

My Project

Generated by Doxygen 1.8.13

Contents

1	accounts-qt	1
2	Hierarchical Index	3
2.1	Class Hierarchy	3
3	Class Index	5
3.1	Class List	5
4	File Index	7
4.1	File List	7
5	Class Documentation	9
5.1	A Class Reference	9
5.2	App Class Reference	9
5.3	blueChip Class Reference	10
5.4	errorWindows Class Reference	10
5.5	GameScene Class Reference	10
5.6	GameView Class Reference	12
5.7	greenplus Class Reference	12
5.8	highscoresWindow Class Reference	12
5.9	howToPlayWindow Class Reference	13
5.10	IntroWidget Class Reference	13
5.11	largeVirusItem Class Reference	14
5.12	login Class Reference	14
5.13	mediumVirusItem Class Reference	15

5.14	Othello Class Reference	15
5.15	othelloScene Class Reference	16
5.16	othelloView Class Reference	16
5.17	profile Class Reference	17
5.18	redchip Class Reference	17
5.19	SettingsWidget Class Reference	17
5.20	signUp Class Reference	18
5.21	stainItem Class Reference	18
5.22	successWindow Class Reference	19
5.23	SyringeItem Class Reference	19
5.24	User Class Reference	19
5.25	VirusItem Class Reference	20
6	File Documentation	21
6.1	app.h File Reference	21
6.2	bluechip.h File Reference	21
6.2.1	Detailed Description	21
6.3	errorwindows.h File Reference	22
6.3.1	Detailed Description	22
6.4	gamescene.h File Reference	22
6.4.1	Detailed Description	23
6.5	gameview.h File Reference	23
6.5.1	Detailed Description	23
6.6	greenplus.h File Reference	23
6.6.1	Detailed Description	24
6.7	highscoreswindow.h File Reference	24
6.7.1	Detailed Description	24
6.8	howtoplaywindow.h File Reference	25
6.8.1	Detailed Description	25
6.9	introwidget.h File Reference	25
6.9.1	Detailed Description	26

6.10	largevirusitem.h File Reference	26
6.10.1	Detailed Description	27
6.11	login.h File Reference	27
6.11.1	Detailed Description	27
6.12	mediumvirusitem.h File Reference	28
6.12.1	Detailed Description	28
6.13	othello.h File Reference	28
6.13.1	Detailed Description	29
6.14	othelloscene.h File Reference	30
6.14.1	Detailed Description	30
6.15	othelloview.h File Reference	31
6.15.1	Detailed Description	31
6.16	profile.h File Reference	31
6.16.1	Detailed Description	31
6.17	redchip.h File Reference	32
6.17.1	Detailed Description	32
6.18	settingswidget.h File Reference	32
6.18.1	Detailed Description	33
6.19	signup.h File Reference	34
6.19.1	Detailed Description	34
6.20	stainitem.h File Reference	35
6.20.1	Detailed Description	35
6.21	successwindow.h File Reference	35
6.21.1	Detailed Description	35
6.22	syringeitem.h File Reference	36
6.22.1	Detailed Description	36
6.23	user.h File Reference	36
6.23.1	Detailed Description	37
6.24	virusitem.h File Reference	37
6.24.1	Detailed Description	38

Chapter 1

accounts-qt

Accounts Management Application

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

App	9
B	
A	9
Othello	15
QGraphicsPixmapItem	
blueChip	10
greenplus	12
largeVirusItem	14
mediumVirusItem	15
redchip	17
stainItem	18
SyringeItem	19
VirusItem	20
QGraphicsScene	
GameScene	10
othelloScene	16
QGraphicsView	
GameView	12
othelloView	16
QObject	
blueChip	10
greenplus	12
largeVirusItem	14
mediumVirusItem	15
redchip	17
stainItem	18
SyringeItem	19
VirusItem	20
QWidget	
errorWindows	10
highscoresWindow	12
howToPlayWindow	13
IntroWidget	13
login	14
profile	17

SettingsWidget	17
signUp	18
successWindow	19
User	19

Chapter 3

Class Index

3.1 Class List

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

A	9
App	9
blueChip	10
errorWindows	10
GameScene	10
GameView	12
greenplus	12
highscoresWindow	12
howToPlayWindow	13
IntroWidget	13
largeVirusItem	14
login	14
mediumVirusItem	15
Othello	15
othelloScene	16
othelloView	16
profile	17
redchip	17
SettingsWidget	17
signUp	18
stainItem	18
successWindow	19
SyringeItem	19
User	19
VirusItem	20

Chapter 4

File Index

4.1 File List

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

app.h	
App::App, constructor	21
creates the chip that the BLUE player can place on the grid	21
errorwindows.h	
ErrorWindows::errorWindows constructor that sets the error windows widgets and layout . . .	22
gamescene.h	
GameScene::GameScene, constructor calls the functions	22
gameview.h	
GameView::GameView constructor	23
Creates the green plus picture that signals a correct position for a player to place a chip	23
highscoreswindow.h	
HighscoresWindow::highscoresWindow constructor	24
howtoplaywindow.h	
HowToPlayWindow::howToPlayWindow, constructor, calls functions to center window, setup background, setup widgets and layout	25
introwidget.h	
IntroWidget::IntroWidget	25
largevirusitem.h	
LargeVirusItem::largeVirusItem, constructor, creates a large virus	26
login.h	
Login::login, login window adds the widgets, layout and connections	27
mediumvirusitem.h	
MediumVirusItem::mediumVirusItem, creates a medium virus	28
Constructor that sets the initial state of the board and what player starts the game	28
othelloscene.h	
OthelloScene::othelloScene, constructor that sets the scene	30
Constructor that adds the othelloscene to the view	31
profile.h	
Profile::profile, creates profile	31
creates the chip that the RED player can place on the grid	32
settingswidget.h	
SettingsWidget::SettingsWidget, constructor	32
signup.h	
SignUp::signUp, constructor sets the widgets, layouts and connections	34
stainitem.h	
StainItem::stainItem, constructor for a stain (after virus is killed)	35

successwindow.h	
SuccessWindow::successWindow, constructor for the success window	35
syringeitem.h	
SyringeItem::SyringeItem, constructor for the syringe	36
user.h	
User::setScores, setter of user scores	36
virusitem.h	
VirusItem::VirusItem, creates a virus	37

Chapter 5

Class Documentation

5.1 A Class Reference

Inheritance diagram for A:

Collaboration diagram for A:

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

- conventions.cpp

5.2 App Class Reference

Public Member Functions

- bool **login** (const QString &username, const QString &password)
- bool **signup** (const [User](#) &user)
- [User](#) **getUser** (const QString &username)
- void **read** (const QJsonObject &json)
- void **write** (QJsonObject &json) const
- QVector< [User](#) > **getUsers** () const
- void **setUsers** (const QVector< [User](#) > &users)
- void **readFromJSON** ()
- QString **getHighscore** (QString currUsername)
- void **updateUser** ([User](#) u)

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

- [app.h](#)
- app.cpp

5.3 blueChip Class Reference

Inheritance diagram for blueChip:

Collaboration diagram for blueChip:

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

- [bluechip.h](#)
- bluechip.cpp

5.4 errorWindows Class Reference

Inheritance diagram for errorWindows:

Collaboration diagram for errorWindows:

Public Slots

- void **setErrorLabel** (QString error)

Public Member Functions

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

Public Attributes

- int **errorCount**

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

- [errorwindows.h](#)
- errorwindows.cpp

5.5 GameScene Class Reference

Inheritance diagram for GameScene:

Collaboration diagram for GameScene:

Public Member Functions

- void **keyPressEvent** (QKeyEvent *event) override
- void **setupBackground** ()
- void **setupConfig** ()
- void **setupState** ()
- void **setupItems** ()
- void **startTimer** ()
- void **setUser** ([User](#) u)
- void **setApp** ([App](#) a)
- void **updateAppJSoN** ()

Public Attributes

- [SyringeItem](#) * **syringe**
- [VirusItem](#) * **virus**
- [stainItem](#) * **stain**
- int **smallScore**
- int **mediumScore**
- int **largeScore**
- int **totalScore**
- int **winningScore**
- int **misses**
- int **maxMisses**
- int **finalScore**
- QLabel * **missesLabel**
- QLabel * **smallCounterLabel**
- QLabel * **mediumCounterLabel**
- QLabel * **largeCounterLabel**
- QLabel * **totalCounterLabel**
- QVector< QPair< int, int > * > * **viruses**
- QGraphicsProxyWidget * **popUpItem**
- double **syringeDirection**
- bool **syringeShot**
- bool **syringeSide**
- bool **hitVirus**
- double **fallingRate**
- int **virusType**
- int **waiting**
- int **killedViruses**
- int **virusCounter**
- QTimer * **updateTimer**
- [User](#) **user**
- [App](#) **app**

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

- [gamescene.h](#)
- [gamescene.cpp](#)

5.6 GameView Class Reference

Inheritance diagram for GameView:

Collaboration diagram for GameView:

Public Member Functions

- void **setUser** ([User](#) u)
- void **setApp** ([App](#) a)

Public Attributes

- [User](#) **user**
- [App](#) **app**

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

- [gameview.h](#)
- gameview.cpp

5.7 greenplus Class Reference

Inheritance diagram for greenplus:

Collaboration diagram for greenplus:

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

- [greenplus.h](#)
- greenplus.cpp

5.8 highscoresWindow Class Reference

Inheritance diagram for highscoresWindow:

Collaboration diagram for highscoresWindow:

Public Member Functions

- **highscoresWindow** ([App](#) app, int code, [User](#) user, QWidget *parent=nullptr)

Public Attributes

- QLabel * **welcomeLabel**
- QLabel * **usernameLabel**
- QLabel * **profilePicLabel**
- QLabel * **highscoreLabel**
- QLabel * **globalHighscorePlayerLabel**
- QLabel * **compareScoresLabel**
- QLabel * **userScoresLabel**
- QGridLayout * **gridLayout**
- QVBoxLayout * **verticalLayoutRight**
- QVBoxLayout * **verticalLayoutLeft**
- QVector< QLabel * > **scores**
- QGroupBox * **groupBoxRight**
- QGroupBox * **groupBoxLeft**
- QPushButton * **playKillCovidButton**
- QPushButton * **playOrthelloButton**
- [App](#) **apli**
- [User](#) **useri**

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

- [highscoreswindow.h](#)
- [highscoreswindow.cpp](#)

5.9 howToPlayWindow Class Reference

Inheritance diagram for howToPlayWindow:

Collaboration diagram for howToPlayWindow:

Public Member Functions

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

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

- [howtoplaywindow.h](#)
- [howtoplaywindow.cpp](#)

5.10 IntroWidget Class Reference

Inheritance diagram for IntroWidget:

Collaboration diagram for IntroWidget:

Public Slots

- void **clickPlay** ()

Public Member Functions

- **IntroWidget** (QWidget *parent=nullptr)
- void **setApp** ([App](#) a)
- void **setUser** ([User](#) u)

Public Attributes

- QLabel * **titleLabel**
- QPushButton * **playButton**
- QMediaPlayer * **musicPlayer**
- [App](#) **application**
- [User](#) **user**

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

- [introwidget.h](#)
- [introwidget.cpp](#)

5.11 largeVirusItem Class Reference

Inheritance diagram for largeVirusItem:

Collaboration diagram for largeVirusItem:

Public Member Functions

- **largeVirusItem** (QObject *parent=nullptr)

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

- [largevirusitem.h](#)
- [largevirusitem.cpp](#)

5.12 login Class Reference

Inheritance diagram for login:

Collaboration diagram for login:

Public Slots

- void **playAsGuestFunc** ()
- void **loggingIn** ()
- void **signUpInstead** ()
- void **highscoresPage** (int code, [User](#) user)
- void **openErrorWindow** ()

Public Member Functions

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

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

- [login.h](#)
- login.cpp

5.13 mediumVirusItem Class Reference

Inheritance diagram for mediumVirusItem:

Collaboration diagram for mediumVirusItem:

Public Member Functions

- **mediumVirusItem** (QObject *parent=nullptr)

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

- [mediumvirusitem.h](#)
- mediumvirusitem.cpp

5.14 Othello Class Reference

Public Member Functions

- QVector< QPair< int, int > > **playableCells** ()
- bool **canPlay** (int x, int y)
- int **play** (int x, int y)
- bool **isGameOver** ()
- int **winner** ()
- void **print** ()

Public Attributes

- QVector< QVector< int > * > * **board**
- int **turn**

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

- [othello.h](#)
- othello.cpp

5.15 othelloScene Class Reference

Inheritance diagram for othelloScene:

Collaboration diagram for othelloScene:

Public Attributes

- [Othello](#) **othello**
- QLabel * **playerTurnLabel**
- QLabel * **playerLabel**
- QTimer * **updateTimer**
- QVector< QGraphicsItem * > **listOfPlayableCells**
- QVector< QGraphicsItem * > **listOfUsedCells**

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

- [othelloscene.h](#)
- othelloscene.cpp

5.16 othelloView Class Reference

Inheritance diagram for othelloView:

Collaboration diagram for othelloView:

Public Member Functions

- void **centerWindow** ()

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

- [othelloview.h](#)
- othelloview.cpp

5.17 profile Class Reference

Inheritance diagram for profile:

Collaboration diagram for profile:

Public Member Functions

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

Public Attributes

- QLabel * **test**

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

- [profile.h](#)
- profile.cpp

5.18 redchip Class Reference

Inheritance diagram for redchip:

Collaboration diagram for redchip:

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

- [redchip.h](#)
- redchip.cpp

5.19 SettingsWidget Class Reference

Inheritance diagram for SettingsWidget:

Collaboration diagram for SettingsWidget:

Public Member Functions

- **SettingsWidget** (QWidget *parent=nullptr)
- void **setApp** ([App](#) a)
- void **setUser** ([User](#) u)

Public Attributes

- bool **readyButtonAvailable**
- QLabel * **titleLabel**
- QPushButton * **easyButton**
- QPushButton * **mediumButton**
- QPushButton * **hardButton**
- QPushButton * **readyButton**
- QPushButton * **howToPlayButton**
- QLabel * **explainDiffLabel**
- QString **difficultyChosen**
- QVBoxLayout * **vbox**
- [App](#) **apli**
- [User](#) **useri**

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

- [settingswidget.h](#)
- settingswidget.cpp

5.20 signUp Class Reference

Inheritance diagram for signUp:

Collaboration diagram for signUp:

Public Member Functions

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

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

- [signup.h](#)
- signup.cpp

5.21 stainItem Class Reference

Inheritance diagram for stainItem:

Collaboration diagram for stainItem:

Public Member Functions

- **stainItem** (QObject *parent=nullptr)

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

- [stainitem.h](#)
- stainitem.cpp

5.22 **successWindow Class Reference**

Inheritance diagram for `successWindow`:

Collaboration diagram for `successWindow`:

Public Member Functions

- **successWindow** (QWidget *parent=nullptr)
- void **setSuccessLabel** (QString str)
- void **setSuccessLabelPicture** (QPixmap pic)
- void **changeSuccessLabel** (QString str)

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

- [successwindow.h](#)
- [successwindow.cpp](#)

5.23 **SyringeItem Class Reference**

Inheritance diagram for `SyringeItem`:

Collaboration diagram for `SyringeItem`:

Public Member Functions

- **SyringeItem** (QObject *parent=nullptr)

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

- [syringeitem.h](#)
- [syringeitem.cpp](#)

5.24 **User Class Reference**

Public Types

- enum **Gender** { **Male**, **Female**, **Other** }

Public Member Functions

- QString **getUsername** () const
- void **setUsername** (const QString &username)
- QString **getPassword** () const
- void **setPassword** (const QString &apassword)
- QString **getFirstName** () const
- void **setFirstName** (const QString &afirstName)
- QString **getLastName** () const
- void **setLastName** (const QString &alastName)
- QDate **getDateOfBirth** () const
- void **setDateOfBirth** (const QDate &adateOfBirth)
- Gender **getGender** () const
- void **setGender** (Gender agender)
- QPixmap **getProfilePicture** () const
- void **setProfilePicture** (const QPixmap &aprofilePicture)
- QVector< int > **getScores** () const
- void **setScores** (const QVector< int > &ascores)
- void **updateScores** (int n)
- void **read** (const QJsonObject &json)
- void **write** (QJsonObject &json) const
- QString **getUserScores** ()
- int **getHighscore** ()

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

- [user.h](#)
- [user.cpp](#)

5.25 VirusItem Class Reference

Inheritance diagram for VirusItem:

Collaboration diagram for VirusItem:

Public Member Functions

- **VirusItem** (QObject *parent=nullptr, int type=0)

Public Attributes

- int **type**

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

- [virusitem.h](#)
- [virusitem.cpp](#)

Chapter 6

File Documentation

6.1 app.h File Reference

App::App, constructor.

```
#include <QObject>
#include <QVector>
#include "user.h"
Include dependency graph for app.h:
```

6.2 bluechip.h File Reference

blueChip::blueChip, constructor for the blue chips

creates the chip that the BLUE player can place on the grid

```
#include <QObject>
#include <QGraphicsPixmapItem>
Include dependency graph for bluechip.h: This graph shows which files directly or indirectly include this file:
```

Classes

- class [blueChip](#)

6.2.1 Detailed Description

blueChip::blueChip, constructor for the blue chips

creates the chip that the BLUE player can place on the grid

6.3 errorwindows.h File Reference

errorWindows::errorWindows constructor that sets the error windows widgets and layout

```
#include <QWidget>
#include <QObject>
#include <QtWidgets>
Include dependency graph for errorwindows.h:
```

Classes

- class [errorWindows](#)

6.3.1 Detailed Description

errorWindows::errorWindows constructor that sets the error windows widgets and layout

errorWindows::setErrorLabel, sets the error label depending on the kind of error

Parameters

<i>parent</i>	
<i>error</i>	

6.4 gamescene.h File Reference

GameScene::GameScene, constructor calls the functions.

```
#include <QtWidgets>
#include <syringeitem.h>
#include <virusitem.h>
#include "mediumvirusitem.h"
#include "largevirusitem.h"
#include <stainitem.h>
#include "app.h"
#include "user.h"
Include dependency graph for gamescene.h:
```

Classes

- class [GameScene](#)

6.4.1 Detailed Description

GameScene::GameScene, constructor calls the functions.

GameScene::updateScene, updates scene such like collision with virus, scores, misses and position of syringe.

GameScene::startTimer, starts a timer that signals the moment to update the screen.

GameScene::keyPressEvent, if user presses left key and the syringe is not in flight, make syringeShot true.

GameScene::setUpItems, adds the virus and syringe item to the scene. Also adds the score counters.

GameScene::setUpState, sets up the initial states of the score and counters.

GameScene::setUpConfig, sets the config file that contains the position and types of the viruses.

GameScene::setUpBackground, sets the background image.

Parameters

<i>event</i>	
--------------	--

6.5 gameview.h File Reference

GameView::GameView constructor.

```
#include <QtWidgets>
#include "app.h"
#include "user.h"
```

Include dependency graph for gameview.h:

Classes

- class [GameView](#)

6.5.1 Detailed Description

GameView::GameView constructor.

GameView::centerWindow, centers the window.

6.6 greenplus.h File Reference

greenplus::greenplus

Creates the green plus picture that signals a correct position for a player to place a chip.

```
#include <QObject>
#include <QGraphicsPixmapItem>
```

Include dependency graph for greenplus.h: This graph shows which files directly or indirectly include this file:

Classes

- class [greenplus](#)

6.6.1 Detailed Description

greenplus::greenplus

Creates the green plus picture that signals a correct position for a player to place a chip.

6.7 highscoreswindow.h File Reference

highscoresWindow::highscoresWindow constructor

```
#include "user.h"
#include "app.h"
#include <QWidget>
#include <QObject>
#include <QtWidgets>
#include "successwindow.h"
#include <QDateTime>
```

Include dependency graph for highscoreswindow.h: This graph shows which files directly or indirectly include this file:

Classes

- class [highscoresWindow](#)

6.7.1 Detailed Description

highscoresWindow::highscoresWindow constructor

highscoresWindow::clickOrthello, user click on button to play Orthello

highscoresWindow::clickKillCovid, user to play kill covid 19

highscoresWindow::playAsUser, fixes the widgets to show user info

highscoresWindow::playAsGuest, fixes the widgets to show generic guest info

highscoresWindow::checkIfBirthday, if it's the user's birthday display a "Happy Birthday message"

Parameters

<i>app</i>	
<i>code</i>	
<i>user</i>	
<i>parent</i>	
<i>birthdayStr</i>	
<i>user</i>	

6.8 howtoplaywindow.h File Reference

howToPlayWindow::howToPlayWindow, constructor, calls functions to center window, setup background, setup widgets and layout

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

Include dependency graph for howtoplaywindow.h: This graph shows which files directly or indirectly include this file:

Classes

- class [howToPlayWindow](#)

6.8.1 Detailed Description

howToPlayWindow::howToPlayWindow, constructor, calls functions to center window, setup background, setup widgets and layout

howToPlayWindow::setLayout, sets up the layout

howToPlayWindow::setupWidgets, sets up the widgets

howToPlayWindow::centerWindow, centers the window

howToPlayWindow::setupBackground, sets the background image

Parameters

<i>parent</i>	
---------------	--

6.9 introwidget.h File Reference

IntroWidget::IntroWidget.

```
#include <QWidget>
#include <QtWidgets>
#include <QMediaPlayer>
#include "user.h"
#include "app.h"
```

Include dependency graph for introwidget.h:

Classes

- class [IntroWidget](#)

6.9.1 Detailed Description

IntroWidget::IntroWidget.

IntroWidget::setUser.

IntroWidget::setApp.

IntroWidget::setupMusic.

IntroWidget::clickPlay.

IntroWidget::setupConnections

Setting the connections.

IntroWidget::centerWindow

Centers window.

IntroWidget::setLayout

Sets layout.

IntroWidget::setupStylesheet

Sets style of push buttons.

IntroWidget::setupWidgets

Sets up the buttons and labels.

IntroWidget::setupBackground

sets up the back ground pictures.

Parameters

<i>parent</i>	constructor that sets the: background, size, widgets, style, layout and connections
---------------	---

When the play button is pressed it opens the settingswidget and closes this one.

Sets up the music.

Parameters

<i>a</i>	
<i>u</i>	

6.10 largevirusitem.h File Reference

largeVirusItem::largeVirusItem, constructor, creates a large virus


```
#include <QObject>
#include <QGraphicsPixmapItem>
```

Include dependency graph for largevirusitem.h: This graph shows which files directly or indirectly include this file:

Classes

- class [largeVirusItem](#)

6.10.1 Detailed Description

largeVirusItem::largeVirusItem, constructor, creates a large virus

Parameters

<i>parent</i>	
---------------	--

6.11 login.h File Reference

login::login, login window adds the widgets, layout and connections

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include "app.h"
#include "user.h"
#include "highscoreswindow.h"
```

Include dependency graph for login.h:

Classes

- class [login](#)

6.11.1 Detailed Description

login::login, login window adds the widgets, layout and connections

login::openErrorWindow, gives error if username or password is incorrect

login::highscoresPage, logs in user successfully to the highscore window

login::signUpInstead, user pressed the button to go sign up instead

login::loggingIn, after log in is pressed, tries to log in the user

login::playAsGuestFunc, when the play as guest button is pressed logs in the user as a guest

Parameters

<i>parent</i>	
<i>code</i>	
<i>user</i>	

6.12 mediumvirusitem.h File Reference

mediumVirusItem::mediumVirusItem, creates a medium virus

```
#include <QObject>
```

```
#include <QGraphicsPixmapItem>
```

Include dependency graph for mediumvirusitem.h: This graph shows which files directly or indirectly include this file:

Classes

- class [mediumVirusItem](#)

6.12.1 Detailed Description

mediumVirusItem::mediumVirusItem, creates a medium virus

Parameters

<i>parent</i>	
---------------	--

6.13 othello.h File Reference

Othello::Othello, constructor

Constructor that sets the initial state of the board and what player starts the game.

```
#include <QObject>
```

```
#include <QVector>
```

```
#include <QTextStream>
```

Include dependency graph for othello.h: This graph shows which files directly or indirectly include this file:

Classes

- class [Othello](#)

6.13.1 Detailed Description

Othello::Othello, constructor

Constructor that sets the initial state of the board and what player starts the game.

Othello::print

Prints the state of the board on the console, used for debugging.

Othello::winner.

Othello::isGameOver.

Othello::play.

Othello::canPlay.

Othello::playableCells, returns the coordinates of the cells that are playable.

Returns

QVector<QPair<int, int>>

Parameters

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

Returns

bool

Checks if the cell at coordinates (x,y) is available to be played.

Parameters

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

Returns

turn

Adds a chip to the (x,y) coordinate on the grid.

Returns

bool

Checks if the game is over according to [Othello](#) rules

Returns

bool

Counts the number of blue and red chips at the end of the game and decides the winner.

6.14 othelloscene.h File Reference

othelloScene::othelloScene, constructor that sets the scene

```
#include "othello.h"
#include <QGraphicsScene>
#include <QtWidgets>
#include "greenplus.h"
#include "redchip.h"
#include "bluechip.h"
Include dependency graph for othelloscene.h:
```

Classes

- class [othelloScene](#)

6.14.1 Detailed Description

othelloScene::othelloScene, constructor that sets the scene

othelloScene::updateCells

Updates the red and blue chips in the scene.

othelloScene::addPlayableCells

Adds the pixmap green plus items to the available positions.

othelloScene::mousePressEvent

othelloScene::updateScene

Slot that gets called at timer timeout, sets the current player turn, calls update to the cells and to the available greenplus cells, and announces winner when game is over.

othelloScene::setupUpdateTimer

Sets the timer that updates the scene at each timeout.

othelloScene::setupWidgets, sets up the turn labels

othelloScene::setupBackground, sets the background image of the scene.

Parameters

<i>event</i>	When the player clicks left click on the mouse, it takes the coordinate of the mouse position when it was clicked and checks if position is valid to insert the player's disk to the board.
--------------	---

6.15 othelloview.h File Reference

othelloView::othelloView

Constructor that adds the othelloscene to the view.

```
#include <QGraphicsView>
```

Include dependency graph for othelloview.h:

Classes

- class [othelloView](#)

6.15.1 Detailed Description

othelloView::othelloView

Constructor that adds the othelloscene to the view.

othelloView::centerWindow, centers window to the middle of the screen

6.16 profile.h File Reference

profile::profile, creates profile

```
#include <QtWidgets>
```

Include dependency graph for profile.h:

Classes

- class [profile](#)

6.16.1 Detailed Description

profile::profile, creates profile

Parameters

<i>parent</i>	
---------------	--

6.17 redchip.h File Reference

redchip::redchip, constructor for red chip

creates the chip that the RED player can place on the grid

```
#include <QObject>
#include <QGraphicsPixmapItem>
```

Include dependency graph for redchip.h: This graph shows which files directly or indirectly include this file:

Classes

- class [redchip](#)

6.17.1 Detailed Description

redchip::redchip, constructor for red chip

creates the chip that the RED player can place on the grid

6.18 settingswidget.h File Reference

SettingsWidget::SettingsWidget, constructor.

```
#include "howtoplaywindow.h"
#include <QWidget>
#include <QtWidgets>
#include "app.h"
#include "user.h"
Include dependency graph for settingswidget.h:
```

Classes

- class [SettingsWidget](#)

6.18.1 Detailed Description

SettingsWidget::SettingsWidget, constructor.

SettingsWidget::setUser.

SettingsWidget::setApp.

SettingsWidget::showReadyButton

If the ready button isn't shown yet, it adds it to the window.

SettingsWidget::clickReady.

SettingsWidget::clickHard

When the hard button is clicked, it shows the difficulty description, sets the difficulty to hard and shows the ready button.

SettingsWidget::clickMedium

When the medium button is clicked, it shows the difficulty description, sets the difficulty to medium and shows the ready button.

SettingsWidget::clickEasy

When the easy button is clicked, it shows the difficulty description, sets the difficulty to easy and shows the ready button.

SettingsWidget::centerWindow

Centering the window.

SettingsWidget::setupConnections

Connecting easy button to its slot clickEasy() Connecting medium button to its slot clickMedium() Connecting hard button to its slot clickHard() Connecting the ready button to the clickReady() slot.

SettingsWidget::setLayout

Setting the layout.

SettingsWidget::setupStylesheet

Styling the push buttons.

SettingsWidget::setupWidgets, sets up widgets

Sets the labels and push buttons.

SettingsWidget::setupBackground, sets up background

sets the background picture.

Parameters

<i>parent</i>	Parent widget
---------------	---------------

constructor that sets the: background, widgets, style, layout and connections

Parameters

<i>a</i>	
<i>u</i>	

6.19 signup.h File Reference

signup::signup, constructor sets the widgets, layouts and connections

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <QFileDialog>
#include "app.h"
#include "user.h"
Include dependency graph for signup.h:
```

Classes

- class [signup](#)

6.19.1 Detailed Description

signup::signup, constructor sets the widgets, layouts and connections

signup::signup, signs up the user

signup::invalid, creates invalid window

signup::upload_picture, user uploads profile pic

lets user browse the computer to upload pic, if none chosen uploads a generic icon

signup::login_instead, slot for user to go back to login screen

signup::validate_password, checks if pass word is valid.

signup::validate_Username, checks if the username is valid

Parameters

<i>parent</i>	
---------------	--

Returns

bool if a Username has a space or is already taken, returns false

bool if a password has size<8, or doesnt have atleast: one number, one upper letter and one lower letter, returns false

Parameters

<i>label</i>	
<i>errorCode</i>	creates invalid window depending on which label and error code the user got

6.20 stainitem.h File Reference

stainItem::stainItem, constructor for a stain (after virus is killed)

```
#include <QGraphicsPixmapItem>
#include <QObject>
```

Include dependency graph for stainitem.h: This graph shows which files directly or indirectly include this file:

Classes

- class [stainItem](#)

6.20.1 Detailed Description

stainItem::stainItem, constructor for a stain (after virus is killed)

Parameters

<i>parent</i>	
---------------	--

6.21 successwindow.h File Reference

successWindow::successWindow, constructor for the success window

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

Include dependency graph for successwindow.h: This graph shows which files directly or indirectly include this file:

Classes

- class [successWindow](#)

6.21.1 Detailed Description

successWindow::successWindow, constructor for the success window

successWindow::changeSuccessLabel, changes the label of the success message

successWindow::setSuccessLabelPicture, sets the picture in the success window

successWindow::setSuccessLabel, sets the success label

Parameters

<i>parent</i>	
<i>str</i>	
<i>pic</i>	

6.22 syringeitem.h File Reference

SyringeItem::SyringeItem, constructor for the syringe.

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

Include dependency graph for syringeitem.h: This graph shows which files directly or indirectly include this file:

Classes

- class [SyringeItem](#)

6.22.1 Detailed Description

SyringeItem::SyringeItem, constructor for the syringe.

Parameters

<i>parent</i>	Sets the syringe, size and rotation.
---------------	--------------------------------------

6.23 user.h File Reference

User::setScores, setter of user scores.

```
#include <QJsonObject>
#include <QString>
#include <QDate>
#include <QImage>
#include <QMap>
#include <QPixmap>
#include <QJsonArray>
#include <QtAlgorithms>
```

Include dependency graph for user.h: This graph shows which files directly or indirectly include this file:

Classes

- class [User](#)

6.23.1 Detailed Description

User::setScores, setter of user scores.

User::getHighscore, getter for a user's highscore.

User::getUserScores, getter for a user's scores.

User::write, writes to JSon the info of a user.

User::read, reads user info from JSon.

pixmapFrom, takes a JSon value and returns the corresponding picture.

jsonValFromPixmap, encodes the profile pic to save it as JSon

User::updateScores, updates the score of a user.

Parameters

<i>ascores</i>	
<i>n</i>	
<i>p</i>	

Returns

json

Parameters

<i>val</i>	
------------	--

Returns

QPixmap

Parameters

<i>json</i>	
-------------	--

Returns

user scores
user highscores

6.24 virusitem.h File Reference

VirusItem::VirusItem, creates a virus.

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

Include dependency graph for virusitem.h: This graph shows which files directly or indirectly include this file:

Classes

- class [VirusItem](#)

6.24.1 Detailed Description

VirusItem::VirusItem, creates a virus.

Parameters

<i>parent</i>	
<i>type</i>	Depending on the type, it creates a small virus (type=0), medium virus (type=1), large virus (type=2).