

My Project

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6.43	/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/Utils.h	File Reference
	6.43.1 Detailed Description	71

Chapter 1

QamingFramework

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

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qt_meta_stringdata_KillCovid_19View_t	32
qt_meta_stringdata_KillCovid_19Window_t	32
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qt_meta_stringdata_mainWindow_t	33
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Chapter 3

Class Index

3.1 Class List

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

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qt_meta_stringdata_GameWindow_t	31
qt_meta_stringdata_KillCovid19LeaderboardWidget_t	31
qt_meta_stringdata_KillCovid19PlayerWidget_t	31
qt_meta_stringdata_KillCovid_19Scene_t	32
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qt_meta_stringdata_KillCovid_19Window_t	32
qt_meta_stringdata_loginWindow_t	32
qt_meta_stringdata_mainWindow_t	33
qt_meta_stringdata_ProfilePictureChooser_t	33
qt_meta_stringdata_registerAccountWindow_t	33
qt_meta_stringdata_ReversiPlayerWidget_t	33
qt_meta_stringdata_ReversiScene_t	34
qt_meta_stringdata_ReversiStatsWidget_t	34
qt_meta_stringdata_ReversiView_t	34
qt_meta_stringdata_ReversiWindow_t	34
qt_meta_stringdata_Stone_t	35

qt_meta_stringdata_Virus_t	35
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ReversiPlayerWidget	36
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ReversiWindow	44
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Utils	46
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Chapter 4

File Index

4.1 File List

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

/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/loginwindow.cpp	
Implementation of the window that users will use to login to their accounts	51
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/loginwindow.h	
Header file of the window that users will use to login to their accounts	51
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/profilepicturechooser.cpp	
The implementation of the ProfilePictureChooser	52
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/profilepicturechooser.h	
A widget that lets users choose their profile picture from their local storage. The picture will also be copied and stored within the game files in case the original image is later deleted or moved	52
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/registeraccountwindow.cpp	
This is the implementation for the window that lets users register new accounts. This file defines where the various widgets are placed in the window	53
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/registeraccountwindow.h	
This is the window that lets users register new accounts	53
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/user.cpp	
Implementation of the User class	54
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/user.h	
Header file for the User class. A user is just a collection of fields related to a registered (or Guest) account	54
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_predefs.h	??
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/cursor.cpp	
Kill covid_19 cursor class defintion	55
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/cursor.h	??
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid-19window.h	??
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19leaderboardwidget.h	
Implementation of the KillCovid19LeaderboardWidget	55
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19playerwidget.h	
Implementation of the KillCovid19PlayerWidget	56
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19scene.h	
Kill covid 19 scene class header file This is the main scene of the kill covid 19 game that contains the falling viruses, cursor, score labels, and a background image author Khalil Baydoun	56
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19view.h	
Kill covid 19 view class header file This is the main view of the kill covid 19 game that contains the game scene author Khalil Baydoun	57

/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovidrun.cpp	
Implementation of the KillCovid-specific Game Run	57
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovidrun.h	
Header file for the KillCovid-specific Game Run	58
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/virus.cpp	
Kill covid_19 virus class defintion	58
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/virus.h	??
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/gamehistorywidget.h	
Implementation of the GameHistoryWidget	59
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/main.cpp	
QamingFramework entry point. Creates, shows, and ultimately destroys the main window	59
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/mainwindow.h	
Implementation of the mainWindow	60
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiplyerwidget.cpp	
Implementation for the ReversiPlayerWidget	60
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiplyerwidget.h	
Header file for the widget that displays username, profile picture and general records about the user's history for Reversi	61
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversirun.cpp	
Implementation of the Reversi-specific Game Run	61
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversirun.h	
Header file for the Reversi-specific Game Run	62
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiscene.cpp	
Reversi Scene class defintion	62
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiscene.h	
Reversi scene header file The scene of the reversi game, contains the board and the added stones	63
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversistatswidget.cpp	
Implementation of the ReversiStatsWidget	63
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversistatswidget.h	
Header file for the widget that displays Reversi-specific game states like remaining time for each user and the score for each user	64
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiview.cpp	
Reversi View class defintion	64
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiview.h	
Reversi view header file The view of the reversi game, contains the game scene	65
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversindow.cpp	
Reversi window class defintion	65
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversindow.h	??
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/stone.cpp	
Reversi Game Stone class defintion	66
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/stone.h	??
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/baserun.cpp	
Base Run class defintion	66
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/baserun.h	
Header file for the base Run class A Run is just an abstract instance of any game. All games should extend this class to store additional game-specific characteristics	66
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gameprofile.cpp	
Game Profile class defintion	67
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gameprofile.h	
Header file for the GameProfile class A game profile is a summary of the user's game history for the current game. It also contains a leaderboard for all runs	67
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gamewindow.cpp	
Game Window class defintion	68
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gamewindow.h	
Header file for the GameWindow base class A game window is the window each game will use to display the game scene, game stats, or other game-specific widgets	68

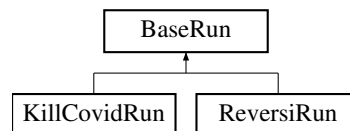
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/ leaderboard.cpp	
Leaderboard class definition	69
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/ leaderboard.h	
Header file for the Leaderboard class A Leaderboard is an ordered datastructure that maintains an ordering among all runs for some specific game	69
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/ jsonio.cpp	
Definition of static methods that simplify writing and reading to and from JSON files	70
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/ jsonio.h	
A collection of JSON utils to make reading/writing to JSON easier	70
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/ Utils.cpp	
Utils class definition	71
/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/ Utils.h	
Utils header file Contains helper functions that are frequently used	71

Chapter 5

Class Documentation

5.1 BaseRun Class Reference

Inheritance diagram for BaseRun:



Public Member Functions

- `BaseRun` (int id)
Initializes a run from its ID.
- `BaseRun` (const QString &path)
Initializes a run from its path in the game subsystem.
- QString `getPath` ()
Returns run path.
- virtual int `toJson` ()=0
Saves a run as a JSON file. Must be overridden by game-specific runs to store game-specific attributes.
- virtual int `fromJson` ()=0
Initializes a run from a JSON file. Must be overridden by game-specific runs to load game-specific attributes.
- virtual bool `lessThan` (const `BaseRun` *rhs)=0
Defines a way to evaluate two runs in order to place them on a leaderboard. Must be overridden by game-specific runs to compare game-specific runs that might weigh game attributes differently.
- virtual int `getScore` ()=0
Defines how score for this type of Run is computed. Must be overridden by game-specific runs to retrieve a score.
- int `getId` ()
Returns the Run ID.
- void `setId` (int _id)
Sets the Run ID.
- void `setPath` (const QString &newPath)
Sets the Run path.
- void `setPlayerName` (const QString &playerName)

Sets the player name who is associated with this run.

- void [setDateTime](#) (const QDateTime &dt)

Sets the datetime at which the run was played.

- QString [getPlayerName](#) ()

Returns the player name.

- QDateTime [getDateTime](#) ()

Returns the datetime.

Protected Attributes

- int **id**
- QString **path**
- QString **playerName**
- unsigned long **datetime**

5.1.1 Constructor & Destructor Documentation

5.1.1.1 BaseRun() [1/2]

```
BaseRun::BaseRun (
    int id )
```

Initializes a run from its ID.

Parameters

<i>id</i>	Run ID.
-----------	---------

5.1.1.2 BaseRun() [2/2]

```
BaseRun::BaseRun (
    const QString & path )
```

Initializes a run from its path in the game subsystem.

Parameters

<i>id</i>	Run path.
-----------	-----------

5.1.2 Member Function Documentation

5.1.2.1 lessThan()

```
virtual bool BaseRun::lessThan (
    const BaseRun * rhs ) [pure virtual]
```

Defines a way to evaluate two runs in order to place them on a leaderboard. Must be overridden by game-specific runs to compare game-specific runs that might weigh game attributes differently.

Parameters

<i>rhs</i>	The other run to compare it with.
------------	-----------------------------------

Implemented in [ReversiRun](#), and [KillCovidRun](#).

5.1.2.2 setDateTime()

```
void BaseRun::setDateTime (
    const QDateTime & dt )
```

Sets the datetime at which the run was played.

Parameters

<i>dt</i>	Datetime to set.
-----------	------------------

5.1.2.3 setId()

```
void BaseRun::setId (
    int _id )
```

Sets the Run ID.

Parameters

↩	ID to set.
↩	
<i>id</i>	

5.1.2.4 setPath()

```
void BaseRun::setPath (
    const QString & newPath )
```

Sets the Run path.

Parameters

<i>newPath</i>	Path to set.
----------------	--------------

5.1.2.5 setPlayerName()

```
void BaseRun::setPlayerName (
    const QString & playerName )
```

Sets the player name who is associated with this run.

Parameters

<i>playerName</i>	The new player name.
-------------------	----------------------

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/[baserun.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/[baserun.cpp](#)

5.2 comparator Class Reference

Public Member Functions

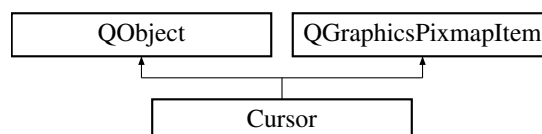
- **bool operator()** ([BaseRun](#) *run1, [BaseRun](#) *run2) const

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/[leaderboard.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/[leaderboard.cpp](#)

5.3 Cursor Class Reference

Inheritance diagram for Cursor:



Public Slots

- void [StartMoving](#) ()
starts the rotation of the cursor
- void [ShootHelper](#) ()
helper function for the shooting of the cursor

Public Member Functions

- **Cursor** (QObject *parent=nullptr)
- void [Shoot](#) ()
shoots the cursor in the direction it is pointing at when the space key is pressed
- void [Rebase](#) ()
rebases the cursor
- void [DeleteCursorFromScene](#) ()
deletes the cursor when the game ends or when the cursor gets out of bounds

Public Attributes

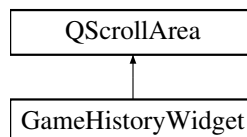
- int **curRot** =-1
- bool **isShooted** =false

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/cursor.h
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[cursor.cpp](#)

5.4 GameHistoryWidget Class Reference

Inheritance diagram for GameHistoryWidget:



Public Member Functions

- **GameHistoryWidget** (QWidget *parent=nullptr)
- void [fill](#) ([User](#) *user)
Fills the widget with the user's game history.

5.4.1 Member Function Documentation

5.4.1.1 fill()

```
void GameHistoryWidget::fill (
    User * user )
```

Fills the widget with the user's game history.

Parameters

<i>user</i>	Pointer to the user whose game history should be filled.
-------------	--

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/gamehistorywidget.h>
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/gamehistorywidget.cpp>

5.5 GameProfile Class Reference

Public Member Functions

- void [addRun](#) ([BaseRun](#) *run)
Inserts a run into the user's profile.
- void [save](#) ()
Saves the user's current [GameProfile](#) to a JSON file.
- [Leaderboard](#) * [getLeaderboard](#) ()
Returns the game's [Leaderboard](#).
- [BaseRun](#) * [getBestRun](#) ()
Returns the current user's best Run.
- [BaseRun](#) * [getLastRun](#) ()
Returns the current user's last Run.
- int [getNumberOfGamesPlayed](#) ()
Returns the number of games the user has played.
- [User](#) * [getUser](#) ()
Returns the user associated with this Game Profile.

Static Public Member Functions

- `template<typename RunType >`
static [GameProfile](#) * [build](#) (const QString &gameBasePath, [User](#) *user)
Builds the game profile for the current user for a given game.

5.5.1 Member Function Documentation

5.5.1.1 addRun()

```
void GameProfile::addRun (
    BaseRun * run )
```

Inserts a run into the user's profile.

Parameters

<i>run</i>	Pointer to the run that should be added.
------------	--

5.5.1.2 build()

```
template<typename RunType >
static GameProfile* GameProfile::build (
    const QString & gameBasePath,
    User * user ) [inline], [static]
```

Builds the game profile for the current user for a given game.

Parameters

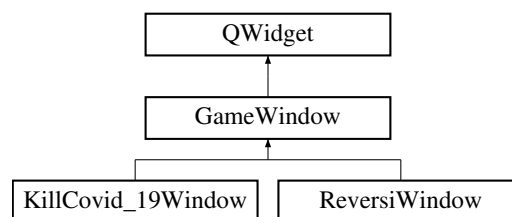
<i>RunType</i>	The type of BaseRun that the profile should use. This should be a Run class that inherits from BaseRun .
<i>gameBasePath</i>	The path to where the specific game files are located.
<i>user</i>	Pointer to the user whose profile should be built.

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

- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gameprofile.h](#)
- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gameprofile.cpp](#)

5.6 GameWindow Class Reference

Inheritance diagram for GameWindow:



Public Slots

- void [exit](#) ()
Closes the game safely after saving the current Game Profile Emits a [windowClosed\(\)](#) signal.

Signals

- void [windowClosed](#) ()
Signal taht is emitted whent he gameWindow is closed. It is used to update the history tabs in the main window.

Public Member Functions

- **GameWindow** (QWidget *parent=nullptr)

Public Attributes

- [GameProfile](#) * **gameProfile**

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/[gamewindow.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_gamewindow.cpp
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/[gamewindow.cpp](#)

5.7 JsonIO Class Reference

Static Public Member Functions

- static int [writeObject](#) (QJsonObject &object, const QString &path)
Writes a JSON object to the desired path.
- static int [readObject](#) (QJsonObject &object, const QString &path)
Reads a JSON object from the desired path.

Static Public Attributes

- static const int **JSON_ERROR** = 0
- static const int **JSON_SUCCESS** = 1

5.7.1 Member Function Documentation

5.7.1.1 readObject()

```
int JsonIO::readObject (
    QJsonObject & object,
    const QString & path ) [static]
```

Reads a JSON object from the desired path.

Parameters

<i>object</i>	Object to read.
<i>path</i>	Path to read this object to.

Returns

JsonIO::JSON_SUCCESS in case of successful write or JsonIO::JSON_ERROR on failure.

5.7.1.2 writeObject()

```
int JsonIO::writeObject (
    QJsonObject & object,
    const QString & path ) [static]
```

Writes a JSON object to the desired path.

Parameters

<i>object</i>	Object to write.
<i>path</i>	Path to write this object to.

Returns

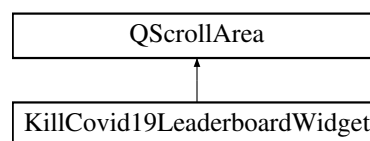
JsonIO::JSON_SUCCESS in case of successful write or JsonIO::JSON_ERROR on failure.

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/[jsonio.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/[jsonio.cpp](#)

5.8 KillCovid19LeaderboardWidget Class Reference

Inheritance diagram for KillCovid19LeaderboardWidget:

**Public Member Functions**

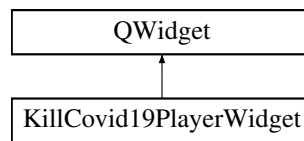
- void [setLeaderboard](#) ([Leaderboard](#) *leaderboard)
Sets the [Leaderboard](#) for the widget. The widget will update accordingly.

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19leaderboardwidget.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19leaderboardwidget.cpp](#)

5.9 KillCovid19PlayerWidget Class Reference

Inheritance diagram for KillCovid19PlayerWidget:



Public Member Functions

- **KillCovid19PlayerWidget** ([GameProfile](#) *profile)
- void [update](#) ()
Updates the widget with new user summary changes after a game.

Public Attributes

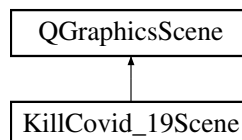
- [GameProfile](#) * **gameProfile**
- QLabel * **usernameLabel**
- QLabel * **previousScoreLabel**
- QLabel * **highScoreLabel**
- QGridLayout * **layout**

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19playerwidget.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19playerwidget.cpp](#)

5.10 KillCovid_19Scene Class Reference

Inheritance diagram for KillCovid_19Scene:



Public Slots

- void [CreateCursor](#) ()
creates and initializes the cursor
- void [CreateVirus](#) ()
creates and initializes the virus
- void [DeleteHitVirus](#) ()
deletes the virus that got hit with the cursor

Signals

- void `gameOver` (`KillCovidRun` *run)
signal emitted when the game ends

Public Member Functions

- `KillCovid_19Scene` ()
kill covid 19 game constructor, responsible for initializing the scene
- void `StartGame` (std::vector< std::vector< int >> &_virusesPostions)
starts the game by changing the background, and showing the rotating cursors and makes the viruses starts falling.
- void `MainMenu` ()
Initializes the main menu of the game.
- void `inializeTextItem` (QGraphicsTextItem *&item, int x, int y)
initializes a graphics text item and adds it to the scene
- void `FillLabels` ()
initializes the labels on the scene
- void `EndGame` (bool win)
makes the necessary updates and deletes when the game ends
- void `keyPressEvent` (QKeyEvent *event)
detects when a key is pressed to shoot the cursor

Public Attributes

- QGraphicsTextItem * **misses**
- QGraphicsTextItem * **smallViruses**
- QGraphicsTextItem * **mediumViruses**
- QGraphicsTextItem * **largeViruses**
- QGraphicsTextItem * **score**
- int **missesCnt**
- int **scoreCnt**
- int **killedVirus** =0
- int **virusRollingSpeed**
- int **virusesCnts** [3] ={0,0,0}
- bool **gameEnded** =false
- std::vector< std::vector< int > > **virusesPostions**
- `Cursor` * **cursor**
- `Virus` * **virus**

5.10.1 Member Function Documentation

5.10.1.1 inializeTextItem()

```
void KillCovid_19Scene::inializeTextItem (
    QGraphicsTextItem *& item,
    int x,
    int y )
```

initializes a graphics text item and adds it to the scene

Parameters

<i>item</i>	the text item to be initialized
<i>x</i>	the x position of the text item in the scene
<i>y</i>	the y position of the text item in the scene

5.10.1.2 StartGame()

```
void KillCovid_19Scene::StartGame (
    std::vector< std::vector< int >> & _virusesPostions )
```

starts the game by changing the background, and showing the rotating cursors and makes the viruses starts falling.

Parameters

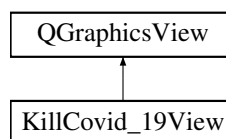
<i>_virusesPositions</i>	the starting positions of the falling viruses
--------------------------	---

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19scene.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid19scene.↵
cpp
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19scene.↵
cpp

5.11 KillCovid_19View Class Reference

Inheritance diagram for KillCovid_19View:



Public Slots

- void [StartGame](#) ()
starts the game when the start game button is pressed
- void [ExitGame](#) ()
exits the game when the game ends
- void [SelectMap](#) ()
sets the map with the location of the falling viruses
- void [showHelp](#) ()
shows a general description of the game and how its played when the show help button is pressed

Signals

- void [gameExited](#) ()
the signal that is emitted when the game finishes

Public Member Functions

- [KillCovid_19View](#) ()
constructor of the kill covid 19 view
- void [resizeEvent](#) (QResizeEvent *event)
fits the scene as required inside the view
- void [setGameScene](#) ([KillCovid_19Scene](#) *scene)
sets the game scene inside the view
- void [MainMenu](#) ()
initializes the main menu of the game

Public Attributes

- QPushButton * **exit**
- QPushButton * **enterGame**
- QPushButton * **gameSettings**
- QPushButton * **loadMap**
- QPushButton * **howToPlay**
- QLabel * **titleLabel**

5.11.1 Member Function Documentation

5.11.1.1 setGameScene()

```
void KillCovid_19View::setGameScene (
    KillCovid\_19Scene * scene )
```

sets the game scene inside the view

Parameters

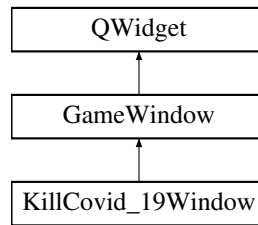
<i>scene</i>	the scene to be added to the view
--------------	-----------------------------------

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19view.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid19view.cpp
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovid19view](#).↔
cpp

5.12 KillCovid_19Window Class Reference

Inheritance diagram for KillCovid_19Window:



Public Slots

- void [resetWindow](#) ([KillCovidRun](#) *)
resets the window when the game restarts

Public Member Functions

- [KillCovid_19Window](#) ([User](#) *user, QWidget *parent=nullptr)

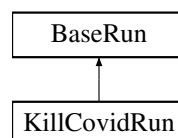
Additional Inherited Members

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

- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid-19window.h](#)↔
- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid-19window.cpp](#)↔

5.13 KillCovidRun Class Reference

Inheritance diagram for KillCovidRun:



Public Member Functions

- [KillCovidRun](#) (int score)
Initializes the KillCovid run from the total score.
- [KillCovidRun](#) (const QString &path)
- int [toJson](#) () override
Writes the KillCovid-specific run attributes to a JSON file.
- int [fromJson](#) () override
Reads the KillCovid-specific run attributes from a JSON file.
- bool [lessThan](#) (const [BaseRun](#) *rhs) override
Compares two KillCovid-specific runs.
- int [getScore](#) () override
Retrieves the run's score.

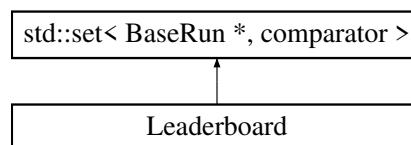
Additional Inherited Members

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovidrun.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[killcovidrun.cpp](#)

5.14 Leaderboard Class Reference

Inheritance diagram for Leaderboard:



Public Member Functions

- bool [addRun](#) ([BaseRun](#) *run)
Attempts to add a Run to the [Leaderboard](#).
- void [save](#) ()
Saves a [Leaderboard](#) to the framework subsystem.

Static Public Member Functions

- template<typename RunType >
static [Leaderboard](#) * [build](#) (const QString &gameBasePath, int size)
Builds the leaderboard of a certain type of run.

5.14.1 Member Function Documentation

5.14.1.1 addRun()

```
bool Leaderboard::addRun (
    BaseRun * run )
```

Attempts to add a Run to the [Leaderboard](#).

Parameters

<i>run</i>	The Run to add.
------------	-----------------

Returns

true if the Run is good enough to place on the [Leaderboard](#).

5.14.1.2 build()

```
template<typename RunType >
static Leaderboard* Leaderboard::build (
    const QString & gameBasePath,
    int size ) [inline], [static]
```

Builds the leaderboard of a certain type of run.

Parameters

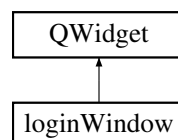
<i>RunType</i>	The type of BaseRun that the profile should use. This should be a Run class that inherits from BaseRun .
<i>gameBasePath</i>	The path to where the specific game files are located.
<i>size</i>	Maximum size of the leaderboard.

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/leaderboard.h>
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/leaderboard.cpp>

5.15 loginWindow Class Reference

Inheritance diagram for loginWindow:



Public Slots

- void [attempt_login](#) ()
Tries to perform a login given the entered credentials.

Signals

- void `userApproved` (`User *`)
Returns a pointer to the user object that just logged in.

Public Member Functions

- `loginWindow` (`QWidget *parent=nullptr`)

5.15.1 Member Function Documentation

5.15.1.1 attempt_login

```
void loginWindow::attempt_login ( ) [slot]
```

Tries to perform a login given the entered credentials.

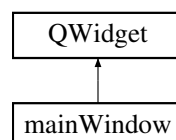
Tries to perform a login given the entered credentials. If the username is not found, or the passwords don't match, then a message box informs the user. Otherwise, the user is granted access and control is transferred back to the main window.

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/loginwindow.h>
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/loginwindow.cpp>
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_loginwindow.cpp

5.16 mainWindow Class Reference

Inheritance diagram for mainWindow:



Public Slots

- void [openRegisterAccountForm](#) ()
Opens the registration window for new users to create accounts.
- void [openLoginForm](#) ()
Opens the login window for returning users to login to their accounts.
- void [updateLayoutWithUserInfo](#) ([User](#) *user)
Updates the layout with a specific user's info once they have logged in.
- void [executeLogout](#) ()
Logs the user out.
- void [loginAsGuest](#) ()
Logs the user as the default (Guest) user.
- void [StartKillCovidGame](#) ()
Launches the KillCovid19 game.
- void [StartReversiGame](#) ()
Launches the Reversi game.
- void [onKillCovid19Finish](#) ()
Performs post-game functionality for KillCovid19.
- void [onReversiFinish](#) ()
Performs post-game functionality for Reversi.

Signals

- void [swapLayout](#) (int)
Swaps between login layout and games display layout.
- void [updateUsernameLabel](#) (const QString &username)
Updates the username label.
- void [updateUserProfilePicture](#) (const QPixmap &pixmap)
Updates the displayed picture for the user.

Public Member Functions

- **mainWindow** (QWidget *parent=nullptr)

5.16.1 Member Function Documentation

5.16.1.1 [updateLayoutWithUserInfo](#)

```
void mainWindow::updateLayoutWithUserInfo (
    User * user ) [slot]
```

Updates the layout with a specific user's info once they have logged in.

Parameters

<i>user</i>	Pointer to the user to update the layout with.
-------------	--

5.16.1.2 updateUsernameLabel

```
void mainWindow::updateUsernameLabel (
    const QString & username ) [signal]
```

Updates the username label.

Parameters

<i>username</i>	Username to place on the label.
-----------------	---------------------------------

5.16.1.3 updateUserProfilePicture

```
void mainWindow::updateUserProfilePicture (
    const QPixmap & pixmap ) [signal]
```

Updates the displayed picture for the user.

Parameters

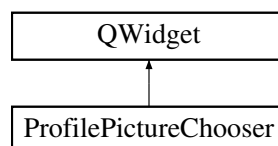
<i>pixmap</i>	The pixmap for the user's picture.
---------------	------------------------------------

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

- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/mainwindow.h](#)
- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_mainwindow.cpp](#)
- [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/mainwindow.cpp](#)

5.17 ProfilePictureChooser Class Reference

Inheritance diagram for ProfilePictureChooser:



Public Slots

- void [browsePictures](#) ()
Opens a file chooser to extract the picture's path.

Signals

- void [profilePictureSelected](#) (const QString &)
Updates the indicator text once a picture is selected.

Public Member Functions

- **ProfilePictureChooser** (QWidget *parent=nullptr)
- QString [text](#) ()
Retrieves path of selected picture.

5.17.1 Member Function Documentation

5.17.1.1 [text\(\)](#)

```
QString ProfilePictureChooser::text ( )
```

Retrieves path of selected picture.

Returns

Empty string if nothing was chosen.

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/[profilepicturechooser.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/[profilepicturechooser.cpp](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_profilepicturechooser.↔
cpp

5.18 [qt_meta_stringdata_Cursor_t](#) Struct Reference

Public Attributes

- QByteArrayData **data** [4]
- char **stringdata0** [32]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_cursor.cpp

5.19 qt_meta_stringdata_GameHistoryWidget_t Struct Reference

Public Attributes

- QByteArrayData **data** [1]
- char **stringdata0** [18]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_gamehistorywidget.↔
cpp

5.20 qt_meta_stringdata_GameWindow_t Struct Reference

Public Attributes

- QByteArrayData **data** [4]
- char **stringdata0** [30]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_gamewindow.cpp

5.21 qt_meta_stringdata_KillCovid19LeaderboardWidget_t Struct Reference

Public Attributes

- QByteArrayData **data** [1]
- char **stringdata0** [29]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid19leaderboardwidget.↔
cpp

5.22 qt_meta_stringdata_KillCovid19PlayerWidget_t Struct Reference

Public Attributes

- QByteArrayData **data** [1]
- char **stringdata0** [24]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid19playerwidget.↔
cpp

5.23 qt_meta_stringdata_KillCovid_19Scene_t Struct Reference

Public Attributes

- QByteArrayData **data** [8]
- char **stringdata0** [86]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid19scene.↵
cpp

5.24 qt_meta_stringdata_KillCovid_19View_t Struct Reference

Public Attributes

- QByteArrayData **data** [7]
- char **stringdata0** [67]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid19view.cpp

5.25 qt_meta_stringdata_KillCovid_19Window_t Struct Reference

Public Attributes

- QByteArrayData **data** [4]
- char **stringdata0** [46]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_killcovid-19window.↵
cpp

5.26 qt_meta_stringdata_loginWindow_t Struct Reference

Public Attributes

- QByteArrayData **data** [5]
- char **stringdata0** [46]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_loginwindow.cpp

5.27 qt_meta_stringdata_mainWindow_t Struct Reference

Public Attributes

- QByteArrayData **data** [18]
- char **stringdata0** [257]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_mainwindow.cpp

5.28 qt_meta_stringdata_ProfilePictureChooser_t Struct Reference

Public Attributes

- QByteArrayData **data** [4]
- char **stringdata0** [61]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_profilepicturechooser.↔
cpp

5.29 qt_meta_stringdata_registerAccountWindow_t Struct Reference

Public Attributes

- QByteArrayData **data** [6]
- char **stringdata0** [81]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_registeraccountwindow.↔
cpp

5.30 qt_meta_stringdata_ReversiPlayerWidget_t Struct Reference

Public Attributes

- QByteArrayData **data** [1]
- char **stringdata0** [20]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_reversiplayerwidget.↔
cpp

5.31 qt_meta_stringdata_ReversiScene_t Struct Reference

Public Attributes

- QByteArrayData **data** [12]
- char **stringdata0** [105]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_reversiscene.cpp

5.32 qt_meta_stringdata_ReversiStatsWidget_t Struct Reference

Public Attributes

- QByteArrayData **data** [8]
- char **stringdata0** [81]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_reversistatswidget.↔
cpp

5.33 qt_meta_stringdata_ReversiView_t Struct Reference

Public Attributes

- QByteArrayData **data** [6]
- char **stringdata0** [52]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_reversiview.cpp

5.34 qt_meta_stringdata_ReversiWindow_t Struct Reference

Public Attributes

- QByteArrayData **data** [4]
- char **stringdata0** [39]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_revers>window.cpp

5.35 qt_meta_stringdata_Stone_t Struct Reference

Public Attributes

- QByteArrayData **data** [1]
- char **stringdata0** [6]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_stone.cpp

5.36 qt_meta_stringdata_Virus_t Struct Reference

Public Attributes

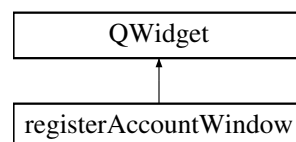
- QByteArrayData **data** [3]
- char **stringdata0** [16]

The documentation for this struct was generated from the following file:

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_virus.cpp

5.37 registerAccountWindow Class Reference

Inheritance diagram for registerAccountWindow:



Public Slots

- void [registerAccount](#) ()
Performs account registration. If an account has a valid first name, lastname, username and password, it emits a [userApproved\(\)](#) signal and transfers control back to the main window.
- void [checkMatchingPasswords](#) (const QString &)
Checks if the password and retyped passwords match. This is used to change the cell colors to green when they match and red when they don't. It lets a user figure out if the passwords match without needing to click register and fail.

Signals

- void [userApproved](#) (User *)
Signal that is emitted if an account is successfully registered.

Public Member Functions

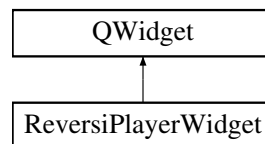
- **registerAccountWindow** (QWidget *parent=nullptr)

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/[registeraccountwindow.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/[registeraccountwindow.cpp](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_registeraccountwindow.↔
cpp

5.38 ReversiPlayerWidget Class Reference

Inheritance diagram for ReversiPlayerWidget:



Public Member Functions

- **ReversiPlayerWidget** ([GameProfile](#) *profile)
- void **update** ()
Updates the widget with new user summary changes after a game.

Public Attributes

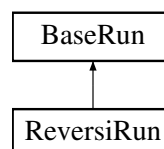
- [GameProfile](#) * **gameProfile**
- QLabel * **usernameLabel**
- QLabel * **previousScoreLabel**
- QLabel * **highScoreLabel**
- QGridLayout * **layout**

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversiplayerwidget.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversiplayerwidget.cpp](#)

5.39 ReversiRun Class Reference

Inheritance diagram for ReversiRun:



Public Member Functions

- [ReversiRun](#) (int black, int white)
Initializes the Reversi run from the # of black stones & # of white stones.
- **ReversiRun** (const QString &path)
- int [toJson](#) () override
Defines the way to write the run attributes to JSON.
- int [fromJson](#) () override
Defines the way to read the run attributes to JSON.
- bool [lessThan](#) (const [BaseRun](#) *rhs) override
Defines the way to compare to Reversi-specific runs.
- int [getBlackScore](#) ()
Retrieves the number of black stones.
- int [getWhiteScore](#) ()
Retrieves the number of white stones.
- long [getTimeTaken](#) ()
Retrieves the time taken for player one (blacks) to finish.
- int [getScore](#) () override
Retrieves the run score.

Additional Inherited Members

5.39.1 Member Function Documentation

5.39.1.1 [getScore\(\)](#)

```
int ReversiRun::getScore ( ) [override], [virtual]
```

Retrieves the run score.

Score is assumed to be # of blacks - # of whites.

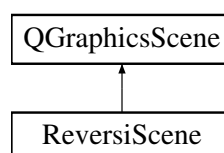
Implements [BaseRun](#).

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversirun.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversirun.cpp](#)

5.40 ReversiScene Class Reference

Inheritance diagram for ReversiScene:



Public Slots

- void [UpdateTime](#) ()
update the timers for the players

Signals

- void [scoreUpdate](#) (int black, int white)
signal emitted to update the scores
- void [timeUpdate](#) (int timeBlack, int timeWhite)
signal emitted to update the timers
- void [gameOver](#) ([ReversiRun](#) *run)
signal emitted when the game ends

Public Member Functions

- void [StartGame](#) ()
Starts the game .
- void [MainMenu](#) ()
shows the main menu of the game
- void [inializeTextItem](#) (QGraphicsTextItem *&item, int x, int y)
initializes a graphics text item and adds it to the scene
- void [EndGame](#) ()
makes the necessary updates and deletes when the game ends
- void [CreateStone](#) (bool stoneColor, int xcor, int ycor)
initializes a [Stone](#) item and adds it to the scene
- void [mousePressEvent](#) (QGraphicsSceneMouseEvent *event)
Called when the mouse is pressed to place a stone on the board.
- bool [CheckVal](#) (int x, int y, bool value)
checks if the stone at the given position has the sent color
- bool [CheckIfValidMove](#) (int x, int y, bool value)
checks if stone can be placed at the given coordinates
- int [CheckPath](#) (int xcur, int ycur, int xInc, int yInc, bool value)
checks if path can be outflanked
- bool [CheckIfThereIsPossibleMove](#) (bool stoneType)
checks if player with the given stone color has a valid move
- void [FlipPath](#) (int xcur, int ycur, int xInc, int yInc, bool value)
flips the path
- void [PlayMove](#) (int x, int y)
plays a move at the specified position
- void [PrintTurn](#) ()
plays a turn

Public Attributes

- bool **gameEnded** =false
- bool **turn** =false
- bool **gameStarted** =false
- int **blackCnt** =2
- int **whiteCnt** =2
- int **blackPlayerTimeRemaining** =300
- int **whitePlayerTimeRemaining** =300
- std::vector< std::vector< [Stone](#) * > > **stones**
- QGraphicsTextItem * **blackTurn**
- QGraphicsTextItem * **whiteTurn**
- QTimer * **timeUpdateTimer**

5.40.1 Member Function Documentation

5.40.1.1 CheckIfThereIsPossibleMove()

```
bool ReversiScene::CheckIfThereIsPossibleMove (
    bool stoneType )
```

checks if player with the given stone color has a valid move

Parameters

<i>stoneType</i>	the color of the stone
------------------	------------------------

5.40.1.2 CheckIfValidMove()

```
bool ReversiScene::CheckIfValidMove (
    int x,
    int y,
    bool value )
```

checks if stone can be placed at the given coordinates

Parameters

<i>x</i>	the x position of the stone item in the scene
<i>y</i>	the y position of the stone item in the scene
<i>value</i>	the color of the stone

5.40.1.3 CheckPath()

```
int ReversiScene::CheckPath (
    int xcur,
    int ycur,
    int xInc,
    int yInc,
    bool value )
```

checks if path can be outflanked

Parameters

<i>x</i>	the x position of the stone item in the scene
<i>y</i>	the y position of the stone item in the scene
<i>xInc</i>	the x increment to the position of the stone item in the scene
<i>yInc</i>	the y increment to the position of the stone item in the scene
<i>value</i>	the color of the stone

5.40.1.4 CheckVal()

```
bool ReversiScene::CheckVal (
    int x,
    int y,
    bool value )
```

checks if the stone at the given position has the sent color

Parameters

<i>x</i>	the x position of the stone item in the scene
<i>y</i>	the y position of the stone item in the scene
<i>value</i>	the color of the stone

5.40.1.5 CreateStone()

```
void ReversiScene::CreateStone (
    bool stoneColor,
    int xcor,
    int ycor )
```

initializes a [Stone](#) item and adds it to the scene

Parameters

<i>stoneColor</i>	the color of the stone
<i>x</i>	the x position of the stone item in the scene
<i>y</i>	the y position of the stone item in the scene

5.40.1.6 FlipPath()

```
void ReversiScene::FlipPath (
    int xcur,
    int ycur,
    int xInc,
    int yInc,
    bool value )
```

flips the path

Parameters

<i>xcur</i>	the x position of the stone item in the scene
<i>ycur</i>	the y position of the stone item in the scene
<i>xInc</i>	the x increment to the position of the stone item in the scene
<i>yInc</i>	the y increment to the position of the stone item in the scene
<i>value</i>	the color of the stone

5.40.1.7 initalizeTextItem()

```
void ReversiScene::initalizeTextItem (
    QGraphicsTextItem *& item,
    int x,
    int y )
```

initializes a graphics text item and adds it to the scene

Parameters

<i>item</i>	the text item to be initialized
<i>x</i>	the x position of the text item in the scene
<i>y</i>	the y position of the text item in the scene

5.40.1.8 PlayMove()

```
void ReversiScene::PlayMove (
    int x,
    int y )
```

plays a move at the specified position

Parameters

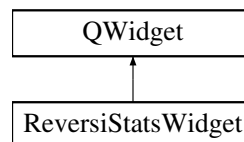
<i>x</i>	the x position of the stone item in the scene
<i>y</i>	the y position of the stone item in the scene

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversiscene.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_reversiscene.cpp
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversiscene.cpp](#)

5.41 ReversiStatsWidget Class Reference

Inheritance diagram for ReversiStatsWidget:



Public Slots

- void [scoreUpdate](#) (int blackCnt, int whiteCnt)
Updates the player scores on the stats widget.
- void [timeUpdate](#) (int blackTime, int whiteTime)
Updates the time remaining on the scores on the stats widget.

Public Member Functions

- **ReversiStatsWidget** (QWidget *parent=nullptr)

Public Attributes

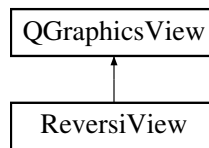
- QGridLayout * **layout**
- QLabel * **player1Label**
- QLabel * **player2Label**
- QLabel * **score1Label**
- QLabel * **score2Label**
- QLabel * **score1ValueLabel**
- QLabel * **score2ValueLabel**
- QLabel * **timeRemaining1Label**
- QLabel * **timeRemaining2Label**
- QLabel * **timeRemaining1ValueLabel**
- QLabel * **timeRemaining2ValueLabel**

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversistatswidget.h](#)
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[reversistatswidget.cpp](#)

5.42 ReversiView Class Reference

Inheritance diagram for ReversiView:



Public Slots

- void [StartGame](#) ()
does the necessary initializations when the game starts
- void [ExitGame](#) ()
does the necessary deletes and updates when the game ends
- void [showHelp](#) ()
shows how the game is played

Signals

- void [gameExited](#) ()
signal emitted when the game ends

Public Member Functions

- void [resizeEvent](#) (QResizeEvent *event)
fits the scene inside the view well
- void [setGameScene](#) ([ReversiScene](#) *scene)
sets the game scene inside the view
- void [MainMenu](#) ()
main menu of the view

Public Attributes

- QPushButton * **exit**
- QPushButton * **enterGame**
- QPushButton * **gameSettings**
- QPushButton * **howToPlay**
- QLabel * **titleLabel**

5.42.1 Member Function Documentation

5.42.1.1 setGameScene()

```
void ReversiView::setGameScene (  
    ReversiScene * scene )
```

sets the game scene inside the view

Parameters

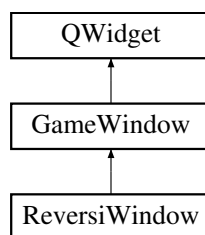
<i>scene</i>	the scene to be added to the view
--------------	-----------------------------------

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiview.h>
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/build/moc_reversiview.cpp
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiview.cpp>

5.43 ReversiWindow Class Reference

Inheritance diagram for ReversiWindow:

**Public Slots**

- void [resetWindow](#) ([ReversiRun](#) *)
resets the window when the game restarts

Public Member Functions

- **ReversiWindow** ([User](#) *user, QWidget *parent=nullptr)

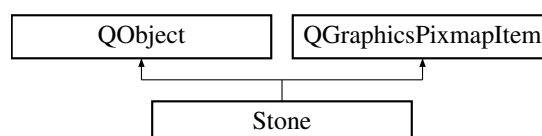
Additional Inherited Members

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/revers>window.h>
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/revers>window.cpp>

5.44 Stone Class Reference

Inheritance diagram for Stone:



Public Member Functions

- **Stone** (bool stoneType, QObject *parent=nullptr)
- void [FlipColor](#) ()
flips the color of the stone when it gets outflanked

Public Attributes

- bool **_stoneType**

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/stone.h
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/[stone.cpp](#)

5.45 User Class Reference

Public Member Functions

- QString [getFirstName](#) ()
Retrieves the user first name.
- QString [getLastName](#) ()
Retrieves the user's last name.
- QString [getUsername](#) ()
Retrieves the user's username.
- QString [getPassword](#) ()
Retrieves the user's password.
- QString [getProfilePicturePath](#) ()
Retrieves the path to the user's profile picture.
- QDate [getDateOfBirth](#) ()
Retrieves the user's date of birth.
- int [getGender](#) ()
Retrieves the user's gender.
- void [setFirstName](#) (QString)
Sets the user's first name.
- void [setLastName](#) (QString)
Sets the user's last name.
- void [setUsername](#) (QString)
Sets the user's username.
- void [setPassword](#) (QString)
Sets the user's password.
- void [setProfilePicturePath](#) (QString)
Sets the path to the user's profile picture.
- void [setDateOfBirth](#) (QDate)
Sets the user's date of birth.
- void [setGender](#) (int)
Sets the user's gender.
- int [fromJSON](#) ()
Loads the guest user from JSON.
- int [fromJSON](#) (QString, QString)
Loads the user details given the username and password.
- int [toJSON](#) ()
Writes the user details to JSON.

Static Public Attributes

- static const int **USER_INVALID_USERNAME** = 0
- static const int **USER_INVALID_PASSWORD** = 1
- static const int **USER_LOGIN_SUCCESS** = 2

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/user.h>
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/user.cpp>

5.46 Utils Class Reference

Static Public Member Functions

- static bool [IsValidPassword](#) (QString password)
validates that the password satisfies the requirements
- static bool [IsValidName](#) (QString name)
Checks if the name is valid (latin)
- static QString [HashPbkdf1](#) (QString password)
hashes the password using pbdkf1 hashing algorithm
- static bool [fileExists](#) (QString path)
checks if a file with the sent path if it exists
- static void [Popup](#) (QString errorTitle, QString errorMessage)
shows an error popup
- static void [delay](#) (int milliseconds)
delays the app for a certain amount of time

5.46.1 Member Function Documentation

5.46.1.1 [delay\(\)](#)

```
void Utils::delay (
    int milliseconds ) [static]
```

delays the app for a certain amount of time

Parameters

<i>milliseconds</i>	the number of milli seconds to be delayed
---------------------	---

5.46.1.2 fileExists()

```
bool Utils::fileExists (
    QString path ) [static]
```

checks if a file with the sent path if it exists

Parameters

<i>path</i>	the file path to be checked
-------------	-----------------------------

5.46.1.3 HashPbkdf1()

```
QString Utils::HashPbkdf1 (
    QString password ) [static]
```

hashes the password using pbdkf1 hashing algorithm

Parameters

<i>password</i>	the password to be hashed
-----------------	---------------------------

5.46.1.4 IsValidName()

```
bool Utils::IsValidName (
    QString name ) [static]
```

Checks if the name is valid (latin)

Parameters

<i>name</i>	the name to be validated
-------------	--------------------------

5.46.1.5 IsValidPassword()

```
bool Utils::IsValidPassword (
    QString password ) [static]
```

validates that the password satisfies the requirements

Parameters

<i>password</i>	the password to be validated
-----------------	------------------------------

5.46.1.6 Popup()

```
void Utils::Popup (
    QString errorTitle,
    QString errorMessage ) [static]
```

shows an error popup

Parameters

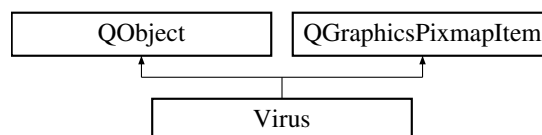
<i>errorTitle</i>	the title of the error popup
<i>errorMessage</i>	the error message to be shown in the error popup

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

- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/Utils.h>
- </home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/Utils.cpp>

5.47 Virus Class Reference

Inheritance diagram for Virus:

**Public Slots**

- void [MoveDown](#) ()
moves the virus down

Public Member Functions

- **Virus** (int virusType, QObject *parent=nullptr)
- int [getScore](#) ()
gets the score rewarded when the virus is shot
- void [DeleteVirusFromScene](#) ()
deletes the virus when its shot, or gets out of bounds, or the game ends
- void [ShowSmashed](#) ()
changes the virus the image to be smashed when its shot

Public Attributes

- const int **scores** [3] ={3,5,7}
- const QString **names** [3] ={"small", "medium", "large"}
- int **score**
- int **type**
- bool **smashed**

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

- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/virus.h
- /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/[virus.cpp](#)

Chapter 6

File Documentation

6.1 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/loginwindow.cpp File Reference

Implementation of the window that users will use to login to their accounts.

```
#include "loginwindow.h"
#include <accounts/user.h>
#include <Utils/Utils.h>
```

6.1.1 Detailed Description

Implementation of the window that users will use to login to their accounts.

Author

Malek Itani

6.2 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/loginwindow.h File Reference

Header file of the window that users will use to login to their accounts.

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <accounts/user.h>
```

Classes

- class [loginWindow](#)

6.2.1 Detailed Description

Header file of the window that users will use to login to their accounts.

Author

Malek Itani

6.3 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/profilepicturechooser.cpp](#) File Reference

The implementation of the [ProfilePictureChooser](#).

```
#include "profilepicturechooser.h"
```

6.3.1 Detailed Description

The implementation of the [ProfilePictureChooser](#).

Author

Malek Itani

6.4 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/profilepicturechooser.h](#) File Reference

A widget that lets users choose their profile picture from their local storage. The picture will also be copied and stored within the game files in case the original image is later deleted or moved.

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
```

Classes

- class [ProfilePictureChooser](#)

6.4.1 Detailed Description

A widget that lets users choose their profile picture from their local storage. The picture will also be copied and stored within the game files in case the original image is later deleted or moved.

Author

Malek Itani

6.5 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/Qaming↵ Framework/accounts/registeraccountwindow.cpp File

Reference

This is the implementation for the window that lets users register new accounts. This file defines where the various widgets are placed in the window.

```
#include "registeraccountwindow.h"  
#include <accounts/user.h>  
#include <Utils/Utils.h>  
#include <Utils/jsonio.h>  
#include <iostream>
```

6.5.1 Detailed Description

This is the implementation for the window that lets users register new accounts. This file defines where the various widgets are placed in the window.

Author

Malek Itani

6.6 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/Qaming↵ Framework/accounts/registeraccountwindow.h File

Reference

This is the window that lets users register new accounts.

```
#include <QObject>  
#include <QWidget>  
#include <QtWidgets>  
#include <accounts/user.h>  
#include <accounts/profilepicturechooser.h>
```

Classes

- class [registerAccountWindow](#)

6.6.1 Detailed Description

This is the window that lets users register new accounts.

Author

Malek Itani

6.7 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/user.cpp](#) File Reference

Implementation of the [User](#) class.

```
#include "user.h"
#include "Utils/jsonio.h"
#include <QJsonObject>
#include <QDir>
```

6.7.1 Detailed Description

Implementation of the [User](#) class.

Author

Malek Itani

6.8 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/accounts/user.h](#) File Reference

Header file for the [User](#) class. A user is just a collection of fields related to a registered (or Guest) account.

```
#include <QDate>
```

Classes

- class [User](#)

6.8.1 Detailed Description

Header file for the [User](#) class. A user is just a collection of fields related to a registered (or Guest) account.

Author

Malek Itani

6.9 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/cursor.cpp File Reference

kill covid_19 cursor class defintion

```
#include "cursor.h"  
#include <QtMath>
```

6.9.1 Detailed Description

kill covid_19 cursor class defintion

Contains the iniatialization of the killCovid-19 game cursor and the implementation of its functions.

Author

Khalil Baydoun

6.10 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19leaderboardwidget.h File Reference

Implementation of the [KillCovid19LeaderboardWidget](#).

```
#include <QObject>  
#include <QWidget>  
#include <QtWidgets>  
#include <accounts/user.h>  
#include <shared/leaderboard.h>
```

Classes

- class [KillCovid19LeaderboardWidget](#)

6.10.1 Detailed Description

Implementation of the [KillCovid19LeaderboardWidget](#).

Header file for the widget that displays a leaderboard at on side of the KillCovid19 game window.

Author

Malek Itani

6.11 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19playerwidget.h File Reference

Implementation of the [KillCovid19PlayerWidget](#).

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <accounts/user.h>
#include <shared/gameprofile.h>
```

Classes

- class [KillCovid19PlayerWidget](#)

6.11.1 Detailed Description

Implementation of the [KillCovid19PlayerWidget](#).

Header file for the widget that displays username, profile picture and general records about the user's history for KillCovid19.

Author

Malek Itani

6.12 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19scene.h File Reference

Kill covid 19 scene class header file This is the main scene of the kill covid 19 game that contains the falling viruses, cursor, score labels, and a background image author Khalil Baydoun.

```
#include <QGraphicsItem>
#include <QGraphicsScene>
#include <QGraphicsPixmapItem>
#include <QGraphicsView>
#include <QTimer>
#include <QObject>
#include <QKeyEvent>
#include <QtAlgorithms>
#include <QWidget>
#include <QtWidgets>
#include "Utils/Utils.h"
#include "cursor.h"
#include "virus.h"
#include "killcovidrun.h"
```


Classes

- class [KillCovid_19Scene](#)

6.12.1 Detailed Description

Kill covid 19 scene class header file This is the main scene of the kill covid 19 game that contains the falling viruses, cursor, score labels, and a background image author Khalil Baydoun.

6.13 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovid19view.h File Reference

Kill covid 19 view class header file This is the main view of the kill covid 19 game that contains the game scene author Khalil Baydoun.

```
#include <QGraphicsItem>
#include <QGraphicsScene>
#include <QGraphicsPixmapItem>
#include <QGraphicsView>
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <QTimer>
#include "killcovid19scene.h"
#include "virus.h"
```

Classes

- class [KillCovid_19View](#)

6.13.1 Detailed Description

Kill covid 19 view class header file This is the main view of the kill covid 19 game that contains the game scene author Khalil Baydoun.

6.14 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovidrun.cpp File Reference

Implementation of the KillCovid-specific Game Run.

```
#include "killcovidrun.h"
#include <Utils/jsonio.h>
```

6.14.1 Detailed Description

Implementation of the KillCovid-specific Game Run.

Author

Malek Itani

6.15 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/killcovidrun.h](#) File Reference

Header file for the KillCovid-specific Game Run.

```
#include <shared/baserun.h>
#include <QString>
```

Classes

- class [KillCovidRun](#)

6.15.1 Detailed Description

Header file for the KillCovid-specific Game Run.

Author

Malek Itani

6.16 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/KillCovid-19/virus.cpp](#) File Reference

kill covid_19 virus class defintion

```
#include "virus.h"
#include "killcovid19scene.h"
#include "Utils/Utils.h"
```

6.16.1 Detailed Description

kill covid_19 virus class defintion

Contains the iniatialization of the killCovid-19 game virus and the implementation of its functions.

Author

Khalil Baydoun

6.17 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/gamehistorywidget.h File Reference

Implementation of the [GameHistoryWidget](#).

```
#include <QWidget>
#include <QtWidgets>
#include <QObject>
#include <accounts/user.h>
```

Classes

- class [GameHistoryWidget](#)

6.17.1 Detailed Description

Implementation of the [GameHistoryWidget](#).

Header file for a scrollable, tabbed widget that displays the history of the users runs for all games, as well as the best performance over all users for all games.

Author

Malek Itani

6.18 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/main/main.cpp File Reference

QamingFramework entry point. Creates, shows, and ultimately destroys the main window.

```
#include <QApplication>
#include <main/mainwindow.h>
#include <exception>
```

Functions

- int **main** (int argc, char **argv)

6.18.1 Detailed Description

QamingFramework entry point. Creates, shows, and ultimately destroys the main window.

Author

Malek Itani

6.19 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/Qaming↵ Framework/main/mainwindow.h File Reference

Implementation of the [mainWindow](#).

```
#include <QWidget>
#include <QtWidgets>
#include <QObject>
#include <accounts/user.h>
#include <KillCovid-19/killcovid-19window.h>
#include "gamehistorywidget.h"
#include "Reversi/reversiwindow.h"
```

Classes

- class [mainWindow](#)

6.19.1 Detailed Description

Implementation of the [mainWindow](#).

The main window that will be used by the user to login, logout, register or play games. The user can also browse his/her history and scores for all the games.

Author

Malek Itani

6.20 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/Qaming↵ Framework/Reversi/reversiplayerwidget.cpp File Reference

Implementation for the [ReversiPlayerWidget](#).

```
#include "reversiplayerwidget.h"
#include "reversirun.h"
#include <shared/gameprofile.h>
```

6.20.1 Detailed Description

Implementation for the [ReversiPlayerWidget](#).

Author

Malek Itani

6.21 **/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiplayerwidget.h** File Reference

Header file for the widget that displays username, profile picture and general records about the user's history for Reversi.

```
#include <accounts/user.h>
#include <shared/gameprofile.h>
#include <QObject>
#include <QWidget>
#include <QtWidgets>
```

Classes

- class [ReversiPlayerWidget](#)

6.21.1 Detailed Description

Header file for the widget that displays username, profile picture and general records about the user's history for Reversi.

Author

Malek Itani

6.22 **/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversirun.cpp** File Reference

Implementation of the Reversi-specific Game Run.

```
#include "reversirun.h"
#include <Utils/jsonio.h>
```

6.22.1 Detailed Description

Implementation of the Reversi-specific Game Run.

Author

Malek Itani

6.23 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversirun.h](#) File Reference

Header file for the Reversi-specific Game Run.

```
#include <shared/baserun.h>
```

Classes

- class [ReversiRun](#)

6.23.1 Detailed Description

Header file for the Reversi-specific Game Run.

Author

Malek Itani

6.24 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiscene.cpp](#) File Reference

Reversi Scene class defintion.

```
#include "reversiscene.h"
```

Macros

- `#define X0 25`
- `#define Y0 3`
- `#define Xdif 95`
- `#define Ydif 49`

6.24.1 Detailed Description

Reversi Scene class defintion.

Contains the iniatialization of the reversi game scene and and the implementation of its functions.

Author

Khalil Baydoun

6.25 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiscene.h File Reference

reversi scene header file The scene of the reversi game, contains the board and the added stones

```
#include <QGraphicsItem>
#include <QGraphicsScene>
#include <QGraphicsPixmapItem>
#include <QGraphicsView>
#include <QTimer>
#include <QObject>
#include <QKeyEvent>
#include <QtAlgorithms>
#include <QWidget>
#include <QtWidgets>
#include "Utils/Utils.h"
#include "stone.h"
#include "reversirun.h"
```

Classes

- class [ReversiScene](#)

6.25.1 Detailed Description

reversi scene header file The scene of the reversi game, contains the board and the added stones

Author

Khalil Baydoun

6.26 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversistatswidget.cpp File Reference

Implementation of the [ReversiStatsWidget](#).

```
#include "reversistatswidget.h"
```

6.26.1 Detailed Description

Implementation of the [ReversiStatsWidget](#).

Author

Malek Itani

6.27 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversistatswidget.h](#) File Reference

Header file for the widget that displays Reversi-specific game states like remaining time for each user and the score for each user.

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
```

Classes

- class [ReversiStatsWidget](#)

6.27.1 Detailed Description

Header file for the widget that displays Reversi-specific game states like remaining time for each user and the score for each user.

Author

Malek Itani

6.28 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiview.cpp](#) File Reference

Reversi View class defintion.

```
#include "reversiview.h"
```

Macros

- `#define ButtonHeight 40`
- `#define ButtonWidth 160`
- `#define ButtonSpacing 30`
- `#define ButtonXPos 300`
- `#define InitialButtonPosition 100`

6.28.1 Detailed Description

Reversi View class defintion.

Contains the iniatialization of the reversi game view and and the implementation of its functions.

Author

Khalil Baydoun

6.29 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/reversiview.h File Reference

reversi view header file The view of the reversi game, contains the game scene

```
#include <QGraphicsItem>
#include <QGraphicsScene>
#include <QGraphicsPixmapItem>
#include <QGraphicsView>
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <QTimer>
#include "reversiscene.h"
```

Classes

- class [ReversiView](#)

6.29.1 Detailed Description

reversi view header file The view of the reversi game, contains the game scene

reversi window header file The window of the reversi game

Author

Khalil Baydoun

6.30 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/revers>window.cpp File Reference

Reversi window class defintion.

```
#include "revers>window.h"
#include "revers>run.h"
```

6.30.1 Detailed Description

Reversi window class defintion.

Contains the iniatialization of the reversi game window and and the implementation of its functions.

Author

Khalil Baydoun

6.31 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Reversi/stone.cpp](#) File Reference

Reversi Game [Stone](#) class defintion.

```
#include "stone.h"
```

6.31.1 Detailed Description

Reversi Game [Stone](#) class defintion.

Contains the iniatialization of the reversi game stone and and the implementation of its flip color function that is called when its outflanked.

Author

Khalil Baydoun

6.32 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/baserun.cpp](#) File Reference

Base Run class defintion.

```
#include "baserun.h"
```

6.32.1 Detailed Description

Base Run class defintion.

Contains the definitions of the base methods that all runs will need

Author

Malek Itani

6.33 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/baserun.h](#) File Reference

Header file for the base Run class A Run is just an abstract instance of any game. All games should extend this class to store additional game-specific characteristics.

```
#include <QString>
#include <QDateTime>
```

Classes

- class [BaseRun](#)

6.33.1 Detailed Description

Header file for the base Run class A Run is just an abstract instance of any game. All games should extend this class to store additional game-specific characteristics.

Author

Malek Itani

6.34 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gameprofile.cpp File Reference

Game Profile class defintion.

```
#include "gameprofile.h"  
#include <QJsonObject>  
#include <Utils/jsonio.h>
```

6.34.1 Detailed Description

Game Profile class defintion.

Author

Malek Itani

6.35 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gameprofile.h File Reference

Header file for the [GameProfile](#) class A game profile is a summary of the user's game history for the current game. It also contains a leaderboard for all runs.

```
#include "leaderboard.h"  
#include <memory>  
#include <QJsonObject>  
#include <Utils/jsonio.h>  
#include <accounts/user.h>
```

Classes

- class [GameProfile](#)

6.35.1 Detailed Description

Header file for the [GameProfile](#) class A game profile is a summary of the user's game history for the current game. It also contains a leaderboard for all runs.

Author

Malek Itani

6.36 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gamewindow.cpp](#) File Reference

Game Window class defintion.

```
#include "gamewindow.h"
```

6.36.1 Detailed Description

Game Window class defintion.

Contains the definitions of the base methods that all game windows will use

Author

Malek Itani

6.37 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/gamewindow.h](#) File Reference

Header file for the [GameWindow](#) base class A game window is the window each game will use to display the game scene, game stats, or other game-specific widgets.

```
#include <QObject>
#include <QWidget>
#include "gameprofile.h"
```

Classes

- class [GameWindow](#)

6.37.1 Detailed Description

Header file for the [GameWindow](#) base class A game window is the window each game will use to display the game scene, game stats, or other game-specific widgets.

Author

Malek Itani

6.38 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/leaderboard.cpp File Reference

[Leaderboard](#) class defintion.

```
#include "leaderboard.h"
#include <Utils/jsonio.h>
#include <QJsonArray>
#include <QJsonObject>
```

6.38.1 Detailed Description

[Leaderboard](#) class defintion.

Contains the definitions of the leaderboard methods

Author

Malek Itani

6.39 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/shared/leaderboard.h File Reference

Header file for the [Leaderboard](#) class A [Leaderboard](#) is an ordered datastructure that maintains an ordering among all runs for some specific game.

```
#include "baserun.h"
#include <Utils/jsonio.h>
#include <QJsonObject>
#include <QJsonArray>
#include <set>
```

Classes

- class [comparator](#)
- class [Leaderboard](#)

6.39.1 Detailed Description

Header file for the [Leaderboard](#) class A [Leaderboard](#) is an ordered datastructure that maintains an ordering among all runs for some specific game.

Author

Malek Itani

6.40 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/jsonio.cpp](#) File Reference

Definition of static methods that simplify writing and reading to and from JSON files.

```
#include "jsonio.h"
#include <QDir>
#include <QFile>
#include <QJsonDocument>
#include <iostream>
```

6.40.1 Detailed Description

Definition of static methods that simplify writing and reading to and from JSON files.

Author

Malek Itani

6.41 [/home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/jsonio.h](#) File Reference

A collection of JSON utils to make reading/writing to JSON easier.

```
#include <QJsonObject>
```

Classes

- class [JsonIO](#)

6.41.1 Detailed Description

A collection of JSON utils to make reading/writing to JSON easier.

Author

Malek Itani

6.42 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/Utils.cpp File Reference

[Utils](#) class defintion.

```
#include "Utils.h"
#include <regex>
#include <qpassworddigestor.h>
#include <QFileInfo>
```

Functions

- bool **IsLatinName** (QString name)

6.42.1 Detailed Description

[Utils](#) class defintion.

Contains the iniatialization of the [Utils](#) class and and the implementation of its functions.

Author

Khalil Baydoun

6.43 /home/malek/projects/C-Cpp/Qt/repos/qamingframework/QamingFramework/Utils/Utils.h File Reference

[Utils](#) header file Contains helper functions that are freequently used.

```
#include <string>
#include <QString>
#include <QtWidgets>
```

Classes

- class [Utils](#)

6.43.1 Detailed Description

[Utils](#) header file Contains helper functions that are freequently used.

Author

Khalil Baydoun

