

## Group 3 Project

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## **Chapter 1**

# **EECE 435L Games Project**

### **Author**

Rita Aoun  
Rawan Moukalled

### **Date**

28-2-2017

Runs the application.





## Chapter 2

# Class Index

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## Chapter 3

# File Index

### 3.1 File List

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## Chapter 4

# Class Documentation

### 4.1 Game1 Class Reference

#### Public Slots

- void [goToMainMenu](#) ()  
*Slot to go back to the games main menu when pressing Exit.*

#### Public Member Functions

- [Game1](#) (QWidget \*parent=0)  
*Default constructor.*

#### 4.1.1 Constructor & Destructor Documentation

##### 4.1.1.1 [Game1::Game1](#) ( [QWidget](#) \* *parent* = 0 ) [explicit]

Default constructor.

Constructor for Sheep Line.

Sets the size of the window, initializes the graphic items, sets the layouts and connects buttons to their slots

#### 4.1.2 Member Function Documentation

##### 4.1.2.1 void [Game1::goToMainMenu](#) ( ) [slot]

Slot to go back to the games main menu when pressing Exit.

Goes to the main menu of Sheep Line.

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

- [game1.h](#)
- [game1.cpp](#)

## 4.2 Game1Options Class Reference

### Public Slots

- void [gotoGameMainMenu](#) ()  
*Takes the user to the game main menu.*
- void [gotoGame1](#) ()  
*Takes the user to game 1.*

### Public Member Functions

- [Game1Options](#) (QWidget \*parent=0)  
*Default constructor.*

#### 4.2.1 Constructor & Destructor Documentation

##### 4.2.1.1 `Game1Options::Game1Options ( QWidget * parent = 0 )` [explicit]

Default constructor.

Initializes all buttons and text and shows them on the screen. Also initializes connections.

#### 4.2.2 Member Function Documentation

##### 4.2.2.1 `void Game1Options::gotoGame1 ( )` [slot]

Takes the user to game 1.

Takes the user to game 1. Called after clicking any level button.

##### 4.2.2.2 `void Game1Options::gotoGameMainMenu ( )` [slot]

Takes the user to the game main menu.

Takes the user to the game main menu that corresponds to game 1. Called after clicking the corresponding button.

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

- [game1options.h](#)
- [game1options.cpp](#)

## 4.3 Game2 Class Reference

### Public Slots

- void [goToMainMenu](#) ()

*Slot to go back to the games main menu when pressing Exit.*

### Public Member Functions

- [Game2](#) (QWidget \*parent=0)

*Default constructor.*

#### 4.3.1 Constructor & Destructor Documentation

##### 4.3.1.1 `Game2::Game2 ( QWidget * parent = 0 ) [explicit]`

Default constructor.

Constructor for Trap the Sheep.

Sets the size of the window, initializes the graphic items, sets the layouts and connects buttons to their slots

#### 4.3.2 Member Function Documentation

##### 4.3.2.1 `void Game2::goToMainMenu ( ) [slot]`

Slot to go back to the games main menu when pressing Exit.

Goes to the main menu of Sheep Line.

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

- [game2.h](#)
- [game2.cpp](#)

## 4.4 Game3 Class Reference

### Public Slots

- void [goToMainMenu](#) ()

*Slot to go back to the games main menu when pressing Exit.*

## Public Member Functions

- [Game3](#) (QWidget \*parent=0)

*Default constructor.*

### 4.4.1 Constructor & Destructor Documentation

#### 4.4.1.1 `Game3::Game3 ( QWidget * parent = 0 )` [explicit]

Default constructor.

Constructor for Dots and Lines.

Sets the size of the window, initializes the graphic items, sets the layouts and connects buttons to their slots

### 4.4.2 Member Function Documentation

#### 4.4.2.1 `void Game3::goToMainMenu ( )` [slot]

Slot to go back to the games main menu when pressing Exit.

Goes back to the Main meny of Dots and Lines.

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

- [game3.h](#)
- [game3.cpp](#)

## 4.5 GameMainMenu Class Reference

### Public Slots

- void [gotoGameOptions](#) ()

*Takes the user to the game options.*

- void [gotoGameSelection](#) ()

*Takes the user to the game selection menu.*

### Public Member Functions

- [GameMainMenu](#) (int gameChoice, QWidget \*parent=0)

*Constructor.*



### 4.5.1 Constructor & Destructor Documentation

#### 4.5.1.1 GameMainMenu::GameMainMenu ( int *gameChoice*, QWidget \* *parent* = 0 ) [explicit]

Constructor.

Initializes all buttons and the game title and instructions and shows them on the screen. Also initializes connections.

### 4.5.2 Member Function Documentation

#### 4.5.2.1 void GameMainMenu::gotoGameOptions ( ) [slot]

Takes the user to the game options.

Takes the user to the game option widget that corresponds to the game choice. Called after clicking "Play".

#### 4.5.2.2 void GameMainMenu::gotoGameSelection ( ) [slot]

Takes the user to the game selection menu.

Takes the user back to the game selection menu. Called after clicking the corresponding button.

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

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

## 4.6 Games23Options Class Reference

### Public Slots

- void [gotoGameMainMenu](#) ()  
*Takes the user to the game main menu.*
- void [gotoGame](#) ()  
*Takes the user to game 2 or 3.*

### Public Member Functions

- [Games23Options](#) (int *gameNumber*, QWidget \**parent*=0)  
*Constructor.*

### 4.6.1 Constructor & Destructor Documentation

#### 4.6.1.1 Games23Options::Games23Options ( int *gameNumber*, QWidget \* *parent* = 0 ) [explicit]

Constructor.

Initializes all buttons and text and shows them on the screen. Also initializes connections.

### 4.6.2 Member Function Documentation

#### 4.6.2.1 void Games23Options::gotoGame ( ) [slot]

Takes the user to game 2 or 3.

Takes the user to game 2 or 3, depending on his/her initial selection. Called after clicking any level button.

#### 4.6.2.2 void Games23Options::gotoGameMainMenu ( ) [slot]

Takes the user to the game main menu.

Takes the user to the game main menu that corresponds to game 2 or 3. Called after clicking the corresponding button.

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

- [games23options.h](#)
- [games23options.cpp](#)

## 4.7 GameSelection Class Reference

### Public Slots

- void [goToMyAccount](#) ()  
*Takes the user from the game selection menu to the My Account page.*
- void [goToMain](#) ()  
*Takes the user from the game selection menu to the main welcome window.*
- void [goToGame1](#) ()  
*Takes the user from the game selection menu to the Sheep Line game.*
- void [goToGame2](#) ()  
*Takes the user from the game selection menu to the Trap the Sheep game.*
- void [goToGame3](#) ()  
*Takes the user from the game selection menu to the Dots and Lines game.*

## Public Member Functions

- [GameSelection](#) (QWidget \*parent=0)

*Default constructor.*

### 4.7.1 Constructor & Destructor Documentation

#### 4.7.1.1 GameSelection::GameSelection ( QWidget \* parent = 0 ) [explicit]

Default constructor.

Initializes all buttons and labels and shows them on the game selection menu.

### 4.7.2 Member Function Documentation

#### 4.7.2.1 void GameSelection::goToGame1 ( ) [slot]

Takes the user from the game selection menu to the Sheep Line game.

Takes the user to game 1 when the appropriate button is clicked.

#### 4.7.2.2 void GameSelection::goToGame2 ( ) [slot]

Takes the user from the game selection menu to the Trap the Sheep game.

Takes the user to game 2 when the appropriate button is clicked.

#### 4.7.2.3 void GameSelection::goToGame3 ( ) [slot]

Takes the user from the game selection menu to the Dots and Lines game.

Takes the user to game 3 when the appropriate button is clicked.

#### 4.7.2.4 void GameSelection::goToMain ( ) [slot]

Takes the user from the game selection menu to the main welcome window.

Takes the user back to the login widget. Called when the logout button is clicked.

#### 4.7.2.5 void GameSelection::goToMyAccount ( ) [slot]

Takes the user from the game selection menu to the My Account page.

Takes the user to his/her account page. Called when the "Account" button is clicked.

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

- [gameselection.h](#)

- [gameselection.cpp](#)

## 4.8 Helper Class Reference

### Static Public Member Functions

- static void [makeWidgetSmall](#) (QWidget \*widget)  
*Makes given widget small.*
- static void [makeWidgetLarge](#) (QWidget \*widget)  
*Makes given widget large.*

### 4.8.1 Member Function Documentation

4.8.1.1 void [Helper::makeWidgetLarge](#) ( QWidget \* *widget* ) [static]

Makes given widget large.

Makes the given widget large.

4.8.1.2 void [Helper::makeWidgetSmall](#) ( QWidget \* *widget* ) [static]

Makes given widget small.

Makes the given widget small.

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

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

## 4.9 MainWidget Class Reference

### Public Slots

- void [goToGameSelection](#) ()

### Public Member Functions

- [MainWidget](#) (QWidget \*parent=0)  
*Default constructor.*

### 4.9.1 Constructor & Destructor Documentation

#### 4.9.1.1 MainWindow::MainWindow ( QWidget \* *parent* = 0 ) [explicit]

Default constructor.

Initializes all buttons, input fields and labels and shows them on the screen.

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

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

## 4.10 MyAccount Class Reference

### Public Slots

- void [goToGames](#) ()  
*Goes back to the games selection menu.*

### Public Member Functions

- [MyAccount](#) (QWidget \*parent=0)  
*Default constructor.*

### 4.10.1 Constructor & Destructor Documentation

#### 4.10.1.1 MyAccount::MyAccount ( QWidget \* *parent* = 0 ) [explicit]

Default constructor.

Initializes all buttons and labels and shows them on the game selection menu.

### 4.10.2 Member Function Documentation

#### 4.10.2.1 void MyAccount::goToGames ( ) [slot]

Goes back to the games selection menu.

Takes the user back to the game selection menu. Called when the user clicks the corresponding button.

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

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



## Chapter 5

# File Documentation

### 5.1 game1.cpp File Reference

Contains the Sheep Line.

```
#include "game1.h" #include "helper.h" #include "gamemainmenu.h"
```

#### 5.1.1 Detailed Description

Contains the Sheep Line.

### 5.2 game1.h File Reference

Sheep Line class.

```
#include <QWidget> #include <QtGui>
```

#### Classes

- class [Game1](#)

#### 5.2.1 Detailed Description

Sheep Line class. This is the class for the gameplay of the Sheep Line game.

#### Author

Rita Aoun  
Rawan Moukalled

### 5.3 game1options.cpp File Reference

Contains [Game1Options](#) class definition.

```
#include "game1options.h"    #include "helper.h"    #include  
"gamemainmenu.h" #include "game1.h"
```

#### 5.3.1 Detailed Description

Contains [Game1Options](#) class definition.

### 5.4 game1options.h File Reference

[Game1Options](#) class.

```
#include <QWidget> #include <QtGui>
```

#### Classes

- class [Game1Options](#)

#### 5.4.1 Detailed Description

[Game1Options](#) class. This is the options page for game 1, where the user can choose the level with which to start the game. Only unlocked levels can be accessed.

#### Author

Rita Aoun  
Rawan Moukalled

### 5.5 game2.cpp File Reference

Contains the Trap the Sheep game.

```
#include "game2.h" #include "helper.h" #include "gamemainmenu.-  
h"
```

#### 5.5.1 Detailed Description

Contains the Trap the Sheep game.



## 5.6 game2.h File Reference

Trap the Sheep class.

```
#include <QWidget> #include <QtGui>
```

### Classes

- class [Game2](#)

#### 5.6.1 Detailed Description

Trap the Sheep class. This is the class for the gameplay of the Trap the Sheep game.

#### Author

Rita Aoun  
Rawan Moukalled

## 5.7 game3.cpp File Reference

Contains the Dots and Lines game.

```
#include "game3.h" #include "helper.h" #include "gamemainmenu.-  
h"
```

#### 5.7.1 Detailed Description

Contains the Dots and Lines game.

## 5.8 game3.h File Reference

Dots and Lines class.

```
#include <QWidget> #include <QtGui>
```

### Classes

- class [Game3](#)

#### 5.8.1 Detailed Description

Dots and Lines class. This is the class for the gameplay of the Dots and Lines game.

**Author**

Rita Aoun  
Rawan Moukalled

## 5.9 gamemainmenu.cpp File Reference

Contains [GameMainMenu](#) class definition.

```
#include "gamenainmenu.h" #include <QFont> #include "helper.-  
h" #include "gameoptions.h" #include "games23options.h"  
#include "gameselection.h"
```

### 5.9.1 Detailed Description

Contains [GameMainMenu](#) class definition.

## 5.10 gamemainmenu.h File Reference

[GameMainMenu](#) class.

```
#include <QWidget> #include <QtGui>
```

### Classes

- class [GameMainMenu](#)

### 5.10.1 Detailed Description

[GameMainMenu](#) class. This is the main game menu, where the user choose between resuming a previous game or starting a new one. The instructions are also shown on this menu.

**Author**

Rita Aoun  
Rawan Moukalled

## 5.11 games23options.cpp File Reference

Contains [Games23Options](#) class definition.

```
#include "games23options.h" #include "helper.h" #include  
"game2.h" #include "game3.h" #include "gamenainmenu.h"
```

### 5.11.1 Detailed Description

Contains [Games23Options](#) class definition.

## 5.12 games23options.h File Reference

[Games23Options](#) class.

```
#include <QWidget> #include <QtGui>
```

### Classes

- class [Games23Options](#)

### 5.12.1 Detailed Description

[Games23Options](#) class. This is the options page for games 2 and 3, where the user can choose the level with which to start the game. Levels are: Easy, Medium and Hard.

#### Author

Rita Aoun  
Rawan Moukalled

## 5.13 gameselection.cpp File Reference

Contains [GameSelection](#) class definition.

```
#include "gameselection.h" #include "helper.h" #include  
"mainwindow.h" #include "gamemainmenu.h" #include "myaccount.-  
h"
```

### 5.13.1 Detailed Description

Contains [GameSelection](#) class definition.

## 5.14 gameselection.h File Reference

Game selection menu class.

```
#include <QWidget> #include <QtGui> #include <QApplication> ×  
#include <QGraphicsScene>
```

## Classes

- class [GameSelection](#)

### 5.14.1 Detailed Description

Game selection menu class. Game selection menu, where the user can select one of the three games available.

#### Author

Rita Aoun  
Rawan Moukalled

## 5.15 helper.cpp File Reference

Contains [Helper](#) class definition.

```
#include "helper.h"
```

### 5.15.1 Detailed Description

Contains [Helper](#) class definition.

## 5.16 helper.h File Reference

[Helper](#) class.

```
#include <QWidget> #include <QFont>
```

## Classes

- class [Helper](#)

### 5.16.1 Detailed Description

[Helper](#) class. This class provides various helper functions that are needed across windows.

#### Author

Rita Aoun  
Rawan Moukalled

## 5.17 mainwidget.cpp File Reference

Contains [MainWidget](#) class definition.

```
#include "mainwidget.h" #include "gameselection.h"
```

### 5.17.1 Detailed Description

Contains [MainWidget](#) class definition.

## 5.18 mainwidget.h File Reference

[MainWidget](#) class.

```
#include <QWidget>    #include <QLineEdit>    #include <Q-  
Label>    #include <QHBoxLayout>    #include <QVBoxLayout> ×  
#include <QGridLayout> #include <QPushButton>
```

### Classes

- class [MainWidget](#)

### 5.18.1 Detailed Description

[MainWidget](#) class. This is the main sign in window, where the user is given the chance to go on as a guest or to login/sign up.

#### Author

Rita Aoun  
Rawan Moukalled

## 5.19 myaccount.cpp File Reference

Contains [MyAccount](#) class definition.

```
#include "myaccount.h" #include "helper.h" #include "gameselection.-  
h"
```

### 5.19.1 Detailed Description

Contains [MyAccount](#) class definition.

## 5.20 myaccount.h File Reference

Class representing the my account and performance history windows.

```
#include <QWidget> #include <QtGui> #include <QGraphics-  
Item>
```

### Classes

- class [MyAccount](#)

### 5.20.1 Detailed Description

Class representing the my account and performance history windows. Menu that presents to the signed in user his history and performance statistics

#### Author

Rita Aoun  
Rawan Moukalled