EECE 435L Project

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

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- Battleship_Main_Menu . . . 11
- game2_main_menu . . . 13
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- loginPanel . . . 16
- lose_screen . . . 17
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- question_tab . . . 19
- signup_form . . . 21
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Chapter 2

Class Index

2.1 Class List

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

battleship 7
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game2 11
game2_main_menu 13
historypanel 14
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leftbutton 16
loginPanel 16
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mid_disks 18
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question_tab 19
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rightbutton 21
signup_form 21
victory_screen 23
welcome_screen 23

Chapter 3

File Index

3.1 File List

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

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Victory screen class . . . 42
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Screen that shows when user logins in . . . 42
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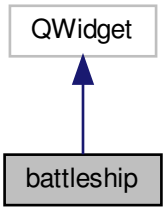
Header file for welcome_screen.cpp . . . 43

Chapter 4

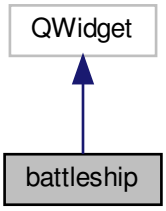
Class Documentation

4.1 battleship Class Reference

Inheritance diagram for battleship:



Collaboration diagram for battleship:



Public Slots

- bool open_question_tab ()

  Function that opens a question tab when a player clicks on a button.
- void showShip00 ()

  Function that checks if a ship is under a pushbutton.
- void **showShip01** ()
- void **showShip02** ()
- void **showShip03** ()
- void **showShip10** ()
- void **showShip11** ()
- void **showShip12** ()
- void **showShip13** ()
- void **showShip20** ()
- void **showShip21** ()
- void **showShip22** ()
- void **showShip23** ()
- void **showShip30** ()
- void **showShip31** ()
- void **showShip32** ()
- void **showShip33** ()
- void updateTimer ()

  Function for updating the timer.

Public Member Functions

- battleship (QWidget *parent=nullptr)
- void checkCounters ()

  Function that checks if a pushbutton has been clicked.
- void getUser (QString)

  Function that gets the username.
- void saveScore (QString player, int correct, int incorrect)

  Function that saves the user's score.

Public Attributes

- QTime * timer

  timer for game duration
- QTimer * timerDecrement

  for decrementing timer
- QLabel * **decrement**
- QString **game_username**
- QGridLayout * **screen**
- QGridLayout * goodpractices

  Grid for the player's side.
- QGridLayout * badpractices

  Grid for the enemy's side.
- QPushButton * bad00

  badxy: PushButton for enemy's side
- QPushButton * **bad01**
- QPushButton * **bad02**

- QPushButton * **bad03**
- QPushButton * **bad10**
- QPushButton * **bad11**
- QPushButton * **bad12**
- QPushButton * **bad13**
- QPushButton * **bad20**
- QPushButton * **bad21**
- QPushButton * **bad22**
- QPushButton * **bad23**
- QPushButton * **bad30**
- QPushButton * **bad31**
- QPushButton * **bad32**
- QPushButton * **bad33**
- QPushButton * gd00

  gdxy PushButton for player's side
- QPushButton * **gd01**
- QPushButton * **gd02**
- QPushButton * **gd03**
- QPushButton * **gd10**
- QPushButton * **gd11**
- QPushButton * **gd12**
- QPushButton * **gd13**
- QPushButton * **gd20**
- QPushButton * **gd21**
- QPushButton * **gd22**
- QPushButton * **gd23**
- QPushButton * **gd30**
- QPushButton * **gd31**
- QPushButton * **gd32**
- QPushButton * **gd33**
- QGridLayout * grid

  Main grid.
- QLabel * **question**

4.1.1 Constructor & Destructor Documentation

4.1.1.1 battleship()

```
battleship::battleship (
            QWidget * parent = nullptr )  [explicit]
```

"home/eece435l/435-project-group7/Lebanon.png"

4.1.2 Member Function Documentation

4.1.2.1 checkCounters()

```
void battleship::checkCounters ( )
```

Function that checks if a pushbutton has been clicked.

This function disables a push button after it's been clicked once

4.1.2.2 getUser()

```
void battleship::getUser (
            QString username )
```

Function that gets the username.

4.1.2.3 open_question_tab

```
bool battleship::open_question_tab ( )  [slot]
```

Function that opens a question tab when a player clicks on a button.

Returns

bool to be indicate whether the question tab was opened or not

This function randomly picks a question along with its respective answers

It displays the question along with the answers using a QInputDialogue

4.1.2.4 saveScore()

```
void battleship::saveScore (
            QString player,
            int correct,
            int incorrect )
```

Function that saves the user's score.

Parameters

player	username of player
correct	number of correct answers
incorrect	number of incorrect answers

This function checks the json file to find the user

It then increments the wins/losses member for the user

4.1.2.5 showShip00

```
void battleship::showShip00 ( )  [slot]
```

Function that checks if a ship is under a pushbutton.

This function checks if a ship image is under a pushbutton

If there is a ship image, it'll display an explosion (hit) if the player answers correctly

If the player answers incorrectly, the ship image is shown and a random ship on the player's side is hit

4.1.2.6 updateTimer

```
void battleship::updateTimer ( )  [slot]
```

Function for updating the timer.

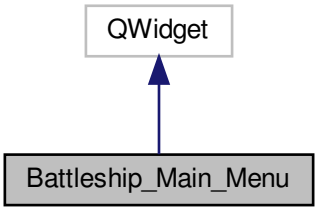
This function updates the 10 minute timer and displays it on screen

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

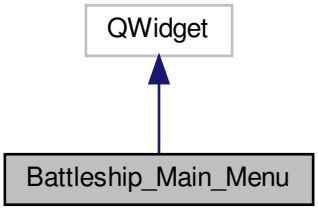
- battleship.h
- battleship.cpp

4.2 Battleship_Main_Menu Class Reference

Inheritance diagram for Battleship_Main_Menu:



Collaboration diagram for Battleship_Main_Menu:



Public Member Functions

- **Battleship_Main_Menu** (QWidget *parent=nullptr)
- void to_new_window_key_click (QKeyEvent *event)

  Function that takes the user to the battleship game when they click F1 key.
- void getUser (QString username)

  Function that retreives the name of the user.

Public Attributes

- QString **menu_username**

4.2.1 Member Function Documentation

4.2.1.1 getUser()

```
void Battleship_Main_Menu::getUser (
            QString username )
```

Function that retreives the name of the user.

Parameters

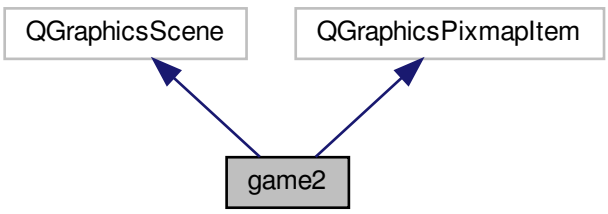
username	

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

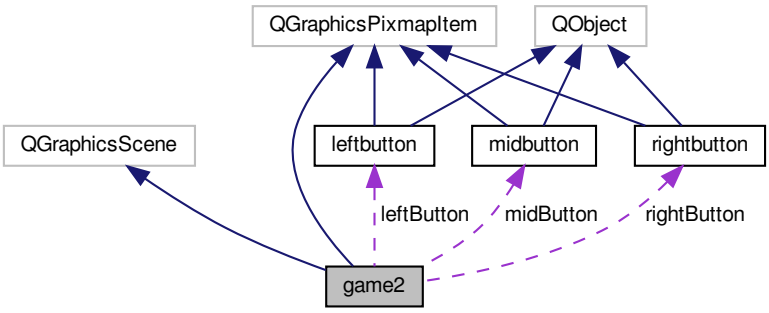
- battleship_main_menu.h
- battleship_main_menu.cpp

4.3 game2 Class Reference

Inheritance diagram for game2:



Collaboration diagram for game2:



Public Slots

- void create_left ()

  Function that creates discs in the left lane.
- void create_mid ()

  Function that creates discs in the middle lane.
- void create_right ()

  Function that creates discs in the right lane.
- void checkMisses ()

  Function that checks number of missed disks.

Public Member Functions

- **game2** (QGraphicsScene *parent=nullptr)
- void **keyPressEvent** (QKeyEvent *event)

Public Attributes

- QLabel * counter_label

  Label to keep track of total score and display it.
- QGridLayout * background

  Background of the game.
- leftbutton * **leftButton**
- rightbutton * **rightButton**
- midbutton * **midButton**
- QGraphicsView * view

  Graphics View.

4.3.1 Member Function Documentation

4.3.1.1 checkMisses

```
void game2::checkMisses ( )  [slot]
```

Function that checks number of missed disks.

Checks if number of missed disks is 3 to end the game

4.3.1.2 create_left

```
void game2::create_left ( )  [slot]
```

Function that creates discs in the left lane.

This function creates discs in the left lane

It adjusts the speed at which the discs are created based on the score of the player

It starts at 1x speed, increases to 2x, then to 8x

4.3.1.3 create_mid

```
void game2::create_mid ( )  [slot]
```

Function that creates discs in the middle lane.

This function creates discs in the middle lane

It adjusts the speed at which the discs are created based on the score of the player

It starts at 1x speed, increases to 2x, then to 8x

4.3.1.4 create_right

```
void game2::create_right ( )  [slot]
```

Function that creates discs in the right lane.

This function creates discs in the right lane

It adjusts the speed at which the discs are created based on the score of the player

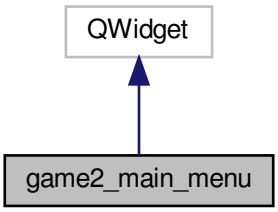
It starts at 1x speed, increases to 2x, then to 8x

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

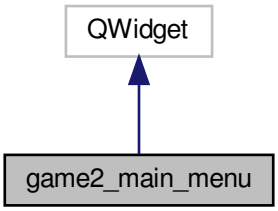
- game2.h
- game2.cpp

4.4 game2_main_menu Class Reference

Inheritance diagram for game2_main_menu:



Collaboration diagram for game2_main_menu:



Public Member Functions

- **game2_main_menu** (QWidget *parent=nullptr)
- void getUser (QString username)

  Function that retreives username.

Public Attributes

- QGridLayout * main_menu

  Grid for the main menu.
- QPushButton * start

  Start button.
- QString **menu_username**

4.4.1 Member Function Documentation

4.4.1.1 getUser()

```
void game2_main_menu::getUser (
            QString username )
```

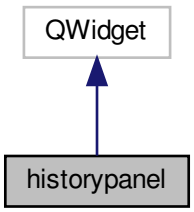
Function that retreives username.

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

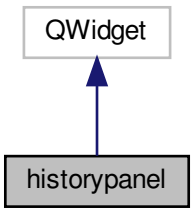
- game2_main_menu.h
- game2_main_menu.cpp

4.5 historypanel Class Reference

Inheritance diagram for historypanel:



Collaboration diagram for historypanel:



Public Slots

- void back ()

  function to go back to previous panel

Public Member Functions

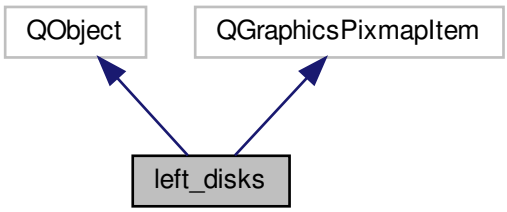
- **historypanel** (QWidget *parent=nullptr)
- void **getHistory** (QString)

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

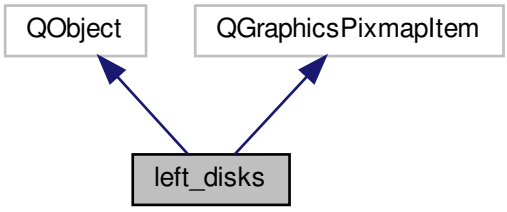
- historypanel.h
- historypanel.cpp

4.6 left_disks Class Reference

Inheritance diagram for left_disks:



Collaboration diagram for left_disks:



Public Slots

- void update ()

  Function that updates the position of left discs.

Public Member Functions

- **left_disks** (QObject *parent=0)

4.6.1 Member Function Documentation

4.6.1.1 update

```
void left_disks::update ( )  [slot]
```

Function that updates the position of left discs.

This function updates the x,y position of a left disc on screen

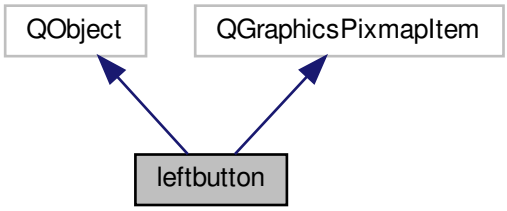
The function also checks the y() position of a disc and increments missed_disks if that y() position is above a certain value

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

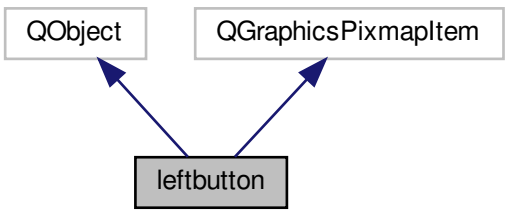
- left_disks.h
- left_disks.cpp

4.7 leftbutton Class Reference

Inheritance diagram for leftbutton:



Collaboration diagram for leftbutton:



Public Member Functions

- **leftbutton** (QObject *parent=0)
- bool checkColl ()

  Function that checks collision between left button and objects (discs)

4.7.1 Member Function Documentation

4.7.1.1 checkColl()

```
bool leftbutton::checkColl ( )
```

Function that checks collision between left button and objects (discs)

Returns

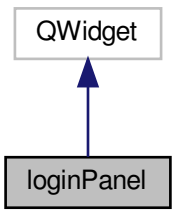
bool: true if there was collision, false otherwise

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

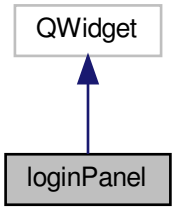
- leftbutton.h
- leftbutton.cpp

4.8 loginPanel Class Reference

Inheritance diagram for loginPanel:



Collaboration diagram for loginPanel:



Public Member Functions

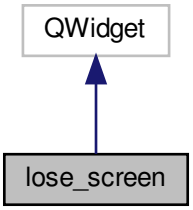
- **loginPanel** (QWidget ∗parent=nullptr)

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

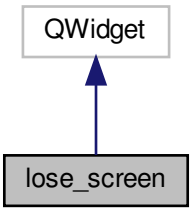
- loginpanel.h
- loginpanel.cpp

4.9 lose_screen Class Reference

Inheritance diagram for lose_screen:



Collaboration diagram for lose_screen:



Public Member Functions

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

Public Attributes

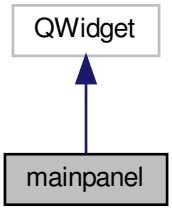
- QGridLayout * **grid**
- QLabel * **lose**
- QPushButton * **return_to_login**

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

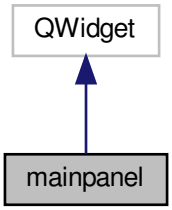
- lose_screen.h
- lose_screen.cpp

4.10 mainpanel Class Reference

Inheritance diagram for mainpanel:



Collaboration diagram for mainpanel:



Public Member Functions

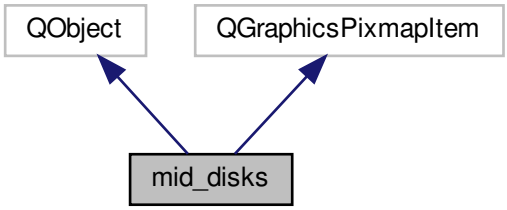
- **mainpanel** (QWidget ∗parent=nullptr)

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

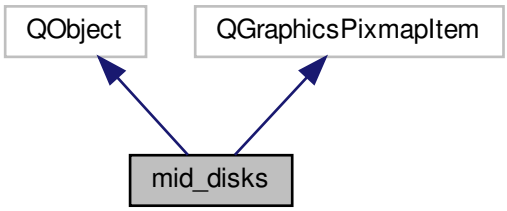
- mainpanel.h
- mainpanel.cpp

4.11 mid_disks Class Reference

Inheritance diagram for mid_disks:



Collaboration diagram for mid_disks:



Public Slots

- void update ()

  Function that updates the position of mid discs.

Public Member Functions

- **mid_disks** (QObject *parent=0)

4.11.1 Member Function Documentation

4.11.1.1 update

```
void mid_disks::update ( )  [slot]
```

Function that updates the position of mid discs.

This function updates the x,y position of a mid disc on screen

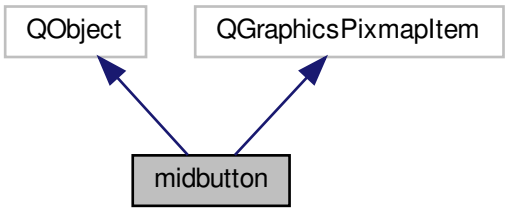
The function also checks the y() position of a disc and increments missed_disks if that y() position is above a certain value

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

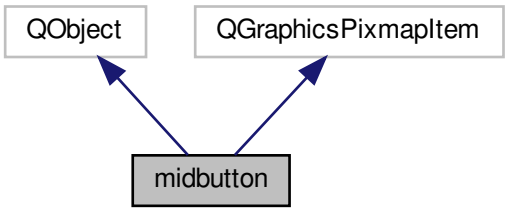
- mid_disks.h
- mid_disks.cpp

4.12 midbutton Class Reference

Inheritance diagram for midbutton:



Collaboration diagram for midbutton:



Public Member Functions

- **midbutton** (QObject *parent=nullptr)
- bool checkColl ()

  Function that checks collision between mid button and objects (discs)

4.12.1 Member Function Documentation

4.12.1.1 checkColl()

```
bool midbutton::checkColl ( )
```

Function that checks collision between mid button and objects (discs)

Returns

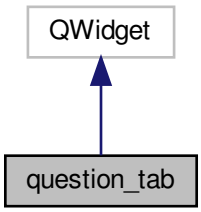
bool: true if there was collision, false otherwise

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

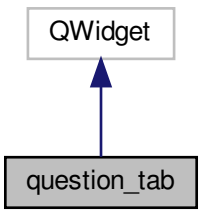
- midbutton.h
- midbutton.cpp

4.13 question_tab Class Reference

Inheritance diagram for question_tab:



Collaboration diagram for question_tab:



Public Member Functions

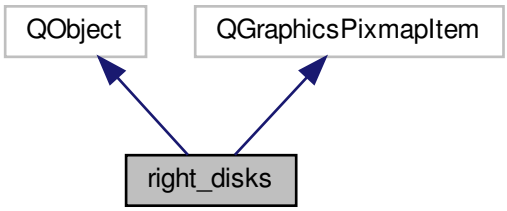
- **question_tab** (QWidget ∗parent=nullptr)

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

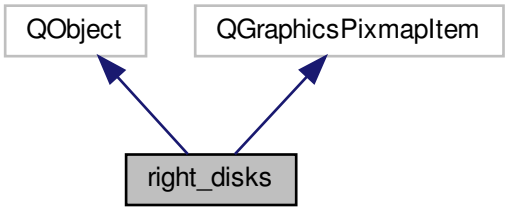
- question_tab.h
- question_tab.cpp

4.14 right_disks Class Reference

Inheritance diagram for right_disks:



Collaboration diagram for right_disks:



Public Slots

- void update ()

  Function that updates the position of right discs.

Public Member Functions

- **right_disks** (QObject *parent=0)

4.14.1 Member Function Documentation

4.14.1.1 update

```
void right_disks::update ( )  [slot]
```

Function that updates the position of right discs.

This function updates the x,y position of a right disc on screen

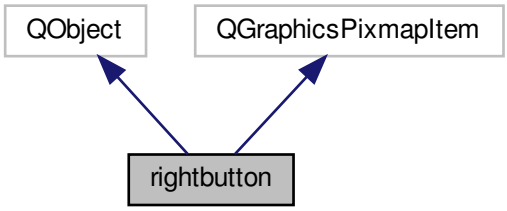
The function also checks the y() position of a disc and increments missed_disks if that y() position is above a certain value

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

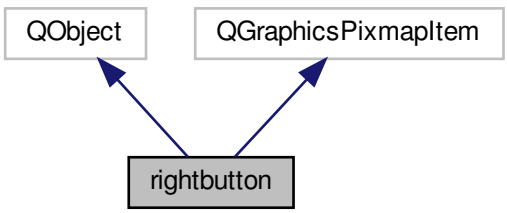
- right_disks.h
- right_disks.cpp

4.15 rightbutton Class Reference

Inheritance diagram for rightbutton:



Collaboration diagram for rightbutton:



Public Member Functions

- **rightbutton** (QObject *parent=nullptr)
- bool checkColl ()

  Function that checks collision between right button and objects (discs)

4.15.1 Member Function Documentation

4.15.1.1 checkColl()

```
bool rightbutton::checkColl ( )
```

Function that checks collision between right button and objects (discs)

Returns

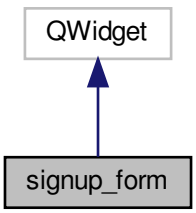
bool: true if there was collision, false otherwise

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

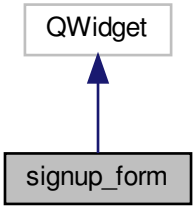
- rightbutton.h
- rightbutton.cpp

4.16 signup_form Class Reference

Inheritance diagram for signup_form:



Collaboration diagram for signup_form:



Public Slots

- void check_pass_num_empty ()

  Function that checks if pass and phone number meet requirements.
- void back_from_signup ()

  Function that takes user back to main panel.
- void select_display_image ()

  Function that displays image selection.
- static bool isUnique (QString curr_name)

  Function that checks if username is unique.

Public Member Functions

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

4.16.1 Member Function Documentation

4.16.1.1 back_from_signup

```
void signup_form::back_from_signup ( )  [slot]
```

Function that takes user back to main panel.

4.16.1.2 check_pass_num_empty

```
void signup_form::check_pass_num_empty ( )  [slot]
```

Function that checks if pass and phone number meet requirements.

4.16.1.3 isUnique

```
bool signup_form::isUnique (
            QString curr_name )  [static], [slot]
```

Function that checks if username is unique.

4.16.1.4 select_display_image

```
void signup_form::select_display_image ( )  [slot]
```

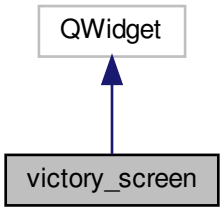
Function that displays image selection.

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

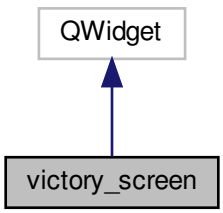
- signup_form.h
- signup_form.cpp

4.17 victory_screen Class Reference

Inheritance diagram for victory_screen:



Collaboration diagram for victory_screen:



Public Member Functions

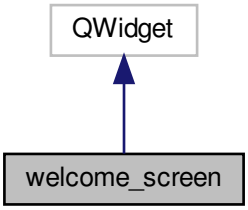
- **victory_screen** (QWidget *parent=nullptr)

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

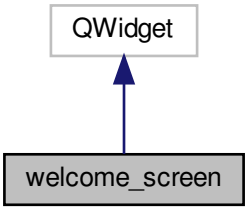
- victory_screen.h
- victory_screen.cpp

4.18 welcome_screen Class Reference

Inheritance diagram for welcome_screen:



Collaboration diagram for welcome_screen:



Public Slots

- void back_to_main ()
  function to go back to previous panel
- void to_history_panel ()
  function to go to history panel
- void to_game_1 ()
  function to launch game1
- void to_game_2 ()
  function to launch game2

Public Member Functions

- **welcome_screen** (QWidget *parent=nullptr)
- void **getInfo** (QString User)

Public Attributes

- QString **user**
- QGridLayout * welcome_panel

  main layout
- QPushButton * game_1

  button to take user to game1
- QPushButton * game_2

  button to take user to game2
- QPushButton * back_to_main_page

  back button
- QPushButton * history

  history button
- QLabel * welcome_name

  display username
- QLabel * welcome_date

  display today's date

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

- welcome_screen.h
- welcome_screen.cpp

Chapter 5

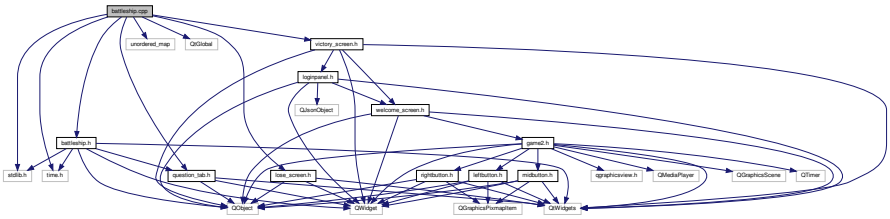
File Documentation

5.1 battleship.cpp File Reference

battleship

```
#include "battleship.h"
#include <stdlib.h>
#include <time.h>
#include "question_tab.h"
#include <unordered_map>
#include <QtGlobal>
#include "victory_screen.h"
#include "lose_screen.h"
```

Include dependency graph for battleship.cpp:



Macros

- #define **GET_VARIABLE_NAME**(Variable) (#Variable)

Variables

- int **seconds** = 600
- int **correct** = 0
- int **incorrect** = 0
- QString **question_path**
- QString **correct_path**
- int **i** = 0
- int **j** = -1
- QList< int > **good_ships** = QList<int>{10,12,13,30,31,32,33}
- QString **path_explosion** = ":/game1assets/pop.png"
- int **check** = 1
- unordered_map< string, QString > **urlmap**
- unordered_map< string, QString > **explodedmap**

5.1.1 Detailed Description

battleship

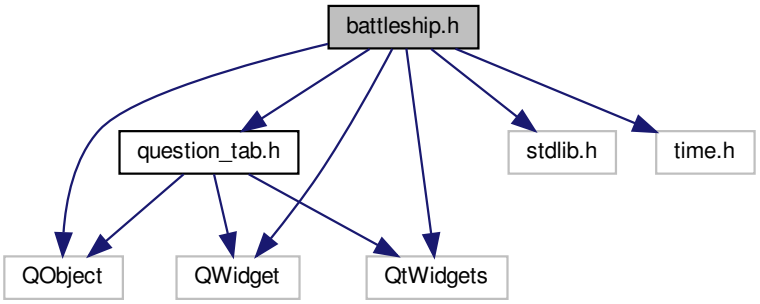
implementation of battleship class

5.2 battleship.h File Reference

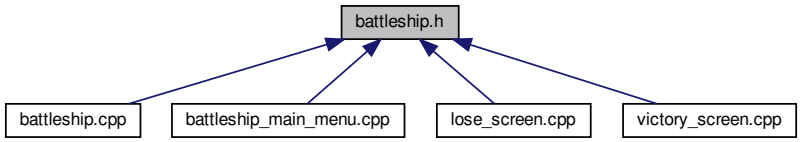
battleship class

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <stdlib.h>
#include <time.h>
#include "question_tab.h"
```

Include dependency graph for battleship.h:



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



Classes

- class battleship

5.2.1 Detailed Description

battleship class

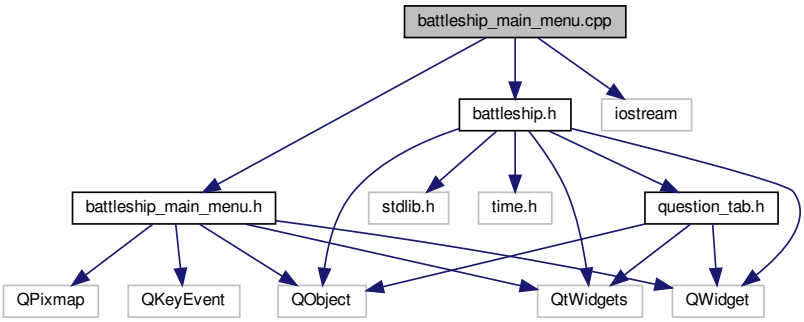
class responsible for the battleship game

5.3 battleship_main_menu.cpp File Reference

battleship main menu

```
#include "battleship_main_menu.h"
#include "battleship.h"
#include <iostream>
```

Include dependency graph for battleship_main_menu.cpp:



5.3.1 Detailed Description

battleship main menu

implementation of battleship main menu class

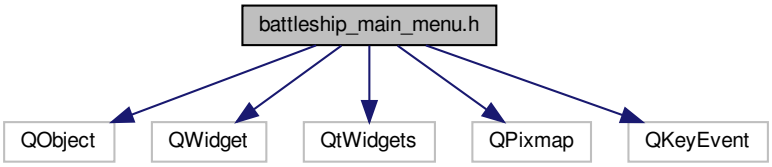
5.4 battleship_main_menu.h File Reference

battleship main menu class

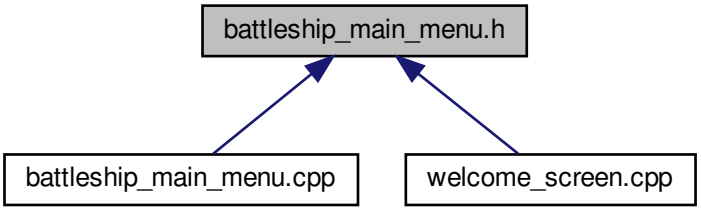
```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <QPixmap>
```

```
#include <QKeyEvent>
```

Include dependency graph for battleship_main_menu.h:



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



Classes

- class Battleship_Main_Menu

5.4.1 Detailed Description

battleship main menu class

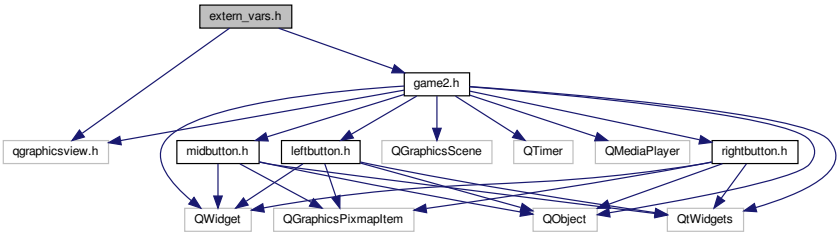
class responsible for setting up the main menu of the battleship game

5.5 extern_vars.h File Reference

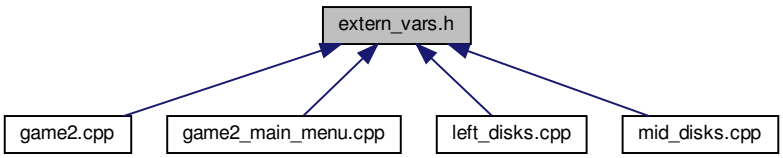
extern_vars class

```
#include <qgraphicsview.h>
#include "game2.h"
```

Include dependency graph for extern_vars.h:



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



Variables

- int missed_disks

  Counter for missed discs.
- int total_score

  Counter for total score.
- QString ans

  Choice of difficulty.

5.5.1 Detailed Description

extern_vars class

class that contains external global variables to be used across different files

5.5.2 Variable Documentation

5.5.2.1 missed_disks

```
int missed_disks
```

Counter for missed discs.

Counter for missed discs.

5.5.2.2 total_score

```
int total_score
```

Counter for total score.

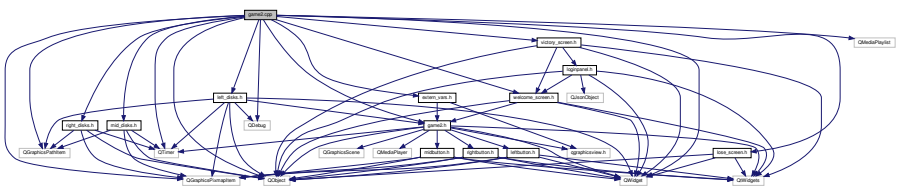
Counter for total score.

5.6 game2.cpp File Reference

game2

```
#include "game2.h"
#include "left_disks.h"
#include "mid_disks.h"
#include "right_disks.h"
#include "welcome_screen.h"
#include <QObject>
#include <QWidget>
#include <QDebug>
#include <QGraphicsPixmapItem>
#include <QTimer>
#include <QGraphicsPathItem>
#include "victory_screen.h"
#include "lose_screen.h"
#include "extern_vars.h"
#include <QMediaPlaylist>
```

Include dependency graph for game2.cpp:



Variables

- int counter_red = 0
  Counter for red discs.
- int counter_yellow = 0
  Counter for yellow discs.
- int counter_blue = 0
  Counter for blue discs.
- int total_score = 0
  Total score counter.
- int missed_disks = 0
  Missed discs counter.
- QTimer * timer_left = new QTimer()
  Timer for spawning left discs on easy mode.
- QTimer * timer_mid = new QTimer()
  Timer for spawning middle discs on easy mode.
- QTimer * timer_right = new QTimer()
  Timer for spawning right discs on easy mode.
- QTimer * timer_left_medium = new QTimer()
  Timer for spawning left discs on medium mode.
- QTimer * timer_mid_medium = new QTimer()
  Timer for spawning middle discs on medium mode.
- QTimer * timer_right_medium = new QTimer()
  Timer for spawning right dics on medium mode.
- QTimer * timer_left_hard = new QTimer()
  Timer for spawning left discs on hard mode.
- QTimer * timer_mid_hard = new QTimer()
  Timer for spawning middle discs on hard mode.
- QTimer * timer_right_hard = new QTimer()
  Timer for spawning right discs on hard mode.
- QMediaPlaylist * **playlist** = new QMediaPlaylist()
- QMediaPlayer * music = new QMediaPlayer()
  For game music.

5.6.1 Detailed Description

game2

implementation of game2 class

5.6.2 Variable Documentation

5.6.2.1 missed_disks

```
int missed_disks = 0
```

Missed discs counter.

Counter for missed discs.

5.6.2.2 total_score

```
int total_score = 0
```

Total score counter.

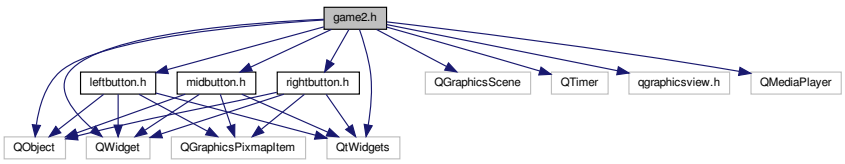
Counter for total score.

5.7 game2.h File Reference

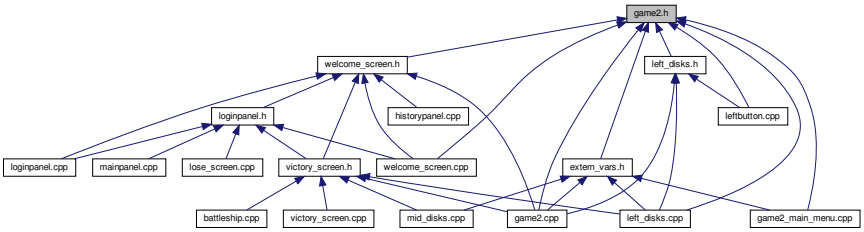
game2 class

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <QGraphicsScene>
#include <QTimer>
#include "leftbutton.h"
#include "midbutton.h"
#include "rightbutton.h"
#include "qgraphicsview.h"
#include <QMediaPlayer>
```

Include dependency graph for game2.h:



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



Classes

- class game2

5.7.1 Detailed Description

game2 class

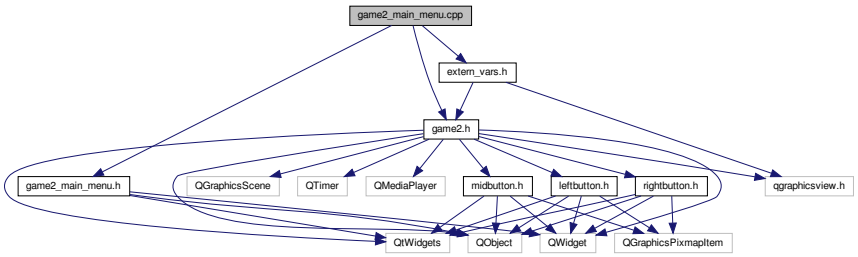
class responsible for the shooting discs game

5.8 game2_main_menu.cpp File Reference

game2 main menu

```
#include "game2_main_menu.h"
#include "game2.h"
#include "extern_vars.h"
```

Include dependency graph for game2_main_menu.cpp:



Variables

- QString ans = ""

  Choice of difficulty.

5.8.1 Detailed Description

game2 main menu

implementation of game2 main menu class

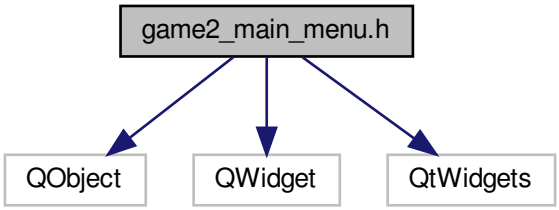
5.9 game2_main_menu.h File Reference

game2 main meenu class

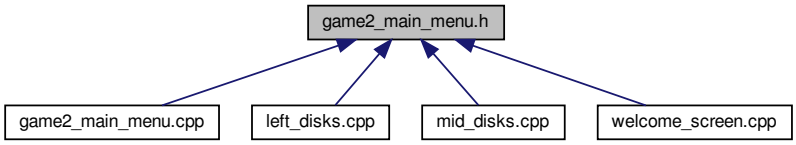
```
#include <QObject>
#include <QWidget>
```

```
#include <QtWidgets>
```

Include dependency graph for game2_main_menu.h:



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



Classes

- class game2_main_menu

5.9.1 Detailed Description

game2 main meenu class

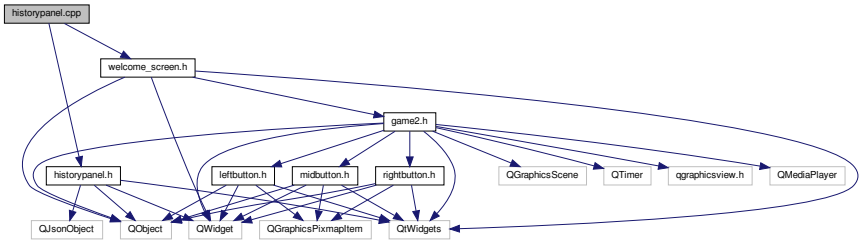
class responsible for the shooting discs game

5.10 historypanel.cpp File Reference

user game history implementation

```
#include "historypanel.h"
#include "welcome_screen.h"
```

Include dependency graph for historypanel.cpp:



5.10.1 Detailed Description

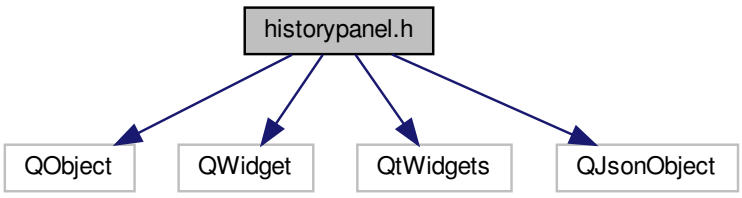
user game history implementation

5.11 historypanel.h File Reference

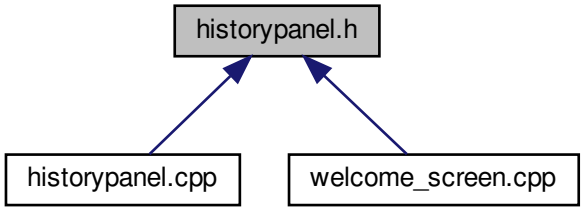
user game history

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

Include dependency graph for historypanel.h:



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



Classes

- class historypanel

5.11.1 Detailed Description

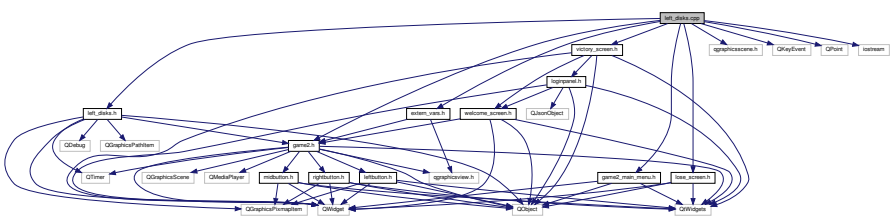
user game history

5.12 left_disks.cpp File Reference

left discs

```
#include "left_disks.h"
#include <qgraphicsscene.h>
#include <QKeyEvent>
#include <QPoint>
#include <iostream>
#include "extern_vars.h"
#include "lose_screen.h"
#include "victory_screen.h"
#include "game2_main_menu.h"
#include "game2.h"
```

Include dependency graph for left_disks.cpp:



5.12.1 Detailed Description

left discs

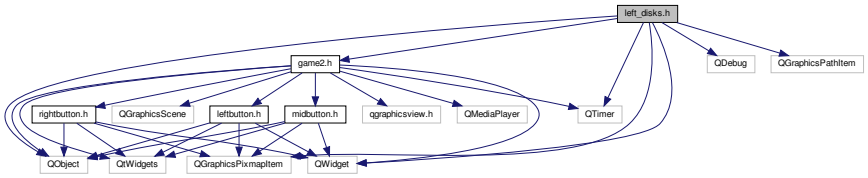
implementation of the left_disks class

5.13 left_disks.h File Reference

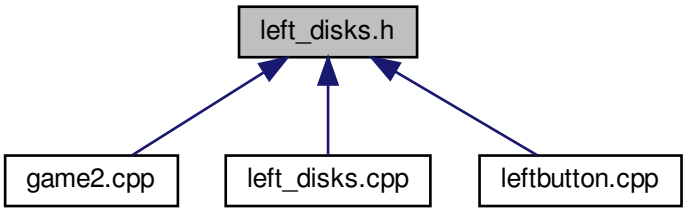
left discs class

```
#include "game2.h"
#include <QObject>
#include <QWidget>
#include <QDebug>
#include <QGraphicsPixmapItem>
#include <QTimer>
#include <QGraphicsPathItem>
```

Include dependency graph for left_disks.h:



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



Classes

- class left_disks

5.13.1 Detailed Description

left discs class

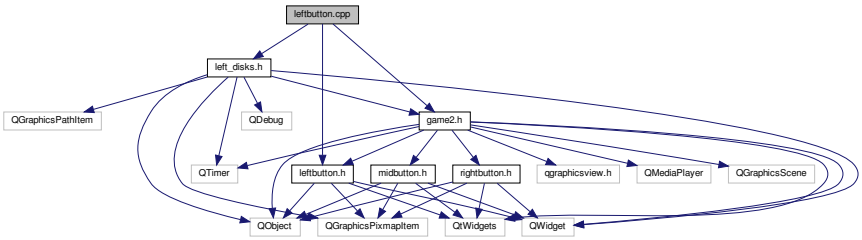
class responsible for handling left discs

5.14 leftbutton.cpp File Reference

leftbutton

```
#include "leftbutton.h"
#include "left_disks.h"
#include "game2.h"
```

Include dependency graph for leftbutton.cpp:



5.14.1 Detailed Description

leftbutton

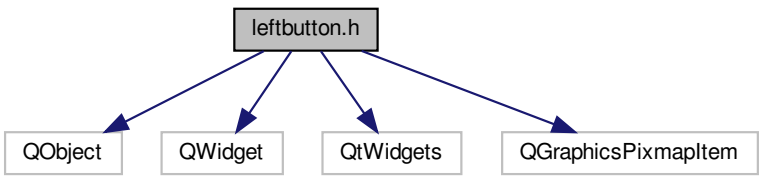
implementation of leftbutton class

5.15 leftbutton.h File Reference

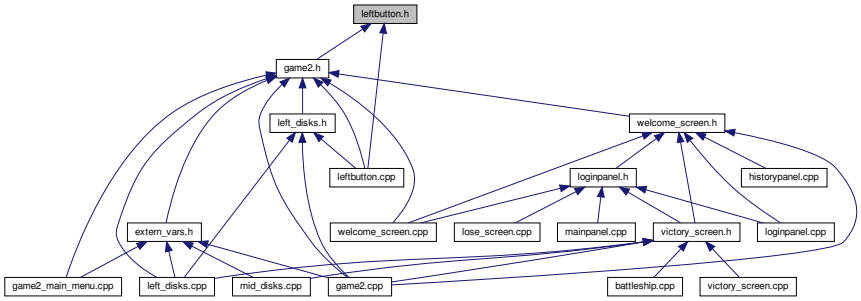
leftbutton class

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

Include dependency graph for leftbutton.h:



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



Classes

- class leftbutton

5.15.1 Detailed Description

leftbutton class

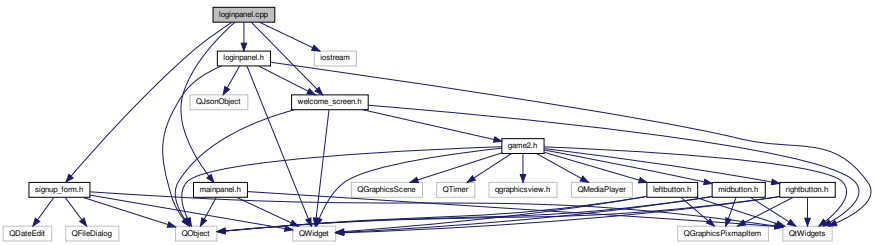
class responsible for left button

5.16 loginpanel.cpp File Reference

implementation of login menu

```
#include "loginpanel.h"
#include "mainpanel.h"
#include "welcome_screen.h"
#include "signup_form.h"
#include <iostream>
```

Include dependency graph for loginpanel.cpp:



5.16.1 Detailed Description

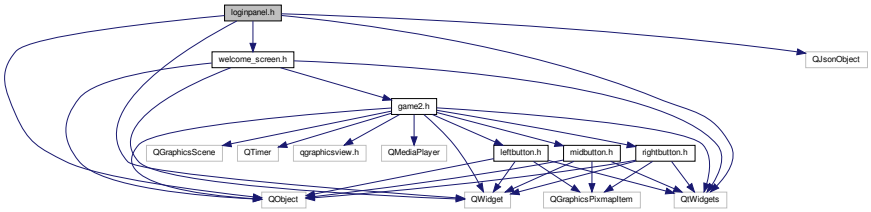
implementation of login menu

5.17 loginpanel.h File Reference

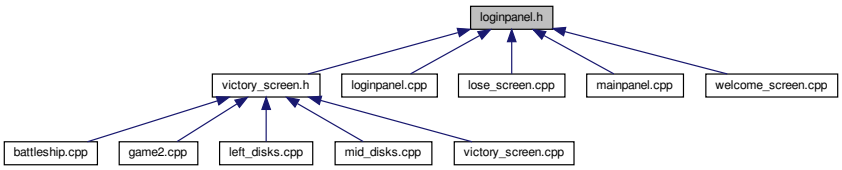
loginpanel header class

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include <QJsonObject>
#include "welcome_screen.h"
```

Include dependency graph for loginpanel.h:



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



Classes

- class loginPanel

5.17.1 Detailed Description

loginpanel header class

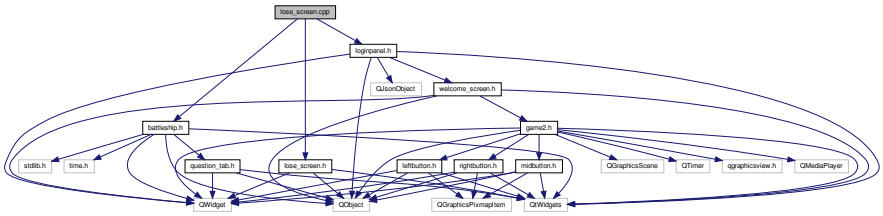
for users to log in

5.18 lose_screen.cpp File Reference

lose screen implementation of lose screen class

```
#include "lose_screen.h"
#include "loginpanel.h"
#include "battleship.h"
```

Include dependency graph for lose_screen.cpp:



5.18.1 Detailed Description

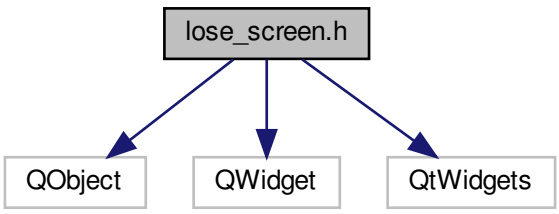
lose screen implementation of lose screen class

5.19 lose_screen.h File Reference

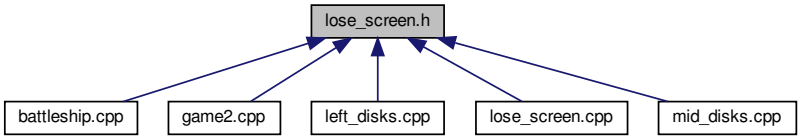
lose_screen class

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

Include dependency graph for lose_screen.h:



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



Classes

- class lose_screen

5.19.1 Detailed Description

lose_screen class

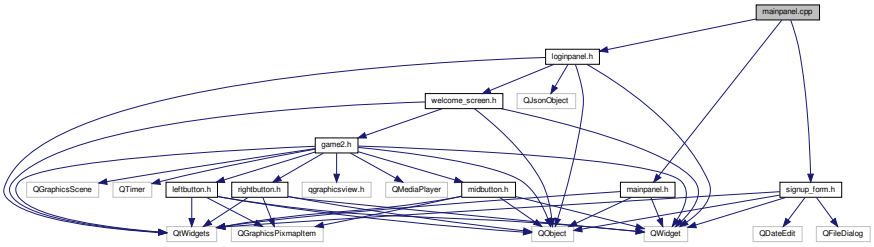
class responsible for the losing screen at the end of either games

5.20 mainpanel.cpp File Reference

mainpanel

```
#include "mainpanel.h"
#include "loginpanel.h"
#include "signup_form.h"
```

Include dependency graph for mainpanel.cpp:



5.20.1 Detailed Description

mainpanel

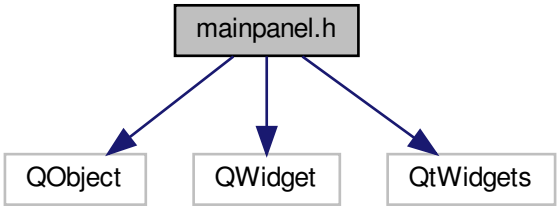
interface for welcoming users

5.21 mainpanel.h File Reference

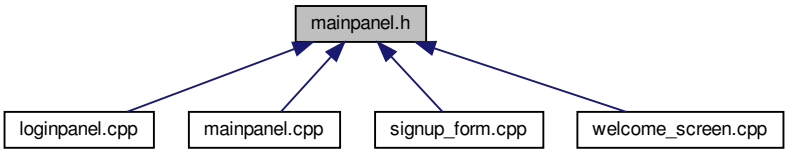
mainpanel header class

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

Include dependency graph for mainpanel.h:



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



Classes

- class mainpanel

5.21.1 Detailed Description

mainpanel header class

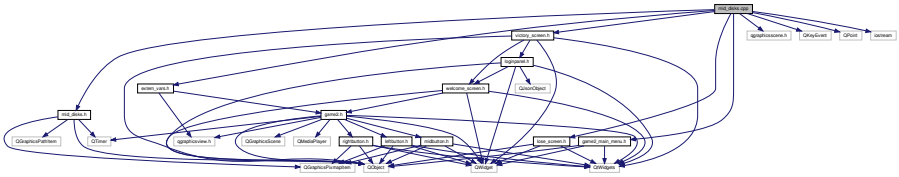
first interface

5.22 mid_disks.cpp File Reference

mid discs

```
#include "mid_disks.h"
#include <qgraphicsscene.h>
#include <QKeyEvent>
#include <QPoint>
#include "extern_vars.h"
#include <iostream>
#include "victory_screen.h"
#include "lose_screen.h"
#include "game2_main_menu.h"
```

Include dependency graph for mid_disks.cpp:



5.22.1 Detailed Description

mid discs

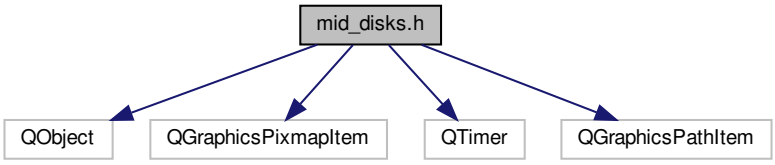
implementation of the mid_disks class

5.23 mid_disks.h File Reference

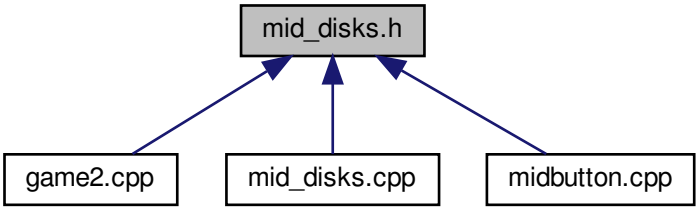
mid discs class

```
#include <QObject>
#include <QGraphicsPixmapItem>
#include <QTimer>
#include <QGraphicsPathItem>
```

Include dependency graph for mid_disks.h:



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



Classes

- class mid_disks

5.23.1 Detailed Description

mid discs class

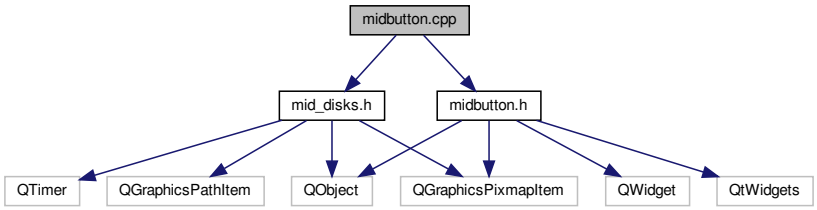
class responsible for handling mid discs

5.24 midbutton.cpp File Reference

midbutton

```
#include "midbutton.h"
#include "mid_disks.h"
```

Include dependency graph for midbutton.cpp:



5.24.1 Detailed Description

midbutton

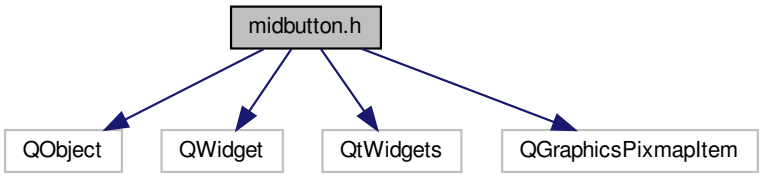
implementation of midbutton class

5.25 midbutton.h File Reference

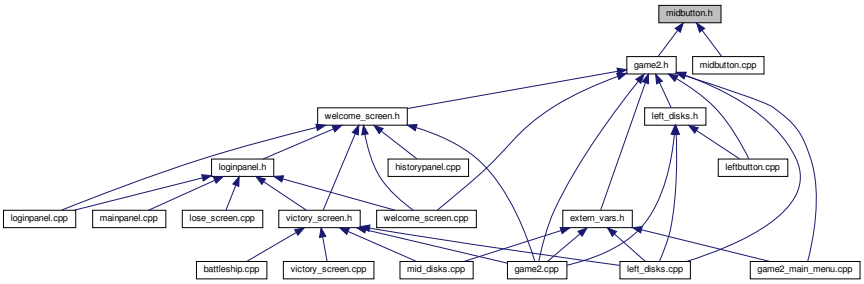
midbutton class

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

Include dependency graph for midbutton.h:



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



Classes

- class midbutton

5.25.1 Detailed Description

midbutton class

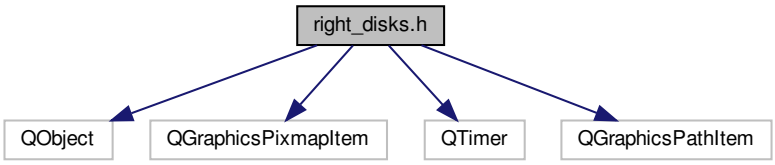
class responsible for mid button

5.26 right_disks.h File Reference

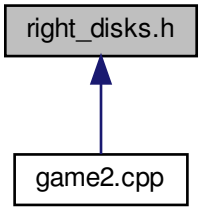
right discs class

```
#include <QObject>
#include <QGraphicsPixmapItem>
#include <QTimer>
#include <QGraphicsPathItem>
```

Include dependency graph for right_disks.h:



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



Classes

- class right_disks

5.26.1 Detailed Description

right discs class

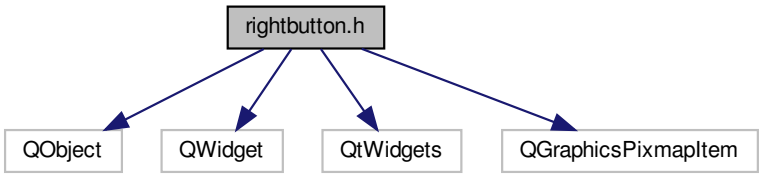
class responsible for handling right discs

5.27 rightbutton.h File Reference

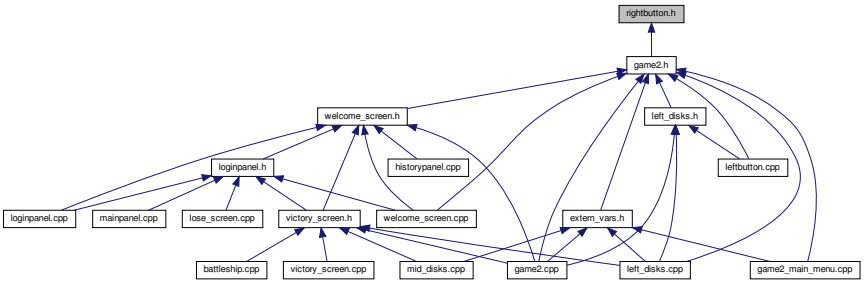
rightbutton class

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

Include dependency graph for rightbutton.h:



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



Classes

- class rightbutton

5.27.1 Detailed Description

rightbutton class

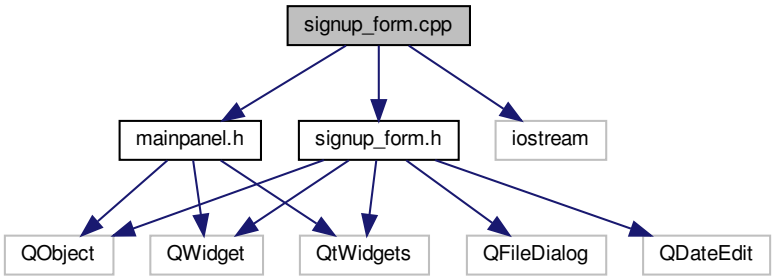
class responsible for right button

5.28 signup_form.cpp File Reference

signup_form

```
#include "signup_form.h"
#include "mainpanel.h"
#include <iostream>
```

Include dependency graph for signup_form.cpp:



5.28.1 Detailed Description

signup_form

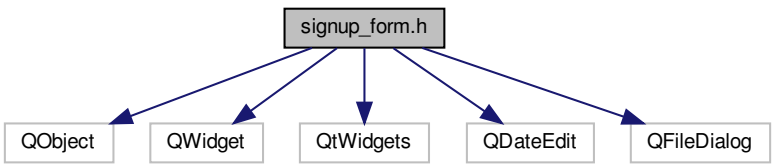
interface for registering new users

5.29 signup_form.h File Reference

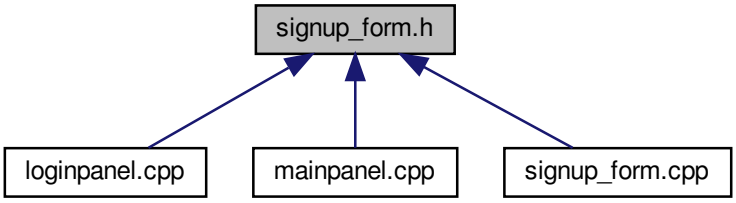
for registering new users

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

Include dependency graph for signup_form.h:



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



Classes

- class signup_form

5.29.1 Detailed Description

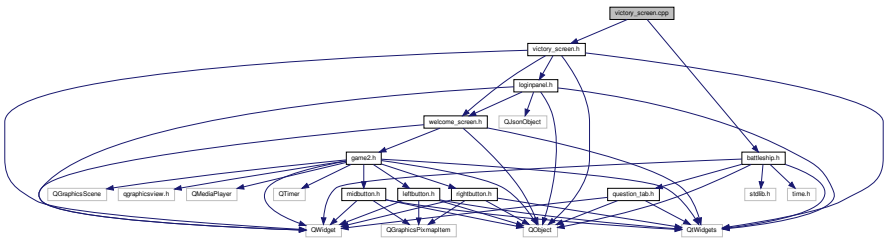
for registering new users

5.30 victory_screen.cpp File Reference

victory screen

```
#include "victory_screen.h"
#include "battleship.h"
```

Include dependency graph for victory_screen.cpp:



5.30.1 Detailed Description

victory screen

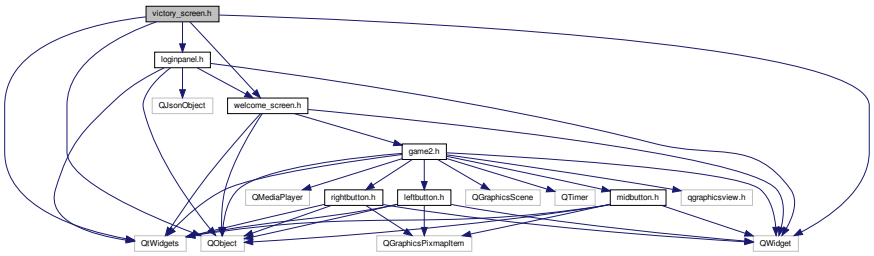
implementation of victory screen class

5.31 victory_screen.h File Reference

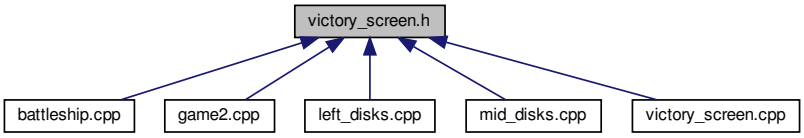
victory screen class

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include "loginpanel.h"
#include "welcome_screen.h"
```

Include dependency graph for victory_screen.h:



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



Classes

- class victory_screen

5.31.1 Detailed Description

victory screen class

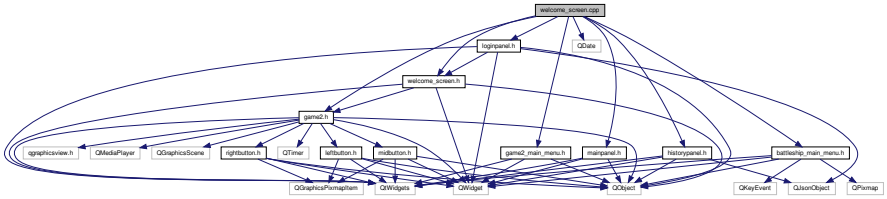
class responsible for the victory screen at the end of either games

5.32 welcome_screen.cpp File Reference

screen that shows when user logins in

```
#include "welcome_screen.h"
#include "mainpanel.h"
#include "loginpanel.h"
#include "QDate"
#include "historypanel.h"
#include "battleship_main_menu.h"
#include "game2.h"
#include "game2_main_menu.h"
```

Include dependency graph for welcome_screen.cpp:



5.32.1 Detailed Description

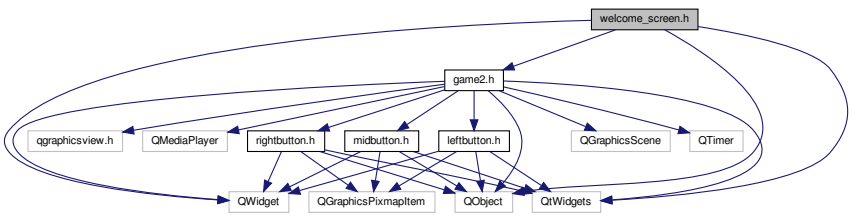
screen that shows when user logins in

5.33 welcome_screen.h File Reference

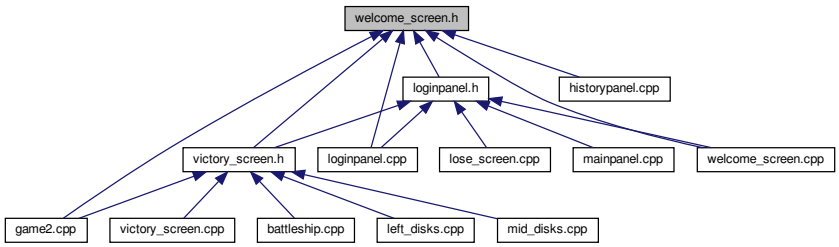
header file for welcome_screen.cpp

```
#include <QObject>
#include <QWidget>
#include <QtWidgets>
#include "game2.h"
```

Include dependency graph for welcome_screen.h:



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



Classes

- class welcome_screen

5.33.1 Detailed Description

header file for welcome_screen.cpp