ActionType::PARADE)
- #define CeremonieDuThe Action(ActionType::CEREMONIE\_DU\_THE)
- #define JuJitsu Action(ActionType::JU\_JITSU)
- #define AttaqueRapide Permanent(PermanentType::ATTAQUE RAPIDE)
- #define CodeDuBushido Permanent(PermanentType::CODE DU BUSHIDO)
- #define Armure Permanent(PermanentType::ARMURE)
- #define Concentration Permanent(PermanentType::CONCENTRATION)
- #define Nodachi Weapon(WeaponType::NODACHI, 3, 3)
- #define Naginata Weapon(WeaponType::NAGINATA, 1, 4)
- #define Nagayari Weapon(WeaponType::NAGAYARI, 2, 4)
- #define Tanegashima Weapon(WeaponType::TANEGASHIMA, 1, 5)
- #define Daikyu Weapon(WeaponType::DAIKYU, 2, 5)
- #define Bo Weapon(WeaponType::BO, 1, 2)
- #define Kusarigama Weapon(WeaponType::KUSARIGAMA, 2, 2)
- #define Katana Weapon(WeaponType::KATANA, 3, 2)
- #define Shuriken Weapon(WeaponType::SHURIKEN, 1, 3)
- #define Kanabo Weapon(WeaponType::KANABO, 2, 3)
- #define Bokken Weapon(WeaponType::BOKKEN, 1, 1)

- #define Kiseru Weapon(WeaponType::KISERU, 2, 1)
- #define Wakizashi Weapon(WeaponType::WAKIZASHI, 3, 1)
- #define NB\_COPY\_CRI\_DE\_GUERRE 4
- #define NB COPY DAIMYO 3
- #define NB\_COPY\_DIVERSION 5
- #define NB\_COPY\_GEISHA 6
- #define NB\_COPY\_MEDITATION 3
- #define NB COPY PARADE 15
- #define NB\_COPY\_CEREMONIE\_DU\_THE 4
- #define NB\_COPY\_JU\_JITSU 3
- #define NB\_COPY\_ATTAQUE\_RAPIDE 3
- #define NB COPY CODE DU BUSHIDO 2
- #define NB\_COPY\_ARMURE 4
- #define NB\_COPY\_CONCENTRATION 6
- #define NB\_COPY\_NODACHI 1
- #define NB\_COPY\_NAGINATA 2
- #define NB\_COPY\_NAGAYARI 1
- #define NB\_COPY\_TANEGASHIMA 1
- #define NB\_COPY\_DAIKYU 1
- #define NB COPY BO 5
- #define NB\_COPY\_KUSARIGAMA 4
- #define NB\_COPY\_KATANA 1
- #define NB\_COPY\_SHURIKEN 3
- #define NB COPY KANABO 1
- #define NB COPY BOKKEN 6
- #define NB COPY KISERU 5
- #define NB\_COPY\_WAKIZASHI 1

## 5.13.1 Detailed Description

This file contains the initialization of various cards, actions, permanents, and weapons.

#### 5.13.2 Macro Definition Documentation

### 5.13.2.1 Armure

```
#define Armure Permanent(PermanentType::ARMURE)
```

ARMURE permanent card

#### 5.13.2.2 AttaqueRapide

```
#define AttaqueRapide Permanent(PermanentType::ATTAQUE_RAPIDE)
```

ATTAQUE\_RAPIDE permanent card

#### 5.13.2.3 Bo

```
#define Bo Weapon(WeaponType::BO, 1, 2)
```

BO weapon card

#### 5.13.2.4 Bokken

```
#define Bokken Weapon(WeaponType::BOKKEN, 1, 1)
```

BOKKEN weapon card

#### 5.13.2.5 CeremonieDuThe

```
#define CeremonieDuThe Action(ActionType::CEREMONIE_DU_THE)
```

CEREMONIE\_DU\_THE action card

#### 5.13.2.6 CodeDuBushido

```
#define CodeDuBushido Permanent(PermanentType::CODE_DU_BUSHIDO)
```

CODE\_DU\_BUSHIDO permanent card

#### 5.13.2.7 Concentration

```
#define Concentration Permanent(PermanentType::CONCENTRATION)
```

CONCENTRATION permanent card

#### 5.13.2.8 CriDeGuerre

```
#define CriDeGuerre Action(ActionType::CRI_DE_GUERRE)
```

CRI\_DE\_GUERRE action card

#### 5.13.2.9 Daikyu

```
#define Daikyu Weapon(WeaponType::DAIKYU, 2, 5)
```

DAIKYU weapon card

#### 5.13.2.10 Daimyo

```
#define Daimyo Action(ActionType::DAIMYO)
```

DAIMYO action card

#### 5.13.2.11 Diversion

```
#define Diversion Action(ActionType::DIVERSION)
```

**DIVERSION** action card

#### 5.13.2.12 Geisha

```
#define Geisha Action(ActionType::GEISHA)
```

GEISHA action card

#### 5.13.2.13 JuJitsu

```
#define JuJitsu Action(ActionType::JU_JITSU)
```

JU\_JITSU action card

#### 5.13.2.14 Kanabo

```
#define Kanabo Weapon(WeaponType::KANABO, 2, 3)
```

KANABO weapon card

#### 5.13.2.15 Katana

```
#define Katana Weapon(WeaponType::KATANA, 3, 2)
```

KATANA weapon card

#### 5.13.2.16 Kiseru

```
#define Kiseru Weapon(WeaponType::KISERU, 2, 1)
```

KISERU weapon card

#### 5.13.2.17 Kusarigama

```
#define Kusarigama Weapon(WeaponType::KUSARIGAMA, 2, 2)
```

KUSARIGAMA weapon card

#### 5.13.2.18 Meditation

```
#define Meditation Action(ActionType::MEDITATION)
```

MEDITATION action card

# 5.13.2.19 Nagayari

```
#define Nagayari Weapon(WeaponType::NAGAYARI, 2, 4)
```

NAGAYARI weapon card

#### 5.13.2.20 Naginata

```
#define Naginata Weapon(WeaponType::NAGINATA, 1, 4)
```

NAGINATA weapon card

#### 5.13.2.21 NB\_COPY\_ARMURE

```
#define NB_COPY_ARMURE 4
```

Number of copies of ARMURE permanent card

## 5.13.2.22 NB\_COPY\_ATTAQUE\_RAPIDE

```
#define NB_COPY_ATTAQUE_RAPIDE 3
```

Number of copies of ATTAQUE\_RAPIDE permanent card

#### 5.13.2.23 NB\_COPY\_BO

```
#define NB_COPY_BO 5
```

Number of copies of BO weapon card

## 5.13.2.24 NB\_COPY\_BOKKEN

```
#define NB_COPY_BOKKEN 6
```

Number of copies of BOKKEN weapon card

#### 5.13.2.25 NB\_COPY\_CEREMONIE\_DU\_THE

```
#define NB_COPY_CEREMONIE_DU_THE 4
```

Number of copies of CEREMONIE DU THE action card

# 5.13.2.26 NB\_COPY\_CODE\_DU\_BUSHIDO

```
#define NB_COPY_CODE_DU_BUSHIDO 2
```

Number of copies of CODE\_DU\_BUSHIDO permanent card

## 5.13.2.27 NB\_COPY\_CONCENTRATION

```
#define NB_COPY_CONCENTRATION 6
```

Number of copies of CONCENTRATION permanent card

## 5.13.2.28 NB\_COPY\_CRI\_DE\_GUERRE

```
#define NB_COPY_CRI_DE_GUERRE 4
```

Number of copies of CRI\_DE\_GUERRE action card

## 5.13.2.29 NB\_COPY\_DAIKYU

```
#define NB_COPY_DAIKYU 1
```

Number of copies of DAIKYU weapon card

## 5.13.2.30 NB\_COPY\_DAIMYO

```
#define NB_COPY_DAIMYO 3
```

Number of copies of DAIMYO action card

#### 5.13.2.31 NB\_COPY\_DIVERSION

```
#define NB_COPY_DIVERSION 5
```

Number of copies of DIVERSION action card

## 5.13.2.32 NB\_COPY\_GEISHA

```
#define NB_COPY_GEISHA 6
```

Number of copies of GEISHA action card

#### 5.13.2.33 NB\_COPY\_JU\_JITSU

```
#define NB_COPY_JU_JITSU 3
```

Number of copies of JU JITSU action card

# 5.13.2.34 NB\_COPY\_KANABO

```
#define NB_COPY_KANABO 1
```

Number of copies of KANABO weapon card

## 5.13.2.35 NB\_COPY\_KATANA

```
#define NB_COPY_KATANA 1
```

Number of copies of KATANA weapon card

#### 5.13.2.36 NB\_COPY\_KISERU

```
#define NB_COPY_KISERU 5
```

Number of copies of KISERU weapon card

## 5.13.2.37 NB\_COPY\_KUSARIGAMA

```
#define NB_COPY_KUSARIGAMA 4
```

Number of copies of KUSARIGAMA weapon card

## 5.13.2.38 NB\_COPY\_MEDITATION

```
#define NB_COPY_MEDITATION 3
```

Number of copies of MEDITATION action card

#### 5.13.2.39 NB\_COPY\_NAGAYARI

```
#define NB_COPY_NAGAYARI 1
```

Number of copies of NAGAYARI weapon card

## 5.13.2.40 NB\_COPY\_NAGINATA

```
#define NB_COPY_NAGINATA 2
```

Number of copies of NAGINATA weapon card

#### 5.13.2.41 NB\_COPY\_NODACHI

```
#define NB_COPY_NODACHI 1
```

Number of copies of NODACHI weapon card

# 5.13.2.42 NB\_COPY\_PARADE

```
#define NB_COPY_PARADE 15
```

Number of copies of PARADE action card

## 5.13.2.43 NB\_COPY\_SHURIKEN

```
#define NB_COPY_SHURIKEN 3
```

Number of copies of SHURIKEN weapon card

# 5.13.2.44 NB\_COPY\_TANEGASHIMA

```
#define NB_COPY_TANEGASHIMA 1
```

Number of copies of TANEGASHIMA weapon card

## 5.13.2.45 NB\_COPY\_WAKIZASHI

```
#define NB_COPY_WAKIZASHI 1
```

Number of copies of WAKIZASHI weapon card

#### 5.13.2.46 Nodachi

```
#define Nodachi Weapon(WeaponType::NODACHI, 3, 3)
```

NODACHI weapon card

#### 5.13.2.47 Parade

```
#define Parade Action(ActionType::PARADE)
```

PARADE action card

#### 5.13.2.48 Shuriken

```
#define Shuriken Weapon(WeaponType::SHURIKEN, 1, 3)
```

SHURIKEN weapon card

#### 5.13.2.49 Tanegashima

```
#define Tanegashima Weapon(WeaponType::TANEGASHIMA, 1, 5)
```

TANEGASHIMA weapon card

#### 5.13.2.50 Wakizashi

```
#define Wakizashi Weapon(WeaponType::WAKIZASHI, 3, 1)
```

WAKIZASHI weapon card

#### 5.14 InitCard.h

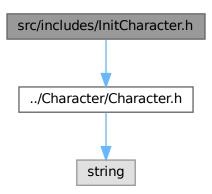
#### Go to the documentation of this file.

```
00001
00006 #ifndef INIT_CARD_H
00007 #define INIT_CARD_H
00009 #include "../Card/Action/Action.h"
00010 #include "../Card/Permanent/Permanent.h"
00011 #include "../Card/Weapon/Weapon.h"
00012
00013 #define CriDeGuerre Action(ActionType::CRI DE GUERRE)
00014 #define Daimyo Action(ActionType::DAIMYO)
00015 #define Diversion Action(ActionType::DIVERSION)
00016 #define Geisha Action(ActionType::GEISHA)
00017 #define Meditation Action(ActionType::MEDITATION)
00018 #define Parade Action(ActionType::PARADE)
00019 #define CeremonieDuThe Action(ActionType::CEREMONIE_DU_THE)
00020 #define JuJitsu Action(ActionType::JU_JITSU)
00022 #define AttaqueRapide Permanent (PermanentType::ATTAQUE_RAPIDE)
00023 #define CodeDuBushido Permanent(PermanentType::CODE_DU_BUSHIDO)
00024 #define Armure Permanent(PermanentType::ARMURE)
00025 #define Concentration Permanent(PermanentType::CONCENTRATION)
00027 #define Nodachi Weapon(WeaponType::NODACHI, 3, 3)
00028 #define Naginata Weapon(WeaponType::NAGINATA, 1, 4)
00029 #define Nagayari Weapon(WeaponType::NAGAYARI, 2,
00030 #define Tanegashima Weapon(WeaponType::TANEGASHIMA, 1, 5)
00031 #define Daikyu Weapon(WeaponType::DAIKYU, 2, 5)
00032 #define Bo Weapon(WeaponType::BO, 1, 2)
00033 #define Kusarigama Weapon(WeaponType::KUSARIGAMA, 2, 2)
00034 #define Katana Weapon(WeaponType::KATANA, 3, 2)
00035 #define Shuriken Weapon(WeaponType::SHURIKEN, 1, 3)
00036 #define Kanabo Weapon(WeaponType::KANABO, 2, 3)
00037 #define Bokken Weapon(WeaponType::BOKKEN, 1, 1)
00038 #define Kiseru Weapon(WeaponType::KISERU, 2,
00039 #define Wakizashi Weapon(WeaponType::WAKIZASHI, 3, 1)
00041 #define NB_COPY_CRI_DE_GUERRE 4
00042 #define NB_COPY_DAIMYO 3
00043 #define NB_COPY_DIVERSION 5
00044 #define NB_COPY_GEISHA 6
00045 #define NB_COPY_MEDITATION 3
00046 #define NB_COPY_PARADE 15
00047 #define NB_COPY_CEREMONIE_DU_THE 4
00048 #define NB_COPY_JU_JITSU 3
00050 #define NB_COPY_ATTAQUE_RAPIDE 3
00051 #define NB_COPY_CODE_DU_BUSHIDO 2
00052 #define NB_COPY_ARMURE 4
00053 #define NB_COPY_CONCENTRATION 6
00055 #define NB_COPY_NODACHI 1
00056 #define NB_COPY_NAGINATA 2
00057 #define NB_COPY_NAGAYARI 1
00058 #define NB_COPY_TANEGASHIMA
00059 #define NB_COPY_DAIKYU 1
00060 #define NB_COPY_BO 5
00061 #define NB_COPY_KUSARIGAMA 4
00062 #define NB COPY KATANA 1
00063 #define NB_COPY_SHURIKEN 3
00064 #define NB_COPY_KANABO
00065 #define NB_COPY_BOKKEN 6
00066 #define NB_COPY_KISERU 5
00067 #define NB_COPY_WAKIZASHI 1
00069 #endif // INIT_CARD_H
```

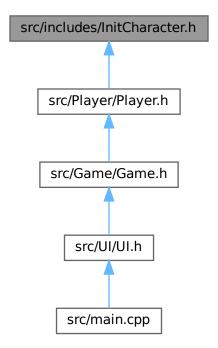
#### 5.15 src/includes/InitCharacter.h File Reference

This file contains the initialization of character objects.

#include "../Character/Character.h"
Include dependency graph for InitCharacter.h:



This graph shows which files directly or indirectly include this file:



## Macros

• #define Hanzo Character(CharacterType::HANZO, 4)

- #define Ushiwaka Character(CharacterType::USHIWAKA, 4)
- #define Chiyome Character(CharacterType::CHIYOME, 4)
- #define Hideyoshi Character(CharacterType::HIDEYOSHI, 4)
- #define Ginchyo Character(CharacterType::GINCHIYO, 4)
- #define Goemon Character(CharacterType::GOEMON, 5)
- #define Nobunaga Character(CharacterType::NOBUNAGA, 5)
- #define Tomoe Character(CharacterType::TOMOE, 5)
- #define leyasu Character(CharacterType::IEYASU, 5)
- #define Benkei Character(CharacterType::BENKEI, 5)
- #define Musashi Character(CharacterType::MUSASHI, 5)
- #define Kojiro Character(CharacterType::KOJIRO, 5)

# 5.15.1 Detailed Description

This file contains the initialization of character objects.

#### 5.15.2 Macro Definition Documentation

#### 5.15.2.1 Benkei

```
#define Benkei Character(CharacterType::BENKEI, 5)
```

Benkei character

#### 5.15.2.2 Chiyome

```
#define Chiyome Character(CharacterType::CHIYOME, 4)
```

Chiyome character

#### 5.15.2.3 Ginchyo

```
#define Ginchyo Character(CharacterType::GINCHIYO, 4)
```

Ginchyo character

#### 5.15.2.4 Goemon

```
#define Goemon Character(CharacterType::GOEMON, 5)
```

Goemon character

#### 5.15.2.5 Hanzo

```
#define Hanzo Character(CharacterType::HANZO, 4)
```

Hanzo character

## 5.15.2.6 Hideyoshi

```
#define Hideyoshi Character(CharacterType::HIDEYOSHI, 4)
Hideyoshi character
5.15.2.7 leyasu
#define Ieyasu Character(CharacterType::IEYASU, 5)
leyasu character
5.15.2.8 Kojiro
#define Kojiro Character(CharacterType::KOJIRO, 5)
Kojiro character
5.15.2.9 Musashi
#define Musashi Character(CharacterType::MUSASHI, 5)
Musashi character
5.15.2.10 Nobunaga
#define Nobunaga Character(CharacterType::NOBUNAGA, 5)
Nobunaga character
5.15.2.11 Tomoe
#define Tomoe Character(CharacterType::TOMOE, 5)
Tomoe character
```

## 5.15.2.12 Ushiwaka

```
#define Ushiwaka Character(CharacterType::USHIWAKA, 4)
```

Ushiwaka character

## 5.16 InitCharacter.h

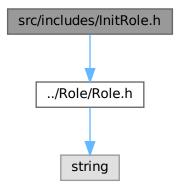
#### Go to the documentation of this file.

```
00001
00006 #ifndef INIT_CHARACTER_H
00007 #define INIT_CHARACTER_H
00008
00009 #include "../Character/Character.h"
00010
00011 #define Hanzo Character(CharacterType::HANZO, 4)
00012 #define Ushiwaka Character(CharacterType::USHIWAKA, 4)
00013 #define Chiyome Character(CharacterType::CHIYOME, 4)
00014 #define Hideyoshi Character(CharacterType::HIDEYOSHI, 4)
00015 #define Ginchyo Character(CharacterType::GOEMON, 5)
00016 #define Goemon Character(CharacterType::GOEMON, 5)
00017 #define Nobunaga Character(CharacterType::NOBUNAGA, 5)
00018 #define Tomoe Character(CharacterType::TOMOE, 5)
00019 #define Ieyasu Character(CharacterType::BENKEI, 5)
00020 #define Benkei Character(CharacterType::BENKEI, 5)
00021 #define Musashi Character(CharacterType::MUSASHI, 5)
00022 #define Kojiro Character(CharacterType::KOJIRO, 5)
00024 #endif // INIT_CHARACTER_H
```

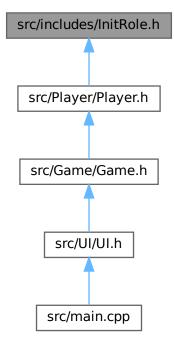
## 5.17 src/includes/InitRole.h File Reference

This file contains the initialization of roles.

```
#include "../Role/Role.h"
Include dependency graph for InitRole.h:
```



This graph shows which files directly or indirectly include this file:



#### **Macros**

- #define Shogun Role(RoleType::SHOGUN)
- #define Samurai Role(RoleType::SAMURAI)
- #define NinjaOne Role(RoleType::NINJA, 1)
- #define NinjaTwo Role(RoleType::NINJA, 2)
- #define NinjaThree Role(RoleType::NINJA, 3)
- #define Ronin Role(RoleType::RONIN)

## 5.17.1 Detailed Description

This file contains the initialization of roles.

#### 5.17.2 Macro Definition Documentation

#### 5.17.2.1 NinjaOne

#define NinjaOne Role(RoleType::NINJA, 1)

Ninja role level 1

#### 5.17.2.2 NinjaThree

```
#define NinjaThree Role(RoleType::NINJA, 3)
```

Ninja role level 3

#### 5.17.2.3 NinjaTwo

```
#define NinjaTwo Role(RoleType::NINJA, 2)
```

Ninja role level 2

#### 5.17.2.4 Ronin

```
#define Ronin Role(RoleType::RONIN)
```

Ronin role

#### 5.17.2.5 Samurai

```
#define Samurai Role(RoleType::SAMURAI)
```

Samurai role

## 5.17.2.6 Shogun

```
#define Shogun Role(RoleType::SHOGUN)
```

Shogun role

## 5.18 InitRole.h

# Go to the documentation of this file. 00001

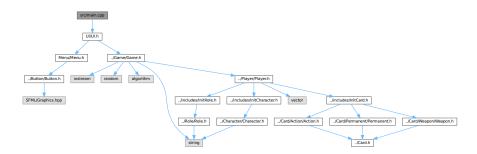
```
00001
00006 #ifndef INIT_ROLE_H
00007 #define INIT_ROLE_H
00008
00009 #include "../Role/Role.h"
00010
00011 #define Shogun Role(RoleType::SHOGUN)
00012 #define Samurai Role(RoleType::SAMURAI)
00013 #define NinjaOne Role(RoleType::NINJA, 1)
00014 #define NinjaTwo Role(RoleType::NINJA, 2)
00015 #define NinjaThree Role(RoleType::NINJA, 3)
00016 #define Ronin Role(RoleType::RONIN)
00018 #endif // INIT_ROLE_H
```

# 5.19 src/main.cpp File Reference

The main function of the game.

#include "UI/UI.h"

Include dependency graph for main.cpp:



#### **Functions**

• int main ()

The main function of the program.

## 5.19.1 Detailed Description

The main function of the game.

#### 5.19.2 Function Documentation

#### 5.19.2.1 main()

int main ( )

The main function of the program.

This function is the entry point of the program. It initializes various objects, loads images and fonts, creates UI elements, and manages the flow of the game. It also deallocates memory before exiting.

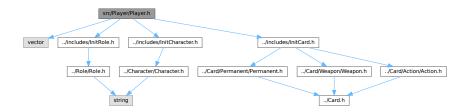
#### Returns

int The exit status of the program.

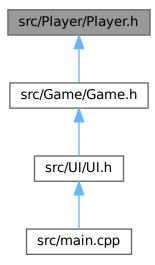
# 5.20 src/Player/Player.h File Reference

This file contains the declaration of the Player class.

```
#include <vector>
#include "../includes/InitRole.h"
#include "../includes/InitCard.h"
#include "../includes/InitCharacter.h"
Include dependency graph for Player.h:
```



This graph shows which files directly or indirectly include this file:



#### Classes

• class Player

Represents a player in the game.

## 5.20.1 Detailed Description

This file contains the declaration of the Player class.

5.21 Player.h 69

## 5.21 Player.h

#### Go to the documentation of this file.

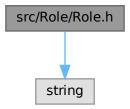
```
00001
00006 #ifndef PLAYER_H
00007 #define PLAYER_H
80000
00009 #include <vector>
00010 #include "../includes/InitRole.h"
00011 #include "../includes/InitCard.h"
00012 #include "../includes/InitCharacter.h"
00013
00018 class Player {
         private:
00020
              Role *role;
00021
               Character *character;
00022
               std::vector<Card*> *hand;
00023
               std::vector<Permanent*> *permanentCardsPlayed;
00025
               int maxNbAttack;
00026
00027
          public:
00028
              int HP;
               int honorPoints;
00029
00030
               bool asAttacked;
               int nbAttack;
00031
00039
               Player(Role *role, Character *character);
00040
00046
               Role* getRole() const;
00047
00053
               Character* getCharacter() const;
00054
00060
               std::vector<Card*>* getHand() const;
00061
00067
               std::vector<Permanent*>* getPermanentCardsPlayed() const;
00068
00074
               int getMaxNbAttack() const;
00075
00079
               void meditationFunction();
00080
00085
               int attackRapideFunction();
00086
00091
               std::pair<Permanent*, int> asCodeDuBushido();
00092
00097
               int armureFunction();
00098
00102
               void concentrationFunction();
00103
               bool isDown() const;
00108
00109
00113
               void recover();
00114
00118
               ~Player();
00119 };
00120
00121 #endif // PLAYER_H
```

## 5.22 src/Role/Role.h File Reference

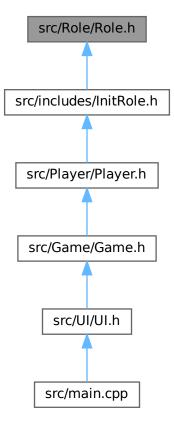
This file contains the declaration of the Role class and the enum class RoleType.

#include <string>

Include dependency graph for Role.h:



This graph shows which files directly or indirectly include this file:



#### Classes

• class Role

The Role class represents a role in the game.

5.23 Role.h 71

#### **Enumerations**

enum class RoleType { SHOGUN , SAMURAI , NINJA , RONIN }
 Represents the type of a Role.

## 5.22.1 Detailed Description

This file contains the declaration of the Role class and the enum class RoleType.

## 5.22.2 Enumeration Type Documentation

#### 5.22.2.1 RoleType

```
enum class RoleType [strong]
```

Represents the type of a Role.

#### Note

The type of a Role is also the index of the Role in the Image List and as the name of the Role

#### Enumerator

SHOGUN	SHOGUN role type
SAMURAI	SAMURAI role type
NINJA	NINJA role type
RONIN	RONIN role type

## 5.23 Role.h

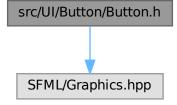
#### Go to the documentation of this file.

```
00001
00006 #ifndef ROLE_H
00007 #define ROLE_H
80000
00009 #include <string>
00010
00017 enum class RoleType {
00018
         SHOGUN,
00019
          SAMURAI,
00020
         NINJA,
00021
          RONIN
00022 };
00023
00031 class Role {
00032 private:
00033
             RoleType type;
00034
              int level;
00036
00043
        public:
              Role(RoleType type, int level = 0);
00044
00050
              RoleType getType() const;
00051
00057
              int getLevel() const;
00058
```

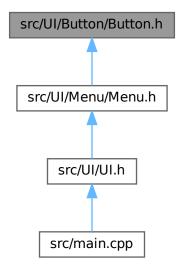
# 5.24 src/Ul/Button/Button.h File Reference

This file contains the declaration of the Button class.

```
#include <SFML/Graphics.hpp>
Include dependency graph for Button.h:
```



This graph shows which files directly or indirectly include this file:



5.25 Button.h 73

#### Classes

class Button

Represents a graphical button element.

## 5.24.1 Detailed Description

This file contains the declaration of the Button class.

## 5.25 Button.h

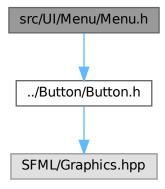
#### Go to the documentation of this file.

```
00006 #ifndef BUTTON_H
00007 #define BUTTON_H
00008
00009 #include <SFML/Graphics.hpp>
00010
00015 class Button {
       private:
00016
00017
             sf::RectangleShape shape;
00018
              sf::Text text;
       public:
00020
             Button(sf::Vector2f position, sf::Vector2f size, sf::Font *font, std::string text, int
00029
     fontSize);
00030
00035
              sf::RectangleShape getShape() const;
00036
00042
             bool isHovered(sf::RenderWindow &window) const;
00043
00049
              bool isClicked(sf::RenderWindow &window) const;
00050
00055
              void draw(sf::RenderWindow &window);
00056 };
00057
00058 #endif // BUTTON_H
```

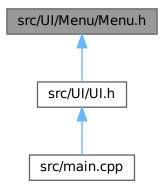
## 5.26 src/UI/Menu/Menu.h File Reference

This file contains the declaration of the Menu class and of the constants SCREEN\_WIDTH and SCREEN\_HEIGHT.

```
#include "../Button/Button.h"
Include dependency graph for Menu.h:
```



This graph shows which files directly or indirectly include this file:



#### Classes

· class Menu

Represents a menu in the game.

### **Macros**

- #define SCREEN\_WIDTH 1920
- #define SCREEN\_HEIGHT 1080

## 5.26.1 Detailed Description

This file contains the declaration of the Menu class and of the constants SCREEN\_WIDTH and SCREEN\_HEIGHT.

## 5.26.2 Macro Definition Documentation

## 5.26.2.1 SCREEN\_HEIGHT

#define SCREEN\_HEIGHT 1080

Height of the window

## 5.26.2.2 SCREEN\_WIDTH

#define SCREEN\_WIDTH 1920

Width of the window

5.27 Menu.h 75

## 5.27 Menu.h

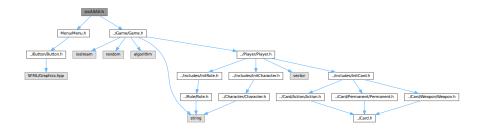
#### Go to the documentation of this file.

```
00001
00001
00006 #ifndef MENU_H
00007 #define MENU_H
80000
00009 #include "../Button/Button.h"
00010
00011 #define SCREEN_WIDTH 1920
00012 #define SCREEN_HEIGHT 1080
00021 class Menu {
00022
            private:
                  sf::Font *font;
sf::Text *title;
00023
00024
00025
                  std::vector<Button*> *buttons;
                  st::Texture *leftTexture;
sf::Texture *rightTexture;
sf::Sprite *leftSprite;
sf::Sprite *rightSprite;
00026
00027
00028
00029
00030
                  int nbPlayers;
00032
             public:
00040
                  Menu(sf::Font *font, sf::Image *leftImage, sf::Image *rightImage);
00041
00047
                  int getNbPlayers() const;
00048
00054
                  void display(sf::RenderWindow &window);
00055
00059
                  ~Menu();
00060 };
00061
00062 #endif // MENU_H
```

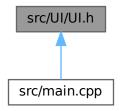
## 5.28 src/UI/UI.h File Reference

This file contains the declaration of the UI class.

```
#include "Menu/Menu.h"
#include "../Game/Game.h"
Include dependency graph for UI.h:
```



This graph shows which files directly or indirectly include this file:



#### Classes

class UI

Represents the user interface of the game.

#### **Macros**

• #define FPS 60

## 5.28.1 Detailed Description

This file contains the declaration of the UI class.

## 5.28.2 Macro Definition Documentation

#### 5.28.2.1 FPS

#define FPS 60

Frames per second

## 5.29 Ul.h

## Go to the documentation of this file.

5.29 UI.h 77

```
00027
                sf::Texture *HPTexture;
00028
                sf::Texture *HonorTexture;
00029
                sf::Texture *backRoleTexture;
00030
                sf::Texture *backCardTexture;
00031
                std::vector<sf::Texture*> *roleTextures;
std::vector<sf::Texture*> *cardTextures;
00032
                std::vector<sf::Texture*> *characterTextures;
00035
                sf::Sprite *backRoleSprite;
                std::vector<sf::Sprite*> *playersSprites;
std::vector<sf::Sprite*> *HPSprites;
00036
00037
                std::vector<sf::Text*> *HPTexts;
00038
00039
                std::vector<sf::Sprite*> *HonorSprites;
                std::vector<sf::Text*> *HonorTexts;
00040
00042
                sf::Sprite *actualPlayerSprite;
00043
                sf::Sprite *actualPlayerRoleSprite;
00044
                std::vector<sf::Sprite*> *actualPlayerCardSprites;
00045
                sf::Sprite *HPSpritePlayer;
00046
                sf::Text *HPTextPlayer;
00047
                sf::Sprite *HonorSpritePlayer;
00048
                sf::Text *HonorTextPlayer;
                std::vector<sf::Sprite*> *stackSprites;
std::vector<sf::Sprite*> *discardStackSprites;
00050
00051
00053
                std::vector<Player*> *players;
00054
                std::vector<Card*> *hand;
00055
                std::vector<Card*> *stack;
                std::vector<Card*> *discardStack;
00056
                std::vector<std::string*> *logs;
00058
00059
                std::vector<sf::Text*> *logsTexts;
00060
                sf::RectangleShape *logsBackground;
00061
                sf::Text *openLogsText;
00062
                sf::RectangleShape *openLogsBtn;
00063
                sf::Text *closeLogsText;
00064
                sf::RectangleShape *closeLogsBtn;
00065
                bool isOpenLogsText;
00067
                Button *passParadeBtn;
00068
                Button *endTurnBtn;
00069
                Button *discardingBtn;
00070
                bool isDiscarding;
00072
                Game *game;
00073
                int indexActualPlayer;
                bool blocking;
00074
00075
                int nbPlayers;
00076
                int spriteShogunIndex;
00077
                int indexSelectedCard;
00078
                int indexSelectedPlayer;
00080
                int attackRapideNbDamage;
00082
           public:
00095
               UI(sf::Font *font, sf::Image *HPImage, sf::Image *HonorImage, sf::Image *backRoleImage,
      sf::Image *backCardImage, std::vector<sf::Image*> *roleImages, std::vector<sf::Image*> *cardImages, std::vector<sf::Image*> *cardImages, std::vector<sf::Image*> *cardImages, std::vector<sf::Image*> *cardImages, std::vector<sf::Image*> *cardImages, std::vector<sf::Image*> *characterImages);
00096
00102
                void menu(sf::Image *leftImage, sf::Image *rightImage);
00103
00107
                void start();
00108
00112
                void update();
00113
00117
                void display();
00118
00122
                void setPlayersSprites();
00123
00128
                void setSpriteHonorCharactersHP(int index);
00129
00133
                void setActualPlayerSprite();
00134
00138
                void setHandSprite();
00139
00143
                void setStackSprite();
00144
00148
                void setDiscardStackSprite();
00149
00153
                void setLogsTexts();
00154
00158
                void setPermanentCircleSprites();
00159
                void handleClickLogBtn(sf::Event event);
00164
00165
00170
                void handleClickHandCard(sf::Event event);
00171
00176
                void handleClickPassParadeBtn(sf::Event event);
00177
00182
                void handleClickEndTurnBtn(sf::Event event);
00183
00188
                void handleClickDiscardingBtn(sf::Event event);
00189
                void handleClickNobunaga(sf::Event event);
00194
00195
```

```
00199 void score();

00200

00204 ~UI();

00205 };

00206

00207 #endif // UI_H
```

# Index

ACTION	Button, 9
Card.h, 41	draw, 10
Action, 7	getShape, 10
Action, 8	isClicked, 10
getActionType, 8	isHovered, 10
getIndex, 8	
Action.h	calculateDistance
ActionType, 39	Game, 16
CEREMONIE_DU_THE, 39	canBlock
CRI DE GUERRE, 39	Game, 17
DAIMYO, 39	Card, 11
DIVERSION, 39	Card, 12
GEISHA, 39	getIndex, 12
JU JITSU, 39	getType, 12
MEDITATION, 39	Card.h
PARADE, 39	ACTION, 41
	CardType, 40
ActionType	PERMANENT, 41
Action.h, 39	WEAPON, 41
ARMURE	
Permanent.h, 43	Card b 40
Armure	Card.h, 40
InitCard.h, 53	CEREMONIE_DU_THE
armureFunction	Action.h, 39
Player, 25	CeremonieDuThe
asAttacked	InitCard.h, 54
Player, 27	Character, 13
asCodeDuBushido	Character, 13
Player, 25	getHP, 13
attack	getIndex, 14
Game, 16	getName, 14
attackRapideFunction	getType, 14
Player, 25	Character.h
ATTAQUE RAPIDE	BENKEI, 48
Permanent.h, 43	CharacterType, 48
AttaqueRapide	CHIYOME, 48
InitCard.h, 53	GINCHIYO, 48
initediani, ee	GOEMON, 48
BENKEI	HANZO, 48
Character.h, 48	HIDEYOSHI, 48
Benkei	IEYASU, 48
InitCharacter.h, 62	KOJIRO, 48
BO	MUSASHI, 48
Weapon.h, 45	NOBUNAGA, 48
_	TOMOE, 48
Bo	USHIWAKA, 48
InitCard.h, 53	
BOKKEN	CharacterType
Weapon.h, 45	Character.h, 48
Bokken	CHIYOME
InitCard.h, 53	Character.h, 48
Button, 9	Chiyome

InitCharacter.h, 62	getActionType
CODE_DU_BUSHIDO	Action, 8
Permanent.h, 43	getCards
CodeDuBushido	Game, 18
InitCard.h, 54	getCharacter
CONCENTRATION	Player, 25
Permanent.h, 43	getDamage
Concentration	Weapon, 35
InitCard.h, 54	getDiscards
CRI DE GUERRE	Game, 18
Action.h, 39	getHand
CriDeGuerre	Player, 26
InitCard.h, 54	getHP
initoaru.n, 54	•
DAIKYU	Character, 13
Weapon.h, 45	getIndex
•	Action, 8
Daikyu	Card, 12
InitCard.h, 54	Character, 14
DAIMYO	Permanent, 23
Action.h, 39	Role, 28
Daimyo	Weapon, 35
InitCard.h, 54	getIndexActualPlayer
discard	Game, 18
Game, 17	getIndexPlayerAttacked
display	Game, 18
Menu, 21	getLevel
DIVERSION	Role, 28
Action.h, 39	getLogs
Diversion	
InitCard.h, 54	Game, 18
draw	getMaxNbAttack
	Player, 26
Button, 10	getName
FPS	Character, 14
	Role, 29
UI.h, 76	getNbPlayers
Como 14	Game, 18
Game, 14	Menu, 21
attack, 16	getPermanentCardsPlayed
calculateDistance, 16	Player, 26
canBlock, 17	getPermanentType
discard, 17	Permanent, 23
geishaFunction, 17	getPlayers
getCards, 18	Game, 19
getDiscards, 18	getRange
getIndexActualPlayer, 18	Weapon, 35
getIndexPlayerAttacked, 18	•
getLogs, 18	getRole
getNbPlayers, 18	Player, 26
getPlayers, 19	getShape
isCarteDuBushidoInGame, 20	Button, 10
isGameOver, 19	getType
pick, 19	Card, 12
setNbPlayers, 19	Character, 14
GEISHA	Role, 29
	getWeaponType
Action.h, 39	Weapon, 36
Geisha	GINCHIYO
InitCard.h, 54	Character.h, 48
geishaFunction	Ginchyo
Game, 17	- 1-

InitCharacter.h, 62	NB_COPY_BOKKEN, 56
GOEMON	NB_COPY_CEREMONIE_DU_THE, 56
Character.h, 48	NB_COPY_CODE_DU_BUSHIDO, 56
Goemon	NB COPY CONCENTRATION, 56
InitCharacter.h, 62	NB COPY CRI DE GUERRE, 56
	NB COPY DAIKYU, 57
handleClickDiscardingBtn	NB COPY DAIMYO, 57
UI, 31	NB COPY DIVERSION, 57
handleClickEndTurnBtn	— — — · · · · · · · · · · · · · · · · ·
UI, 31	NB_COPY_GEISHA, 57
handleClickHandCard	NB_COPY_JU_JITSU, 57
	NB_COPY_KANABO, 57
UI, 32	NB_COPY_KATANA, 57
handleClickLogBtn	NB_COPY_KISERU, 57
UI, 32	NB_COPY_KUSARIGAMA, 58
handleClickNobunaga	NB_COPY_MEDITATION, 58
UI, 32	NB_COPY_NAGAYARI, 58
handleClickPassParadeBtn	NB COPY NAGINATA, 58
UI, 32	NB COPY NODACHI, 58
HANZO	NB COPY PARADE, 58
Character.h, 48	NB COPY SHURIKEN, 58
Hanzo	<u> </u>
InitCharacter.h, 62	NB_COPY_TANEGASHIMA, 58
HIDEYOSHI	NB_COPY_WAKIZASHI, 59
	Nodachi, 59
Character.h, 48	Parade, 59
Hideyoshi	Shuriken, 59
InitCharacter.h, 62	Tanegashima, 59
honorPoints	Wakizashi, 59
Player, 27	InitCharacter.h
HP	Benkei, 62
Player, 27	Chiyome, 62
•	Ginchyo, 62
IEYASU	Goemon, 62
Character.h, 48	
leyasu	Hanzo, 62
InitCharacter.h, 63	Hideyoshi, 62
InitCard.h	leyasu, 63
	Kojiro, 63
Armure, 53	Musashi, 63
AttaqueRapide, 53	Nobunaga, 63
Bo, 53	Tomoe, 63
Bokken, 53	Ushiwaka, 63
CeremonieDuThe, 54	InitRole.h
CodeDuBushido, 54	NinjaOne, 65
Concentration, 54	NinjaChe, 65
CriDeGuerre, 54	NinjaTrilee, 65 NinjaTwo, 66
Daikyu, 54	
Daimyo, 54	Ronin, 66
Diversion, 54	Samurai, 66
	Shogun, 66
Geisha, 54	isCarteDuBushidoInGame
Juditsu, 55	Game, 20
Kanabo, 55	isClicked
Katana, 55	Button, 10
Kiseru, 55	isDown
Kusarigama, 55	Player, 26
Meditation, 55	isGameOver
Nagayari, 55	
Naginata, 55	Game, 19
NB COPY ARMURE, 56	isHovered
NB_COPY_ATTAQUE_RAPIDE, 56	Button, 10
	III IITOII
NB_COPY_BO, 56	JU_JITSU

A 15 1 00	ND CODY DO
Action.h, 39 JuJitsu	NB_COPY_BO
InitCard.h, 55	InitCard.h, 56 NB_COPY_BOKKEN
initodiu.ii, 55	InitCard.h, 56
KANABO	NB_COPY_CEREMONIE_DU_THE
Weapon.h, 45	InitCard.h, 56
Kanabo	NB_COPY_CODE_DU_BUSHIDO
InitCard.h, 55	InitCard.h, 56
KATANA	NB_COPY_CONCENTRATION
Weapon.h, 45	InitCard.h, 56
Katana	NB_COPY_CRI_DE_GUERRE
InitCard.h, 55	InitCard.h, 56
KISERU	NB_COPY_DAIKYU
Weapon.h, 45	InitCard.h, 57
Kiseru	NB_COPY_DAIMYO
InitCard.h, 55	InitCard.h, 57
KOJIRO	NB_COPY_DIVERSION
Character.h, 48	InitCard.h, 57
Kojiro	NB_COPY_GEISHA
InitCharacter.h, 63	InitCard.h, 57
KUSARIGAMA	NB_COPY_JU_JITSU
Weapon.h, 45	InitCard.h, 57
Kusarigama	NB_COPY_KANABO
InitCard.h, 55	InitCard.h, 57
main	NB_COPY_KATANA
main.cpp, 67	InitCard.h, 57
main.cpp	NB_COPY_KISERU
main, 67	InitCard.h, 57
MEDITATION	NB_COPY_KUSARIGAMA
Action.h, 39	InitCard.h, 58
Meditation	NB_COPY_MEDITATION
InitCard.h, 55	InitCard.h, 58
Menu, 20	NB_COPY_NAGAYARI
display, 21	InitCard.h, 58
getNbPlayers, 21	NB_COPY_NAGINATA
Menu, 20	InitCard.h, 58
menu	NB_COPY_NODACHI
UI, 33	InitCard.h, 58
Menu.h	NB_COPY_PARADE
SCREEN HEIGHT, 74	InitCard.h, 58
SCREEN WIDTH, 74	NB_COPY_SHURIKEN
MUSASHI	InitCard.h, 58 NB_COPY_TANEGASHIMA
Character.h, 48	InitCard.h, 58
Musashi	NB_COPY_WAKIZASHI
InitCharacter.h, 63	InitCard.h, 59
	nbAttack
NAGAYARI	Player, 27
Weapon.h, 45	NINJA
Nagayari	Role.h, 71
InitCard.h, 55	NinjaOne
NAGINATA	InitRole.h, 65
Weapon.h, 45	NinjaThree
Naginata	InitRole.h, 65
InitCard.h, 55	NinjaTwo
NB_COPY_ARMURE	InitRole.h, 66
InitCard.h, 56	NOBUNAGA
NB_COPY_ATTAQUE_RAPIDE	Character.h, 48
InitCard.h, 56	Onaraololli, 70

Nobunaga	Ronin
InitCharacter.h, 63	InitRole.h, 66
NODACHI	
Weapon.h, 45	SAMURAI
Nodachi	Role.h, 71
InitCard.h, 59	Samurai
	InitRole.h, 66
PARADE	SCREEN HEIGHT
Action.h, 39	Menu.h, 74
Parade	SCREEN WIDTH
InitCard.h, 59	Menu.h, 74
PERMANENT	
. —	setNbPlayers
Card.h, 41	Game, 19
Permanent, 21	setSpriteHonorCharactersHP
getIndex, 23	UI, 33
getPermanentType, 23	SHOGUN
Permanent, 23	Role.h, 71
Permanent.h	Shogun
ARMURE, 43	InitRole.h, 66
ATTAQUE RAPIDE, 43	SHURIKEN
CODE DU BUSHIDO, 43	Weapon.h, 45
CONCENTRATION, 43	Shuriken
PermanentType, 43	InitCard.h, 59
PermanentType	src/Card/Action/Action.h, 37, 39
Permanent.h, 43	src/Card/Card.h, 39, 41
pick	src/Card/Permanent/Permanent.h, 41, 43
Game, 19	src/Card/Weapon/Weapon.h, 43, 45
Player, 24	src/Character/Character.h, 46, 48
armureFunction, 25	src/Game/Game.h, 49, 50
asAttacked, 27	src/includes/InitCard.h, 51, 60
asCodeDuBushido, 25	src/includes/InitCharacter.h, 60, 64
attackRapideFunction, 25	src/includes/InitRole.h, 64, 66
getCharacter, 25	src/main.cpp, 67
getHand, 26	src/Player/Player.h, 68, 69
getMaxNbAttack, 26	src/Role/Role.h, 69, 71
getPermanentCardsPlayed, 26	src/Ul/Button/Button.h, 72, 73
- · · · · · · · · · · · · · · · · · · ·	
getRole, 26	src/UI/Menu/Menu.h, 73, 75
honorPoints, 27	src/UI/UI.h, 75, 76
HP, 27	TANEGASHIMA
isDown, 26	
nbAttack, 27	Weapon.h, 45
Player, 25	Tanegashima
	InitCard.h, 59
Role, 27	TOMOE
getIndex, 28	Character.h, 48
getLevel, 28	Tomoe
getName, 29	InitCharacter.h, 63
getType, 29	
Role, 28	UI, 29
Role.h	handleClickDiscardingBtn, 31
NINJA, 71	handleClickEndTurnBtn, 31
RoleType, 71	handleClickHandCard, 32
	handleClickLogBtn, 32
RONIN, 71	<b>G</b> .
SAMURAI, 71	handleClickNobunaga, 32
SHOGUN, 71	handleClickPassParadeBtn, 32
RoleType	menu, 33
Role.h, 71	setSpriteHonorCharactersHP, 33
RONIN	UI, 31
Role.h, 71	UI.h

FPS, <mark>76</mark>
USHIWAKA
Character.h, 48
Ushiwaka
InitCharacter.h, 63
WAKIZASHI
Weapon.h, 45
Wakizashi
InitCard.h, 59
WEAPON
Card.h, 41
Weapon, 33
getDamage, 35
getIndex, 35
getRange, 35
getWeaponType, 36
Weapon, 35
Weapon.h
BO, 45
BOKKEN, 45
DAIKYU, 45
KANABO, 45
KATANA, 45
KISERU, 45
KUSARIGAMA, 45
NAGAYARI, 45
NAGINATA, 45
NODACHI, 45
SHURIKEN, 45
TANEGASHIMA, 45
WAKIZASHI, 45
WeaponType, 45
WeaponType
Weapon.h. 45