StreamZ

1.0

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

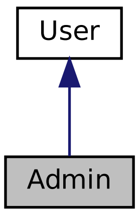
Chapter 4

Class Documentation

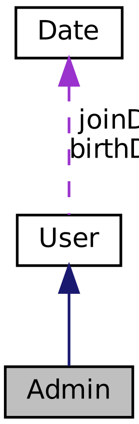
4.1 Admin Class Reference

```
#include <admin.h>
```

Inheritance diagram for Admin:



Collaboration diagram for Admin:



Public Member Functions

- Admin ()
- Admin (Date birthDate, std::string name, std::string nickname, std::string password)
- void readData (std::ifstream &ifs) override
- void writeData (std::ofstream &ofs) override

Additional Inherited Members

4.1.1 Detailed Description

Definition at line 9 of file admin.h.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 Admin() [1/2]

```
Admin::Admin ( )
```

Definition at line 7 of file admin.cpp.

4.1.2.2 Admin() [2/2]

```
Admin::Admin (
            Date birthDate,
            std::string name,
            std::string nickname,
            std::string password )
```

Constructor of the Admin class

Parameters

birthDate	the birth date of the admin
name	the name of the admin
nickname	the nickname of the admin

Definition at line 9 of file admin.cpp.

4.1.3 Member Function Documentation

4.1.3.1 readData()

```
void Admin::readData (
             std::ifstream & ifs )  [override], [virtual]
```

Reimplemented from User.

Definition at line 11 of file admin.cpp.

4.1.3.2 writeData()

```
void Admin::writeData (
             std::ofstream & ofs )  [override], [virtual]
```

Reimplemented from User.

Definition at line 15 of file admin.cpp.

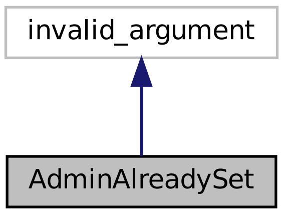
The documentation for this class was generated from the following files:

- model/user/admin/admin.h
- model/user/admin/admin.cpp

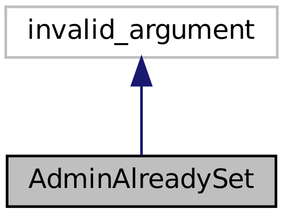
4.2 AdminAlreadySet Class Reference

```
#include <adminAlreadySet.h>
```

Inheritance diagram for AdminAlreadySet:



Collaboration diagram for AdminAlreadySet:



Public Member Functions

- const std::shared_ptr< Admin > & getAdmin () const
- AdminAlreadySet (std::shared_ptr< Admin > admin, const std::string &message)

4.2.1 Detailed Description

Definition at line 14 of file adminAlreadySet.h.

4.2.2 Constructor & Destructor Documentation

4.2.2.1 AdminAlreadySet()

```
AdminAlreadySet::AdminAlreadySet (
            std::shared_ptr< Admin > admin,
            const std::string & message )
```

Definition at line 7 of file adminAlreadySet.cpp.

4.2.3 Member Function Documentation

4.2.3.1 getAdmin()

```
const std::shared_ptr< Admin > & AdminAlreadySet::getAdmin ( ) const
```

Definition at line 9 of file adminAlreadySet.cpp.

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

- exception/adminAlreadySet/adminAlreadySet.h
- exception/adminAlreadySet/adminAlreadySet.cpp

4.3 AdminManager Class Reference

```
#include <admin_manager.h>
```

Public Member Functions

- AdminManager (std::shared_ptr< UserManager > userManager)
- bool build (Date birthDate, const std::string &name, const std::string &nickname, const std::string &password)
- bool add (const std::shared_ptr< Admin > &admin)
- bool remove ()
- bool is (const std::shared_ptr< Admin > &admin) const
- bool is (const std::string &nickname) const
- std::shared_ptr< Admin > get () const
- bool readData ()
- bool writeData ()

4.3.1 Detailed Description

Definition at line 13 of file admin_manager.h.

4.3.2 Constructor & Destructor Documentation

4.3.2.1 AdminManager()

```
AdminManager::AdminManager (
            std::shared_ptr< UserManager > userManager ) [explicit]
```

Constructor of Admin Manager class

Parameters

userManager	the user manager

Definition at line 10 of file admin_manager.cpp.

4.3.3 Member Function Documentation

4.3.3.1 add()

```
bool AdminManager::add (
            const std::shared_ptr< Admin > & admin )
```

Adds/Updates the admin to manage

Parameters

admin	the admin to add

Returns

True if the action was successful, false otherwise

Definition at line 25 of file admin_manager.cpp.

4.3.3.2 build()

```
bool AdminManager::build (
            Date birthDate,
            const std::string & name,
            const std::string & nickname,
            const std::string & password )
```

Creates an object of class Admin

Parameters

birthDate	the birthdate of the admin
name	the name of the admin
nickname	the nickname of the admin

Returns

True if the action was successful, false otherwise

Definition at line 14 of file admin_manager.cpp.

4.3.3.3 get()

```
std::shared_ptr< Admin > AdminManager::get ( ) const
```

Getter of the admin

Returns

the current admin

Definition at line 52 of file admin_manager.cpp.

4.3.3.4 is() [1/2]

```
bool AdminManager::is (
            const std::shared_ptr< Admin > & admin ) const
```

Checks if the admin is the one given as parameter

Parameters

admin	the admin to check

Returns

True if the action was successful, false otherwise

Definition at line 44 of file admin_manager.cpp.

4.3.3.5 is() [2/2]

```
bool AdminManager::is (
            const std::string & nickname ) const
```

Checks if the admin has the nickname (which is unique) given as parameter

Parameters

nickname	the nickname to check

Returns

True if the action was successful, false otherwise

Definition at line 48 of file admin_manager.cpp.

4.3.3.6 readData()

```
bool AdminManager::readData ( )
```

Definition at line 57 of file admin_manager.cpp.

4.3.3.7 remove()

```
bool AdminManager::remove ( )
```

Removes the current admin

Parameters

admin	the admin to remove

Returns

True if the action was successful, false otherwise

Definition at line 34 of file admin_manager.cpp.

4.3.3.8 writeData()

```
bool AdminManager::writeData ( )
```

Definition at line 78 of file admin_manager.cpp.

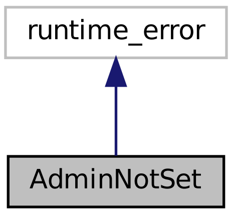
The documentation for this class was generated from the following files:

- model/user/admin/admin_manager.h
- model/user/admin/admin_manager.cpp

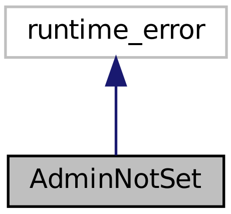
4.4 AdminNotSet Class Reference

```
#include <adminNotSet.h>
```

Inheritance diagram for AdminNotSet:



Collaboration diagram for AdminNotSet:



Public Member Functions

- AdminNotSet (std::shared_ptr< Admin > admin, const std::string &message)
- const std::shared_ptr< Admin > & getAdmin () const

4.4.1 Detailed Description

Definition at line 13 of file adminNotSet.h.

4.4.2 Constructor & Destructor Documentation

4.4.2.1 AdminNotSet()

```
AdminNotSet::AdminNotSet (
            std::shared_ptr< Admin > admin,
            const std::string & message )
```

Definition at line 7 of file adminNotSet.cpp.

4.4.3 Member Function Documentation

4.4.3.1 getAdmin()

```
const std::shared_ptr< Admin > & AdminNotSet::getAdmin ( ) const
```

Definition at line 9 of file adminNotSet.cpp.

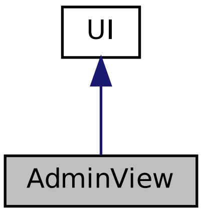
The documentation for this class was generated from the following files:

- exception/adminNotSet/adminNotSet.h
- exception/adminNotSet/adminNotSet.cpp

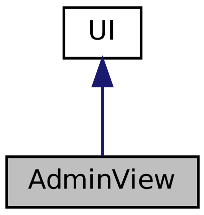
4.5 AdminView Class Reference

```
#include <adminView.h>
```

Inheritance diagram for AdminView:



Collaboration diagram for AdminView:



Public Member Functions

- AdminView (UIManager &uiManager)
- void run () override

4.5.1 Detailed Description

Implementation of the Admin's Point Of View in the UI

Allows the admin to access not only the leaderboards, but the platform statistics as well

Definition at line 25 of file adminView.h.

4.5.2 Constructor & Destructor Documentation

4.5.2.1 AdminView()

```
AdminView::AdminView (
             UIManager & uiManager )  [explicit]
```

Admin View's constructor

Parameters

uiManager	the manager of the current UI

Definition at line 7 of file adminView.cpp.

4.5.3 Member Function Documentation

4.5.3.1 run()

```
void AdminView::run ( )  [override], [virtual]
```

Runs the UI prompt

Implements UI.

Definition at line 9 of file adminView.cpp.

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

- ui/adminView/adminView.h
- ui/adminView/adminView.cpp

4.6 CurrentSession Class Reference

```
#include <currentSession.h>
```

Public Member Functions

- CurrentSession ()
- CurrentSession (std::shared_ptr< UserManager > userManager)
- bool login (std::string nickname, const std::string &password)
- bool logout ()
- const std::shared_ptr< User > & getCurrentUser () const
- std::string getNickname () const

4.6.1 Detailed Description

Definition at line 11 of file currentSession.h.

4.6.2 Constructor & Destructor Documentation

4.6.2.1 CurrentSession() [1/2]

```
CurrentSession::CurrentSession ( )
```

Definition at line 7 of file currentSession.cpp.

4.6.2.2 CurrentSession() [2/2]

```
CurrentSession::CurrentSession (
             std::shared_ptr< UserManager > userManager )  [explicit]
```

Definition at line 9 of file currentSession.cpp.

4.6.3 Member Function Documentation

4.6.3.1 getCurrentUser()

```
const std::shared_ptr< User > & CurrentSession::getCurrentUser ( ) const
```

Definition at line 32 of file currentSession.cpp.

4.6.3.2 getNickname()

```
std::string CurrentSession::getNickname ( ) const
```

Definition at line 28 of file currentSession.cpp.

4.6.3.3 login()

```
bool CurrentSession::login (
             std::string nickname,
             const std::string & password )
```

Definition at line 11 of file currentSession.cpp.

4.6.3.4 logout()

```
bool CurrentSession::logout ( )
```

Definition at line 20 of file currentSession.cpp.

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

- auth/currentSession.h
- auth/currentSession.cpp

4.7 Date Class Reference

```
#include <date.h>
```

Public Member Functions

- Date ()
- Date (unsigned int y, unsigned int m, unsigned int d)
- Date (unsigned int y, unsigned int m, unsigned int d, unsigned int h, unsigned int min, unsigned int sec)
- Date (const std::string &yearMonthDay)
- void setYear (unsigned int y)
- void setMonth (unsigned int m)
- void setDay (unsigned int d)
- void setHours (unsigned int hours)
- void setMinutes (unsigned int minutes)
- void setSeconds (unsigned int seconds)
- void setDate (unsigned int y, unsigned int m, unsigned int d)
- unsigned int getYear () const
- unsigned int getMonth () const
- unsigned int getDay () const
- unsigned int getHours () const
- unsigned int getMinutes () const
- unsigned int getSeconds () const
- std::string getDate () const
- void show () const
- unsigned int totalNumOfDays () const
- bool isValid () const
- bool isEqualTo (const Date &date) const
- bool isAfter (const Date &date) const
- bool isBefore (const Date &date) const
- bool operator== (const Date &rhs) const
- bool operator!= (const Date &rhs) const
- bool operator< (const Date &rhs) const
- bool operator> (const Date &rhs) const
- bool operator<= (const Date &rhs) const
- bool operator>= (const Date &rhs) const

Friends

- std::ostream & operator<< (std::ostream &os, const Date &date)
- std::istream & operator>> (std::istream &os, Date &date)

4.7.1 Detailed Description

Definition at line 14 of file date.h.

4.7.2 Constructor & Destructor Documentation

4.7.2.1 Date() [1/4]

```
Date::Date ( )
```

Definition at line 10 of file date.cpp.

4.7.2.2 Date() [2/4]

```
Date::Date (
            unsigned int y,
            unsigned int m,
            unsigned int d )
```

Definition at line 19 of file date.cpp.

4.7.2.3 Date() [3/4]

```
Date::Date (
            unsigned int y,
            unsigned int m,
            unsigned int d,
            unsigned int h,
            unsigned int min,
            unsigned int sec )
```

Definition at line 28 of file date.cpp.

4.7.2.4 Date() [4/4]

```
Date::Date (
            const std::string & yearMonthDay )  [explicit]
```

Definition at line 37 of file date.cpp.

4.7.3 Member Function Documentation

4.7.3.1 getDate()

```
std::string Date::getDate ( ) const
```

Definition at line 100 of file date.cpp.

4.7.3.2 getDay()

```
unsigned int Date::getDay ( ) const
```

Definition at line 84 of file date.cpp.

4.7.3.3 getHours()

```
unsigned int Date::getHours ( ) const
```

Definition at line 88 of file date.cpp.

4.7.3.4 getMinutes()

```
unsigned int Date::getMinutes ( ) const
```

Definition at line 92 of file date.cpp.

4.7.3.5 getMonth()

```
unsigned int Date::getMonth ( ) const
```

Definition at line 80 of file date.cpp.

4.7.3.6 getSeconds()

```
unsigned int Date::getSeconds ( ) const
```

Definition at line 96 of file date.cpp.

4.7.3.7 getYear()

```
unsigned int Date::getYear ( ) const
```

Definition at line 76 of file date.cpp.

4.7.3.8 isAfter()

```
bool Date::isAfter (
             const Date & date ) const
```

Definition at line 156 of file date.cpp.

4.7.3.9 isBefore()

```
bool Date::isBefore (
             const Date & date ) const
```

Definition at line 173 of file date.cpp.

4.7.3.10 isEqualTo()

```
bool Date::isEqualTo (
             const Date & date ) const
```

Definition at line 149 of file date.cpp.

4.7.3.11 isValid()

```
bool Date::isValid ( ) const
```

Definition at line 142 of file date.cpp.

4.7.3.12 operator"!=()

```
bool Date::operator!= (
             const Date & rhs ) const
```

Definition at line 254 of file date.cpp.

4.7.3.13 operator<()

```
bool Date::operator< (
             const Date & rhs ) const
```

Definition at line 209 of file date.cpp.

4.7.3.14 operator<=()

```
bool Date::operator<= (
             const Date & rhs ) const
```

Definition at line 237 of file date.cpp.

4.7.3.15 operator==()

```
bool Date::operator== (
             const Date & rhs ) const
```

Definition at line 245 of file date.cpp.

4.7.3.16 operator>()

```
bool Date::operator> (
             const Date & rhs ) const
```

Definition at line 233 of file date.cpp.

4.7.3.17 operator>=()

```
bool Date::operator>= (
             const Date & rhs ) const
```

Definition at line 241 of file date.cpp.

4.7.3.18 setDate()

```
void Date::setDate (
             unsigned int y,
             unsigned int m,
             unsigned int d )
```

Definition at line 70 of file date.cpp.

4.7.3.19 setDay()

```
void Date::setDay (
            unsigned int d )
```

Definition at line 54 of file date.cpp.

4.7.3.20 setHours()

```
void Date::setHours (
            unsigned int hours )
```

Definition at line 58 of file date.cpp.

4.7.3.21 setMinutes()

```
void Date::setMinutes (
            unsigned int minutes )
```

Definition at line 62 of file date.cpp.

4.7.3.22 setMonth()

```
void Date::setMonth (
            unsigned int m )
```

Definition at line 50 of file date.cpp.

4.7.3.23 setSeconds()

```
void Date::setSeconds (
            unsigned int seconds )
```

Definition at line 66 of file date.cpp.

4.7.3.24 setYear()

```
void Date::setYear (
            unsigned int y )
```

Definition at line 46 of file date.cpp.

4.7.3.25 show()

```
void Date::show ( ) const
```

Definition at line 124 of file date.cpp.

4.7.3.26 totalNumOfDays()

```
unsigned int Date::totalNumOfDays ( ) const
```

Definition at line 196 of file date.cpp.

4.7.4 Friends And Related Function Documentation

4.7.4.1 operator<<

```
std::ostream& operator<< (
             std::ostream & os,
             const Date & date )  [friend]
```

Definition at line 178 of file date.cpp.

4.7.4.2 operator>>

```
std::istream& operator>> (
             std::istream & os,
             Date & date )  [friend]
```

Definition at line 186 of file date.cpp.

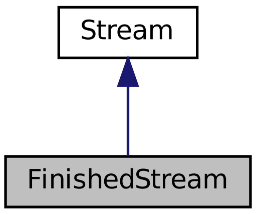
The documentation for this class was generated from the following files:

- utils/date/date.h
- utils/date/date.cpp

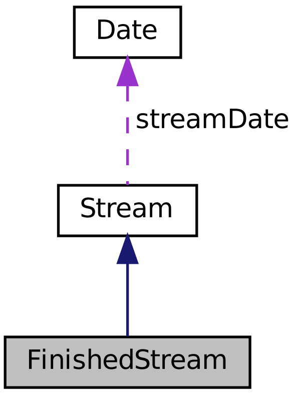
4.8 FinishedStream Class Reference

```
#include <finishedStream.h>
```

Inheritance diagram for FinishedStream:



Collaboration diagram for FinishedStream:



Public Member Functions

- FinishedStream ()
- FinishedStream (std::string title, enum StreamLanguage lang, unsigned int minAge, enum StreamGenre genre, std::shared_ptr< Streamer > streamer, unsigned int numOfViews, unsigned int id, std::pair< unsigned int, unsigned int > oldVotes)
- unsigned int getNumOfViews () const
- enum StreamType getStreamType () const override
- void readData (std::ifstream &ifs, const std::shared_ptr< StreamerManager > &streamerManager) override
- void writeData (std::ofstream &ofs) override

Additional Inherited Members

4.8.1 Detailed Description

Definition at line 11 of file finishedStream.h.

4.8.2 Constructor & Destructor Documentation

4.8.2.1 FinishedStream() [1/2]

```
FinishedStream::FinishedStream ( )
```

Default constructor of the FinishedStream class

Definition at line 7 of file finishedStream.cpp.

4.8.2.2 FinishedStream() [2/2]

```
FinishedStream::FinishedStream (
             std::string title,
             enum StreamLanguage lang,
             unsigned int minAge,
             enum StreamGenre genre,
             std::shared_ptr< Streamer > streamer,
             unsigned int numOfViews,
             unsigned int id,
             std::pair< unsigned int, unsigned int > oldVotes )
```

Constructor of the FinishedStream class

Parameters

title	title of the finished stream
lang	language the finished stream is in
minAge	minimum viewer age allowed
genre	genre of the finished stream
streamer	streamer of the finished stream
numOfViews	number of views registered at the end of the stream that originated the finished stream

Definition at line 9 of file finishedStream.cpp.

4.8.3 Member Function Documentation

4.8.3.1 getNumOfViews()

```
unsigned int FinishedStream::getNumOfViews ( ) const
```

Getter of the number of views

Returns

number of views

Definition at line 18 of file finishedStream.cpp.

4.8.3.2 getStreamType()

```
enum StreamType FinishedStream::getStreamType ( ) const  [override], [virtual]
```

Getter of the finished stream's type

Returns

finished stream's type

Implements Stream.

Definition at line 16 of file finishedStream.cpp.

4.8.3.3 readData()

```
void FinishedStream::readData (
             std::ifstream & ifs,
             const std::shared_ptr< StreamerManager > & streamerManager )  [override], [virtual]
```

Reimplemented from Stream.

Definition at line 20 of file finishedStream.cpp.

4.8.3.4 writeData()

```
void FinishedStream::writeData (
             std::ofstream & ofs )  [override], [virtual]
```

Reimplemented from Stream.

Definition at line 25 of file finishedStream.cpp.

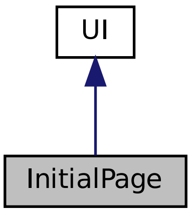
The documentation for this class was generated from the following files:

- model/stream/finishedStream/finishedStream.h
- model/stream/finishedStream/finishedStream.cpp

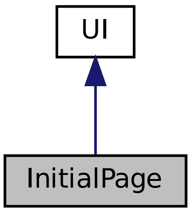
4.9 InitialPage Class Reference

```
#include <initialPage.h>
```

Inheritance diagram for InitialPage:



Collaboration diagram for InitialPage:



Public Member Functions

- InitialPage (UIManager &uiManager)
- void run () override

4.9.1 Detailed Description

Implementation of the Initial Page Prompt in the UI

Allows the user to access register or login pages, as well as to quit and save the app

Definition at line 26 of file initialPage.h.

4.9.2 Constructor & Destructor Documentation

4.9.2.1 InitialPage()

```
InitialPage::InitialPage (
            UIManager & uiManager )  [explicit]
```

Inital Page's constructor

Parameters

uiManager	the manager of the current UI

Definition at line 8 of file initialPage.cpp.

4.9.3 Member Function Documentation

4.9.3.1 run()

```
void InitialPage::run ( )  [override], [virtual]
```

Runs the Initial Page's prompt

Implements UI.

Definition at line 10 of file initialPage.cpp.

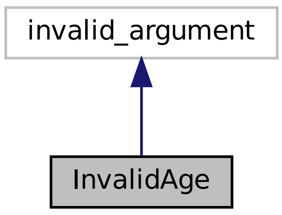
The documentation for this class was generated from the following files:

- ui/initialPage/initialPage.h
- ui/initialPage/initialPage.cpp

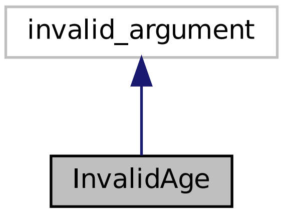
4.10 InvalidAge Class Reference

```
#include <invalidAge.h>
```

Inheritance diagram for InvalidAge:



Collaboration diagram for InvalidAge:



Public Member Functions

- InvalidAge (unsigned int age, const std::string &message)
- unsigned int getAge () const

4.10.1 Detailed Description

Definition at line 11 of file invalidAge.h.

4.10.2 Constructor & Destructor Documentation

4.10.2.1 InvalidAge()

```
InvalidAge::InvalidAge (
            unsigned int age,
            const std::string & message )
```

Definition at line 8 of file invalidAge.cpp.

4.10.3 Member Function Documentation

4.10.3.1 getAge()

```
unsigned int InvalidAge::getAge ( ) const
```

Definition at line 10 of file invalidAge.cpp.

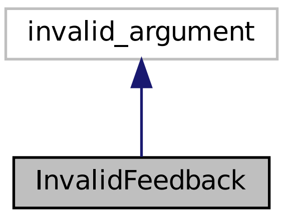
The documentation for this class was generated from the following files:

- exception/invalidAge/invalidAge.h
- exception/invalidAge/invalidAge.cpp

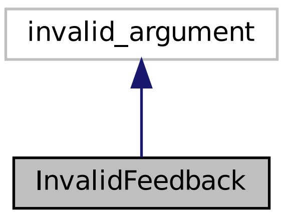
4.11 InvalidFeedback Class Reference

```
#include <invalidFeedback.h>
```

Inheritance diagram for InvalidFeedback:



Collaboration diagram for InvalidFeedback:



Public Member Functions

- InvalidFeedback (FeedbackLikeSystem fb, const std::string &message)
- FeedbackLikeSystem getFb () const

4.11.1 Detailed Description

Definition at line 13 of file invalidFeedback.h.

4.11.2 Constructor & Destructor Documentation

4.11.2.1 InvalidFeedback()

```
InvalidFeedback::InvalidFeedback (
            FeedbackLikeSystem fb,
            const std::string & message )
```

Definition at line 7 of file invalidFeedback.cpp.

4.11.3 Member Function Documentation

4.11.3.1 getFb()

```
FeedbackLikeSystem InvalidFeedback::getFb ( ) const
```

Definition at line 9 of file invalidFeedback.cpp.

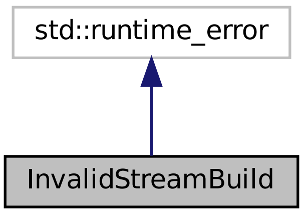
The documentation for this class was generated from the following files:

- exception/invalidFeedback/invalidFeedback.h
- exception/invalidFeedback/invalidFeedback.cpp

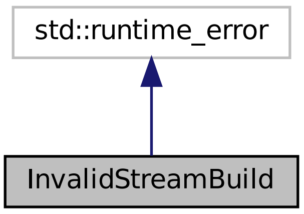
4.12 InvalidStreamBuild Class Reference

```
#include <invalidStreamBuild.h>
```

Inheritance diagram for InvalidStreamBuild:



Collaboration diagram for InvalidStreamBuild:



Public Member Functions

- InvalidStreamBuild (const std::string &message)

4.12.1 Detailed Description

Definition at line 11 of file invalidStreamBuild.h.

4.12.2 Constructor & Destructor Documentation

4.12.2.1 InvalidStreamBuild()

```
InvalidStreamBuild::InvalidStreamBuild (
            const std::string & message )  [explicit]
```

Definition at line 7 of file invalidStreamBuild.cpp.

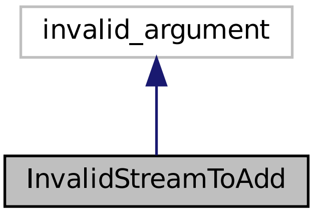
The documentation for this class was generated from the following files:

- exception/invalidStreamBuild/invalidStreamBuild.h
- exception/invalidStreamBuild/invalidStreamBuild.cpp

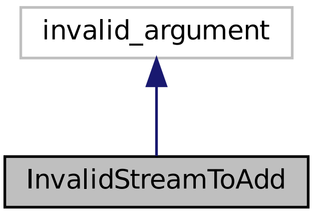
4.13 InvalidStreamToAdd Class Reference

```
#include <invalidStreamToAdd.h>
```

Inheritance diagram for InvalidStreamToAdd:



Collaboration diagram for InvalidStreamToAdd:



Public Member Functions

- InvalidStreamToAdd (std::shared_ptr< Stream > stream, const std::string &message)
- const std::shared_ptr< Stream > & getStream () const

4.13.1 Detailed Description

Definition at line 12 of file invalidStreamToAdd.h.

4.13.2 Constructor & Destructor Documentation

4.13.2.1 InvalidStreamToAdd()

```
InvalidStreamToAdd::InvalidStreamToAdd (
            std::shared_ptr< Stream > stream,
            const std::string & message )
```

Definition at line 7 of file invalidStreamToAdd.cpp.

4.13.3 Member Function Documentation

4.13.3.1 getStream()

```
const std::shared_ptr< Stream > & InvalidStreamToAdd::getStream ( ) const
```

Definition at line 9 of file invalidStreamToAdd.cpp.

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

- exception/invalidStreamAdd/invalidStreamToAdd.h
- exception/invalidStreamAdd/invalidStreamToAdd.cpp

4.14 Leaderboard< N > Class Template Reference

```
#include <leaderboard.h>
```

Public Member Functions

- Leaderboard (const std::vector< N > &vec)
- const std::vector< N > & get () const

Friends

- std::ostream & operator<< (std::ostream &os, const Leaderboard< N > &dt)

4.14.1 Detailed Description

template<class N>
class Leaderboard< N >

Definition at line 20 of file leaderboard.h.

4.14.2 Constructor & Destructor Documentation

4.14.2.1 Leaderboard()

```
template<class N >
Leaderboard< N >::Leaderboard (
             const std::vector< N > & vec )  [inline], [explicit]
```

Leaderboard constructor

Parameters

vec	the vector representing the leaderboard

Definition at line 27 of file leaderboard.h.

4.14.3 Member Function Documentation

4.14.3.1 get()

```
template<class N >
const std::vector<N>& Leaderboard< N >::get ( ) const  [inline]
```

Returns the leaderboard

Returns

The current leaderboard

Definition at line 104 of file leaderboard.h.

4.14.4 Friends And Related Function Documentation

4.14.4.1 operator<<

```
template<class N >
std::ostream& operator<< (
            std::ostream & os,
            const Leaderboard< N > & dt )  [friend]
```

Output Stream operator overload

Parameters

os	the output stream to print to
dt	the leaderboard to print

Returns

the output stream given as input (allows chain input)

Definition at line 36 of file leaderboard.h.

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

- utils/leaderboard/leaderboard.h

4.15 LeaderboardManager Class Reference

```
#include <leaderboard_manager.h>
```

Public Member Functions

- LeaderboardManager (std::shared_ptr< ViewerManager > viewerManager, std::shared_ptr< StreamerManager > streamerManager, std::shared_ptr< StreamManager > streamManager, std::shared_ptr< UserManager > userManager)
- Leaderboard< std::shared_ptr< Stream > > filterStreamByLanguage (StreamLanguage lang)
- Leaderboard< std::shared_ptr< Stream > > filterStreamByGenre (StreamGenre genre)
- Leaderboard< std::shared_ptr< Stream > > filterStreamByAge (unsigned int minAge)
- Leaderboard< std::shared_ptr< Stream > > filterStreamByStreamer (const std::string &nickname)
- Leaderboard< std::shared_ptr< Stream > > filterStreamByDate (const Date &date)
- Leaderboard< std::shared_ptr< Stream > > filterStreamByType (StreamType type)
- Leaderboard< std::shared_ptr< Streamer > > sortStreamers ()
- Leaderboard< std::shared_ptr< Streamer > > getFollowingStreamersLeaderboard (const std::shared_ptr< Viewer > &viewer)
- Leaderboard< std::shared_ptr< Streamer > > getNotFollowingStreamersLeaderboard (const std::shared↩_ptr< Viewer > &viewer)
- Leaderboard< std::shared_ptr< Streamer > > sortStreamerBy (SortStreamer sorter)
- Leaderboard< std::shared_ptr< Viewer > > sortViewers ()
- Leaderboard< std::shared_ptr< Viewer > > sortViewerBy (SortViewer sorter)
- Leaderboard< std::shared_ptr< Viewer > > filterViewerByAge (unsigned int age)
- Leaderboard< std::shared_ptr< User > > sortUsers ()
- Leaderboard< std::shared_ptr< User > > sortUserBy (SortUser sorter)

- Leaderboard< std::shared_ptr< Stream > > sortStreams ()
- Leaderboard< std::shared_ptr< Stream > > sortStreamsBy (SortStream sorter)
- Leaderboard< std::shared_ptr< Stream > > top10StreamsBy (SortStream sorter)
- unsigned int totalNumberOfStreams ()
- unsigned int totalNumberOfPrivateStreams ()
- unsigned int totalNumberOfPublicStreams ()
- unsigned int meanViewsPerStreamActive ()
- unsigned int meanViewsPerStreamFinished ()
- StreamLanguage mostCommonLanguage ()
- StreamType mostCommonType ()
- std::string mostViewsStreamer ()

Static Public Member Functions

- static Leaderboard< std::shared_ptr< Viewer > > sortViewers (const Leaderboard< std::shared_ptr< Viewer >> &lb)
- static Leaderboard< std::shared_ptr< User > > sortUsers (const Leaderboard< std::shared_ptr< User >> &lb)
- static Leaderboard< std::shared_ptr< Stream > > sortStreams (const Leaderboard< std::shared_ptr< Stream >> &lb)
- static Leaderboard< std::shared_ptr< Stream > > sortStreamsBy (SortStream sorter, std::vector< std↵ ::shared_ptr< Stream >> newLB)

4.15.1 Detailed Description

Definition at line 50 of file leaderboard_manager.h.

4.15.2 Constructor & Destructor Documentation

4.15.2.1 LeaderboardManager()

```
LeaderboardManager::LeaderboardManager (
            std::shared_ptr< ViewerManager > viewerManager,
            std::shared_ptr< StreamerManager > streamerManager,
            std::shared_ptr< StreamManager > streamManager,
            std::shared_ptr< UserManager > userManager )
```

LeaderboardManager Constructor

Parameters

streamerManager	sets the streamerManager
streamManager	sets the streamManager
userManager	sets the userManager
viewerManager	sets the viewerManager

Definition at line 8 of file leaderboard_manager.cpp.

4.15.3 Member Function Documentation

4.15.3.1 filterStreamByAge()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::filterStreamByAge (
             unsigned int minAge )
```

Creates Leaderboard of streams with age above selected age

Parameters

minAge	the minimum stream age

Returns

Leaderboard of streams with age > minAge

Definition at line 29 of file leaderboard_manager.cpp.

4.15.3.2 filterStreamByDate()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::filterStreamByDate (
             const Date & date )
```

Creates Leaderboard of streams in the selected date

Parameters

date	selected date

Returns

Leaderboard of streams aired in the selected date

Definition at line 44 of file leaderboard_manager.cpp.

4.15.3.3 filterStreamByGenre()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::filterStreamByGenre (
             StreamGenre genre )
```

Creates Leaderboard of streams of the selected Genre

Parameters

genre	selected genre

Returns

Leaderboard of streams of the selected genre

Definition at line 22 of file leaderboard_manager.cpp.

4.15.3.4 filterStreamByLanguage()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::filterStreamByLanguage (
             StreamLanguage lang )
```

Creates Leaderboard of streams of the selected language

Parameters

lang	selected language

Returns

Leaderboard of streams of the selected language

Definition at line 15 of file leaderboard_manager.cpp.

4.15.3.5 filterStreamByStreamer()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::filterStreamByStreamer (
             const std::string & nickname )
```

Creates Leaderboard of streams of the selected streamer

Parameters

nickname	the streamer's name

Returns

Leaderboard of streams produced by the selected streamer

Definition at line 36 of file leaderboard_manager.cpp.

4.15.3.6 filterStreamByType()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::filterStreamByType (
            StreamType type )
```

Creates Leaderboard of streams of the selected type

Parameters

type	selected type

Returns

Leaderboard of streams of the selected type

Definition at line 51 of file leaderboard_manager.cpp.

4.15.3.7 filterViewerByAge()

```
Leaderboard< std::shared_ptr< Viewer > > LeaderboardManager::filterViewerByAge (
            unsigned int age )
```

Definition at line 244 of file leaderboard_manager.cpp.

4.15.3.8 getFollowingStreamersLeaderboard()

```
Leaderboard< std::shared_ptr< Streamer > > LeaderboardManager::getFollowingStreamersLeaderboard
(
            const std::shared_ptr< Viewer > & viewer )
```

Definition at line 216 of file leaderboard_manager.cpp.

4.15.3.9 getNotFollowingStreamersLeaderboard()

```
Leaderboard< std::shared_ptr< Streamer > > LeaderboardManager::getNotFollowingStreamers↩
Leaderboard (
            const std::shared_ptr< Viewer > & viewer )
```

Definition at line 227 of file leaderboard_manager.cpp.

4.15.3.10 meanViewsPerStreamActive()

```
unsigned int LeaderboardManager::meanViewsPerStreamActive ( )
```

Definition at line 301 of file leaderboard_manager.cpp.

4.15.3.11 meanViewsPerStreamFinished()

```
unsigned int LeaderboardManager::meanViewsPerStreamFinished ( )
```

Definition at line 309 of file leaderboard_manager.cpp.

4.15.3.12 mostCommonLanguage()

```
StreamLanguage LeaderboardManager::mostCommonLanguage ( )
```

Definition at line 317 of file leaderboard_manager.cpp.

4.15.3.13 mostCommonType()

```
StreamType LeaderboardManager::mostCommonType ( )
```

Definition at line 330 of file leaderboard_manager.cpp.

4.15.3.14 mostViewsStreamer()

```
std::string LeaderboardManager::mostViewsStreamer ( )
```

Definition at line 343 of file leaderboard_manager.cpp.

4.15.3.15 sortStreamerBy()

```
Leaderboard< std::shared_ptr< Streamer > > LeaderboardManager::sortStreamerBy (
             SortStreamer sorter )
```

Definition at line 140 of file leaderboard_manager.cpp.

4.15.3.16 sortStreamers()

```
Leaderboard< std::shared_ptr< Streamer > > LeaderboardManager::sortStreamers ( )
```

Sorts Leaderboard by streamer's joindate > age > nickname > name

Returns

sorted Leaderboard of streamers

Definition at line 62 of file leaderboard_manager.cpp.

4.15.3.17 sortStreams() [1/2]

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::sortStreams ( )
```

Sorts the Leaderboard by Stream's type > date > likes > dislikes > views > ID > minAge > utils > lang > genre

Returns

sorted Leaderboard of streams

Definition at line 98 of file leaderboard_manager.cpp.

4.15.3.18 sortStreams() [2/2]

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::sortStreams (
             const Leaderboard< std::shared_ptr< Stream >> & lb )  [static]
```

Sorts the given Stream Leaderboard by Stream's type > date > likes > dislikes > views > ID > minAge > utils > lang > genre

Parameters

lb	Leaderboard of streams to sort

Returns

sorted Leaderboard of streams

Definition at line 106 of file leaderboard_manager.cpp.

4.15.3.19 sortStreamsBy() [1/2]

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::sortStreamsBy (
             SortStream sorter )
```

Definition at line 112 of file leaderboard_manager.cpp.

4.15.3.20 sortStreamsBy() [2/2]

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::sortStreamsBy (
             SortStream sorter,
             std::vector< std::shared_ptr< Stream >> newLB )  [static]
```

Definition at line 258 of file leaderboard_manager.cpp.

4.15.3.21 sortUserBy()

```
Leaderboard< std::shared_ptr< User > > LeaderboardManager::sortUserBy (
             SortUser sorter )
```

Definition at line 194 of file leaderboard_manager.cpp.

4.15.3.22 sortUsers() [1/2]

```
Leaderboard< std::shared_ptr< User > > LeaderboardManager::sortUsers ( )
```

Sorts the Leaderboard by user's joindate > age > nickname > name

Returns

sorted Leaderboard of users

Definition at line 82 of file leaderboard_manager.cpp.

4.15.3.23 sortUsers() [2/2]

```
Leaderboard< std::shared_ptr< User > > LeaderboardManager::sortUsers (
             const Leaderboard< std::shared_ptr< User >> & lb )  [static]
```

Sorts the given User Leaderboard by user's joindate > age > nickname > name

Parameters

lb	Leaderboard of viewers to sort

Returns

sorted Leaderboard of viewers

Definition at line 92 of file leaderboard_manager.cpp.

4.15.3.24 sortViewerBy()

```
Leaderboard< std::shared_ptr< Viewer > > LeaderboardManager::sortViewerBy (
             SortViewer sorter )
```

Definition at line 169 of file leaderboard_manager.cpp.

4.15.3.25 sortViewers() [1/2]

```
Leaderboard< std::shared_ptr< Viewer > > LeaderboardManager::sortViewers ( )
```

Sorts the Leaderboard by viewer's joindate > age > nickname > name

Returns

sorted Leaderboard of viewers

Definition at line 69 of file leaderboard_manager.cpp.

4.15.3.26 sortViewers() [2/2]

```
Leaderboard< std::shared_ptr< Viewer > > LeaderboardManager::sortViewers (
             const Leaderboard< std::shared_ptr< Viewer >> & lb )  [static]
```

Sorts the given Viewer Leaderboard by viewer's joindate > age > nickname > name

Parameters

lb	Leaderboard of viewers to sort

Returns

sorted Leaderboard of viewers

Definition at line 76 of file leaderboard_manager.cpp.

4.15.3.27 top10StreamsBy()

```
Leaderboard< std::shared_ptr< Stream > > LeaderboardManager::top10StreamsBy (
             SortStream sorter )
```

Definition at line 250 of file leaderboard_manager.cpp.

4.15.3.28 totalNumberOfPrivateStreams()

```
unsigned int LeaderboardManager::totalNumberOfPrivateStreams ( )
```

Definition at line 289 of file leaderboard_manager.cpp.

4.15.3.29 totalNumberOfPublicStreams()

```
unsigned int LeaderboardManager::totalNumberOfPublicStreams ( )
```

Definition at line 297 of file leaderboard_manager.cpp.

4.15.3.30 totalNumberOfStreams()

```
unsigned int LeaderboardManager::totalNumberOfStreams ( )
```

Definition at line 284 of file leaderboard_manager.cpp.

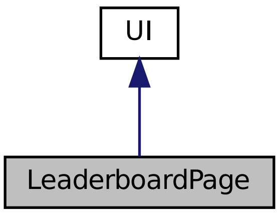
The documentation for this class was generated from the following files:

- utils/leaderboard/leaderboard_manager.h
- utils/leaderboard/leaderboard_manager.cpp

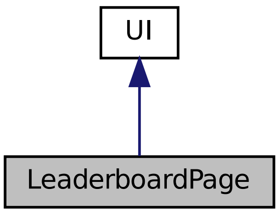
4.16 LeaderboardPage Class Reference

```
#include <leaderboardPage.h>
```

Inheritance diagram for LeaderboardPage:



Collaboration diagram for LeaderboardPage:



Public Member Functions

- LeaderboardPage (UIManager &uiManager)
- void run () override

4.16.1 Detailed Description

Implementation of the Leaderboard's Page in the UI

Allows any user to access the leaderboards, to filter and sort any information on the platform

Definition at line 24 of file leaderboardPage.h.

4.16.2 Constructor & Destructor Documentation

4.16.2.1 LeaderboardPage()

```
LeaderboardPage::LeaderboardPage (
            UIManager & uiManager )  [explicit]
```

Leaderboard Page's default constructor

Parameters

uiManager	the manager of the current UI

Definition at line 7 of file leaderboardPage.cpp.

4.16.3 Member Function Documentation

4.16.3.1 run()

```
void LeaderboardPage::run ( )  [override], [virtual]
```

Runs the Leaderboard Prompt

Implements UI.

Definition at line 9 of file leaderboardPage.cpp.

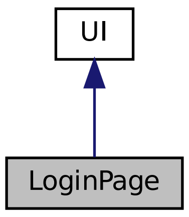
The documentation for this class was generated from the following files:

- ui/leaderboardPage/leaderboardPage.h
- ui/leaderboardPage/leaderboardPage.cpp

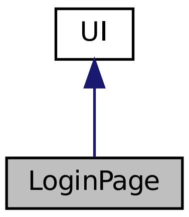
4.17 LoginPage Class Reference

```
#include <loginPage.h>
```

Inheritance diagram for LoginPage:



Collaboration diagram for LoginPage:



Public Member Functions

- LoginPage (UIManager &uiManager)
- void run () override

4.17.1 Detailed Description

Implementation of the Login's Page in the UI

Allows any user to login, given correct information

Definition at line 28 of file loginPage.h.

4.17.2 Constructor & Destructor Documentation

4.17.2.1 LoginPage()

```
LoginPage::LoginPage (
            UIManager & uiManager )  [explicit]
```

Login Page's constructor

Parameters

uiManager	the manager of the current UI

Definition at line 9 of file loginPage.cpp.

4.17.3 Member Function Documentation

4.17.3.1 run()

```
void LoginPage::run ( )  [override], [virtual]
```

Runs the login page output

Implements UI.

Definition at line 11 of file loginPage.cpp.

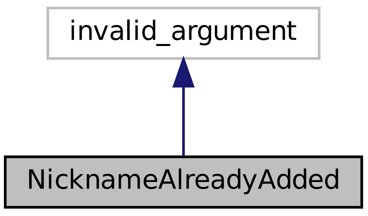
The documentation for this class was generated from the following files:

- ui/loginPage/loginPage.h
- ui/loginPage/loginPage.cpp

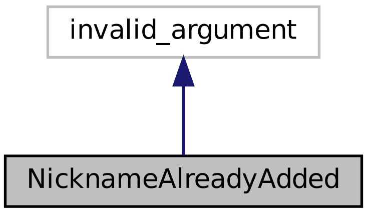
4.18 NicknameAlreadyAdded Class Reference

```
#include <nicknameAlreadyAdded.h>
```

Inheritance diagram for NicknameAlreadyAdded:



Collaboration diagram for NicknameAlreadyAdded:



Public Member Functions

- NicknameAlreadyAdded (std::string nickname, const std::string &message)
- const std::string & getNickname () const

4.18.1 Detailed Description

Definition at line 11 of file nicknameAlreadyAdded.h.

4.18.2 Constructor & Destructor Documentation

4.18.2.1 NicknameAlreadyAdded()

```
NicknameAlreadyAdded::NicknameAlreadyAdded (
            std::string nickname,
            const std::string & message )
```

Definition at line 9 of file nicknameAlreadyAdded.cpp.

4.18.3 Member Function Documentation

4.18.3.1 getNickname()

```
const std::string & NicknameAlreadyAdded::getNickname ( ) const
```

Definition at line 11 of file nicknameAlreadyAdded.cpp.

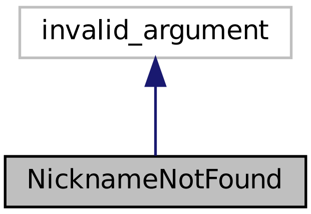
The documentation for this class was generated from the following files:

- exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
- exception/nicknameAlreadyAdded/nicknameAlreadyAdded.cpp

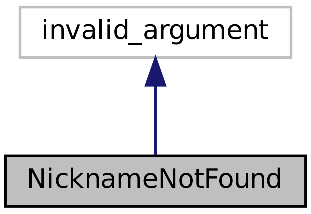
4.19 NicknameNotFound Class Reference

```
#include <nicknameNotFound.h>
```

Inheritance diagram for NicknameNotFound:



Collaboration diagram for NicknameNotFound:



Public Member Functions

- NicknameNotFound (std::string nickname, const std::string &message)
- const std::string & getNickname () const

4.19.1 Detailed Description

Definition at line 11 of file nicknameNotFound.h.

4.19.2 Constructor & Destructor Documentation

4.19.2.1 NicknameNotFound()

```
NicknameNotFound::NicknameNotFound (
             std::string nickname,
             const std::string & message )
```

Definition at line 9 of file nicknameNotFound.cpp.

4.19.3 Member Function Documentation

4.19.3.1 getNickname()

```
const std::string & NicknameNotFound::getNickname ( ) const
```

Definition at line 11 of file nicknameNotFound.cpp.

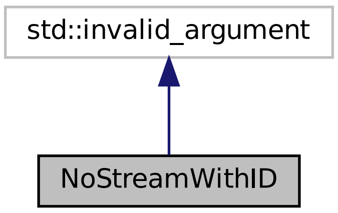
The documentation for this class was generated from the following files:

- exception/nicknameNotFound/nicknameNotFound.h
- exception/nicknameNotFound/nicknameNotFound.cpp

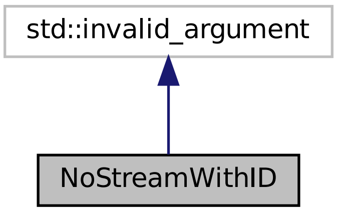
4.20 NoStreamWithID Class Reference

```
#include <noStreamWithID.h>
```

Inheritance diagram for NoStreamWithID:



Collaboration diagram for NoStreamWithID:



Public Member Functions

- NoStreamWithID (unsigned int streamID, const std::string &message)
- unsigned int getStreamId () const

4.20.1 Detailed Description

Definition at line 11 of file noStreamWithID.h.

4.20.2 Constructor & Destructor Documentation

4.20.2.1 NoStreamWithID()

```
NoStreamWithID::NoStreamWithID (
             unsigned int streamID,
             const std::string & message )
```

Definition at line 7 of file noStreamWithID.cpp.

4.20.3 Member Function Documentation

4.20.3.1 getStreamId()

```
unsigned int NoStreamWithID::getStreamId ( ) const
```

Definition at line 9 of file noStreamWithID.cpp.

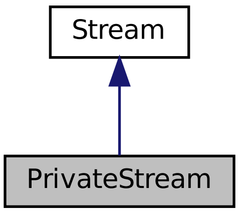
The documentation for this class was generated from the following files:

- exception/noStreamWithID/noStreamWithID.h
- exception/noStreamWithID/noStreamWithID.cpp

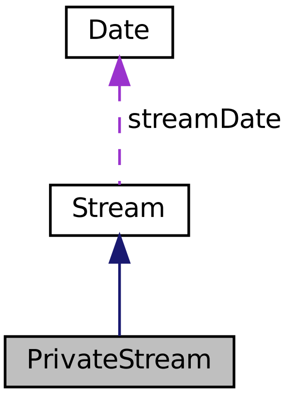
4.21 PrivateStream Class Reference

```
#include <privateStream.h>
```

Inheritance diagram for PrivateStream:



Collaboration diagram for PrivateStream:



Public Member Functions

- PrivateStream ()
- PrivateStream (std::string title, enum StreamLanguage lang, unsigned int minAge, enum StreamGenre genre, std::shared_ptr< Streamer > streamer)
- enum StreamType getStreamType () const override
- std::vector< std::string > getWhitelist () const
- unsigned int getMaxNumViewers () const
- std::map< std::string, std::string > getComments () const
- bool addToWhitelist (const std::shared_ptr< Viewer > &v)
- bool removeFromWhitelist (const std::shared_ptr< Viewer > &v)

- bool setMaxNumViewers (unsigned int maxNumViewers)
- void addComment (const std::string &nickname, const std::string &comment)
- bool canJoin (const std::shared_ptr< Viewer > &newViewer) const override
- void readData (std::ifstream &ifs, const std::shared_ptr< StreamerManager > &streamerManager) override
- void writeData (std::ofstream &ofs) override

Additional Inherited Members

4.21.1 Detailed Description

Definition at line 18 of file privateStream.h.

4.21.2 Constructor & Destructor Documentation

4.21.2.1 PrivateStream() [1/2]

```
PrivateStream::PrivateStream ( )
```

Definition at line 8 of file privateStream.cpp.

4.21.2.2 PrivateStream() [2/2]

```
PrivateStream::PrivateStream (
            std::string title,
            enum StreamLanguage lang,
            unsigned int minAge,
            enum StreamGenre genre,
            std::shared_ptr< Streamer > streamer )
```

Constructor of the PrivateStream class

Parameters

title	title of the private stream
lang	language the private stream is in
minAge	minimum viewer age allowed
genre	genre of the private stream
streamer	streamer of private the stream

Definition at line 10 of file privateStream.cpp.

4.21.3 Member Function Documentation

4.21.3.1 addComment()

```
void PrivateStream::addComment (
            const std::string & nickname,
            const std::string & comment )
```

Adds a comment to the map of the private stream's comments

Parameters

comment	comment to add to the vector
nickname	who's commenting

Definition at line 46 of file privateStream.cpp.

4.21.3.2 addToWhitelist()

```
bool PrivateStream::addToWhitelist (
            const std::shared_ptr< Viewer > & v )
```

Adds a viewer to the whitelist (using his nickname)

Parameters

v	viewer whose nickname is to be added to the whitelist

Returns

true if viewer's nickname is successfully added, false if nickname is already in whitelist

Definition at line 20 of file privateStream.cpp.

4.21.3.3 canJoin()

```
bool PrivateStream::canJoin (
            const std::shared_ptr< Viewer > & newViewer ) const  [override], [virtual]
```

Checks if a viewer can join the private stream

Parameters

newViewer	viewer to check

Returns

true if the viewer can join the private stream, false otherwise

Reimplemented from Stream.

Definition at line 50 of file privateStream.cpp.

4.21.3.4 getComments()

```
std::map< std::string, std::string > PrivateStream::getComments ( ) const
```

Getter of the private stream's comments

Returns

vector of private stream's comments

Definition at line 18 of file privateStream.cpp.

4.21.3.5 getMaxNumViewers()

```
unsigned int PrivateStream::getMaxNumViewers ( ) const
```

Getter of the private stream's maximum number of viewers

Returns

private stream's maximum number of viewers

Definition at line 16 of file privateStream.cpp.

4.21.3.6 getStreamType()

```
enum StreamType PrivateStream::getStreamType ( ) const  [override], [virtual]
```

Getter of the private stream's type

Returns

private stream's type

Implements Stream.

Definition at line 12 of file privateStream.cpp.

4.21.3.7 getWhitelist()

```
std::vector< std::string > PrivateStream::getWhitelist ( ) const
```

Getter of the private stream's whitelist (nickname of allowed viewers)

Returns

private stream's whitelist

Definition at line 14 of file privateStream.cpp.

4.21.3.8 readData()

```
void PrivateStream::readData (
            std::ifstream & ifs,
            const std::shared_ptr< StreamerManager > & streamerManager )  [override], [virtual]
```

Reimplemented from Stream.

Definition at line 58 of file privateStream.cpp.

4.21.3.9 removeFromWhitelist()

```
bool PrivateStream::removeFromWhitelist (
            const std::shared_ptr< Viewer > & v )
```

Removes a viewer from the whitelist (using his nickname)

Parameters

v	viewer whose nickname is to be removed from the whitelist

Returns

true if a viewer's nickname is successfully removed, false if nickname isn't in whitelist

Definition at line 30 of file privateStream.cpp.

4.21.3.10 setMaxNumViewers()

```
bool PrivateStream::setMaxNumViewers (
            unsigned int maxNumViewers )
```

Sets/Updates the maximum number of viewers allowed in the private stream

Parameters

maxNumViewers	new maximum number of viewers of the private stream

Returns

true if maximum number of viewers was set successfully, false otherwise

Definition at line 40 of file privateStream.cpp.

4.21.3.11 writeData()

```
void PrivateStream::writeData (
            std::ofstream & ofs )  [override], [virtual]
```

Reimplemented from Stream.

Definition at line 82 of file privateStream.cpp.

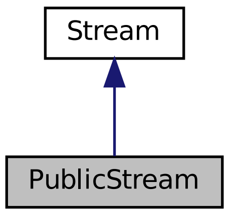
The documentation for this class was generated from the following files:

- model/stream/privateStream/privateStream.h
- model/stream/privateStream/privateStream.cpp

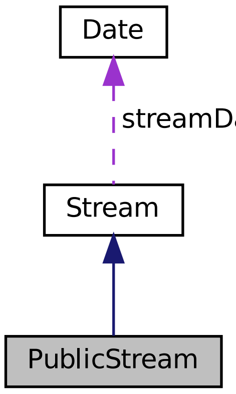
4.22 PublicStream Class Reference

```
#include <publicStream.h>
```

Inheritance diagram for PublicStream:



Collaboration diagram for PublicStream:



Public Member Functions

- PublicStream ()
- PublicStream (std::string title, enum StreamLanguage lang, unsigned int minAge, enum StreamGenre genre, std::shared_ptr< Streamer > streamer)
- enum StreamType getStreamType () const override
- void readData (std::ifstream &ifs, const std::shared_ptr< StreamerManager > &streamerManager) override
- void writeData (std::ofstream &ofs) override

Additional Inherited Members

4.22.1 Detailed Description

Definition at line 11 of file publicStream.h.

4.22.2 Constructor & Destructor Documentation

4.22.2.1 PublicStream() [1/2]

```
PublicStream::PublicStream ( )
```

Default constructor of the PublicStream class

Definition at line 7 of file publicStream.cpp.

4.22.2.2 PublicStream() [2/2]

```
PublicStream::PublicStream (
            std::string title,
            enum StreamLanguage lang,
            unsigned int minAge,
            enum StreamGenre genre,
            std::shared_ptr< Streamer > streamer )
```

Constructor of the PublicStream class

Parameters

title	title of the public stream
lang	language the public stream is in
minAge	minimum viewer age allowed
genre	genre of the public stream
streamer	streamer of the public stream

Definition at line 9 of file publicStream.cpp.

4.22.3 Member Function Documentation

4.22.3.1 getStreamType()

```
enum StreamType PublicStream::getStreamType ( ) const  [override], [virtual]
```

Getter of the public stream's type

Returns

public stream's type

Implements Stream.

Definition at line 11 of file publicStream.cpp.

4.22.3.2 readData()

```
void PublicStream::readData (
            std::ifstream & ifs,
            const std::shared_ptr< StreamerManager > & streamerManager )  [override], [virtual]
```

Reimplemented from Stream.

Definition at line 15 of file publicStream.cpp.

4.22.3.3 writeData()

```
void PublicStream::writeData (
            std::ofstream & ofs )  [override], [virtual]
```

Reimplemented from Stream.

Definition at line 19 of file publicStream.cpp.

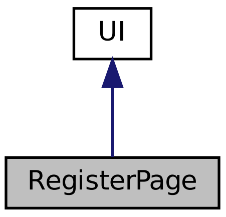
The documentation for this class was generated from the following files:

- model/stream/publicStream/publicStream.h
- model/stream/publicStream/publicStream.cpp

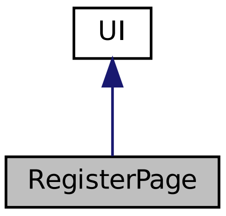
4.23 RegisterPage Class Reference

```
#include <registerPage.h>
```

Inheritance diagram for RegisterPage:



Collaboration diagram for RegisterPage:



Public Member Functions

- RegisterPage (UIManager &uiManager)
- void run () override

4.23.1 Detailed Description

Implementation of the Register's Page in the UI

Allows a user to register as viewer or streamer, by inputing and validating its information

Definition at line 24 of file registerPage.h.

4.23.2 Constructor & Destructor Documentation

4.23.2.1 RegisterPage()

```
RegisterPage::RegisterPage (
            UIManager & uiManager )  [explicit]
```

Register Page's default constructor

Parameters

uiManager	the manager of the current UI

Definition at line 7 of file registerPage.cpp.

4.23.3 Member Function Documentation

4.23.3.1 run()

```
void RegisterPage::run ( )  [override], [virtual]
```

Runs the register page output

Implements UI.

Definition at line 9 of file registerPage.cpp.

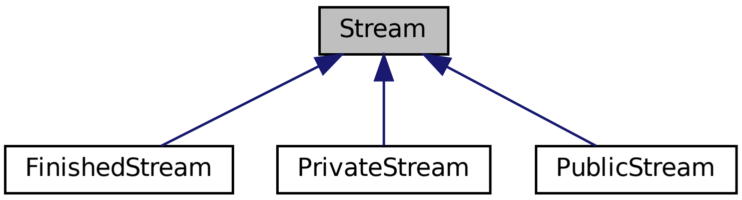
The documentation for this class was generated from the following files:

- ui/registerPage/registerPage.h
- ui/registerPage/registerPage.cpp

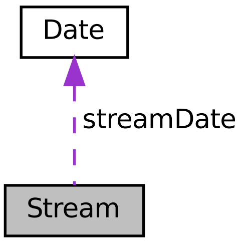
4.24 Stream Class Reference

```
#include <stream.h>
```

Inheritance diagram for Stream:



Collaboration diagram for Stream:



Public Member Functions

- virtual enum StreamType getStreamType () const =0
- unsigned int getNumOfViewers () const
- unsigned int getMinAge () const
- std::string getTitle () const
- enum StreamLanguage getLanguage () const
- virtual bool canJoin (const std::shared_ptr< Viewer > &newViewer) const
- void newViewerJoin ()
- void viewerLeft ()
- Date getStreamDate () const
- std::shared_ptr< Streamer > getStreamer () const
- std::pair< unsigned int, unsigned int > getVotes () const
- bool addFeedback (const std::string &nickname, enum FeedbackLikeSystem feedback)
- bool removeFeedback (const std::string &nickname, enum FeedbackLikeSystem feedback)
- unsigned int getUniqueId () const

- StreamGenre getGenre () const
- virtual void readData (std::ifstream &ifs, const std::shared_ptr< StreamerManager > &streamerManager)
- virtual void writeData (std::ofstream &ofs)
- bool operator== (const std::shared_ptr< Stream > &stream) const
- bool operator== (const Stream &rhs) const
- bool operator!= (const Stream &rhs) const
- bool operator< (const Stream &rhs) const
- bool operator> (const Stream &rhs) const
- bool operator<= (const Stream &rhs) const
- bool operator>= (const Stream &rhs) const

Protected Member Functions

- Stream (enum StreamType type)
- Stream (std::string title, enum StreamLanguage lang, unsigned int minAge, enum StreamType type, enum StreamGenre genre, std::shared_ptr< Streamer > streamer)

Protected Attributes

- std::string title
- Date streamDate
- enum StreamLanguage language
- unsigned int minAge {}
- enum StreamType type
- enum StreamGenre genre
- std::shared_ptr< Streamer > streamer
- std::pair< unsigned int, unsigned int > votingSystem
- unsigned int numOfViewers {}
- unsigned int uniqueID {}
- std::map< std::string, FeedbackLikeSystem > feedback

Static Protected Attributes

- static unsigned int nextID = 0

4.24.1 Detailed Description

Definition at line 65 of file stream.h.

4.24.2 Constructor & Destructor Documentation

4.24.2.1 Stream() [1/2]

```
Stream::Stream (
            enum StreamType type )  [explicit], [protected]
```

Definition at line 21 of file stream.cpp.

4.24.2.2 Stream() [2/2]

```
Stream::Stream (
            std::string title,
            enum StreamLanguage lang,
            unsigned int minAge,
            enum StreamType type,
            enum StreamGenre genre,
            std::shared_ptr< Streamer > streamer )  [protected]
```

Constructor of the Stream class

Parameters

title	title of the stream
lang	language the stream is in
minAge	minimum viewer age allowed
type	type of the stream
genre	genre of the stream
streamer	streamer of the stream

Definition at line 12 of file stream.cpp.

4.24.3 Member Function Documentation

4.24.3.1 addFeedback()

```
bool Stream::addFeedback (
            const std::string & nickname,
            enum FeedbackLikeSystem feedback )
```

Adds a vote to the stream's feedback

Parameters

feedback	vote (like or dislike) to add
nickname	viewer to add feedback

Returns

true if feedback added is valid (like or dislike), false otherwise

Definition at line 42 of file stream.cpp.

4.24.3.2 canJoin()

```
bool Stream::canJoin (
            const std::shared_ptr< Viewer > & newViewer ) const  [virtual]
```

Checks if a viewer can join the stream

Parameters

newViewer	viewer to check

Returns

true if the viewer meets the requirements to join, false otherwise

Reimplemented in PrivateStream.

Definition at line 32 of file stream.cpp.

4.24.3.3 getGenre()

```
StreamGenre Stream::getGenre ( ) const
```

Getter of the stream's genre

Returns

stream's genre

Definition at line 74 of file stream.cpp.

4.24.3.4 getLanguage()

```
enum StreamLanguage Stream::getLanguage ( ) const
```

Getter of the stream's language

Returns

stream's language

Definition at line 30 of file stream.cpp.

4.24.3.5 getMinAge()

```
unsigned Stream::getMinAge ( ) const
```

Getter of the minimum age allowed for viewers of the stream

Returns

minimum allowed viewer age

Definition at line 26 of file stream.cpp.

4.24.3.6 getNumOfViewers()

```
unsigned int Stream::getNumOfViewers ( ) const
```

Getter of the number of viewers of the stream

Returns

stream's number of viewers

Definition at line 24 of file stream.cpp.

4.24.3.7 getStreamDate()

```
Date Stream::getStreamDate ( ) const
```

Getter of the stream's date

Returns

stream's date

Definition at line 36 of file stream.cpp.

4.24.3.8 getStreamer()

```
std::shared_ptr< Streamer > Stream::getStreamer ( ) const
```

Getter of the stream's streamer

Returns

pointer to stream's streamer

Definition at line 38 of file stream.cpp.

4.24.3.9 getStreamType()

```
virtual enum StreamType Stream::getStreamType ( ) const  [pure virtual]
```

Placeholder for getter of the stream's type

Returns

0

Implemented in FinishedStream, PrivateStream, and PublicStream.

4.24.3.10 getTitle()

```
std::string Stream::getTitle ( ) const
```

Getter of the stream's title

Returns

stream's title

Definition at line 28 of file stream.cpp.

4.24.3.11 getUniqueId()

```
unsigned int Stream::getUniqueId ( ) const
```

Getter of the unique ID of the stream

Returns

stream's unique ID

Definition at line 72 of file stream.cpp.

4.24.3.12 getVotes()

```
std::pair< unsigned int, unsigned int > Stream::getVotes ( ) const
```

Getter of the number of each type of votes (like or dislike) the stream has

Returns

pair with the number of votes of each type

Definition at line 40 of file stream.cpp.

4.24.3.13 newViewerJoin()

```
void Stream::newViewerJoin ( )
```

Increases numOfViewers by one

Definition at line 218 of file stream.cpp.

4.24.3.14 operator"!=()

```
bool Stream::operator!= (
            const Stream & rhs ) const
```

Definition at line 138 of file stream.cpp.

4.24.3.15 operator<()

```
bool Stream::operator< (
            const Stream & rhs ) const
```

Definition at line 78 of file stream.cpp.

4.24.3.16 operator<=()

```
bool Stream::operator<= (
            const Stream & rhs ) const
```

Definition at line 126 of file stream.cpp.

4.24.3.17 operator==() [1/2]

```
bool Stream::operator== (
            const std::shared_ptr< Stream > & stream ) const
```

Definition at line 70 of file stream.cpp.

4.24.3.18 operator==() [2/2]

```
bool Stream::operator== (
             const Stream & rhs ) const
```

Definition at line 134 of file stream.cpp.

4.24.3.19 operator>()

```
bool Stream::operator> (
             const Stream & rhs ) const
```

Definition at line 122 of file stream.cpp.

4.24.3.20 operator>=()

```
bool Stream::operator>= (
             const Stream & rhs ) const
```

Definition at line 130 of file stream.cpp.

4.24.3.21 readData()

```
void Stream::readData (
             std::ifstream & ifs,
             const std::shared_ptr< StreamerManager > & streamerManager )  [virtual]
```

Reimplemented in PrivateStream, FinishedStream, and PublicStream.

Definition at line 142 of file stream.cpp.

4.24.3.22 removeFeedback()

```
bool Stream::removeFeedback (
             const std::string & nickname,
             enum FeedbackLikeSystem feedback )
```

Removes a vote to the stream's feedback

Parameters

feedback	vote (like or dislike) to remove
nickname	viewer to remove feedback

Returns

true if feedback removed is valid (like or dislike), false otherwise

Definition at line 59 of file stream.cpp.

4.24.3.23 viewerLeft()

```
void Stream::viewerLeft ( )
```

Decreases numOfViewers by one

Definition at line 222 of file stream.cpp.

4.24.3.24 writeData()

```
void Stream::writeData (
             std::ofstream & ofs )  [virtual]
```

Reimplemented in PrivateStream, FinishedStream, and PublicStream.

Definition at line 173 of file stream.cpp.

4.24.4 Member Data Documentation

4.24.4.1 feedback

```
std::map<std::string,FeedbackLikeSystem> Stream::feedback  [protected]
```

Definition at line 213 of file stream.h.

4.24.4.2 genre

```
enum StreamGenre Stream::genre  [protected]
```

Definition at line 207 of file stream.h.

4.24.4.3 language

```
enum StreamLanguage Stream::language  [protected]
```

Definition at line 204 of file stream.h.

4.24.4.4 minAge

```
unsigned int Stream::minAge {}  [protected]
```

Definition at line 205 of file stream.h.

4.24.4.5 nextID

```
unsigned int Stream::nextID = 0  [static], [protected]
```

Definition at line 212 of file stream.h.

4.24.4.6 numOfViewers

```
unsigned int Stream::numOfViewers {}  [protected]
```

Definition at line 210 of file stream.h.

4.24.4.7 streamDate

```
Date Stream::streamDate  [protected]
```

Definition at line 203 of file stream.h.

4.24.4.8 streamer

```
std::shared_ptr<Streamer> Stream::streamer  [protected]
```

Definition at line 208 of file stream.h.

4.24.4.9 title

```
std::string Stream::title  [protected]
```

Definition at line 202 of file stream.h.

4.24.4.10 type

```
enum StreamType Stream::type  [protected]
```

Definition at line 206 of file stream.h.

4.24.4.11 uniqueID

```
unsigned int Stream::uniqueID {}  [protected]
```

Definition at line 211 of file stream.h.

4.24.4.12 votingSystem

```
std::pair<unsigned int,unsigned int> Stream::votingSystem  [protected]
```

Definition at line 209 of file stream.h.

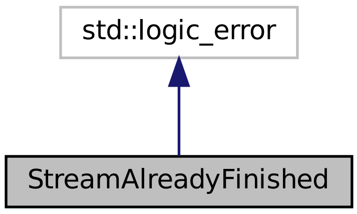
The documentation for this class was generated from the following files:

- model/stream/stream.h
- model/stream/stream.cpp

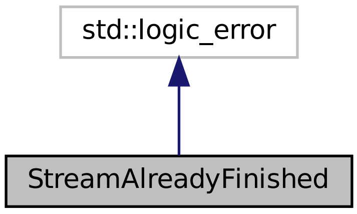
4.25 StreamAlreadyFinished Class Reference

```
#include <streamAlreadyFinished.h>
```

Inheritance diagram for StreamAlreadyFinished:



Collaboration diagram for StreamAlreadyFinished:



Public Member Functions

- StreamAlreadyFinished (std::shared_ptr< Stream > stream, const std::string &message)
- const std::shared_ptr< Stream > & getStream () const

4.25.1 Detailed Description

Definition at line 12 of file streamAlreadyFinished.h.

4.25.2 Constructor & Destructor Documentation

4.25.2.1 StreamAlreadyFinished()

```
StreamAlreadyFinished::StreamAlreadyFinished (
            std::shared_ptr< Stream > stream,
            const std::string & message )
```

Definition at line 7 of file streamAlreadyFinished.cpp.

4.25.3 Member Function Documentation

4.25.3.1 getStream()

```
const std::shared_ptr< Stream > & StreamAlreadyFinished::getStream ( ) const
```

Definition at line 9 of file streamAlreadyFinished.cpp.

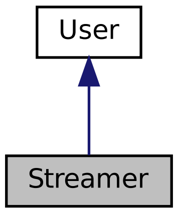
The documentation for this class was generated from the following files:

- exception/streamAlreadyFinished/streamAlreadyFinished.h
- exception/streamAlreadyFinished/streamAlreadyFinished.cpp

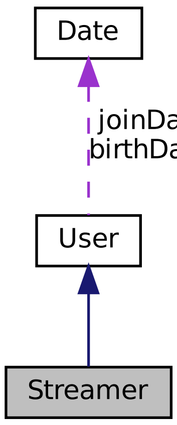
4.26 Streamer Class Reference

```
#include <streamer.h>
```

Inheritance diagram for Streamer:



Collaboration diagram for Streamer:



Public Member Functions

- Streamer ()
- Streamer (Date birthDate, std::string name, std::string nickname, std::string password)
- bool isStreaming () const
- void setStream (const std::shared_ptr< Stream > &stream)
- void removeStream ()
- void addToViewCount (unsigned int value)
- unsigned int getTotalViewCount () const
- unsigned int getCurrentStreamID () const
- const std::vector< unsigned int > & getPreviousStreamsIDs () const
- void readData (std::ifstream &ifs) override
- void writeData (std::ofstream &ofs) override
- bool operator< (const Streamer &rhs) const
- bool operator> (const Streamer &rhs) const
- bool operator<= (const Streamer &rhs) const
- bool operator== (const Streamer &rhs) const
- bool operator!= (const Streamer &rhs) const
- bool operator>= (const Streamer &rhs) const

Additional Inherited Members

4.26.1 Detailed Description

Definition at line 16 of file streamer.h.

4.26.2 Constructor & Destructor Documentation

4.26.2.1 Streamer() [1/2]

```
Streamer::Streamer ( )
```

Definition at line 8 of file streamer.cpp.

4.26.2.2 Streamer() [2/2]

```
Streamer::Streamer (
             Date birthDate,
             std::string name,
             std::string nickname,
             std::string password )
```

Constructor of the Streamer Class

Parameters

birthDate	the birth date of the streamer
name	the name of the streamer
nickname	the nickname of the streamer

Definition at line 10 of file streamer.cpp.

4.26.3 Member Function Documentation

4.26.3.1 addToViewCount()

```
void Streamer::addToViewCount (
             unsigned int value )
```

Definition at line 110 of file streamer.cpp.

4.26.3.2 getCurrentStreamID()

```
unsigned int Streamer::getCurrentStreamID ( ) const
```

Definition at line 38 of file streamer.cpp.

4.26.3.3 getPreviousStreamsIDs()

```
const std::vector< unsigned int > & Streamer::getPreviousStreamsIDs ( ) const
```

Definition at line 42 of file streamer.cpp.

4.26.3.4 getTotalViewCount()

```
unsigned int Streamer::getTotalViewCount ( ) const
```

Definition at line 34 of file streamer.cpp.

4.26.3.5 isStreaming()

```
bool Streamer::isStreaming ( ) const
```

Checks whether or not the streamer is streaming

Returns

True if the streamer is, in fact, streaming, false otherwise

Definition at line 20 of file streamer.cpp.

4.26.3.6 operator"!=()

```
bool Streamer::operator!= (
             const Streamer & rhs ) const
```

Definition at line 82 of file streamer.cpp.

4.26.3.7 operator<()

```
bool Streamer::operator< (
             const Streamer & rhs ) const
```

Definition at line 46 of file streamer.cpp.

4.26.3.8 operator<=()

```
bool Streamer::operator<= (
            const Streamer & rhs ) const
```

Definition at line 70 of file streamer.cpp.

4.26.3.9 operator==()

```
bool Streamer::operator== (
            const Streamer & rhs ) const
```

Definition at line 78 of file streamer.cpp.

4.26.3.10 operator>()

```
bool Streamer::operator> (
            const Streamer & rhs ) const
```

Definition at line 66 of file streamer.cpp.

4.26.3.11 operator>=()

```
bool Streamer::operator>= (
            const Streamer & rhs ) const
```

Definition at line 74 of file streamer.cpp.

4.26.3.12 readData()

```
void Streamer::readData (
            std::ifstream & ifs )  [override], [virtual]
```

Reimplemented from User.

Definition at line 86 of file streamer.cpp.

4.26.3.13 removeStream()

```
void Streamer::removeStream ( )
```

Removes the current stream

Definition at line 29 of file streamer.cpp.

4.26.3.14 setStream()

```
void Streamer::setStream (
            const std::shared_ptr< Stream > & stream )
```

Sets the stream

Parameters

stream	the stream to be set to

Definition at line 24 of file streamer.cpp.

4.26.3.15 writeData()

```
void Streamer::writeData (
             std::ofstream & ofs )  [override], [virtual]
```

Reimplemented from User.

Definition at line 100 of file streamer.cpp.

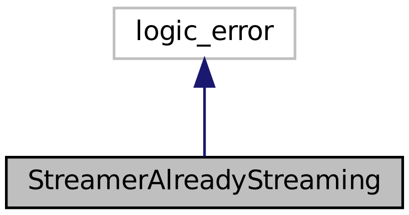
The documentation for this class was generated from the following files:

- model/user/streamer/streamer.h
- model/user/streamer/streamer.cpp

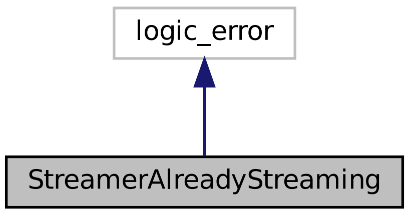
4.27 StreamerAlreadyStreaming Class Reference

```
#include <streamerAlreadyStreaming.h>
```

Inheritance diagram for StreamerAlreadyStreaming:



Collaboration diagram for StreamerAlreadyStreaming:



Public Member Functions

- StreamerAlreadyStreaming (std::shared_ptr< Streamer > streamer, const std::string &message)
- const std::shared_ptr< Streamer > & getStreamer () const

4.27.1 Detailed Description

Definition at line 12 of file streamerAlreadyStreaming.h.

4.27.2 Constructor & Destructor Documentation

4.27.2.1 StreamerAlreadyStreaming()

```
StreamerAlreadyStreaming::StreamerAlreadyStreaming (
              std::shared_ptr< Streamer > streamer,
              const std::string & message )
```

Definition at line 7 of file streamerAlreadyStreaming.cpp.

4.27.3 Member Function Documentation

4.27.3.1 getStreamer()

```
const std::shared_ptr< Streamer > & StreamerAlreadyStreaming::getStreamer ( ) const
```

Definition at line 9 of file streamerAlreadyStreaming.cpp.

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

- exception/streamerAlreadyStreaming/streamerAlreadyStreaming.h
- exception/streamerAlreadyStreaming/streamerAlreadyStreaming.cpp

4.28 StreamerManager Class Reference

```
#include <streamer_manager.h>
```

Public Member Functions

- StreamerManager ()
- StreamerManager (std::shared_ptr< StreamManager > streamManager, std::shared_ptr< ViewerManager > viewerManager, std::shared_ptr< UserManager > userManager)
- std::shared_ptr< Streamer > build (Date birthDate, const std::string &name, const std::string &nickname, const std::string &password)
- bool add (const std::shared_ptr< Streamer > &streamer)
- bool reload (const std::shared_ptr< Streamer > &streamer)
- bool remove (const std::shared_ptr< Streamer > &streamer)
- bool endStream (const std::shared_ptr< Streamer > &streamer)
- bool has (const std::shared_ptr< Streamer > &streamer) const
- bool has (std::string nickname) const
- std::shared_ptr< Streamer > get (std::string nickname) const
- unsigned int getNumOfFollowers (const std::shared_ptr< Streamer > &streamer) const
- const std::vector< std::shared_ptr< Streamer > > & getStreamers () const
- bool readData ()
- bool writeData ()

4.28.1 Detailed Description

Definition at line 11 of file streamer_manager.h.

4.28.2 Constructor & Destructor Documentation

4.28.2.1 StreamerManager() `[1/2]`

```
StreamerManager::StreamerManager ( )  [default]
```

4.28.2.2 StreamerManager() `[2/2]`

```
StreamerManager::StreamerManager (
              std::shared_ptr< StreamManager > streamManager,
              std::shared_ptr< ViewerManager > viewerManager,
              std::shared_ptr< UserManager > userManager )
```

Constructor of the Streamer Manager

Parameters

streamManager	the stream manager
viewerManager	the viewer manager
userManager	the user manager

Definition at line 13 of file streamer_manager.cpp.

4.28.3 Member Function Documentation

4.28.3.1 add()

```
bool StreamerManager::add (
            const std::shared_ptr< Streamer > & streamer )
```

Adds a new streamer to the streamer vector

Parameters

streamer	new streamer to be added

Returns

True if the action was successful, false otherwise

Definition at line 35 of file streamer_manager.cpp.

4.28.3.2 build()

```
std::shared_ptr< Streamer > StreamerManager::build (
            Date birthDate,
            const std::string & name,
            const std::string & nickname,
            const std::string & password )
```

Creates an object of class Streamer

Parameters

birthDate	the birthdate of the streamer
name	the name of the streamer
nickname	the nickname of the streamer

Returns

True if the action was successful, false otherwise

Definition at line 19 of file streamer_manager.cpp.

4.28.3.3 endStream()

```
bool StreamerManager::endStream (
            const std::shared_ptr< Streamer > & streamer )
```

Ends the stream of a given streamer

Parameters

streamer	the stream to which the stream is to be finished

Returns

True if the action was successful, false otherwise

Definition at line 63 of file streamer_manager.cpp.

4.28.3.4 get()

```
std::shared_ptr< Streamer > StreamerManager::get (
            std::string nickname ) const
```

Returns the pointer to a streamer given his nickname

Parameters

nickname	the nickname of the streamer to be found and returned

Returns

the streamer with the given nickname

Definition at line 81 of file streamer_manager.cpp.

4.28.3.5 getNumOfFollowers()

```
unsigned int StreamerManager::getNumOfFollowers (
            const std::shared_ptr< Streamer > & streamer ) const
```

Definition at line 90 of file streamer_manager.cpp.

4.28.3.6 getStreamers()

```
const std::vector< std::shared_ptr< Streamer > > & StreamerManager::getStreamers ( ) const
```

Definition at line 97 of file streamer_manager.cpp.

4.28.3.7 has() [1/2]

```
bool StreamerManager::has (
             const std::shared_ptr< Streamer > & streamer ) const
```

Checks if the streamer exists in the streamers vector

Parameters

streamer	streamer to be found

Returns

True if the action was successful, false otherwise

Definition at line 72 of file streamer_manager.cpp.

4.28.3.8 has() [2/2]

```
bool StreamerManager::has (
             std::string nickname ) const
```

Checks, by nickname (which is unique), if the user exists in the streamers unordered set

Parameters

nickname	the nickname of the streamer to be found

Returns

True if the action was successful, false otherwise

Definition at line 76 of file streamer_manager.cpp.

4.28.3.9 readData()

```
bool StreamerManager::readData ( )
```

Definition at line 101 of file streamer_manager.cpp.

4.28.3.10 reload()

```
bool StreamerManager::reload (
            const std::shared_ptr< Streamer > & streamer )
```

Definition at line 43 of file streamer_manager.cpp.

4.28.3.11 remove()

```
bool StreamerManager::remove (
            const std::shared_ptr< Streamer > & streamer )
```

Removes a streamer from the streamers vector

Parameters

streamer	new streamer to be added

Returns

True if the action was successful, false otherwise

Definition at line 53 of file streamer_manager.cpp.

4.28.3.12 writeData()

```
bool StreamerManager::writeData ( )
```

Definition at line 124 of file streamer_manager.cpp.

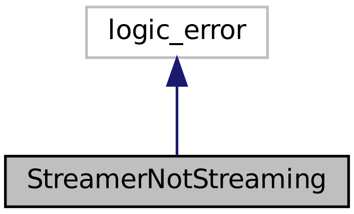
The documentation for this class was generated from the following files:

- model/user/streamer/streamer_manager.h
- model/user/streamer/streamer_manager.cpp

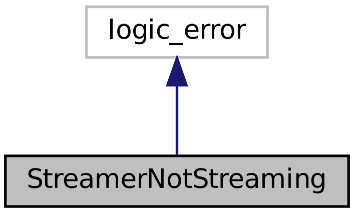
4.29 StreamerNotStreaming Class Reference

```
#include <streamerNotStreaming.h>
```

Inheritance diagram for StreamerNotStreaming:



Collaboration diagram for StreamerNotStreaming:



Public Member Functions

- StreamerNotStreaming (const std::string &message)

4.29.1 Detailed Description

Definition at line 10 of file streamerNotStreaming.h.

4.29.2 Constructor & Destructor Documentation

4.29.2.1 StreamerNotStreaming()

```
StreamerNotStreaming::StreamerNotStreaming (
             const std::string & message )  [explicit]
```

Definition at line 7 of file streamerNotStreaming.cpp.

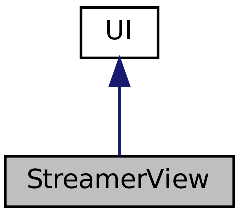
The documentation for this class was generated from the following files:

- exception/streamerNotStreaming/streamerNotStreaming.h
- exception/streamerNotStreaming/streamerNotStreaming.cpp

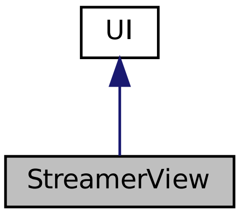
4.30 StreamerView Class Reference

```
#include <streamerView.h>
```

Inheritance diagram for StreamerView:



Collaboration diagram for StreamerView:



Public Member Functions

- StreamerView (UIManager &uiManager)
- void run () override

4.30.1 Detailed Description

Implementation of the Streamer's Page in the UI

Allows a streamer to start a stream, check its statistics, edit whitelist and see who's able to join, as well as finish the stream and check the leaderboards

Definition at line 24 of file streamerView.h.

4.30.2 Constructor & Destructor Documentation

4.30.2.1 StreamerView()

```
StreamerView::StreamerView (
            UIManager & uiManager )  [explicit]
```

Streamer View's constructor

Parameters

uiManager	the manager of the current UI

Definition at line 8 of file streamerView.cpp.

4.30.3 Member Function Documentation

4.30.3.1 run()

```
void StreamerView::run ( )  [override], [virtual]
```

Runs the streamer page view

Implements UI.

Definition at line 10 of file streamerView.cpp.

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

- ui/streamerView/streamerView.h
- ui/streamerView/streamerView.cpp

4.31 StreamManager Class Reference

```
#include <streamManager.h>
```

Public Member Functions

- StreamManager (std::shared_ptr< ViewerManager > viewerManager, std::shared_ptr< StreamerManager > streamerManager)
- std::shared_ptr< Stream > build (const std::string &title, enum StreamLanguage lang, unsigned int minAge, enum StreamType type, enum StreamGenre genre, const std::shared_ptr< Streamer > &streamer)
- bool add (const std::shared_ptr< Stream > &streamToAdd)
- bool remove (const std::shared_ptr< Stream > &streamToRemove)
- bool has (const std::shared_ptr< Stream > &streamToCheck)
- std::shared_ptr< Stream > get (unsigned int streamID)
- std::shared_ptr< FinishedStream > finish (const std::shared_ptr< Stream > &streamToFinish)
- unsigned int getNumOfViewers (const std::shared_ptr< Stream > &streamToFinish)
- void setStreamerManager (std::shared_ptr< StreamerManager > newStreamerManager)
- const std::vector< std::shared_ptr< Stream > > & getStreams () const
- const std::vector< std::shared_ptr< Stream > > & getCacheOfFinishedStreams () const
- bool readData ()
- bool writeData ()

4.31.1 Detailed Description

Definition at line 16 of file streamManager.h.

4.31.2 Constructor & Destructor Documentation

4.31.2.1 StreamManager()

```
StreamManager::StreamManager (
             std::shared_ptr< ViewerManager > viewerManager,
             std::shared_ptr< StreamerManager > streamerManager )
```

Constructor of the StreamManager class

Parameters

viewerManager	the manager of the Viewers
streamerManaager	the manager of the Streamers

Definition at line 13 of file streamManager.cpp.

4.31.3 Member Function Documentation

4.31.3.1 add()

```
bool StreamManager::add (
            const std::shared_ptr< Stream > & streamToAdd )
```

Adds a stream to the streams vector

Parameters

streamToAdd	stream to be added to the vector

Returns

true if stream is added, false if it is already in the vector

Definition at line 39 of file streamManager.cpp.

4.31.3.2 build()

```
std::shared_ptr< Stream > StreamManager::build (
            const std::string & title,
            enum StreamLanguage lang,
            unsigned int minAge,
            enum StreamType type,
            enum StreamGenre genre,
            const std::shared_ptr< Streamer > & streamer )
```

Creates a PublicStream or PrivateStream object using the given parameters

Parameters

title	title of the stream
lang	language the stream is in
minAge	minimum viewer age allowed
type	type of the stream
genre	genre of the stream
streamer	streamer of the stream

Returns

pointer to the created stream

Definition at line 16 of file streamManager.cpp.

4.31.3.3 finish()

```
std::shared_ptr< FinishedStream > StreamManager::finish (
            const std::shared_ptr< Stream > & streamToFinish )
```

Creates a FinishedStream object through downcasting, marking the end of a stream

Parameters

streamToFinish	stream that is downcast as a FinishedStream

Returns

true if FinishedStream is successfully created, false otherwise

Definition at line 80 of file streamManager.cpp.

4.31.3.4 get()

```
std::shared_ptr< Stream > StreamManager::get (
            unsigned int streamID )
```

Gets the stream of a given uniqueID

Parameters

streamID	the uniqueID of the stream to get

Returns

pointer to the stream that has parameter streamID

Definition at line 66 of file streamManager.cpp.

4.31.3.5 getCacheOfFinishedStreams()

```
const std::vector< std::shared_ptr< Stream > > & StreamManager::getCacheOfFinishedStreams ( )
const
```

Getter of the cache of finished streams

Returns

vector of cache of finished streams

Definition at line 114 of file streamManager.cpp.

4.31.3.6 getNumOfViewers()

```
unsigned int StreamManager::getNumOfViewers (
             const std::shared_ptr< Stream > & streamToFinish )
```

Getter of the number of viewers of a stream that is to be finished at its end

Parameters

streamToFinish	stream that is to be finished

Returns

number of viewers of streamToFinish at its end

Definition at line 102 of file streamManager.cpp.

4.31.3.7 getStreams()

```
const std::vector< std::shared_ptr< Stream > > & StreamManager::getStreams ( ) const
```

Getter of the streams vector

Returns

vector of streams

Definition at line 110 of file streamManager.cpp.

4.31.3.8 has()

```
bool StreamManager::has (
             const std::shared_ptr< Stream > & streamToCheck )
```

Checks if a stream is in the streams vector

Parameters

streamToCheck	stream to look for in the vector

Returns

true if stream is in the vector, false otherwise

Definition at line 62 of file streamManager.cpp.

4.31.3.9 readData()

```
bool StreamManager::readData ( )
```

Definition at line 119 of file streamManager.cpp.

4.31.3.10 remove()

```
bool StreamManager::remove (
            const std::shared_ptr< Stream > & streamToRemove )
```

Removes a stream from the streams vector

Parameters

streamToRemove	stream to be removed from the vector

Returns

true if stream is removed, false if it isn't in the vector

Definition at line 53 of file streamManager.cpp.

4.31.3.11 setStreamerManager()

```
void StreamManager::setStreamerManager (
            std::shared_ptr< StreamerManager > newStreamerManager )
```

Sets/Updates the StreamManager's streamer manager

Parameters

newStreamerManager	new streamer manager

Definition at line 205 of file streamManager.cpp.

4.31.3.12 writeData()

```
bool StreamManager::writeData ( )
```

Definition at line 165 of file streamManager.cpp.

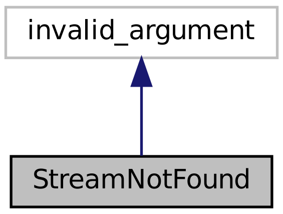
The documentation for this class was generated from the following files:

- model/stream/streamManager.h
- model/stream/streamManager.cpp

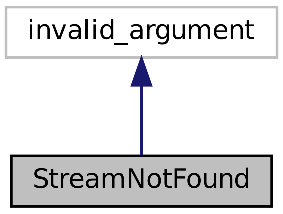
4.32 StreamNotFound Class Reference

```
#include <streamNotFound.h>
```

Inheritance diagram for StreamNotFound:



Collaboration diagram for StreamNotFound:



Public Member Functions

- StreamNotFound (std::shared_ptr< Stream > stream, const std::string &message)
- const std::shared_ptr< Stream > & getStream () const

4.32.1 Detailed Description

Definition at line 12 of file streamNotFound.h.

4.32.2 Constructor & Destructor Documentation

4.32.2.1 StreamNotFound()

```
StreamNotFound::StreamNotFound (
            std::shared_ptr< Stream > stream,
            const std::string & message )
```

Definition at line 7 of file streamNotFound.cpp.

4.32.3 Member Function Documentation

4.32.3.1 getStream()

```
const std::shared_ptr< Stream > & StreamNotFound::getStream ( ) const
```

Definition at line 9 of file streamNotFound.cpp.

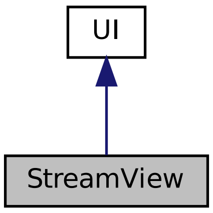
The documentation for this class was generated from the following files:

- exception/streamNotFound/streamNotFound.h
- exception/streamNotFound/streamNotFound.cpp

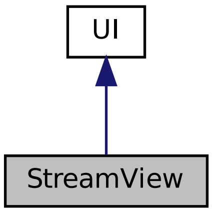
4.33 StreamView Class Reference

```
#include <streamView.h>
```

Inheritance diagram for StreamView:



Collaboration diagram for StreamView:



Public Member Functions

- StreamView (UIManager &uiManager)
- void run () override

4.33.1 Detailed Description

Implementation of the Stream's Page in the UI

Allows a viewer to watch a stream, give feedback and leave the stream

Definition at line 24 of file streamView.h.

4.33.2 Constructor & Destructor Documentation

4.33.2.1 StreamView()

```
StreamView::StreamView (
            UIManager & uiManager )  [explicit]
```

Stream View's constructor

Parameters

uiManager	the manager of the current UI

Definition at line 7 of file streamView.cpp.

4.33.3 Member Function Documentation

4.33.3.1 run()

```
void StreamView::run ( )  [override], [virtual]
```

Runs the stream view display

Implements UI.

Definition at line 9 of file streamView.cpp.

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

- ui/streamView/streamView.h
- ui/streamView/streamView.cpp

4.34 StreamZ Class Reference

```
#include <streamZ.h>
```

Public Member Functions

- StreamZ ()
- void initialize ()
- void finish ()
- std::shared_ptr< UserManager > getUserManager ()
- std::shared_ptr< ViewerManager > getViewerManager ()
- std::shared_ptr< StreamManager > getStreamManager ()
- std::shared_ptr< StreamerManager > getStreamerManager ()
- std::shared_ptr< LeaderboardManager > getLeaderboardManager ()

4.34.1 Detailed Description

Definition at line 19 of file streamZ.h.

4.34.2 Constructor & Destructor Documentation

4.34.2.1 StreamZ()

```
StreamZ::StreamZ ( )
```

Definition at line 7 of file streamZ.cpp.

4.34.3 Member Function Documentation

4.34.3.1 finish()

```
void StreamZ::finish ( )
```

Definition at line 45 of file streamZ.cpp.

4.34.3.2 getLeaderboardManager()

```
std::shared_ptr< LeaderboardManager > StreamZ::getLeaderboardManager ( )
```

Definition at line 34 of file streamZ.cpp.

4.34.3.3 getStreamerManager()

```
std::shared_ptr< StreamerManager > StreamZ::getStreamerManager ( )
```

Definition at line 30 of file streamZ.cpp.

4.34.3.4 getStreamManager()

```
std::shared_ptr< StreamManager > StreamZ::getStreamManager ( )
```

Definition at line 26 of file streamZ.cpp.

4.34.3.5 getUserManager()

```
std::shared_ptr< UserManager > StreamZ::getUserManager ( )
```

Definition at line 18 of file streamZ.cpp.

4.34.3.6 getViewerManager()

```
std::shared_ptr< ViewerManager > StreamZ::getViewerManager ( )
```

Definition at line 22 of file streamZ.cpp.

4.34.3.7 initialize()

```
void StreamZ::initialize ( )
```

Definition at line 38 of file streamZ.cpp.

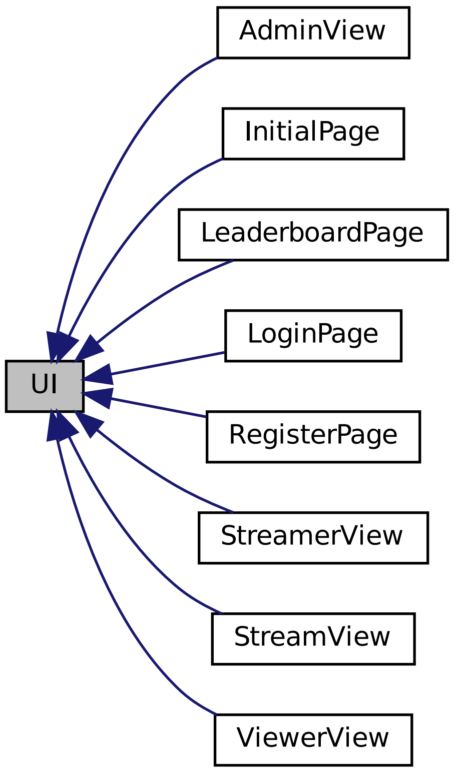
The documentation for this class was generated from the following files:

- model/streamZ/streamZ.h
- model/streamZ/streamZ.cpp

4.35 UI Class Reference

```
#include <ui.h>
```

Inheritance diagram for UI:



Public Member Functions

- virtual void run ()=0

4.35.1 Detailed Description

Base class of all UI pages

Definition at line 19 of file ui.h.

4.35.2 Member Function Documentation

4.35.2.1 run()

```
virtual void UI::run ( )  [pure virtual]
```

Runs the given UI page

Implemented in LoginPage, InitialPage, ViewerView, AdminView, RegisterPage, StreamView, LeaderboardPage, and StreamerView.

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

- ui/ui.h

4.36 UIManager Class Reference

```
#include <ui_manager.h>
```

Public Member Functions

- UIManager (StreamZ &platform, CurrentSession &currentSession)
- StreamZ & getPlatform () const
- CurrentSession & getCurrentSession () const
- void run () const
- void setCurrent (UI *ui)

4.36.1 Detailed Description

Manager of the UI pages

Allows the UI to access platform and current session information, as well as keeping track of the current UI

Definition at line 26 of file ui_manager.h.

4.36.2 Constructor & Destructor Documentation

4.36.2.1 UIManager()

```
UIManager::UIManager (
              StreamZ & platform,
              CurrentSession & currentSession )
```

UIManager's constructor

Parameters

platform	the platform (StreamZ, in this case) on which it operates
currentSession	the current User that is logged in

Definition at line 7 of file ui_manager.cpp.

4.36.3 Member Function Documentation

4.36.3.1 getCurrentSession()

```
CurrentSession & UIManager::getCurrentSession ( ) const
```

Gets the current logged user

Returns

the currentSession object of the logged in user

Definition at line 23 of file ui_manager.cpp.

4.36.3.2 getPlatform()

```
StreamZ & UIManager::getPlatform ( ) const
```

Gets the current platform on which the UIManager is operating

Returns

the platform (StreamZ object) on which it is operating

Definition at line 19 of file ui_manager.cpp.

4.36.3.3 run()

```
void UIManager::run ( ) const
```

Starts the UI

Definition at line 11 of file ui_manager.cpp.

4.36.3.4 setCurrent()

```
void UIManager::setCurrent (
             UI * ui )
```

Sets the current UI page

Parameters

ui	the page to set the UI to

Definition at line 15 of file ui_manager.cpp.

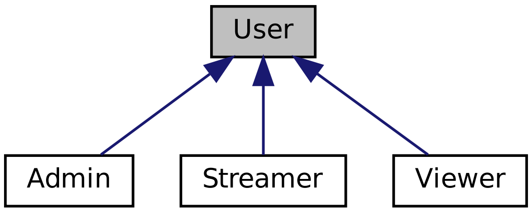
The documentation for this class was generated from the following files:

- ui/ui_manager.h
- ui/ui_manager.cpp

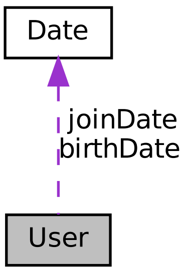
4.37 User Class Reference

```
#include <user.h>
```

Inheritance diagram for User:



Collaboration diagram for User:



Public Member Functions

- const Date & getBirthDate () const
- unsigned int getAge () const
- const Date & getJoinDate () const
- const std::string & getName () const
- const std::string & getNickname () const
- const std::string & getPassword () const
- void updateBirthDate (const Date &d1)
- void updateName (const std::string &newName)
- void updateNickname (const std::string &newNickname)
- void updatePassword (const std::string &password)
- enum UserTypes getUserType () const
- virtual void readData (std::ifstream &ifs)
- virtual void writeData (std::ofstream &ofs)
- bool operator< (const User &rhs) const
- bool operator> (const User &rhs) const
- bool operator<= (const User &rhs) const
- bool operator== (const User &rhs) const
- bool operator!= (const User &rhs) const
- bool operator>= (const User &rhs) const

Protected Member Functions

- User (enum UserTypes type)
- User (Date birthDate, std::string name, std::string nickname, enum UserTypes type, std::string password)

Protected Attributes

- Date birthDate
- Date joinDate
- std::string name
- std::string nickname
- enum UserTypes type
- std::string password

4.37.1 Detailed Description

Definition at line 22 of file user.h.

4.37.2 Constructor & Destructor Documentation

4.37.2.1 User() [1/2]

```
User::User (
            enum UserTypes type )  [explicit], [protected]
```

Definition at line 9 of file user.cpp.

4.37.2.2 User() [2/2]

```
User::User (
            Date birthDate,
            std::string name,
            std::string nickname,
            enum UserTypes type,
            std::string password )  [protected]
```

Constructor of the User class

Parameters

birthDate	the date of birth of the user
name	the name of the user
nickname	the nickname of the user
type	the type of user

Definition at line 16 of file user.cpp.

4.37.3 Member Function Documentation

4.37.3.1 getAge()

```
unsigned int User::getAge ( ) const
```

Gets the age of the user in years

Returns

user's age

Definition at line 19 of file user.cpp.

4.37.3.2 getBirthDate()

```
const Date & User::getBirthDate ( ) const
```

Getter of the birth date of the User

Returns

user's birth date

Definition at line 32 of file user.cpp.

4.37.3.3 getJoinDate()

```
const Date & User::getJoinDate ( ) const
```

Getter of the join date of the User on the platform

Returns

user's join date

Definition at line 36 of file user.cpp.

4.37.3.4 getName()

```
const std::string & User::getName ( ) const
```

Getter of the name of the user

Returns

user's name

Definition at line 24 of file user.cpp.

4.37.3.5 getNickname()

```
const std::string & User::getNickname ( ) const
```

Getter of the nickname of the user

Returns

user's nickname

Definition at line 28 of file user.cpp.

4.37.3.6 getPassword()

```
const std::string & User::getPassword ( ) const
```

Definition at line 113 of file user.cpp.

4.37.3.7 getUserType()

```
enum UserTypes User::getUserType ( ) const
```

Getter of the type of User

Returns

the user's type

Definition at line 52 of file user.cpp.

4.37.3.8 operator"!=()

```
bool User::operator!= (
             const User & rhs ) const
```

Definition at line 92 of file user.cpp.

4.37.3.9 operator<()

```
bool User::operator< (
             const User & rhs ) const
```

Definition at line 56 of file user.cpp.

4.37.3.10 operator<=()

```
bool User::operator<= (
             const User & rhs ) const
```

Definition at line 80 of file user.cpp.

4.37.3.11 operator==()

```
bool User::operator== (
             const User & rhs ) const
```

Definition at line 88 of file user.cpp.

4.37.3.12 operator>()

```
bool User::operator> (
             const User & rhs ) const
```

Definition at line 76 of file user.cpp.

4.37.3.13 operator>=()

```
bool User::operator>= (
             const User & rhs ) const
```

Definition at line 84 of file user.cpp.

4.37.3.14 readData()

```
void User::readData (
             std::ifstream & ifs )  [virtual]
```

Reimplemented in Streamer, and Admin.

Definition at line 96 of file user.cpp.

4.37.3.15 updateBirthDate()

```
void User::updateBirthDate (
             const Date & d1 )
```

Sets/Updates the user's birthdate

Parameters

d1	new birthDate

Definition at line 40 of file user.cpp.

4.37.3.16 updateName()

```
void User::updateName (
             const std::string & newName )
```

Sets/Updates the user's name

Parameters

newName	new name

Definition at line 44 of file user.cpp.

4.37.3.17 updateNickname()

```
void User::updateNickname (
            const std::string & newNickname )
```

Sets/Updates the user's nickname

Parameters

newNickname	new nickname

Definition at line 48 of file user.cpp.

4.37.3.18 updatePassword()

```
void User::updatePassword (
            const std::string & password )
```

Definition at line 117 of file user.cpp.

4.37.3.19 writeData()

```
void User::writeData (
            std::ofstream & ofs )  [virtual]
```

Reimplemented in Viewer, Streamer, and Admin.

Definition at line 105 of file user.cpp.

4.37.4 Member Data Documentation

4.37.4.1 birthDate

```
Date User::birthDate  [protected]
```

Definition at line 115 of file user.h.

4.37.4.2 joinDate

```
Date User::joinDate  [protected]
```

Definition at line 116 of file user.h.

4.37.4.3 name

```
std::string User::name  [protected]
```

Definition at line 117 of file user.h.

4.37.4.4 nickname

```
std::string User::nickname  [protected]
```

Definition at line 118 of file user.h.

4.37.4.5 password

```
std::string User::password  [protected]
```

Definition at line 120 of file user.h.

4.37.4.6 type

```
enum UserTypes User::type  [protected]
```

Definition at line 119 of file user.h.

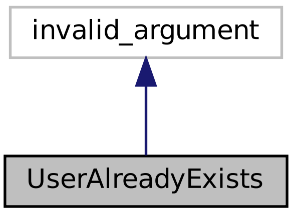
The documentation for this class was generated from the following files:

- model/user/user.h
- model/user/user.cpp

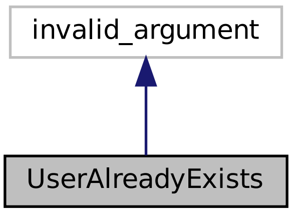
4.38 UserAlreadyExists Class Reference

```
#include <userAlreadyExists.h>
```

Inheritance diagram for UserAlreadyExists:



Collaboration diagram for UserAlreadyExists:



Public Member Functions

- UserAlreadyExists (std::shared_ptr< User > user, const std::string &message)
- const std::shared_ptr< User > & getUser () const

4.38.1 Detailed Description

Definition at line 13 of file userAlreadyExists.h.

4.38.2 Constructor & Destructor Documentation

4.38.2.1 UserAlreadyExists()

```
UserAlreadyExists::UserAlreadyExists (
             std::shared_ptr< User > user,
             const std::string & message )
```

Definition at line 7 of file userAlreadyExists.cpp.

4.38.3 Member Function Documentation

4.38.3.1 getUser()

```
const std::shared_ptr< User > & UserAlreadyExists::getUser ( ) const
```

Definition at line 9 of file userAlreadyExists.cpp.

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

- exception/userAlreadyExists/userAlreadyExists.h
- exception/userAlreadyExists/userAlreadyExists.cpp

4.39 UserManager Class Reference

```
#include <user_manager.h>
```

Public Member Functions

- UserManager ()
- bool add (const std::shared_ptr< User > &user)
- bool remove (const std::shared_ptr< User > &user)
- bool has (const std::shared_ptr< User > &user) const
- bool has (std::string nickname) const
- std::shared_ptr< User > get (std::string nickname) const
- std::unordered_set< std::shared_ptr< User > > getUsers () const

4.39.1 Detailed Description

Definition at line 13 of file user_manager.h.

4.39.2 Constructor & Destructor Documentation

4.39.2.1 UserManager()

```
UserManager::UserManager ( )
```

Default constructor of the UserManager class

Definition at line 10 of file user_manager.cpp.

4.39.3 Member Function Documentation

4.39.3.1 add()

```
bool UserManager::add (
            const std::shared_ptr< User > & user )
```

Adds a new user to the users unordered set

Parameters

user	new user to be added

Returns

True if the action was successful, false otherwise

Definition at line 14 of file user_manager.cpp.

4.39.3.2 get()

```
std::shared_ptr< User > UserManager::get (
            std::string nickname ) const
```

Returns the pointer to a user given his nickname

Parameters

nickname	the nickname of the user to be found and returned

Returns

the user with the given nickname

Definition at line 39 of file user_manager.cpp.

4.39.3.3 getUsers()

```
std::unordered_set< std::shared_ptr< User > > UserManager::getUsers ( ) const
```

Getter of the users unordered set

Returns

the unordered set of users

Definition at line 48 of file user_manager.cpp.

4.39.3.4 has() [1/2]

```
bool UserManager::has (
            const std::shared_ptr< User > & user ) const
```

Checks if the user exists in the users unordered set

Parameters

user	user to be found

Returns

True if the action was successful, false otherwise

Definition at line 30 of file user_manager.cpp.

4.39.3.5 has() [2/2]

```
bool UserManager::has (
            std::string nickname ) const
```

Checks, by nickname (which is unique), if the user exists in the users unordered set

Parameters

nickname	the nickname of the user to be found

Returns

True if the action was successful, false otherwise

Definition at line 34 of file user_manager.cpp.

4.39.3.6 remove()

```
bool UserManager::remove (
            const std::shared_ptr< User > & user )
```

Removes a user from the users unordered set

Parameters

user	user to be removed

Returns

True if the action was successful, false otherwise

Definition at line 22 of file user_manager.cpp.

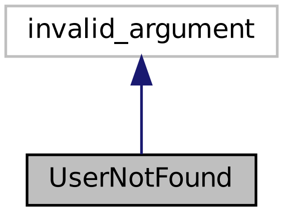
The documentation for this class was generated from the following files:

- model/user/user_manager.h
- model/user/user_manager.cpp

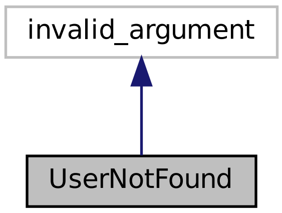
4.40 UserNotFound Class Reference

```
#include <userNotFound.h>
```

Inheritance diagram for UserNotFound:



Collaboration diagram for UserNotFound:



Public Member Functions

- UserNotFound (std::shared_ptr< User > user, const std::string &message)
- const std::shared_ptr< User > & getUser () const

4.40.1 Detailed Description

Definition at line 13 of file userNotFound.h.

4.40.2 Constructor & Destructor Documentation

4.40.2.1 UserNotFound()

```
UserNotFound::UserNotFound (
            std::shared_ptr< User > user,
            const std::string & message )
```

Definition at line 7 of file userNotFound.cpp.

4.40.3 Member Function Documentation

4.40.3.1 getUser()

```
const std::shared_ptr< User > & UserNotFound::getUser ( ) const
```

Definition at line 9 of file userNotFound.cpp.

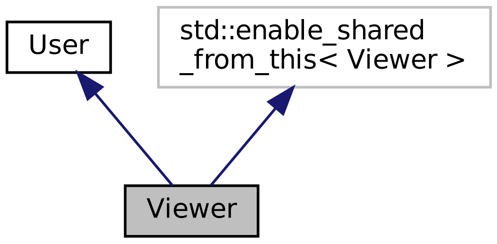
The documentation for this class was generated from the following files:

- exception/userNotFound/userNotFound.h
- exception/userNotFound/userNotFound.cpp

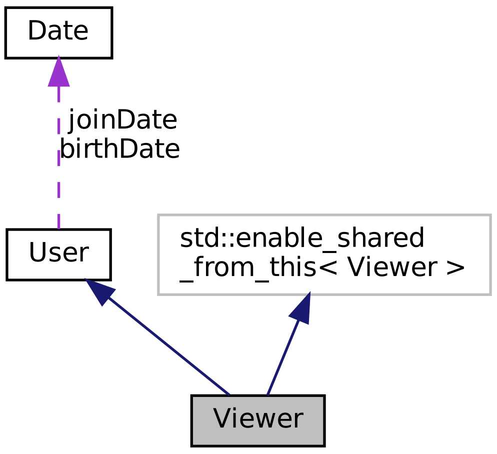
4.41 Viewer Class Reference

```
#include <viewer.h>
```

Inheritance diagram for Viewer:



Collaboration diagram for Viewer:



Public Member Functions

- Viewer ()
- Viewer (Date birthDate, std::string name, std::string nickname, std::string password)
- bool joinStream (const std::shared_ptr< Stream > &stream)
- bool isWatchingStream () const
- bool leaveCurrentStream ()
- bool giveFeedbackToStream (enum FeedbackLikeSystem feedback)

- bool giveFeedbackToStream (const std::string &comment)
- bool followStreamer (const std::shared_ptr< Streamer > &streamer)
- bool unfollowStreamer (const std::shared_ptr< Streamer > &streamer)
- const std::shared_ptr< Stream > & getCurrentStream () const
- std::map< std::shared_ptr< Stream >, FeedbackLikeSystem > & getStreamHistory ()
- const std::unordered_set< std::string > & getFollowingStreamers () const
- void readData (std::ifstream &ist, const std::shared_ptr< StreamManager > &streamManager)
- void writeData (std::ofstream &ost) override
- bool operator< (const Viewer &rhs) const
- bool operator> (const Viewer &rhs) const
- bool operator<= (const Viewer &rhs) const
- bool operator== (const Viewer &rhs) const
- bool operator!= (const Viewer &rhs) const
- bool operator>= (const Viewer &rhs) const

Additional Inherited Members

4.41.1 Detailed Description

Definition at line 21 of file viewer.h.

4.41.2 Constructor & Destructor Documentation

4.41.2.1 Viewer() [1/2]

```
Viewer::Viewer ( )
```

Definition at line 11 of file viewer.cpp.

4.41.2.2 Viewer() [2/2]

```
Viewer::Viewer (
            Date birthDate,
            std::string name,
            std::string nickname,
            std::string password )
```

Constructor of the Viewer Class

Parameters

birthDate	the birth date of the viewer
name	the name of the viewer
nickname	the nickname of the viewer

Definition at line 14 of file viewer.cpp.

4.41.3 Member Function Documentation

4.41.3.1 followStreamer()

```
bool Viewer::followStreamer (
            const std::shared_ptr< Streamer > & streamer )
```

Follows a new streamer

Parameters

streamer	the streamer to follow

Returns

True if the viewer can follow the given streamer, false otherwise

Definition at line 73 of file viewer.cpp.

4.41.3.2 getCurrentStream()

```
const std::shared_ptr< Stream > & Viewer::getCurrentStream ( ) const
```

Getter of current stream

Returns

the current stream

Definition at line 87 of file viewer.cpp.

4.41.3.3 getFollowingStreamers()

```
const std::unordered_set< std::string > & Viewer::getFollowingStreamers ( ) const
```

Getter of the following streamers unordered set

Returns

the unordered set of the following streamers

Definition at line 95 of file viewer.cpp.

4.41.3.4 getStreamHistory()

```
std::map< std::shared_ptr< Stream >, FeedbackLikeSystem > & Viewer::getStreamHistory ( )
```

Getter of the stream history

Returns

the stream history

Definition at line 91 of file viewer.cpp.

4.41.3.5 giveFeedbackToStream() [1/2]

```
bool Viewer::giveFeedbackToStream (
             const std::string & comment )
```

Gives a comment to a given stream

Parameters

comment	the comment to be given to a stream

Returns

True if the comment was given successfully, false otherwise

Definition at line 64 of file viewer.cpp.

4.41.3.6 giveFeedbackToStream() [2/2]

```
bool Viewer::giveFeedbackToStream (
             enum FeedbackLikeSystem feedback )
```

Gives feedback to a given stream

Parameters

feedback	the feedback to be given to a stream

Returns

True if the feedback was given successfully, false otherwise

Definition at line 49 of file viewer.cpp.

4.41.3.7 isWatchingStream()

```
bool Viewer::isWatchingStream ( ) const
```

Checks if the viewer is watching a stream

Returns

True if the viewer is watching a stream, false otherwise

Definition at line 33 of file viewer.cpp.

4.41.3.8 joinStream()

```
bool Viewer::joinStream (
            const std::shared_ptr< Stream > & stream )
```

Joins/Sets the current stream

Parameters

stream	the stream to join

Returns

True if the action was successful, false otherwise

Definition at line 22 of file viewer.cpp.

4.41.3.9 leaveCurrentStream()

```
bool Viewer::leaveCurrentStream ( )
```

Leaves the current stream

Returns

True if the viewer was watching a stream (and leaves successfully), false otherwise

Definition at line 37 of file viewer.cpp.

4.41.3.10 operator"!=()

```
bool Viewer::operator!= (
             const Viewer & rhs ) const
```

Definition at line 135 of file viewer.cpp.

4.41.3.11 operator<()

```
bool Viewer::operator< (
             const Viewer & rhs ) const
```

Definition at line 99 of file viewer.cpp.

4.41.3.12 operator<=()

```
bool Viewer::operator<= (
             const Viewer & rhs ) const
```

Definition at line 123 of file viewer.cpp.

4.41.3.13 operator==()

```
bool Viewer::operator== (
             const Viewer & rhs ) const
```

Definition at line 131 of file viewer.cpp.

4.41.3.14 operator>()

```
bool Viewer::operator> (
             const Viewer & rhs ) const
```

Definition at line 119 of file viewer.cpp.

4.41.3.15 operator>=()

```
bool Viewer::operator>= (
             const Viewer & rhs ) const
```

Definition at line 127 of file viewer.cpp.

4.41.3.16 readData()

```
void Viewer::readData (
            std::ifstream & ist,
            const std::shared_ptr< StreamManager > & streamManager )
```

Definition at line 139 of file viewer.cpp.

4.41.3.17 unfollowStreamer()

```
bool Viewer::unfollowStreamer (
            const std::shared_ptr< Streamer > & streamer )
```

Unfollows a new streamer

Parameters

streamer	the streamer to unfollow

Returns

True if the viewer can unfollow the given streamer, false otherwise

Definition at line 82 of file viewer.cpp.

4.41.3.18 writeData()

```
void Viewer::writeData (
            std::ofstream & ost ) [override], [virtual]
```

Reimplemented from User.

Definition at line 166 of file viewer.cpp.

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

- model/user/viewer/viewer.h
- model/user/viewer/viewer.cpp

4.42 ViewerManager Class Reference

```
#include <viewer_manager.h>
```

Public Member Functions

- ViewerManager (std::shared_ptr< UserManager > userManager)
- std::shared_ptr< Viewer > build (Date birthDate, const std::string &name, const std::string &nickname, const std::string &password)
- bool add (const std::shared_ptr< Viewer > &viewer)
- bool reload (const std::shared_ptr< Viewer > &viewer)
- bool remove (const std::shared_ptr< Viewer > &viewer)
- bool has (const std::shared_ptr< Viewer > &viewer) const
- bool has (std::string nickname) const
- std::shared_ptr< Viewer > get (std::string nickname) const
- const std::vector< std::shared_ptr< Viewer > > & getViewers () const
- bool readData (const std::shared_ptr< StreamManager > &streamManager)
- bool writeData ()

4.42.1 Detailed Description

Definition at line 15 of file viewer_manager.h.

4.42.2 Constructor & Destructor Documentation

4.42.2.1 ViewerManager()

```
ViewerManager::ViewerManager (
            std::shared_ptr< UserManager > userManager )  [explicit]
```

Constructor of the Viewer Manager

Parameters

userManager	the user manager

Definition at line 10 of file viewer_manager.cpp.

4.42.3 Member Function Documentation

4.42.3.1 add()

```
bool ViewerManager::add (
            const std::shared_ptr< Viewer > & viewer )
```

Adds a new viewer to the viewers vector

Parameters

viewer	new viewer to be added

Returns

True if the action was successful, false otherwise

Definition at line 33 of file viewer_manager.cpp.

4.42.3.2 build()

```
std::shared_ptr< Viewer > ViewerManager::build (
            Date birthDate,
            const std::string & name,
            const std::string & nickname,
            const std::string & password )
```

Creates an object of class Viewer

Parameters

birthDate	the birthdate of the viewer
name	the name of the viewer
nickname	the nickname of the viewer

Returns

True if the action was successful, false otherwise

Definition at line 15 of file viewer_manager.cpp.

4.42.3.3 get()

```
std::shared_ptr< Viewer > ViewerManager::get (
            std::string nickname ) const
```

Returns the pointer to a viewer given his nickname

Parameters

nickname	the nickname of the viewer to be found and returned

Returns

the viewer with the given nickname

Definition at line 70 of file viewer_manager.cpp.

4.42.3.4 getViewers()

```
const std::vector< std::shared_ptr< Viewer > > & ViewerManager::getViewers ( ) const
```

Getter of the viewers vector

Returns

the viewers vector

Definition at line 79 of file viewer_manager.cpp.

4.42.3.5 has() [1/2]

```
bool ViewerManager::has (
            const std::shared_ptr< Viewer > & viewer ) const
```

Checks if the viewer exists in the viewers vector

Parameters

viewer	viewer to be found

Returns

True if the action was successful, false otherwise

Definition at line 61 of file viewer_manager.cpp.

4.42.3.6 has() [2/2]

```
bool ViewerManager::has (
            std::string nickname ) const
```

Checks, by nickname (which is unique), if the user exists in the viewers unordered set

Parameters

nickname	the nickname of the viewer to be found

Returns

True if the action was successful, false otherwise

Definition at line 65 of file viewer_manager.cpp.

4.42.3.7 readData()

```
bool ViewerManager::readData (
             const std::shared_ptr< StreamManager > & streamManager )
```

Definition at line 83 of file viewer_manager.cpp.

4.42.3.8 reload()

```
bool ViewerManager::reload (
             const std::shared_ptr< Viewer > & viewer )
```

Definition at line 41 of file viewer_manager.cpp.

4.42.3.9 remove()

```
bool ViewerManager::remove (
             const std::shared_ptr< Viewer > & viewer )
```

Removes a viewer from the viewers vector

Parameters

viewer	new viewer to be added

Returns

True if the action was successful, false otherwise

Definition at line 51 of file viewer_manager.cpp.

4.42.3.10 writeData()

```
bool ViewerManager::writeData ( )
```

Definition at line 106 of file viewer_manager.cpp.

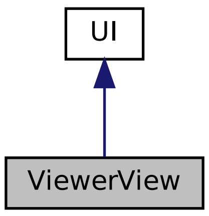
The documentation for this class was generated from the following files:

- model/user/viewer/viewer_manager.h
- model/user/viewer/viewer_manager.cpp

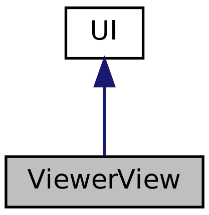
4.43 ViewerView Class Reference

```
#include <viewerView.h>
```

Inheritance diagram for ViewerView:



Collaboration diagram for ViewerView:



Public Member Functions

- ViewerView (UIManager &uiManager)
- void run () override

4.43.1 Detailed Description

Implementation of the Viewer's Page in the UI

Allows a viewer to search for availabe streams and to join one, to follow or unfollow streamers, to see the view history and to check the leaderboards

Definition at line 25 of file viewerView.h.

4.43.2 Constructor & Destructor Documentation

4.43.2.1 ViewerView()

```
ViewerView::ViewerView (
            UIManager & uiManager )  [explicit]
```

Viewer View's constructor

Parameters

uiManager	the manager of the current UI

Definition at line 8 of file viewerView.cpp.

4.43.3 Member Function Documentation

4.43.3.1 run()

```
void ViewerView::run ( )  [override], [virtual]
```

Runs the viewer View output prompt

Implements UI.

Definition at line 10 of file viewerView.cpp.

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

- ui/viewerView/viewerView.h
- ui/viewerView/viewerView.cpp

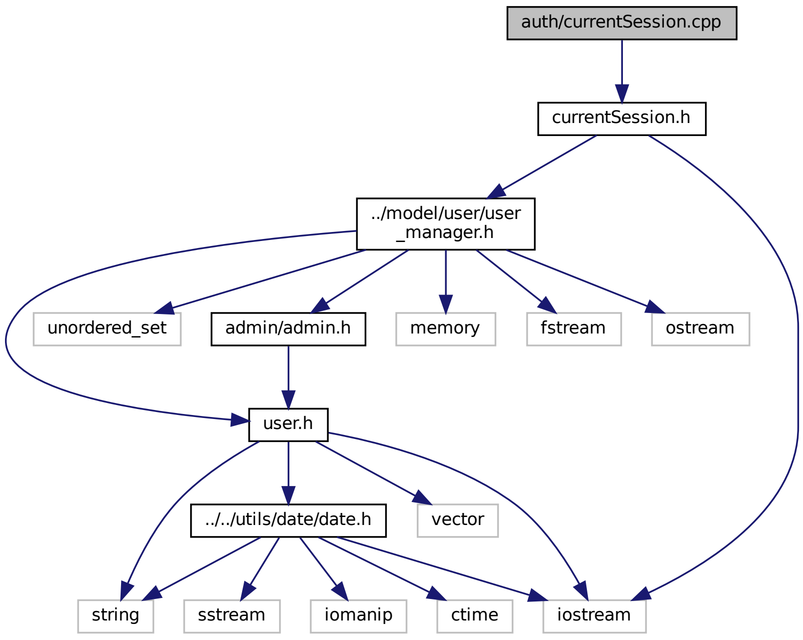
Chapter 5

File Documentation

5.1 auth/currentSession.cpp File Reference

```
#include "currentSession.h"
```

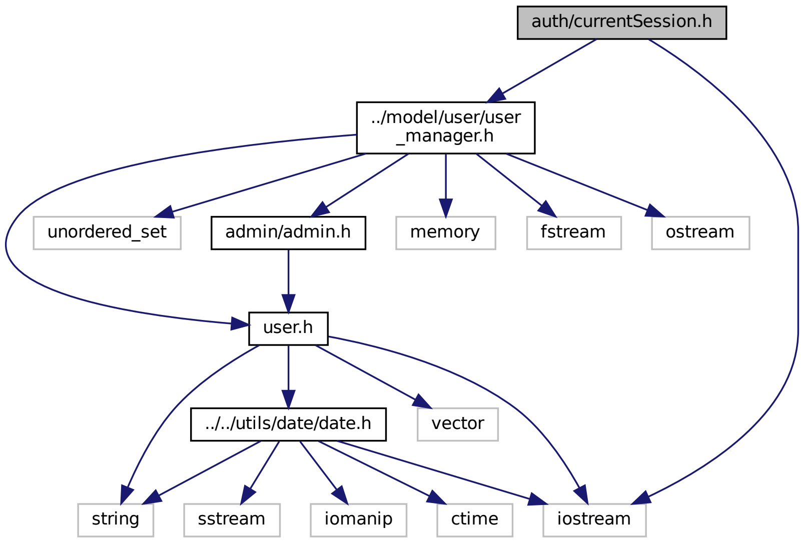
Include dependency graph for currentSession.cpp:



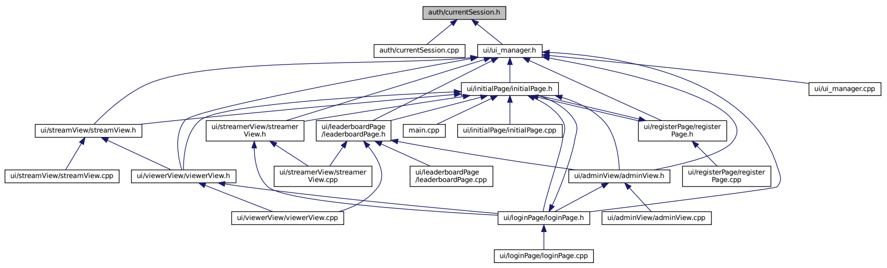
5.2 auth/currentSession.h File Reference

```
#include <iostream>
#include "../model/user/user_manager.h"
```

Include dependency graph for currentSession.h:



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



Classes

- class CurrentSession

5.3 CMakeLists.txt File Reference

Functions

- set (CMAKE_CXX_STANDARD 17) set(CMAKE_CXX_STANDARD_REQUIRED ON) set(CMAKE_↩
CXX_EXTENSIONS OFF) if(WIN32) link_libraries(wsock32 ws2_32) set(CMAKE_CXX_STANDAR↩
D_LIBRARIES "-static-libgcc -static-libstdc++ -lwsock32 -lws2_32") endif(WIN32) add_library(project

```
main.cpp utils/otherFunctions/auxiliaryFunctions.h utils/otherFunctions/auxiliaryFunctions.cpp ui/ui.↩
h ui/ui_manager.h ui/ui_manager.cpp ui/adminView/adminView.h ui/adminView/adminView.cpp ui/initial↩
Page/initialPage.h ui/initialPage/initialPage.cpp ui/leaderboardPage/leaderboardPage.h ui/leaderboard↩
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cpp ui/viewerView/viewerView.h ui/viewerView/viewerView.cpp ui/streamView/streamView.h ui/stream↩
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h exception/invalidAge/invalidAge.cpp exception/invalidFeedback/invalidFeedback.cpp exception/invalid↩
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NotFound/nicknameNotFound.h exception/nicknameAlreadyAdded/nicknameAlreadyAdded.cpp exception/nickname↩
AlreadyAdded/nicknameAlreadyAdded.h exception/streamNotFound/streamNotFound.cpp exception/stream↩
NotFound/streamNotFound.h exception/noStreamWithID/noStreamWithID.cpp exception/noStreamWith↩
ID/noStreamWithID.h exception/invalidStreamAdd/invalidStreamToAdd.cpp exception/invalidStream↩
Add/invalidStreamToAdd.h exception/streamAlreadyFinished/streamAlreadyFinished.cpp exception/stream↩
AlreadyFinished/streamAlreadyFinished.h exception/streamerAlreadyStreaming/streamerAlreadyStreaming.↩
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AlreadyExists.cpp exception/userAlreadyExists/userAlreadyExists.h exception/userNotFound/userNot↩
Found.cpp exception/userNotFound/userNotFound.h exception/adminAlreadySet/adminAlreadySet.cpp
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NotStreaming/streamerNotStreaming.h model/streamZ/streamZ.h model/user/user.h model/user/user.cpp
model/user/user_manager.h model/user/user_manager.cpp model/stream/stream.h model/stream/stream.↩
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cpp model/stream/privateStream/privateStream.h model/stream/privateStream/privateStream.cpp model/stream/public↩
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h utils/leaderboard/leaderboard_manager.h utils/leaderboard/leaderboard_manager.cpp model/stream/finished↩
Stream/finishedStream.cpp model/stream/finishedStream/finishedStream.h) add_executable(application
main.cpp utils/otherFunctions/auxiliaryFunctions.h utils/otherFunctions/auxiliaryFunctions.cpp ui/ui.↩
h ui/ui_manager.h ui/ui_manager.cpp ui/adminView/adminView.h ui/adminView/adminView.cpp ui/initial↩
Page/initialPage.h ui/initialPage/initialPage.cpp ui/leaderboardPage/leaderboardPage.h ui/leaderboard↩
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cpp ui/viewerView/viewerView.h ui/viewerView/viewerView.cpp ui/streamView/streamView.h ui/stream↩
View/streamView.cpp auth/currentSession.h auth/currentSession.cpp exception/invalidAge/invalidAge.↩
h exception/invalidAge/invalidAge.cpp model/streamZ/streamZ.h model/user/user.h model/user/user.cpp
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Stream/publicStream.h model/stream/publicStream/publicStream.cpp model/streamZ/streamZ.cpp utils/leaderboard/leaderboar
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NotFound/streamNotFound.cpp exception/streamNotFound/streamNotFound.h exception/noStream↩
WithID/noStreamWithID.cpp exception/noStreamWithID/noStreamWithID.h exception/invalidStream↩
Add/invalidStreamToAdd.cpp exception/invalidStreamAdd/invalidStreamToAdd.h exception/stream↩
AlreadyFinished/streamAlreadyFinished.cpp exception/streamAlreadyFinished/streamAlreadyFinished.↩
h exception/streamerAlreadyStreaming/streamerAlreadyStreaming.cpp exception/streamerAlready↩
```

Streaming/streamerAlreadyStreaming.h exception/invalidStreamBuild/invalidStreamBuild.cpp exception/invalid↩ StreamBuild/invalidStreamBuild.h exception/userAlreadyExists/userAlreadyExists.cpp exception/user↩ AlreadyExists/userAlreadyExists.h exception/userNotFound/userNotFound.cpp exception/userNot↩ Found/userNotFound.h exception/adminAlreadySet/adminAlreadySet.cpp exception/adminAlready↩ Set/adminAlreadySet.h exception/adminNotSet/adminNotSet.cpp exception/adminNotSet/adminNotSet.h exception/streamerNotStreaming/streamerNotStreaming.cpp exception/streamerNotStreaming/streamer↩ NotStreaming.h) target_include_directories(project PUBLIC $

5.3.1 Function Documentation

5.3.1.1 set()

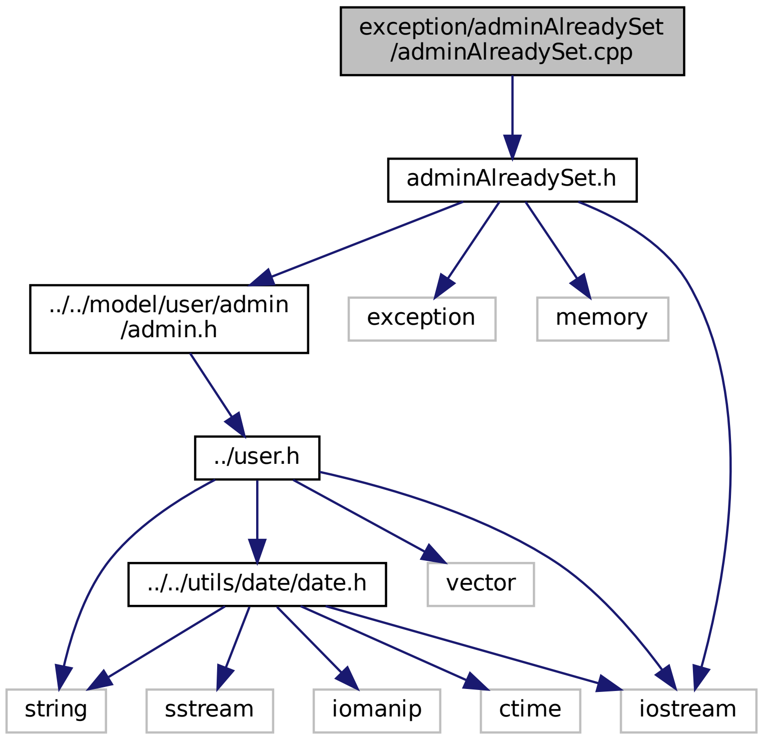
```
set (
            CMAKE_CXX_STANDARD 17 )
```

Definition at line 2 of file CMakeLists.txt.

5.4 exception/adminAlreadySet/adminAlreadySet.cpp File Reference

```
#include "adminAlreadySet.h"
```

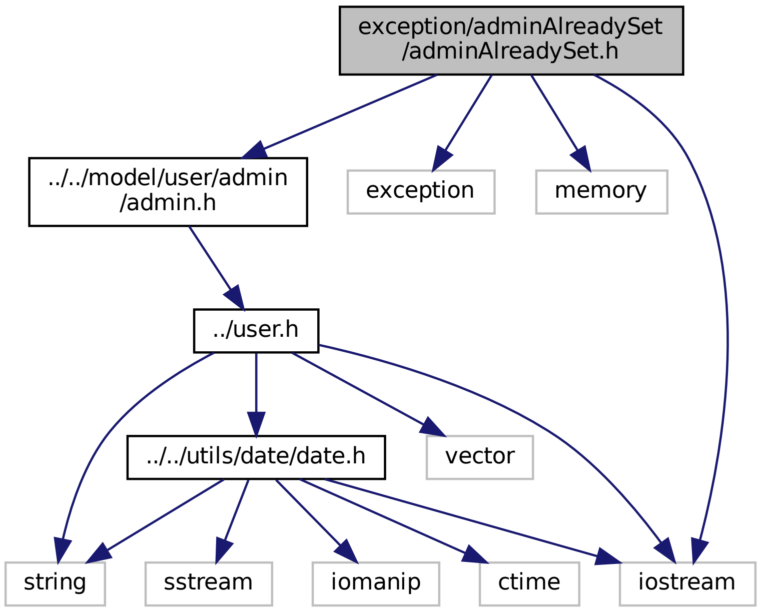
Include dependency graph for adminAlreadySet.cpp:



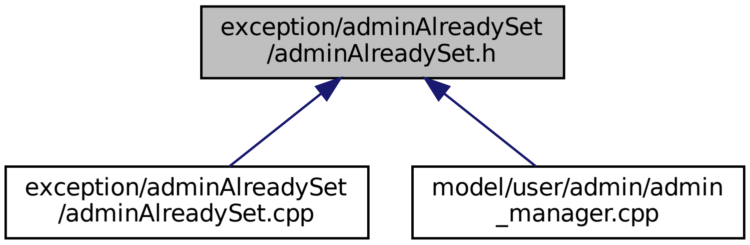
5.5 exception/adminAlreadySet/adminAlreadySet.h File Reference

```
#include <iostream>
#include <exception>
#include <memory>
#include "../../model/user/admin/admin.h"
```

Include dependency graph for adminAlreadySet.h:



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



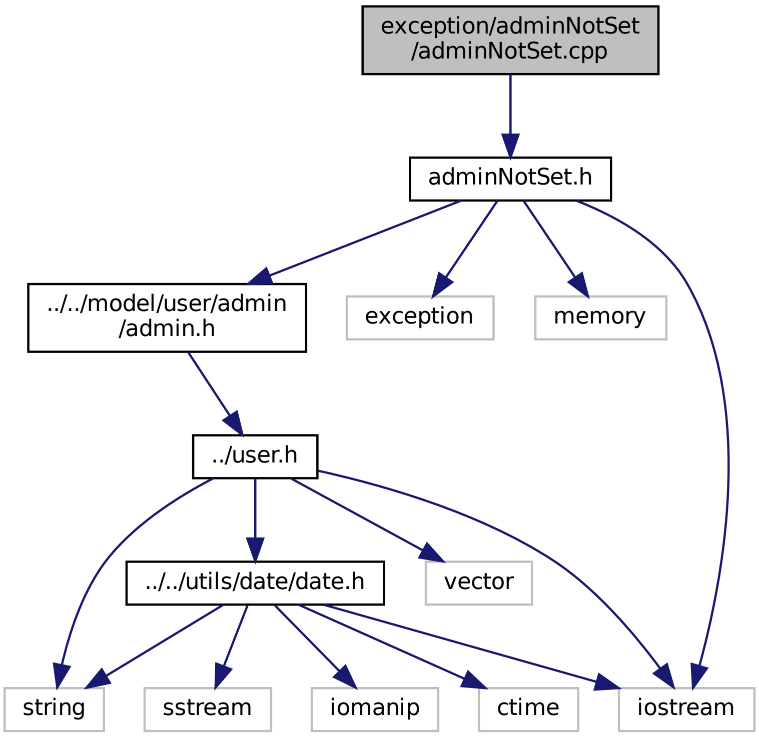
Classes

- class AdminAlreadySet

5.6 exception/adminNotSet/adminNotSet.cpp File Reference

```
#include "adminNotSet.h"
```

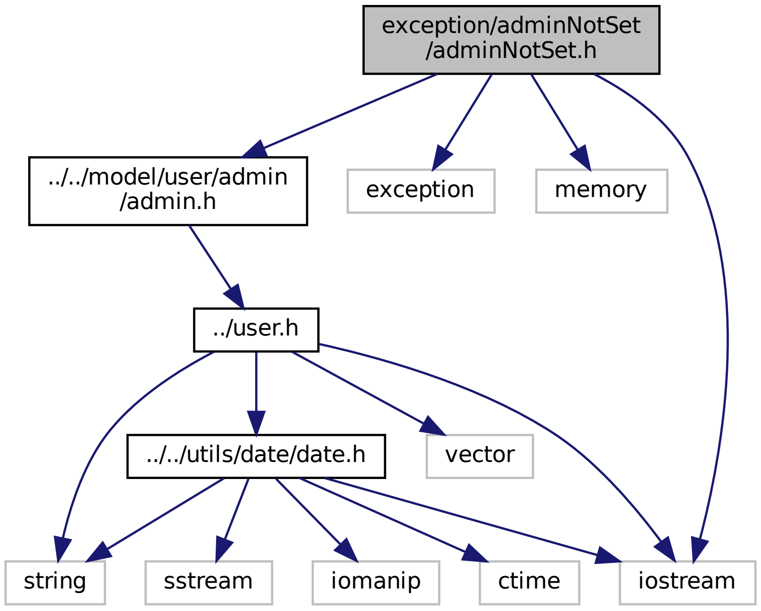
Include dependency graph for adminNotSet.cpp:



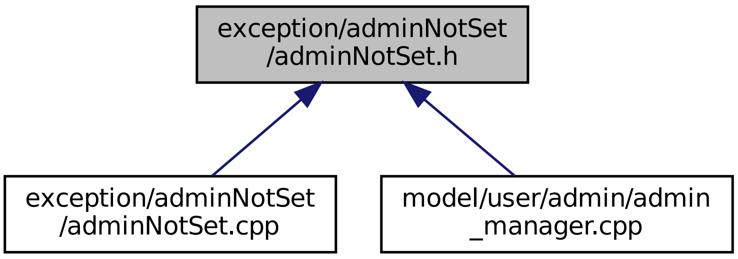
5.7 exception/adminNotSet/adminNotSet.h File Reference

```
#include <iostream>
#include <exception>
#include <memory>
#include "../../model/user/admin/admin.h"
```

Include dependency graph for adminNotSet.h:



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



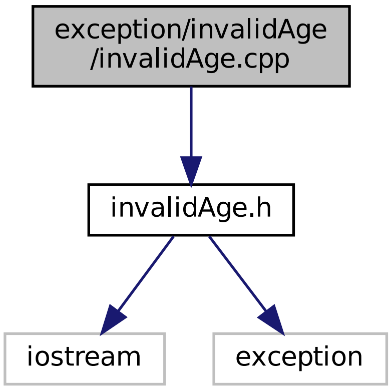
Classes

- class AdminNotSet

5.8 exception/invalidAge/invalidAge.cpp File Reference

```
#include "invalidAge.h"
```

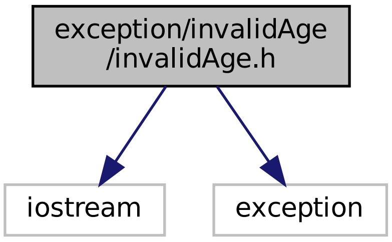
Include dependency graph for invalidAge.cpp:



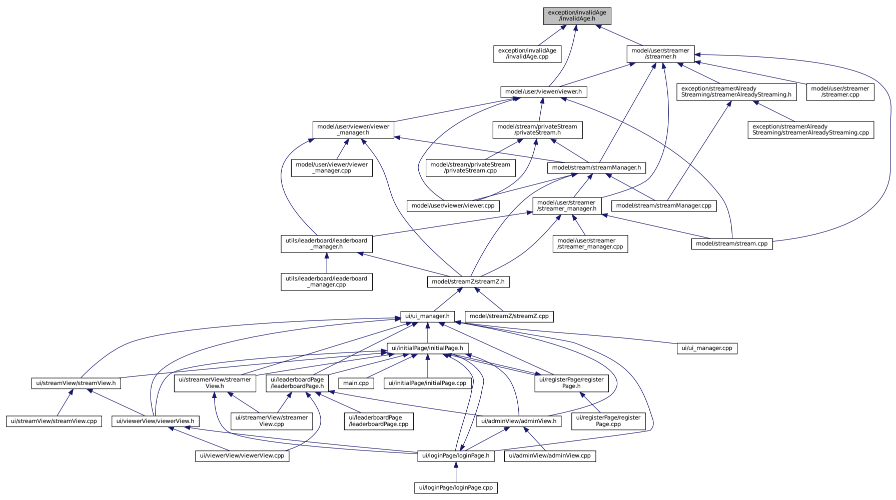
5.9 exception/invalidAge/invalidAge.h File Reference

```
#include <iostream>
#include <exception>
```

Include dependency graph for invalidAge.h:



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



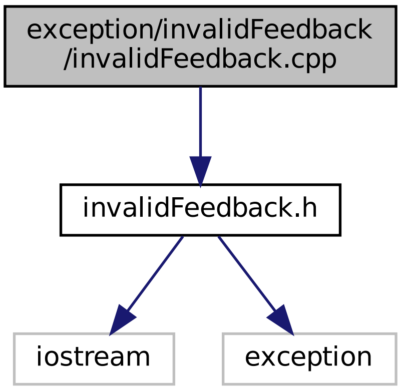
Classes

- class InvalidAge

5.10 exception/invalidFeedback/invalidFeedback.cpp File Reference

```
#include "invalidFeedback.h"
```

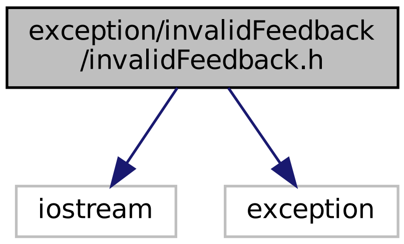
Include dependency graph for invalidFeedback.cpp:



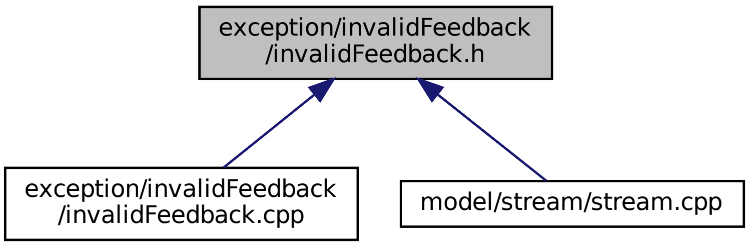
5.11 exception/invalidFeedback/invalidFeedback.h File Reference

```
#include <iostream>
#include <exception>
```

Include dependency graph for invalidFeedback.h:



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



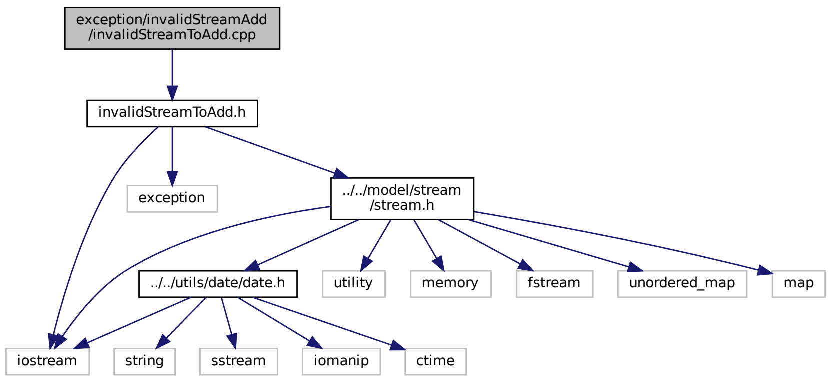
Classes

- class InvalidFeedback

5.12 exception/invalidStreamAdd/invalidStreamToAdd.cpp File Reference

```
#include "invalidStreamToAdd.h"
```

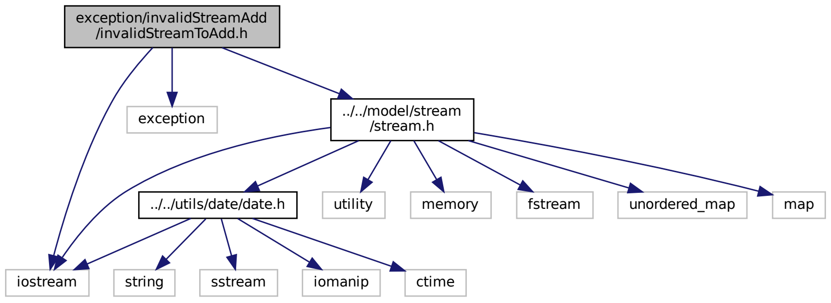
Include dependency graph for invalidStreamToAdd.cpp:



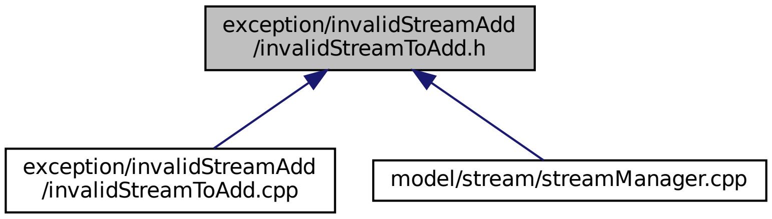
5.13 exception/invalidStreamAdd/invalidStreamToAdd.h File Reference

```
#include <iostream>
#include <exception>
#include "../../model/stream/stream.h"
```

Include dependency graph for invalidStreamToAdd.h:



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


exception/invalidStreamAdd
/invalidStreamToAdd.h
exception/invalidStreamAdd
/invalidStreamToAdd.cpp
model/stream/streamManager.cpp

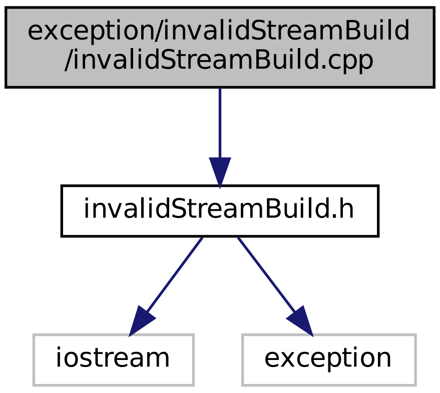
Classes

- class InvalidStreamToAdd

5.14 exception/invalidStreamBuild/invalidStreamBuild.cpp File Reference

```
#include "invalidStreamBuild.h"
```

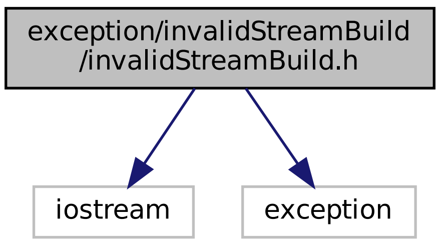
Include dependency graph for invalidStreamBuild.cpp:



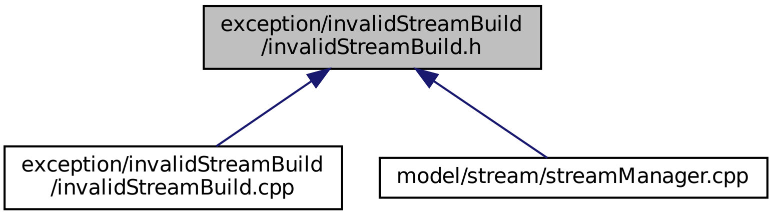
5.15 exception/invalidStreamBuild/invalidStreamBuild.h File Reference

```
#include <iostream>
#include <exception>
```

Include dependency graph for invalidStreamBuild.h:



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


exception/invalidStreamBuild
/invalidStreamBuild.h
exception/invalidStreamBuild
/invalidStreamBuild.cpp
model/stream/streamManager.cpp

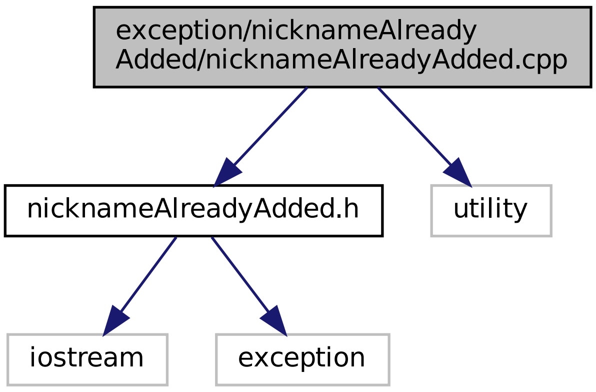
Classes

- class InvalidStreamBuild

5.16 exception/nicknameAlreadyAdded/nicknameAlreadyAdded.cpp File Reference

```
#include "nicknameAlreadyAdded.h"
#include <utility>
```

Include dependency graph for nicknameAlreadyAdded.cpp:

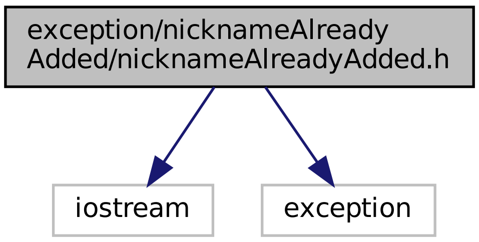


5.17 exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h File Reference

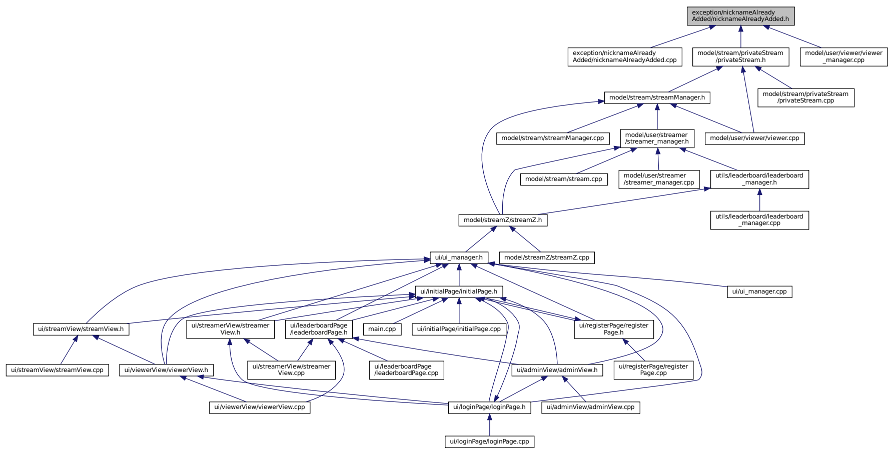
```
#include <iostream>
```

```
#include <exception>
```

Include dependency graph for nicknameAlreadyAdded.h:



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


exception/nicknameAlready Added/nicknameAlreadyAdded.h
exception/nicknameAlready Added/nicknameAlreadyAdded.cpp
model/stream/privateStream /privateStream.h
model/user/viewer/viewer _manager.cpp
model/stream/streamManager.h
model/stream/privateStream /privateStream.cpp
model/stream/streamManager.cpp
model/user/streamer /streamer_manager.h
model/user/viewer/viewer.cpp
model/stream/stream.cpp
model/user/streamer /streamer_manager.cpp
utils/leaderboard/leaderboard _manager.h
model/streamZ/streamZ.h
utils/leaderboard/leaderboard _manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

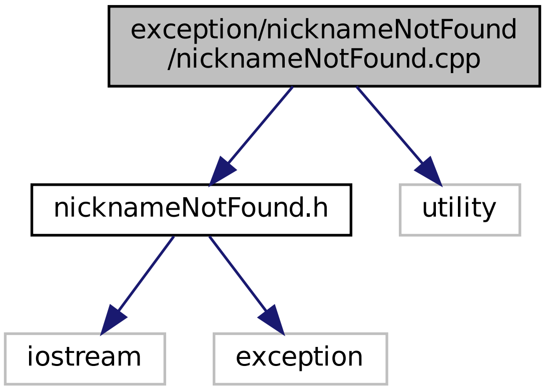
Classes

- class NicknameAlreadyAdded

5.18 exception/nicknameNotFound/nicknameNotFound.cpp File Reference

```
#include "nicknameNotFound.h"
#include <utility>
```

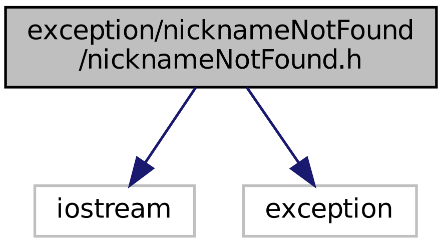
Include dependency graph for nicknameNotFound.cpp:



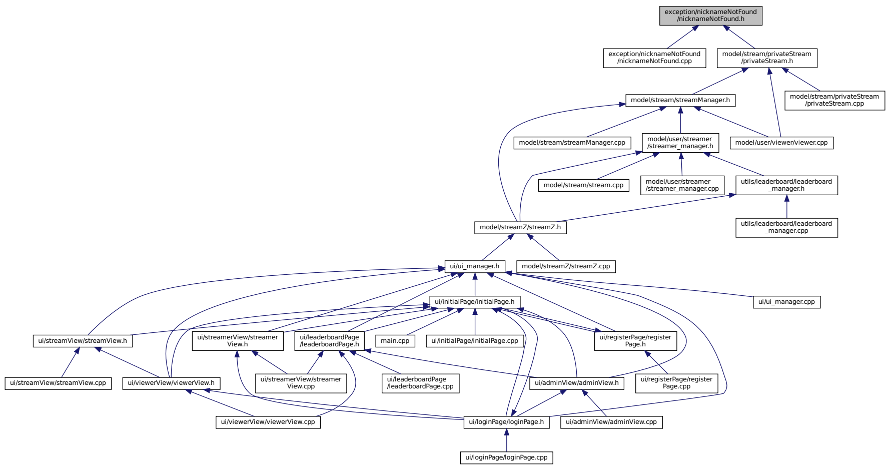
5.19 exception/nicknameNotFound/nicknameNotFound.h File Reference

```
#include <iostream>
#include <exception>
```

Include dependency graph for nicknameNotFound.h:



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



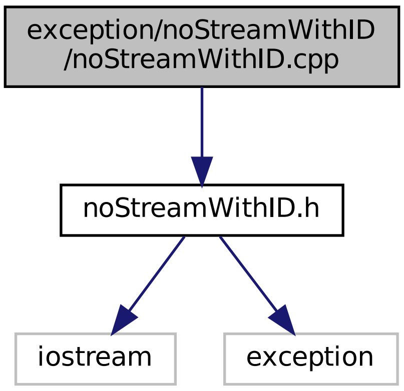
Classes

- class NicknameNotFound

5.20 exception/noStreamWithID/noStreamWithID.cpp File Reference

```
#include "noStreamWithID.h"
```

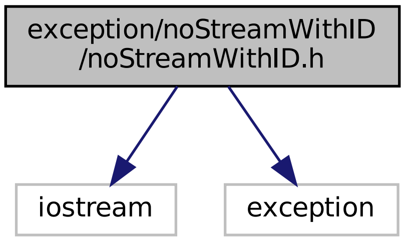
Include dependency graph for noStreamWithID.cpp:



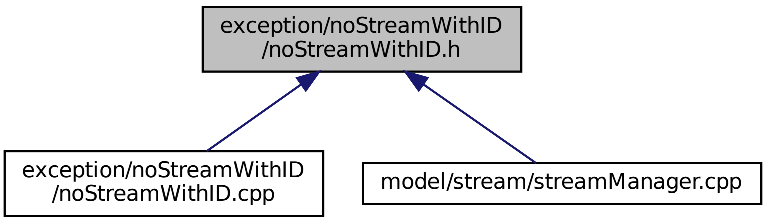
5.21 exception/noStreamWithID/noStreamWithID.h File Reference

```
#include <iostream>
#include <exception>
```

Include dependency graph for noStreamWithID.h:



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



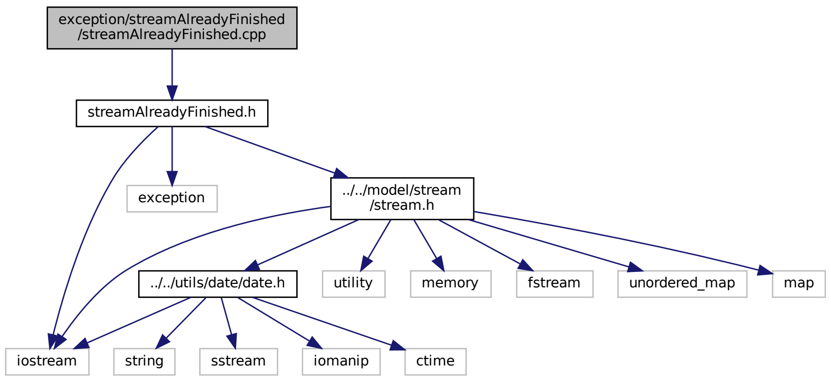
Classes

- class NoStreamWithID

5.22 exception/streamAlreadyFinished/streamAlreadyFinished.cpp File Reference

```
#include "streamAlreadyFinished.h"
```

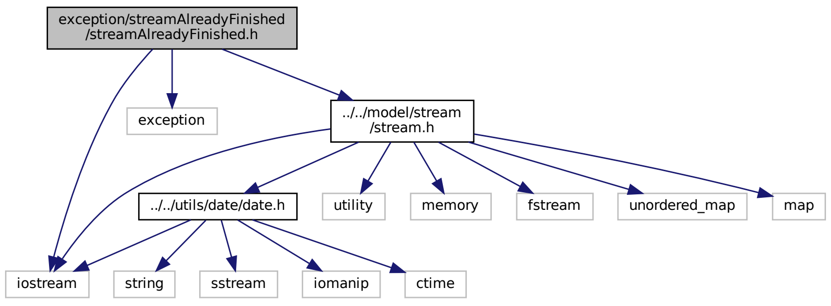
Include dependency graph for streamAlreadyFinished.cpp:



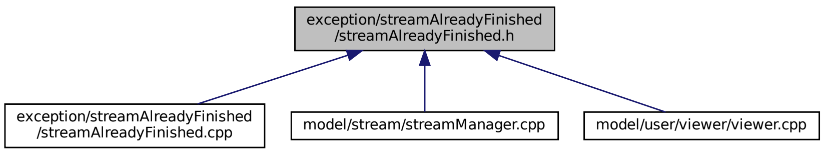
5.23 exception/streamAlreadyFinished/streamAlreadyFinished.h File Reference

```
#include <iostream>
#include <exception>
#include "../../model/stream/stream.h"
```

Include dependency graph for streamAlreadyFinished.h:



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


exception/streamAlreadyFinished /streamAlreadyFinished.h
exception/streamAlreadyFinished /streamAlreadyFinished.cpp
model/stream/streamManager.cpp
model/user/viewer/viewer.cpp

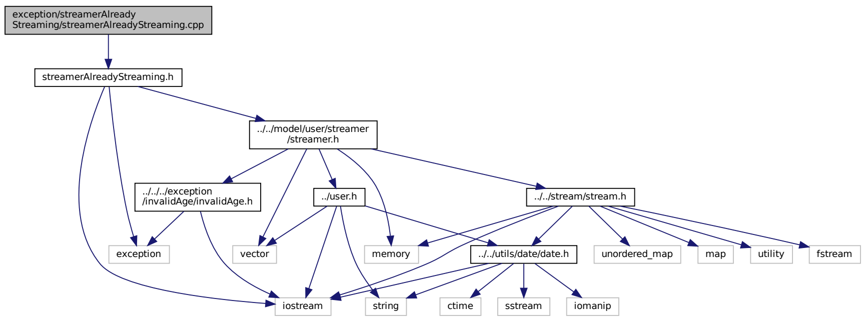
Classes

- class StreamAlreadyFinished

5.24 exception/streamerAlreadyStreaming/streamerAlready↩ Streaming.cpp File Reference

```
#include "streamerAlreadyStreaming.h"
```

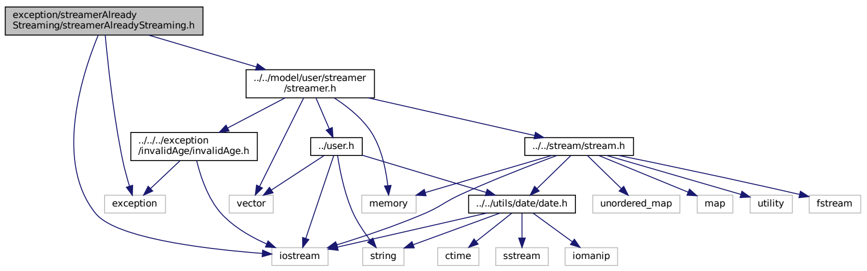
Include dependency graph for streamerAlreadyStreaming.cpp:



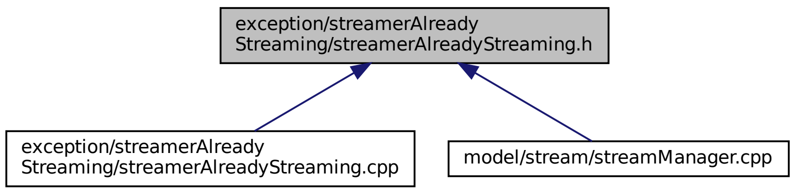
5.25 exception/streamerAlreadyStreaming/streamerAlreadyStreaming.h File Reference

```
#include <iostream>
#include <exception>
#include "../../model/user/streamer/streamer.h"
```

Include dependency graph for streamerAlreadyStreaming.h:



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


exception/streamerAlready Streaming/streamerAlreadyStreaming.h
exception/streamerAlready Streaming/streamerAlreadyStreaming.cpp
model/stream/streamManager.cpp

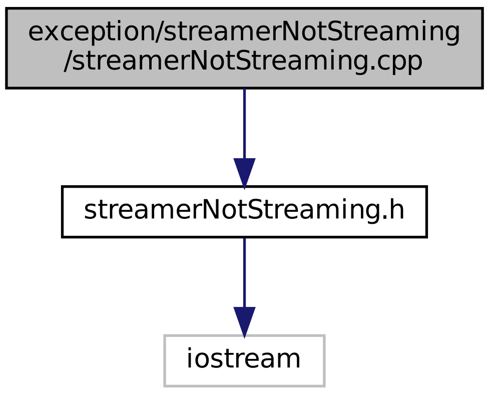
Classes

- class StreamerAlreadyStreaming

5.26 exception/streamerNotStreaming/streamerNotStreaming.cpp File Reference

```
#include "streamerNotStreaming.h"
```

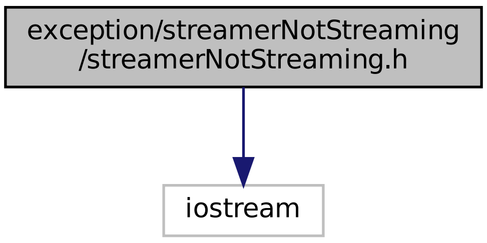
Include dependency graph for streamerNotStreaming.cpp:



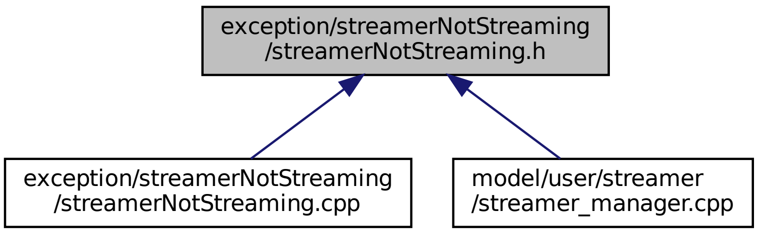
5.27 exception/streamerNotStreaming/streamerNotStreaming.h File Reference

```
#include <iostream>
```

Include dependency graph for streamerNotStreaming.h:



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


exception/streamerNotStreaming
/streamerNotStreaming.h
exception/streamerNotStreaming
/streamerNotStreaming.cpp
model/user/streamer
/streamer_manager.cpp

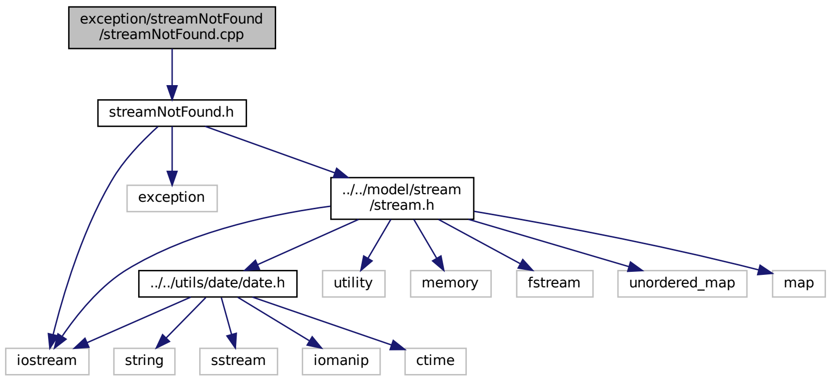
Classes

- class StreamerNotStreaming

5.28 exception/streamNotFound/streamNotFound.cpp File Reference

```
#include "streamNotFound.h"
```

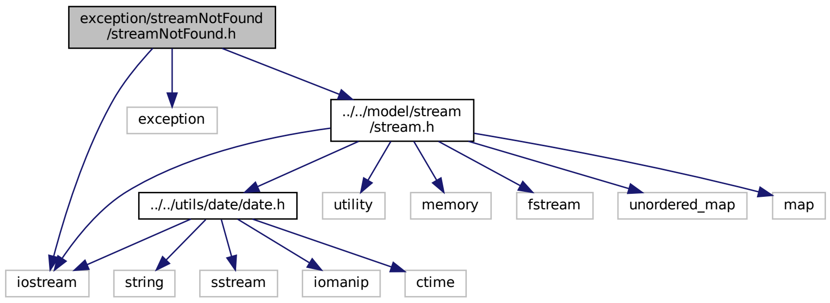
Include dependency graph for streamNotFound.cpp:



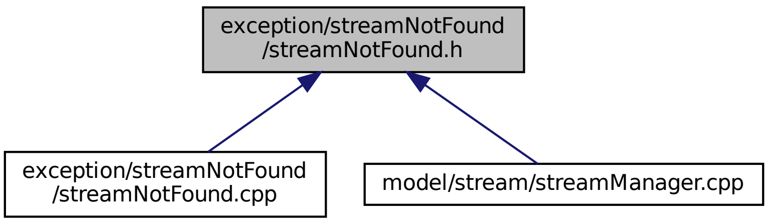
5.29 exception/streamNotFound/streamNotFound.h File Reference

```
#include <iostream>
#include <exception>
#include "../../model/stream/stream.h"
```

Include dependency graph for streamNotFound.h:



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



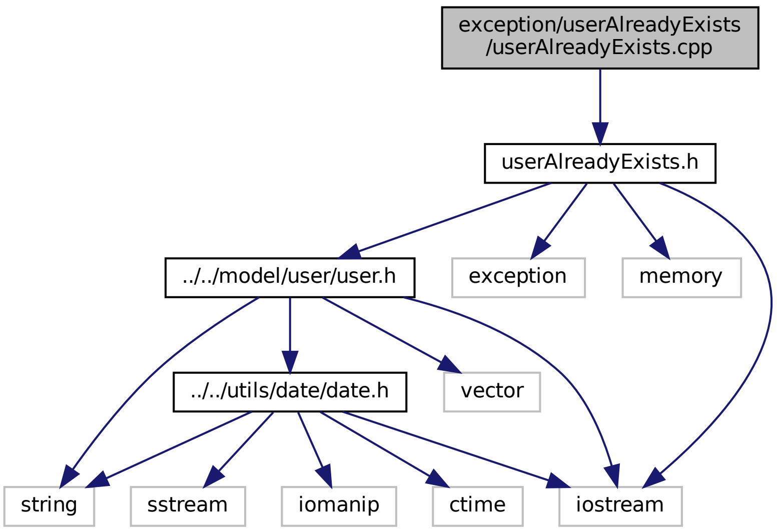
Classes

- class StreamNotFound

5.30 exception/userAlreadyExists/userAlreadyExists.cpp File Reference

```
#include "userAlreadyExists.h"
```

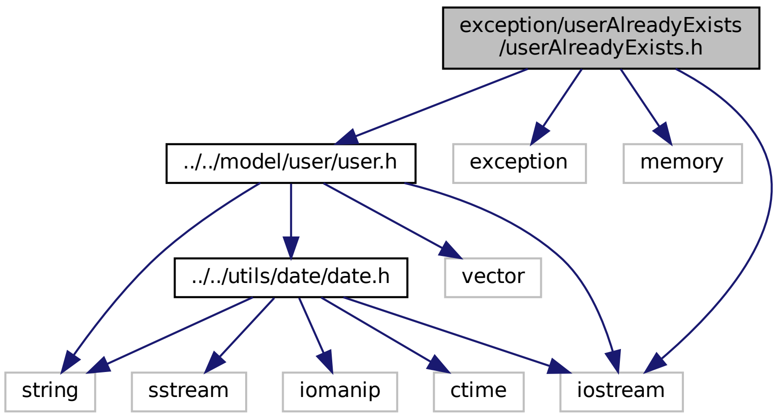
Include dependency graph for userAlreadyExists.cpp:



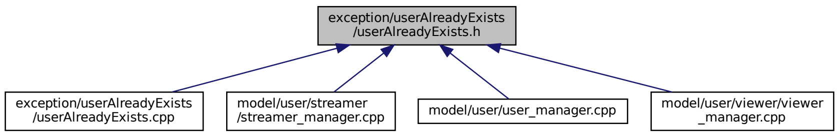
5.31 exception/userAlreadyExists/userAlreadyExists.h File Reference

```
#include <iostream>
#include <exception>
#include <memory>
#include "../../model/user/user.h"
```

Include dependency graph for userAlreadyExists.h:



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



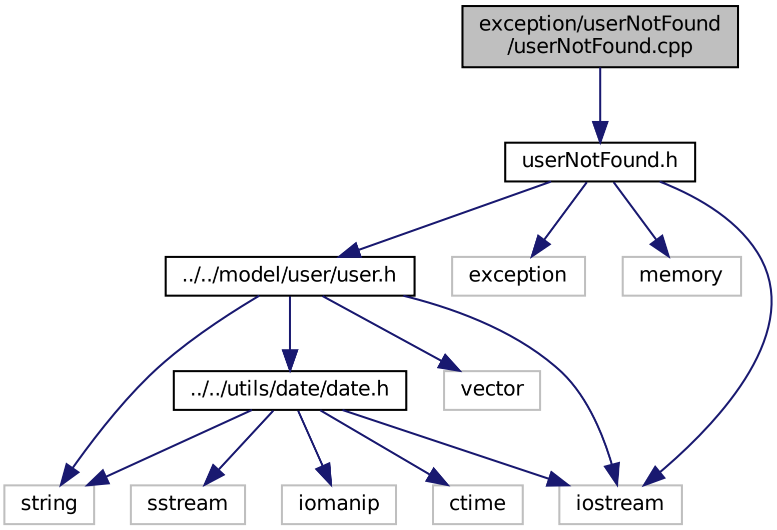
Classes

- class UserAlreadyExists

5.32 exception/userNotFound/userNotFound.cpp File Reference

```
#include "userNotFound.h"
```

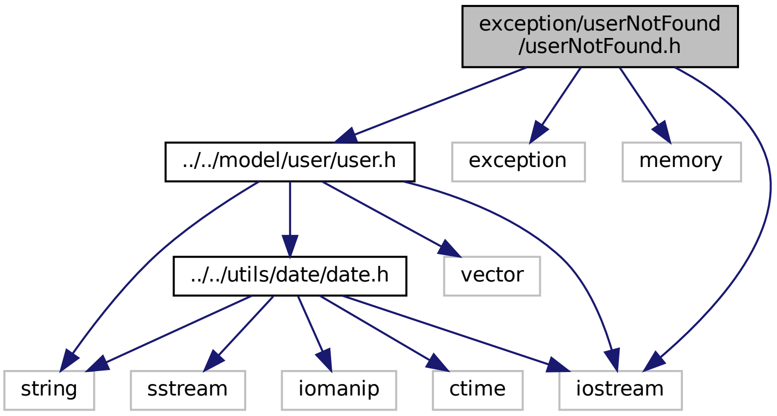
Include dependency graph for userNotFound.cpp:



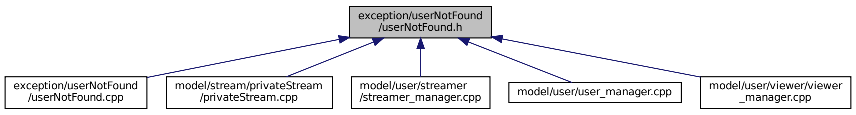
5.33 exception/userNotFound/userNotFound.h File Reference

```
#include <iostream>
#include <exception>
#include <memory>
#include "../../model/user/user.h"
```

Include dependency graph for userNotFound.h:



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



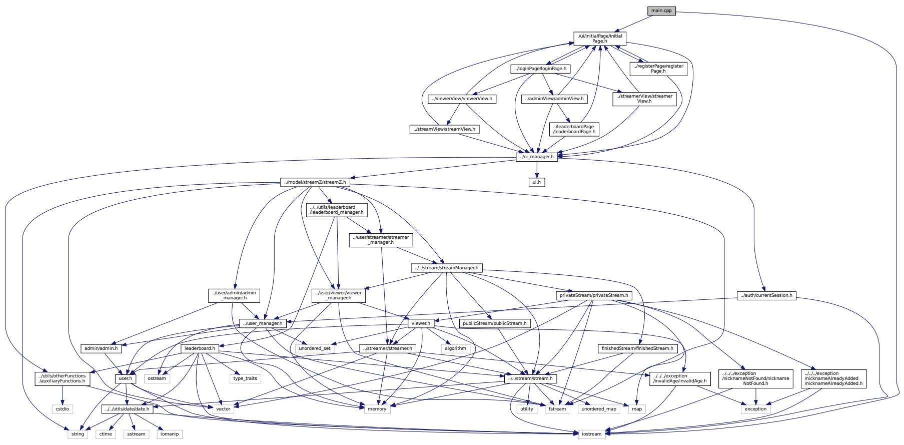
Classes

- class UserNotFound

5.34 main.cpp File Reference

```
#include <iostream>
#include "./ui/initialPage/initialPage.h"
```

Include dependency graph for main.cpp:



Functions

- int main ()

5.34.1 Function Documentation

5.34.1.1 main()

```
int main ( )
```

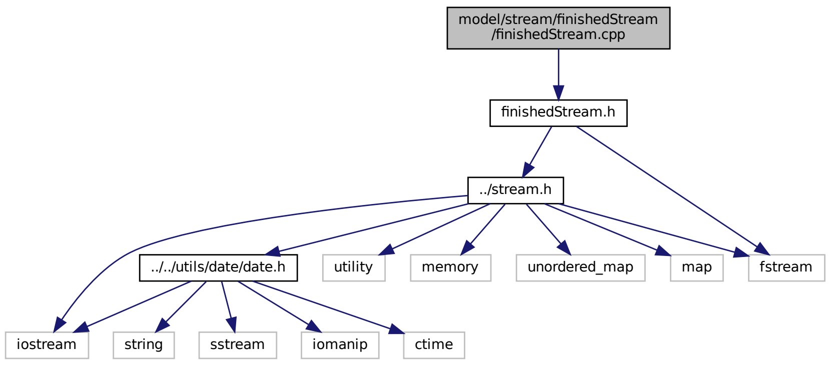
Definition at line 66 of file main.cpp.

5.35 model/stream/dataStream.txt File Reference

5.36 model/stream/finishedStream/finishedStream.cpp File Reference

```
#include "finishedStream.h"
```

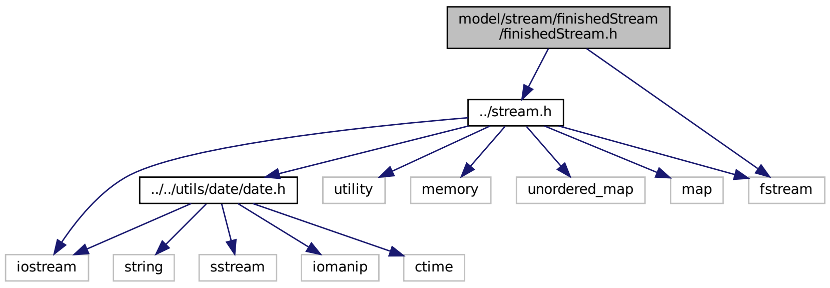
Include dependency graph for finishedStream.cpp:



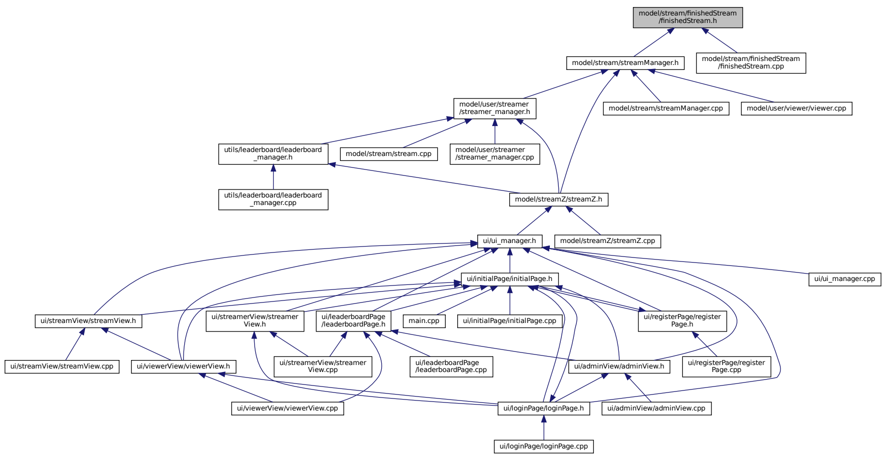
5.37 model/stream/finishedStream/finishedStream.h File Reference

```
#include "../stream.h"
#include <fstream>
```

Include dependency graph for finishedStream.h:



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


model/stream/finishedStream /finishedStream.h
model/stream/streamManager.h
model/stream/finishedStream /finishedStream.cpp
model/user/streamer /streamer_manager.h
model/stream/streamManager.cpp
model/user/viewer/viewer.cpp
utils/leaderboard/leaderboard _manager.h
model/stream/stream.cpp
model/user/streamer /streamer_manager.cpp
utils/leaderboard/leaderboard _manager.cpp
model/streamZ/streamZ.h
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

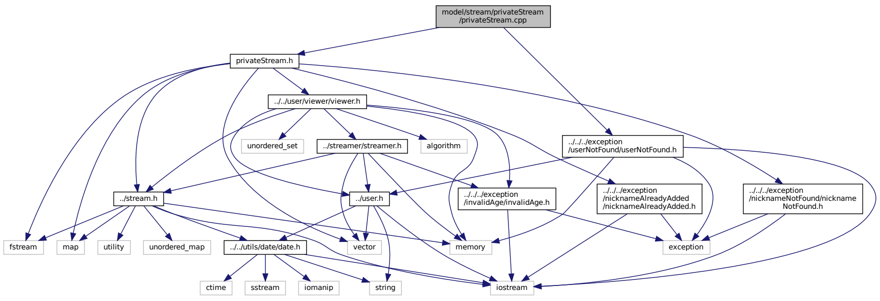
Classes

- class FinishedStream

5.38 model/stream/privateStream/privateStream.cpp File Reference

```
#include "privateStream.h"
#include "../../../exception/userNotFound/userNotFound.h"
```

Include dependency graph for privateStream.cpp:

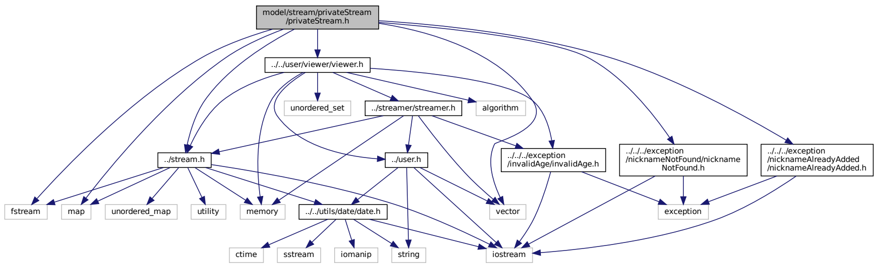

model/stream/privateStream /privateStream.cpp
privateStream.h
../../user/viewer/viewer.h
unordered_set
../streamer/streamer.h
algorithm
../../../exception /userNotFound/userNotFound.h
../stream.h
../user.h
../../../exception /invalidAge/invalidAge.h
../../../exception /nicknameAlreadyAdded /nicknameAlreadyAdded.h
../../../exception /nicknameNotFound/nickname NotFound.h
fstream
map
utility
unordered_map
../../utils/date/date.h
vector
memory
exception
ctime
sstream
iomanip
string
iostream

5.39 model/stream/privateStream/privateStream.h File Reference

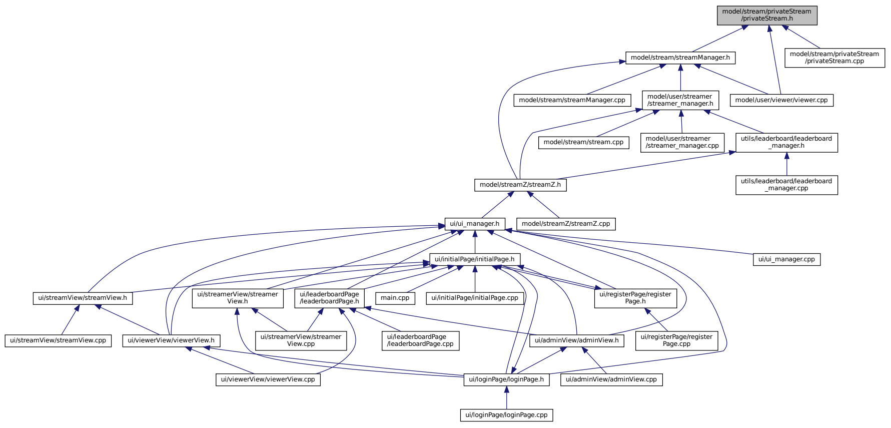
```
#include "../stream.h"
#include "../../user/viewer/viewer.h"
#include "../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h"
#include "../../../exception/nicknameNotFound/nicknameNotFound.h"
#include <vector>
#include <fstream>
```

```
#include <map>
```

Include dependency graph for privateStream.h:



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



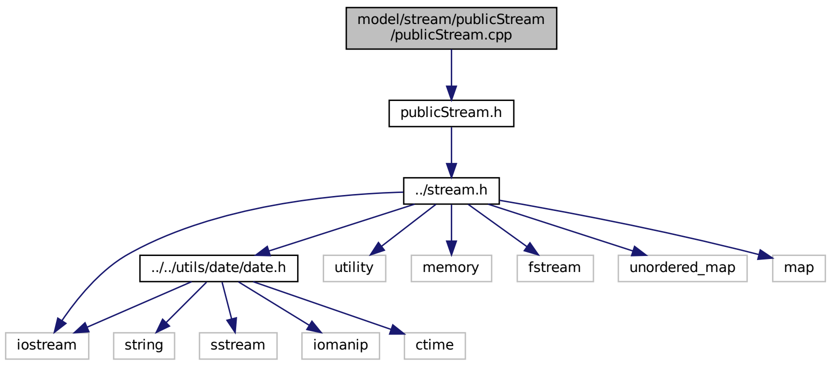
Classes

- class PrivateStream

5.40 model/stream/publicStream/publicStream.cpp File Reference

```
#include "publicStream.h"
```

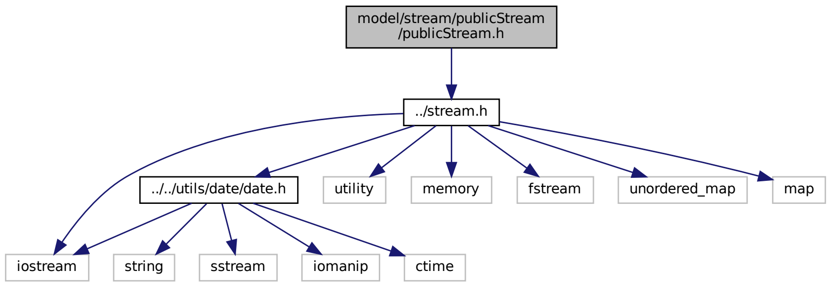
Include dependency graph for publicStream.cpp:



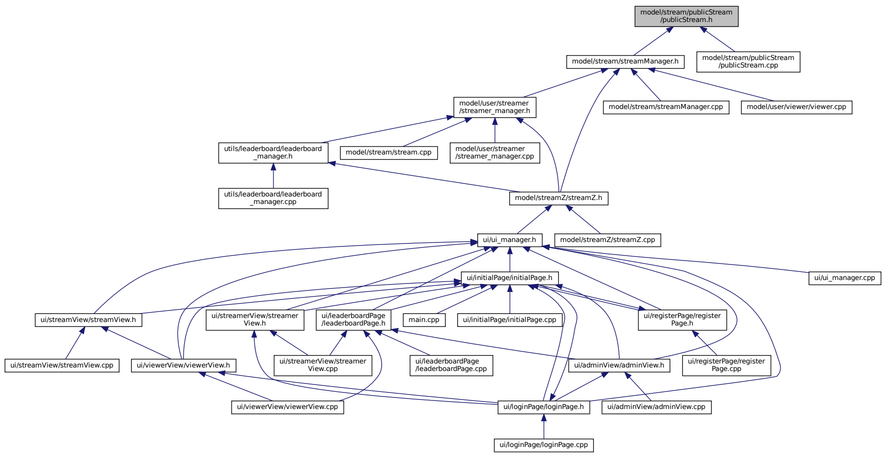
5.41 model/stream/publicStream/publicStream.h File Reference

```
#include "../stream.h"
```

Include dependency graph for publicStream.h:



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



Classes

- class PublicStream

Macros

- #define PROJECT_PUBLICSTREAM_H

5.41.1 Macro Definition Documentation

5.41.1.1 PROJECT_PUBLICSTREAM_H

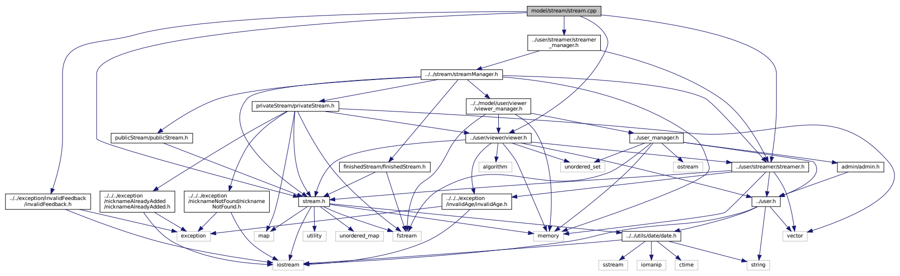
```
#define PROJECT_PUBLICSTREAM_H
```

Definition at line 44 of file publicStream.h.

5.42 model/stream/stream.cpp File Reference

```
#include "stream.h"
#include "../../exception/invalidFeedback/invalidFeedback.h"
#include "../user/streamer/streamer.h"
#include "../user/viewer/viewer.h"
#include "../user/streamer/streamer_manager.h"
```

Include dependency graph for stream.cpp:


model/stream/stream.cpp
../user/streamer/streamer_manager.h
../../stream/streamManager.h
privateStream/privateStream.h
../../model/user/viewer/viewer_manager.h
publicStream/publicStream.h
../user/viewer/viewer.h
../user_manager.h
finishedStream/finishedStream.h
algorithm
unordered_set
ostream
../user/streamer/streamer.h
admin/admin.h
../../exception/invalidFeedback/invalidFeedback.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nicknameNotFound.h
stream.h
../../../exception/invalidAge/invalidAge.h
../user.h
exception
map
utility
unordered_map
fstream
memory
../../utils/date/date.h
vector
iostream
sstream
iomanip
ctime
string

Functions

- std::ostream & operator<< (std::ostream &out, const StreamLanguage &f)
- std::ostream & operator<< (std::ostream &out, const StreamType &f)
- std::ostream & operator<< (std::ostream &out, const StreamGenre &f)
- std::ostream & operator<< (std::ostream &out, const FeedbackLikeSystem &f)
- std::istream & operator>> (std::istream &inf, StreamLanguage &f)
- std::istream & operator>> (std::istream &inf, StreamGenre &f)
- std::istream & operator>> (std::istream &inf, StreamType &f)
- std::istream & operator>> (std::istream &inf, FeedbackLikeSystem &f)

5.42.1 Function Documentation

5.42.1.1 operator<<() [1/4]

```
std::ostream& operator<< (
             std::ostream & out,
             const FeedbackLikeSystem & f )
```

Definition at line 266 of file stream.cpp.

5.42.1.2 operator<<() [2/4]

```
std::ostream& operator<< (
             std::ostream & out,
             const StreamGenre & f )
```

Definition at line 255 of file stream.cpp.

5.42.1.3 operator<<() [3/4]

```
std::ostream& operator<< (
             std::ostream & out,
             const StreamLanguage & f )
```

Definition at line 226 of file stream.cpp.

5.42.1.4 operator<<() [4/4]

```
std::ostream& operator<< (
             std::ostream & out,
             const StreamType & f )
```

Definition at line 245 of file stream.cpp.

5.42.1.5 operator>>() [1/4]

```
std::istream& operator>> (
             std::istream & inf,
             FeedbackLikeSystem & f )
```

Definition at line 312 of file stream.cpp.

5.42.1.6 operator>>() [2/4]

```
std::istream& operator>> (
            std::istream & inf,
            StreamGenre & f )
```

Definition at line 292 of file stream.cpp.

5.42.1.7 operator>>() [3/4]

```
std::istream& operator>> (
            std::istream & inf,
            StreamLanguage & f )
```

Definition at line 276 of file stream.cpp.

5.42.1.8 operator>>() [4/4]

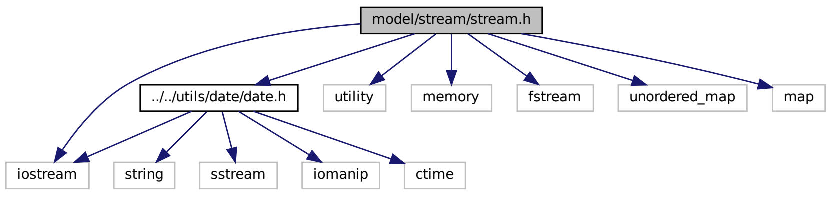
```
std::istream& operator>> (
            std::istream & inf,
            StreamType & f )
```

Definition at line 302 of file stream.cpp.

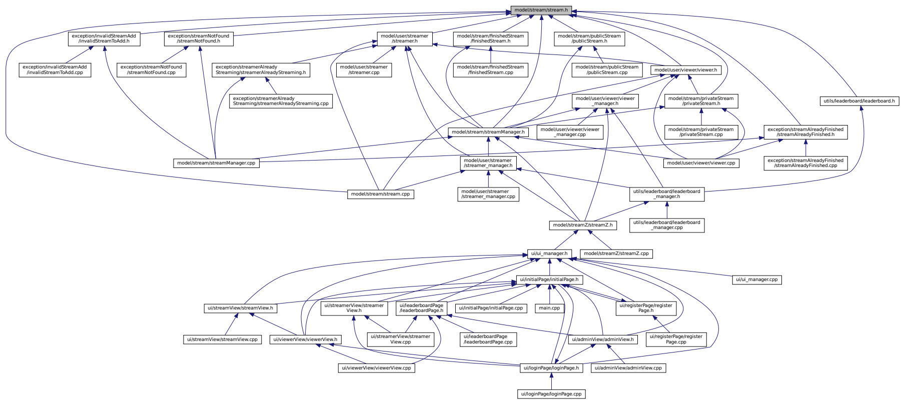
5.43 model/stream/stream.h File Reference

```
#include "../../utils/date/date.h"
#include <utility>
#include <iostream>
#include <memory>
#include <fstream>
#include <unordered_map>
#include <map>
```

Include dependency graph for stream.h:



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


model/stream/stream.h
exception/invalidStreamAdd /invalidStreamToAdd.h
exception/streamNotFound /streamNotFound.h
model/user/streamer /streamer.h
model/stream/finishedStream /finishedStream.h
model/stream/publicStream /publicStream.h
exception/invalidStreamAdd /invalidStreamToAdd.cpp
exception/streamNotFound /streamNotFound.cpp
exception/streamerAlready Streaming/streamerAlreadyStreaming.h
model/user/streamer /streamer.cpp
model/stream/finishedStream /finishedStream.cpp
model/stream/publicStream /publicStream.cpp
model/user/viewer/viewer.h
exception/streamerAlready Streaming/streamerAlreadyStreaming.cpp
model/user/viewer/viewer _manager.h
model/stream/privateStream /privateStream.h
utils/leaderboard/leaderboard.h
model/stream/streamManager.h
model/user/viewer/viewer _manager.cpp
model/stream/privateStream /privateStream.cpp
exception/streamAlreadyFinished /streamAlreadyFinished.h
model/stream/streamManager.cpp
model/user/streamer /streamer_manager.h
model/user/viewer/viewer.cpp
exception/streamAlreadyFinished /streamAlreadyFinished.cpp
model/stream/stream.cpp
model/user/streamer /streamer_manager.cpp
utils/leaderboard/leaderboard _manager.h
model/streamZ/streamZ.h
utils/leaderboard/leaderboard _manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
ui/initialPage/initialPage.cpp
main.cpp
ui/registerPage/register Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

- class Stream

Enumerations

- enum FeedbackLikeSystem { FeedbackLikeSystem::LIKE, FeedbackLikeSystem::DISLIKE, FeedbackLikeSystem::INVALID_VO
}
- enum StreamType { StreamType::PRIVATE, StreamType::PUBLIC, StreamType::FINISHED, StreamType::INVALID
}
- enum StreamGenre {
StreamGenre::MUSIC, StreamGenre::GAMING, StreamGenre::COOKING, StreamGenre::TALKSHOW,
StreamGenre::INVALID }
- enum StreamLanguage {
StreamLanguage::AF, StreamLanguage::AR, StreamLanguage::AZ, StreamLanguage::BE,
StreamLanguage::BG, StreamLanguage::CA, StreamLanguage::CZ, StreamLanguage::CY,
StreamLanguage::DA, StreamLanguage::DE, StreamLanguage::EL, StreamLanguage::EN,
StreamLanguage::EO, StreamLanguage::ES, StreamLanguage::ET, StreamLanguage::EU,
StreamLanguage::FA, StreamLanguage::FI, StreamLanguage::FO, StreamLanguage::FR,
StreamLanguage::GL, StreamLanguage::GU, StreamLanguage::HE, StreamLanguage::HI,
StreamLanguage::HR, StreamLanguage::HU, StreamLanguage::HY, StreamLanguage::ID,
StreamLanguage::IS, StreamLanguage::IT, StreamLanguage::JA, StreamLanguage::KA,
StreamLanguage::KK, StreamLanguage::KN, StreamLanguage::KO, StreamLanguage::KOK,
StreamLanguage::KY, StreamLanguage::LT, StreamLanguage::LV, StreamLanguage::MI,
StreamLanguage::MK, StreamLanguage::MN, StreamLanguage::MR, StreamLanguage::MS,
StreamLanguage::MT, StreamLanguage::NB, StreamLanguage::NL, StreamLanguage::NN,
StreamLanguage::NS, StreamLanguage::PA, StreamLanguage::PL, StreamLanguage::PS,
StreamLanguage::PT_BR, StreamLanguage::PT_PT, StreamLanguage::QU, StreamLanguage::RO,
StreamLanguage::RU, StreamLanguage::SA, StreamLanguage::SE, StreamLanguage::SK,
StreamLanguage::SL, StreamLanguage::SQ, StreamLanguage::SR, StreamLanguage::SV,
StreamLanguage::SW, StreamLanguage::SYR, StreamLanguage::TA, StreamLanguage::TE,
StreamLanguage::TH, StreamLanguage::TL, StreamLanguage::TN, StreamLanguage::TR,
StreamLanguage::TT, StreamLanguage::TS, StreamLanguage::UK, StreamLanguage::UR,
StreamLanguage::UZ, StreamLanguage::YI, StreamLanguage::XH, StreamLanguage::ZH,
StreamLanguage::INVALID }

Functions

- std::ostream & operator<< (std::ostream &out, const StreamLanguage &f)
- std::ostream & operator<< (std::ostream &out, const StreamGenre &f)
- std::ostream & operator<< (std::ostream &out, const StreamType &f)
- std::ostream & operator<< (std::ostream &out, const FeedbackLikeSystem &f)
- std::istream & operator>> (std::istream &inf, StreamLanguage &f)
- std::istream & operator>> (std::istream &inf, StreamGenre &f)
- std::istream & operator>> (std::istream &inf, StreamType &f)
- std::istream & operator>> (std::istream &inf, FeedbackLikeSystem &f)

5.43.1 Enumeration Type Documentation

5.43.1.1 FeedbackLikeSystem

```
enum FeedbackLikeSystem  [strong]
```

Defines the type of feedback that can be given to a stream

Enumerator

LIKE	
DISLIKE	
INVALID_VOTE	

Definition at line 22 of file stream.h.

5.43.1.2 StreamGenre

```
enum StreamGenre  [strong]
```

Defines the genres a stream can be

Enumerator

MUSIC	
GAMING	
COOKING	
TALKSHOW	
INVALID	

Definition at line 41 of file stream.h.

5.43.1.3 StreamLanguage

```
enum StreamLanguage  [strong]
```

Defines the languages a stream can be in

Enumerator

AF	
AR	
AZ	
BE	
BG	
CA	
CZ	
CY	
DA	
DE	
EL	
EN	
EO	
ES	
ET	
EU	
FA	
FI	
FO	
FR	
GL	
GU	
HE	
HI	
HR	
HU	
HY	
ID	
IS	
IT	
JA	
KA	
KK	
KN	
KO	
KOK	
KY	
LT	
LV	
MI	
MK	
MN	
MR	
MS	
MT	

Enumerator

NB	
NL	
NN	
NS	
PA	
PL	
PS	
PT_BR	
PT_PT	
QU	
RO	
RU	
SA	
SE	
SK	
SL	
SQ	
SR	
SV	
SW	
SYR	
TA	
TE	
TH	
TL	
TN	
TR	
TT	
TS	
UK	
UR	
UZ	
YI	
XH	
ZH	
INVALID	

Definition at line 52 of file stream.h.

5.43.1.4 StreamType

```
enum StreamType  [strong]
```

Defines what type of stream an instantiation of the Stream Class is

Enumerator

PRIVATE	
PUBLIC	
FINISHED	
INVALID	

Definition at line 31 of file stream.h.

5.43.2 Function Documentation

5.43.2.1 operator<<() [1/4]

```
std::ostream& operator<< (
            std::ostream & out,
            const FeedbackLikeSystem & f )
```

Definition at line 266 of file stream.cpp.

5.43.2.2 operator<<() [2/4]

```
std::ostream& operator<< (
            std::ostream & out,
            const StreamGenre & f )
```

Definition at line 255 of file stream.cpp.

5.43.2.3 operator<<() [3/4]

```
std::ostream& operator<< (
            std::ostream & out,
            const StreamLanguage & f )
```

Definition at line 226 of file stream.cpp.

5.43.2.4 operator<<() [4/4]

```
std::ostream& operator<< (
            std::ostream & out,
            const StreamType & f )
```

Definition at line 245 of file stream.cpp.

5.43.2.5 operator>>() [1/4]

```
std::istream& operator>> (
            std::istream & inf,
            FeedbackLikeSystem & f )
```

Definition at line 312 of file stream.cpp.

5.43.2.6 operator>>() [2/4]

```
std::istream& operator>> (
            std::istream & inf,
            StreamGenre & f )
```

Definition at line 292 of file stream.cpp.

5.43.2.7 operator>>() [3/4]

```
std::istream& operator>> (
            std::istream & inf,
            StreamLanguage & f )
```

Definition at line 276 of file stream.cpp.

5.43.2.8 operator>>() [4/4]

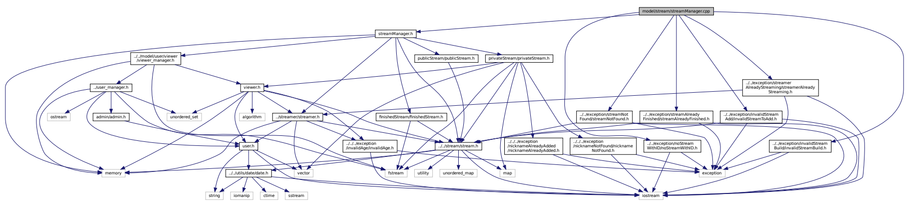
```
std::istream& operator>> (
            std::istream & inf,
            StreamType & f )
```

Definition at line 302 of file stream.cpp.

5.44 model/stream/streamManager.cpp File Reference

```
#include "streamManager.h"
#include "../../exception/streamerAlreadyStreaming/streamerAlreadyStreaming.↩
h"
#include "../../exception/invalidStreamBuild/invalidStreamBuild.h"
#include "../../exception/invalidStreamAdd/invalidStreamToAdd.h"
#include "../../exception/streamNotFound/streamNotFound.h"
#include "../../exception/noStreamWithID/noStreamWithID.h"
#include "../../exception/streamAlreadyFinished/streamAlreadyFinished.h"
```

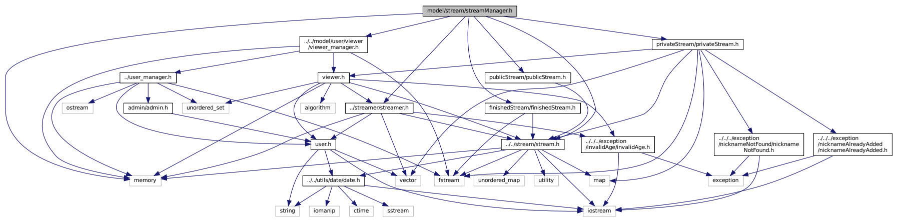
Include dependency graph for streamManager.cpp:


model/stream/streamManager.cpp
streamManager.h
../../model/user/viewer/viewer_manager.h
publicStream/publicStream.h
privateStream/privateStream.h
../user_manager.h
viewer.h
../../exception/streamer AlreadyStreaming/streamerAlready Streaming.h
ostream
admin/admin.h
unordered_set
algorithm
../streamer/streamer.h
finishedStream/finishedStream.h
../../exception/streamNot Found/streamNotFound.h
../../exception/streamAlready Finished/streamAlreadyFinished.h
../../exception/invalidStream Add/invalidStreamToAdd.h
user.h
../../../exception/invalidAge/invalidAge.h
../../stream/stream.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nickname NotFound.h
../../exception/noStream WithID/noStreamWithID.h
../../exception/invalidStream Build/invalidStreamBuild.h
memory
../../utils/date/date.h
vector
fstream
utility
unordered_map
map
exception
string
iomanip
ctime
sstream
iostream

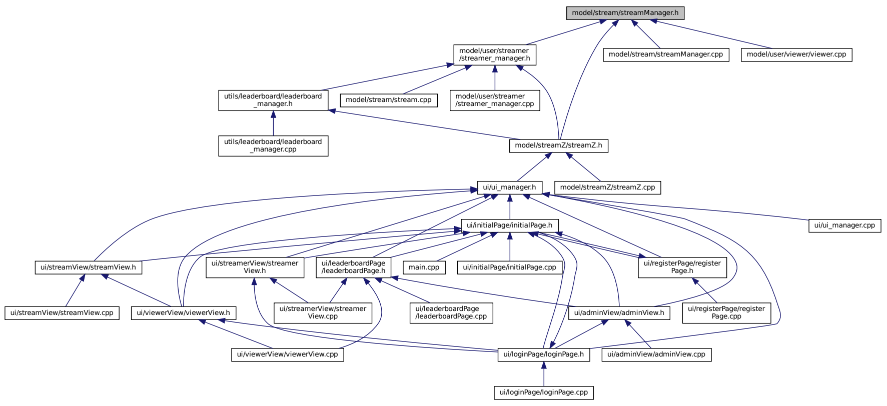
5.45 model/stream/streamManager.h File Reference

```
#include "../../model/user/viewer/viewer_manager.h"
#include "privateStream/privateStream.h"
#include "publicStream/publicStream.h"
#include "finishedStream/finishedStream.h"
#include "../../model/user/streamer/streamer.h"
#include "stream.h"
#include <memory>
```

Include dependency graph for streamManager.h:


model/stream/streamManager.h
../../model/user/viewer/viewer_manager.h
privateStream/privateStream.h
../user_manager.h
viewer.h
publicStream/publicStream.h
ostream
admin/admin.h
unordered_set
algorithm
../streamer/streamer.h
finishedStream/finishedStream.h
user.h
../../stream/stream.h
../../../exception/invalidAge/invalidAge.h
../../../exception/nicknameNotFound/nicknameNotFound.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
memory
../../utils/date/date.h
vector
fstream
unordered_map
utility
map
exception
string
iomanip
ctime
sstream
iostream

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


model/stream/streamManager.h
model/user/streamer/streamer_manager.h
model/stream/streamManager.cpp
model/user/viewer/viewer.cpp
utils/leaderboard/leaderboard_manager.h
model/stream/stream.cpp
model/user/streamer/streamer_manager.cpp
utils/leaderboard/leaderboard_manager.cpp
model/streamZ/streamZ.h
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamerView.h
ui/leaderboardPage/leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/registerPage.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamerView.cpp
ui/leaderboardPage/leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/registerPage.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

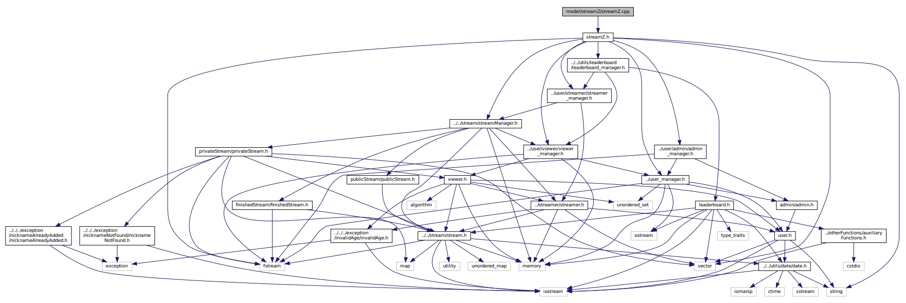
Classes

- class StreamManager

5.46 model/streamZ/streamZ.cpp File Reference

```
#include "streamZ.h"
```

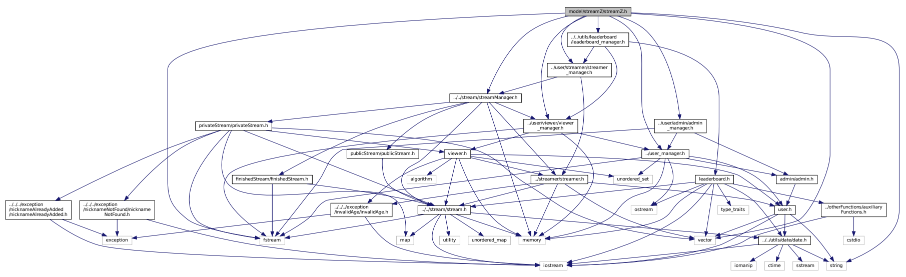
Include dependency graph for streamZ.cpp:


model/streamZ/streamZ.cpp
streamZ.h
../../utils/leaderboard/leaderboard_manager.h
../user/streamer/streamer_manager.h
../../stream/streamManager.h
privateStream/privateStream.h
../user/viewer/viewer_manager.h
../user/admin/admin_manager.h
publicStream/publicStream.h
viewer.h
../user_manager.h
finishedStream/finishedStream.h
algorithm
../streamer/streamer.h
unordered_set
leaderboard.h
admin/admin.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nicknameNotFound.h
../../../exception/invalidAge/invalidAge.h
../../stream/stream.h
ostream
type_traits
user.h
../otherFunctions/auxiliaryFunctions.h
exception
fstream
map
utility
unordered_map
memory
vector
../../utils/date/date.h
cstdio
iostream
iomanip
ctime
sstream
string

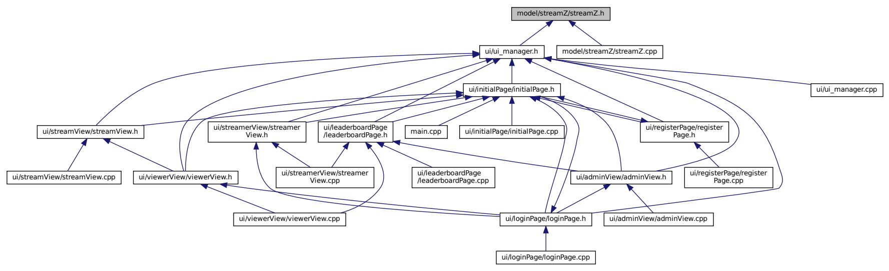
5.47 model/streamZ/streamZ.h File Reference

```
#include "../user/viewer/viewer_manager.h"
#include "../user/streamer/streamer_manager.h"
#include "../user/admin/admin_manager.h"
#include "../user/user_manager.h"
#include "../stream/streamManager.h"
#include "../../utils/leaderboard/leaderboard_manager.h"
#include <vector>
#include <string>
#include <fstream>
```

Include dependency graph for streamZ.h:


model/streamZ/streamZ.h
../../utils/leaderboard/leaderboard_manager.h
../user/streamer/streamer_manager.h
../../stream/streamManager.h
privateStream/privateStream.h
../user/viewer/viewer_manager.h
../user/admin/admin_manager.h
publicStream/publicStream.h
viewer.h
../user_manager.h
finishedStream/finishedStream.h
algorithm
../streamer/streamer.h
unordered_set
leaderboard.h
admin/admin.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nicknameNotFound.h
../../../exception/invalidAge/invalidAge.h
../../stream/stream.h
ostream
type_traits
user.h
../otherFunctions/auxiliaryFunctions.h
exception
fstream
map
utility
unordered_map
memory
vector
../../utils/date/date.h
cstdio
iostream
iomanip
ctime
sstream
string

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


model/streamZ/streamZ.h
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamerView.h
ui/leaderboardPage/leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/registerPage.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamerView.cpp
ui/leaderboardPage/leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/registerPage.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

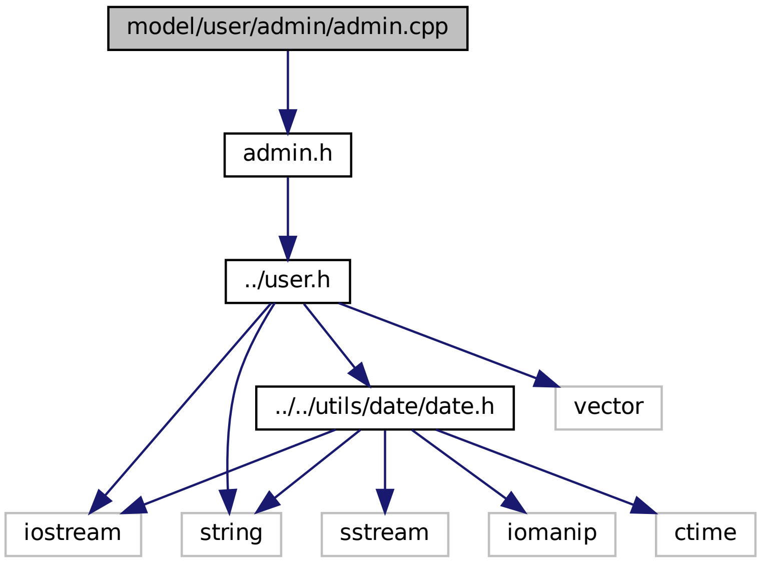
Classes

- class StreamZ

5.48 model/user/admin/admin.cpp File Reference

`#include "admin.h"`

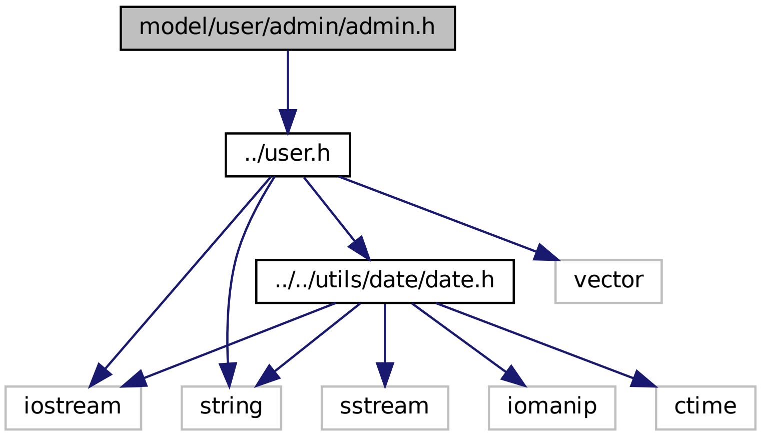
Include dependency graph for admin.cpp:



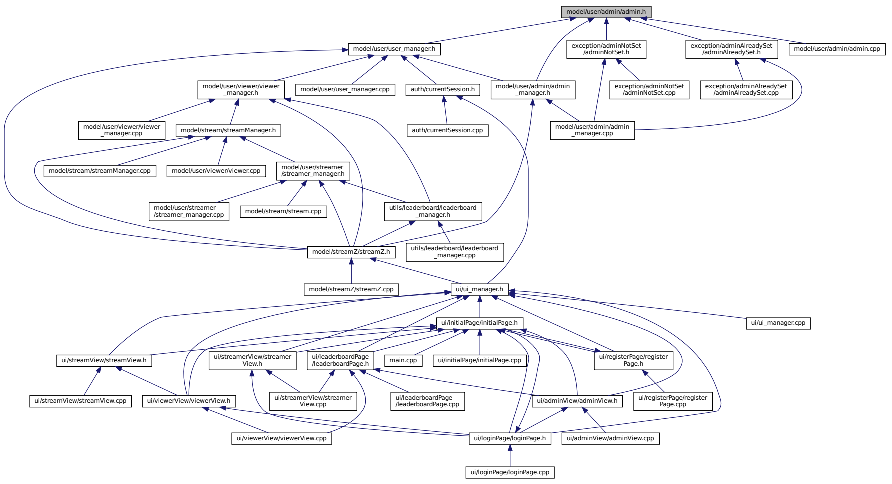
5.49 model/user/admin/admin.h File Reference

`#include "../user.h"`

Include dependency graph for admin.h:



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



Classes

- class Admin

Macros

- #define PROJECT_ADMIN_H

5.49.1 Macro Definition Documentation

5.49.1.1 PROJECT_ADMIN_H

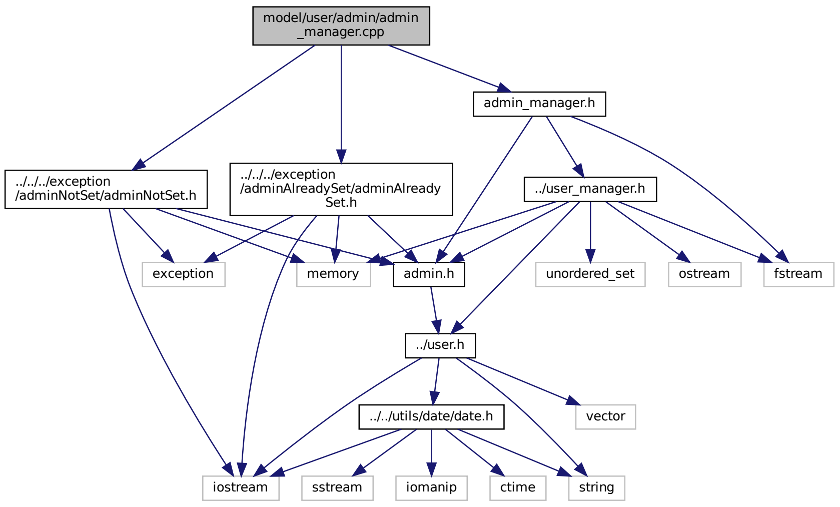
```
#define PROJECT_ADMIN_H
```

Definition at line 27 of file admin.h.

5.50 model/user/admin/admin_manager.cpp File Reference

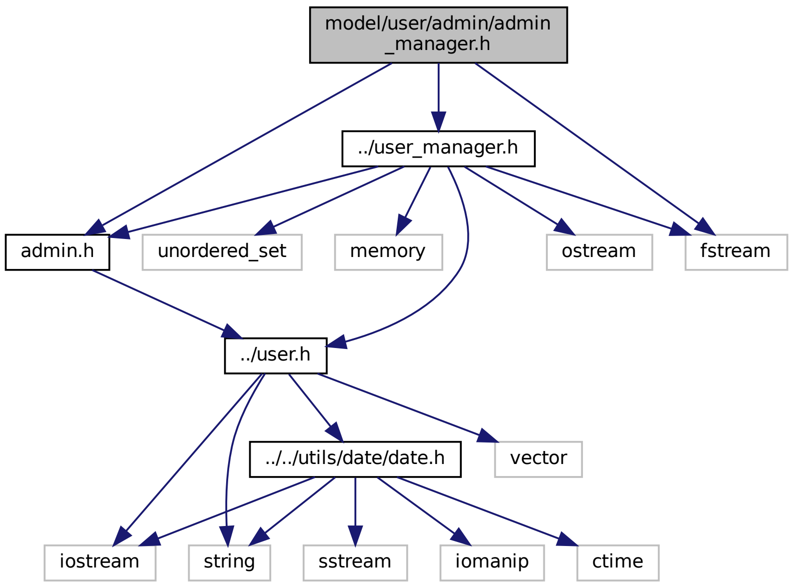
```
#include "admin_manager.h"
#include "../../../exception/adminAlreadySet/adminAlreadySet.h"
```

```
#include "../../../exception/adminNotSet/adminNotSet.h"
```
Include dependency graph for admin_manager.cpp:

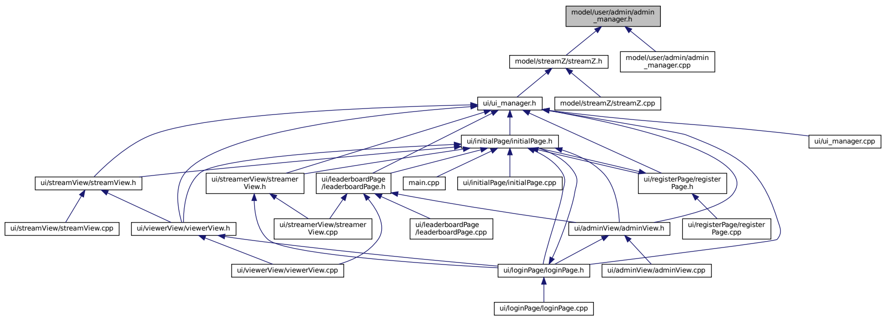


5.51 model/user/admin/admin_manager.h File Reference

```
#include "admin.h"
#include "../user_manager.h"
#include <fstream>
```
Include dependency graph for admin_manager.h:



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


model/user/admin/admin _manager.h
model/streamZ/streamZ.h
model/user/admin/admin _manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

- class AdminManager

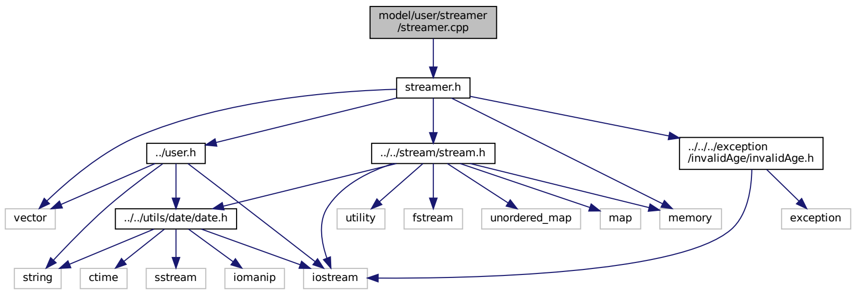
5.52 model/user/admin/dataAdmin.txt File Reference

5.53 model/user/streamer/dataStreamer.txt File Reference

5.54 model/user/streamer/streamer.cpp File Reference

```
#include "streamer.h"
```

Include dependency graph for streamer.cpp:

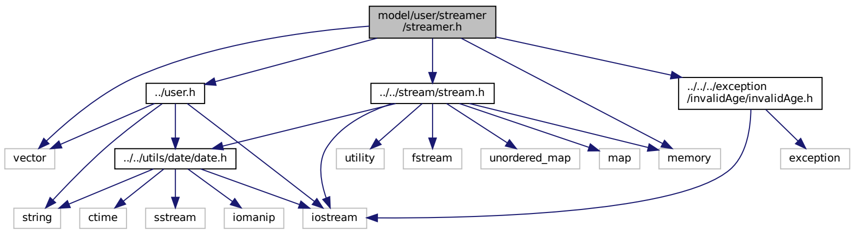


5.55 model/user/streamer/streamer.h File Reference

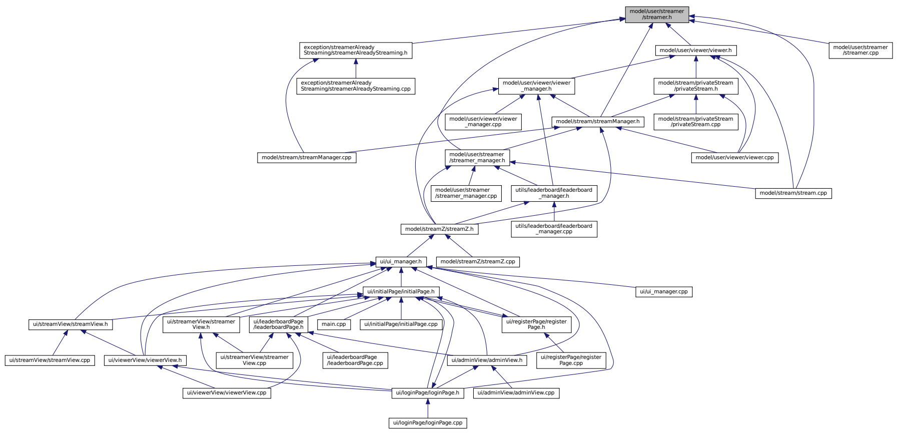
```
#include <vector>
#include "memory"
#include "../user.h"
#include "../../stream/stream.h"
```

`#include "../../../exception/invalidAge/invalidAge.h"`

Include dependency graph for streamer.h:



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



Classes

- class Streamer

Macros

- #define PROJECT_STREAMER_H

5.55.1 Macro Definition Documentation

5.55.1.1 PROJECT_STREAMER_H

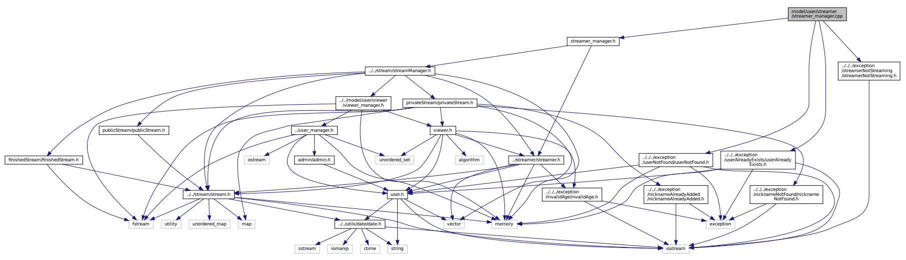
```
#define PROJECT_STREAMER_H
```

Definition at line 73 of file streamer.h.

5.56 model/user/streamer/streamer_manager.cpp File Reference

```
#include "streamer_manager.h"
#include "../../../exception/userNotFound/userNotFound.h"
#include "../../../exception/userAlreadyExists/userAlreadyExists.h"
#include "../../../exception/streamerNotStreaming/streamerNotStreaming.h"
```

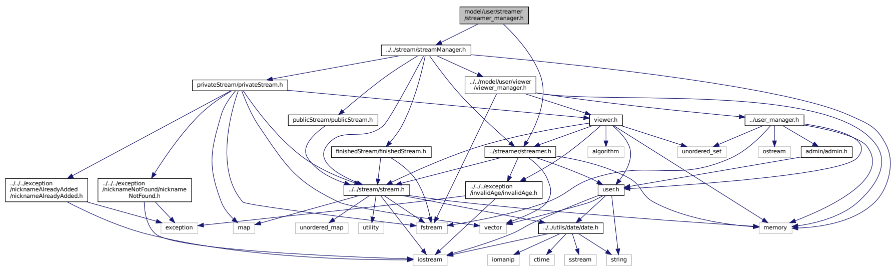
Include dependency graph for streamer_manager.cpp:


model/user/streamer/streamer_manager.cpp
streamer_manager.h
../../../exception/streamerNotStreaming/streamerNotStreaming.h
../../stream/streamManager.h
../../model/user/viewer/viewer_manager.h
privateStream/privateStream.h
publicStream/publicStream.h
../user_manager.h
viewer.h
finishedStream/finishedStream.h
ostream
admin/admin.h
unordered_set
algorithm
../streamer/streamer.h
../../../exception/userNotFound/userNotFound.h
../../../exception/userAlreadyExists/userAlreadyExists.h
../../stream/stream.h
user.h
../../../exception/invalidAge/invalidAge.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nicknameNotFound.h
fstream
utility
unordered_map
map
../../utils/date/date.h
vector
memory
exception
sstream
iomanip
ctime
string
iostream

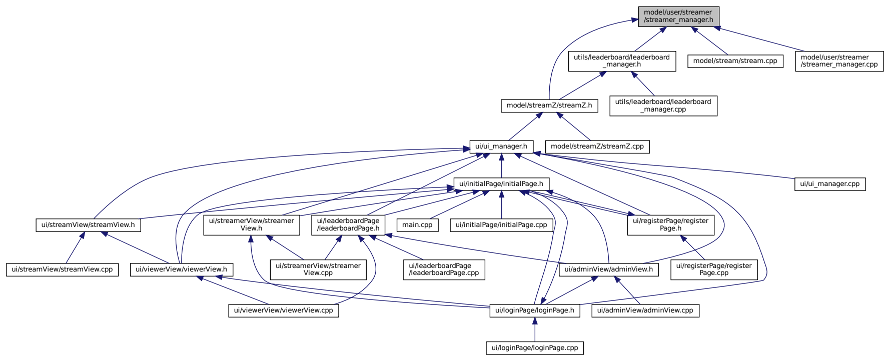
5.57 model/user/streamer/streamer_manager.h File Reference

```
#include "../../stream/streamManager.h"
#include "streamer.h"
```

Include dependency graph for streamer_manager.h:


model/user/streamer/streamer_manager.h
../../stream/streamManager.h
privateStream/privateStream.h
../../model/user/viewer/viewer_manager.h
publicStream/publicStream.h
viewer.h
../user_manager.h
finishedStream/finishedStream.h
../streamer/streamer.h
algorithm
unordered_set
ostream
admin/admin.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nicknameNotFound.h
../../stream/stream.h
../../../exception/invalidAge/invalidAge.h
user.h
exception
map
unordered_map
utility
fstream
vector
../../utils/date/date.h
memory
iostream
iomanip
ctime
sstream
string

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


model/user/streamer/streamer_manager.h
utils/leaderboard/leaderboard_manager.h
model/stream/stream.cpp
model/user/streamer/streamer_manager.cpp
model/streamZ/streamZ.h
utils/leaderboard/leaderboard_manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamerView.h
ui/leaderboardPage/leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/registerPage.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamerView.cpp
ui/leaderboardPage/leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/registerPage.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

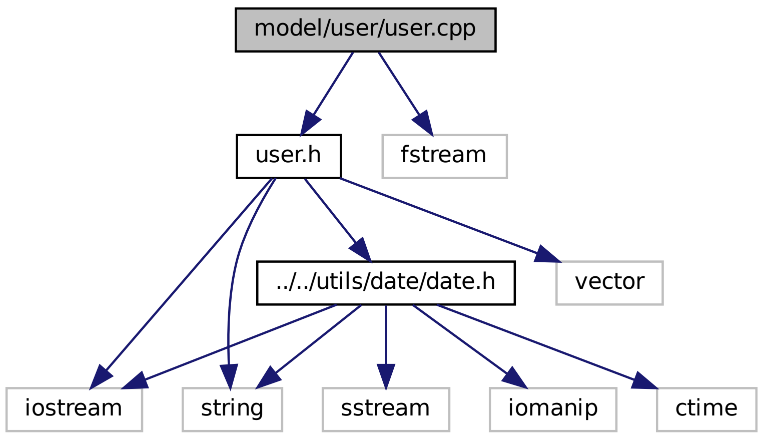
Classes

- class StreamerManager

5.58 model/user/user.cpp File Reference

```
#include "user.h"
#include <fstream>
```

Include dependency graph for user.cpp:



Functions

- bool charCmpEq (char a, char b)
- bool charCmpSmaller (char a, char b)
- bool operator< (std::string s1, std::string s2)
- bool operator> (const std::string &s1, const std::string &s2)
- bool operator<= (const std::string &s1, const std::string &s2)
- bool operator>= (const std::string &s1, const std::string &s2)
- bool operator== (const std::string &s1, const std::string &s2)
- bool operator!= (const std::string &s1, const std::string &s2)
- std::ostream & operator<< (std::ostream &out, UserTypes f)

5.58.1 Function Documentation

5.58.1.1 charCmpEq()

```
bool charCmpEq (
             char a,
             char b )
```

Definition at line 121 of file user.cpp.

5.58.1.2 charCmpSmaller()

```
bool charCmpSmaller (
             char a,
             char b )
```

Definition at line 125 of file user.cpp.

5.58.1.3 operator"!=()

```
bool operator!= (
             const std::string & s1,
             const std::string & s2 )
```

Definition at line 154 of file user.cpp.

5.58.1.4 operator<()

```
bool operator< (
             std::string s1,
             std::string s2 )
```

Definition at line 129 of file user.cpp.

5.58.1.5 operator<<()

```
std::ostream& operator<< (
             std::ostream & out,
             UserTypes f )
```

Definition at line 158 of file user.cpp.

5.58.1.6 operator<=()

```
bool operator<= (
            const std::string & s1,
            const std::string & s2 )
```

Definition at line 145 of file user.cpp.

5.58.1.7 operator==()

```
bool operator== (
            const std::string & s1,
            const std::string & s2 )
```

Definition at line 151 of file user.cpp.

5.58.1.8 operator>()

```
bool operator> (
            const std::string & s1,
            const std::string & s2 )
```

Definition at line 142 of file user.cpp.

5.58.1.9 operator>=()

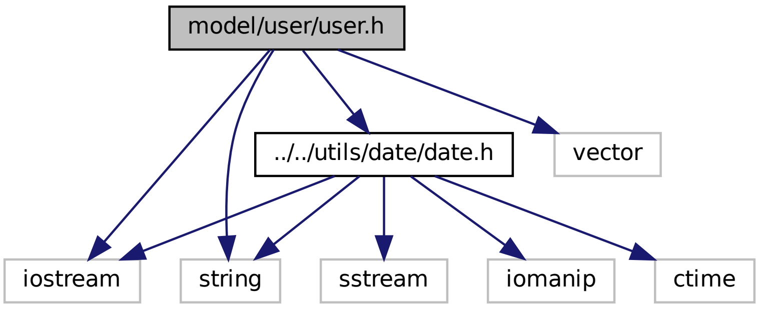
```
bool operator>= (
            const std::string & s1,
            const std::string & s2 )
```

Definition at line 148 of file user.cpp.

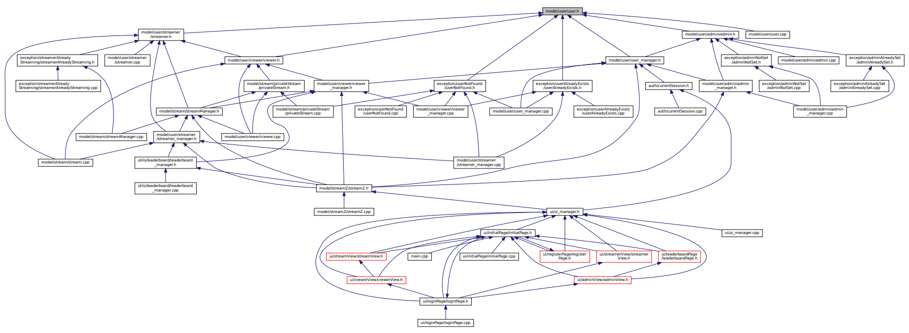
5.59 model/user/user.h File Reference

```
#include <iostream>
#include <string>
#include <vector>
#include "../../utils/date/date.h"
```

Include dependency graph for user.h:



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



Classes

- class User

Enumerations

- enum UserTypes { UserTypes::STREAMER, UserTypes::VIEWER, UserTypes::ADMIN }

Functions

- bool operator< (std::string s1, std::string s2)
- bool operator> (const std::string &s1, const std::string &s2)
- bool operator<= (const std::string &s1, const std::string &s2)
- bool operator>= (const std::string &s1, const std::string &s2)
- bool operator== (const std::string &s1, const std::string &s2)
- bool operator!= (const std::string &s1, const std::string &s2)
- std::ostream & operator<< (std::ostream &out, UserTypes f)

5.59.1 Enumeration Type Documentation

5.59.1.1 UserTypes

```
enum UserTypes  [strong]
```

Defines what type of user an instantiation of the User Class is

Enumerator

STREAMER	
VIEWER	
ADMIN	

Definition at line 16 of file user.h.

5.59.2 Function Documentation

5.59.2.1 operator"!=()

```
bool operator!= (
             const std::string & s1,
             const std::string & s2 )
```

Definition at line 154 of file user.cpp.

5.59.2.2 operator<()

```
bool operator< (
             std::string s1,
             std::string s2 )
```

Definition at line 129 of file user.cpp.

5.59.2.3 operator<<()

```
std::ostream& operator<< (
             std::ostream & out,
             UserTypes f )
```

Definition at line 158 of file user.cpp.

5.59.2.4 operator<=()

```
bool operator<= (
             const std::string & s1,
             const std::string & s2 )
```

Definition at line 145 of file user.cpp.

5.59.2.5 operator==()

```
bool operator== (
             const std::string & s1,
             const std::string & s2 )
```

Definition at line 151 of file user.cpp.

5.59.2.6 operator>()

```
bool operator> (
             const std::string & s1,
             const std::string & s2 )
```

Definition at line 142 of file user.cpp.

5.59.2.7 operator>=()

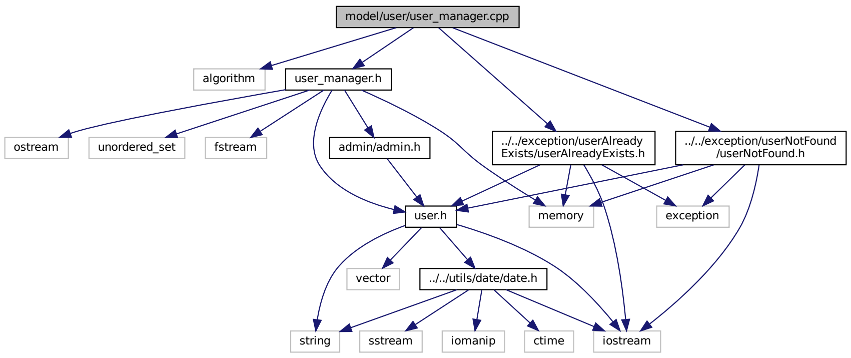
```
bool operator>= (
             const std::string & s1,
             const std::string & s2 )
```

Definition at line 148 of file user.cpp.

5.60 model/user/user_manager.cpp File Reference

```
#include <algorithm>
#include "user_manager.h"
#include "../../exception/userAlreadyExists/userAlreadyExists.h"
#include "../../exception/userNotFound/userNotFound.h"
```

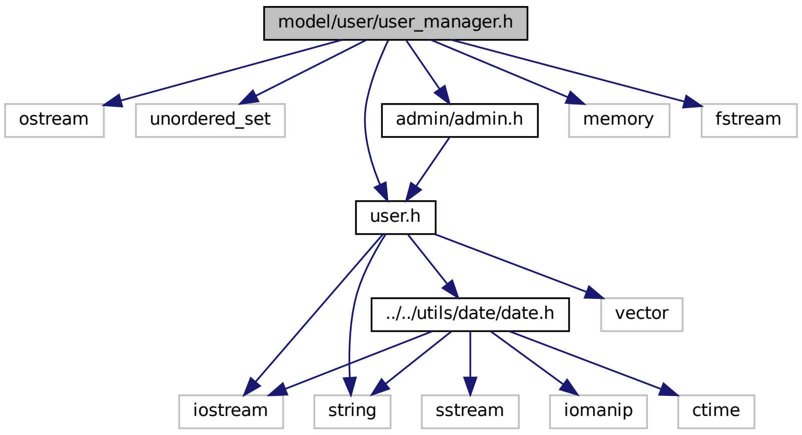
Include dependency graph for user_manager.cpp:



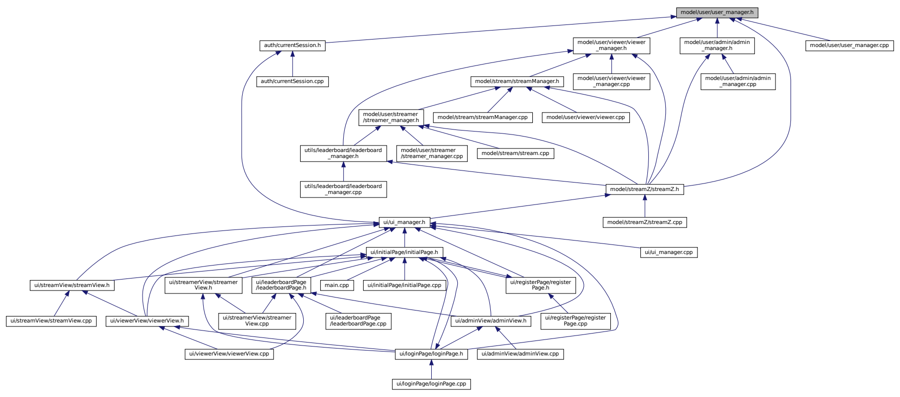
5.61 model/user/user_manager.h File Reference

```
#include <ostream>
#include <unordered_set>
#include "user.h"
#include "memory"
#include "admin/admin.h"
#include <fstream>
```

Include dependency graph for user_manager.h:



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



Classes

- class UserManager

Macros

- #define PROJECT_USER_MANAGER_H

5.61.1 Macro Definition Documentation

5.61.1.1 PROJECT_USER_MANAGER_H

```
#define PROJECT_USER_MANAGER_H
```

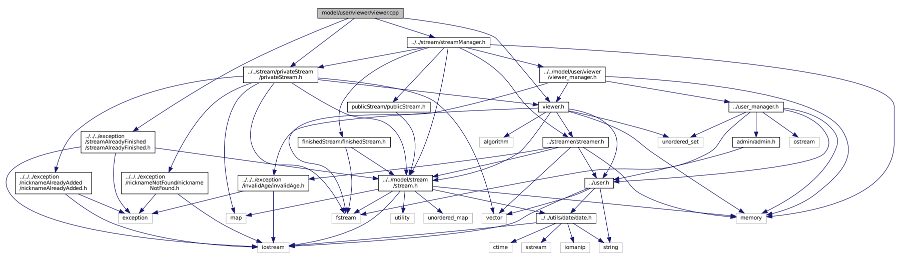
Definition at line 71 of file user_manager.h.

5.62 model/user/viewer/dataViewer.txt File Reference

5.63 model/user/viewer/viewer.cpp File Reference

```
#include "../../../exception/streamAlreadyFinished/streamAlreadyFinished.h"
#include "viewer.h"
#include "../../stream/privateStream/privateStream.h"
#include "../../stream/streamManager.h"
```

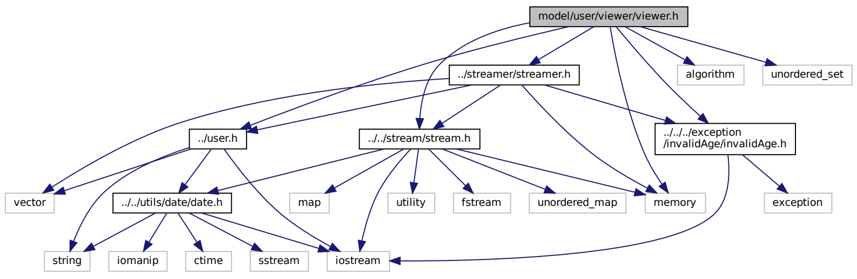
Include dependency graph for viewer.cpp:



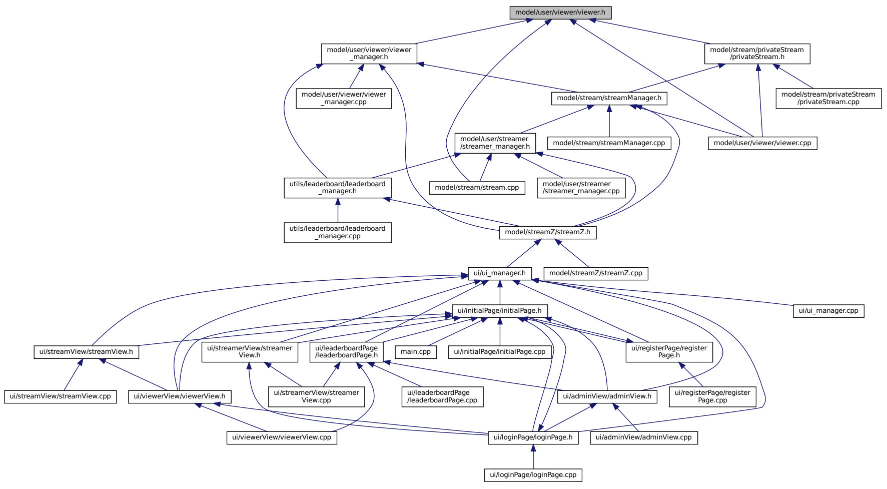
5.64 model/user/viewer/viewer.h File Reference

```
#include "../user.h"
#include "../../stream/stream.h"
#include "../streamer/streamer.h"
#include "../../../exception/invalidAge/invalidAge.h"
#include <algorithm>
#include <memory>
#include <unordered_set>
```

Include dependency graph for viewer.h:



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



Classes

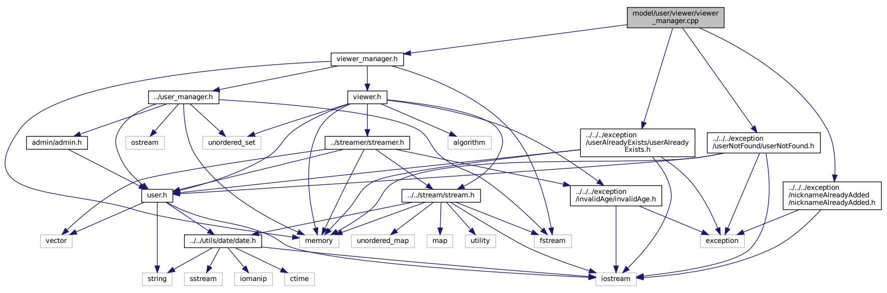
- class Viewer

5.65 model/user/viewer/viewer_manager.cpp File Reference

```
#include "viewer_manager.h"
#include "../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h"
```

```
#include "../../../exception/userNotFound/userNotFound.h"
#include "../../../exception/userAlreadyExists/userAlreadyExists.h"
```

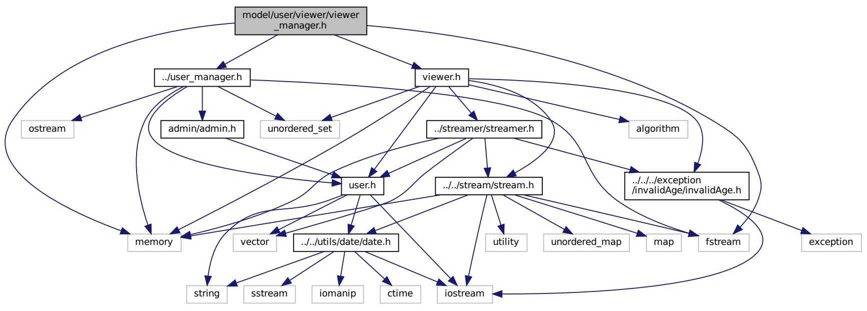
Include dependency graph for viewer_manager.cpp:


model/user/viewer/viewer_manager.cpp
viewer_manager.h
../user_manager.h
viewer.h
admin/admin.h
ostream
unordered_set
../streamer/streamer.h
algorithm
../../../exception/userAlreadyExists/userAlreadyExists.h
../../../exception/userNotFound/userNotFound.h
user.h
../../stream/stream.h
../../../exception/invalidAge/invalidAge.h
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
vector
../../utils/date/date.h
memory
unordered_map
map
utility
fstream
exception
string
sstream
iomanip
ctime
iostream

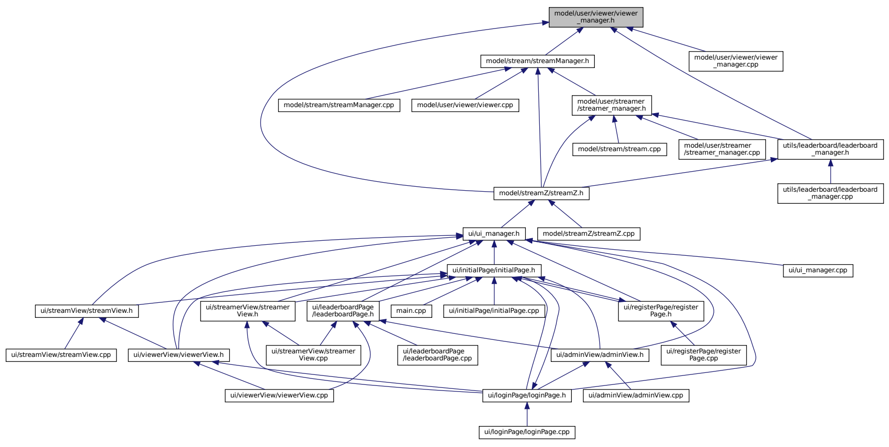
5.66 model/user/viewer/viewer_manager.h File Reference

```
#include "../user_manager.h"
#include "viewer.h"
#include <memory>
#include <fstream>
```

Include dependency graph for viewer_manager.h:



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


model/user/viewer/viewer_manager.h
model/stream/streamManager.h
model/user/viewer/viewer_manager.cpp
model/stream/streamManager.cpp
model/user/viewer/viewer.cpp
model/user/streamer/streamer_manager.h
model/stream/stream.cpp
model/user/streamer/streamer_manager.cpp
utils/leaderboard/leaderboard_manager.h
model/streamZ/streamZ.h
utils/leaderboard/leaderboard_manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamerView.h
ui/leaderboardPage/leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/registerPage.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamerView.cpp
ui/leaderboardPage/leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/registerPage.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

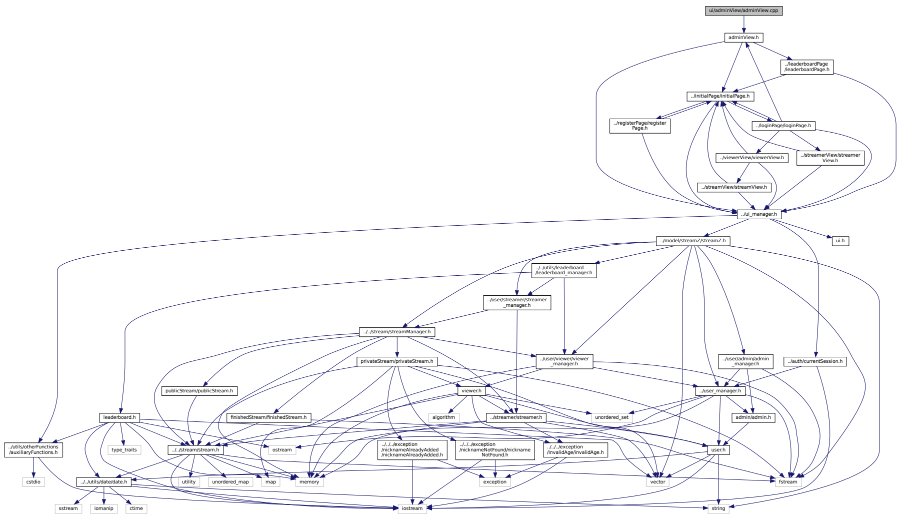
- class ViewerManager

5.67 ui/adminView/adminView.cpp File Reference

Deals with the Admin's View in the UI.

```
#include "adminView.h"
```

Include dependency graph for adminView.cpp:



5.67.1 Detailed Description

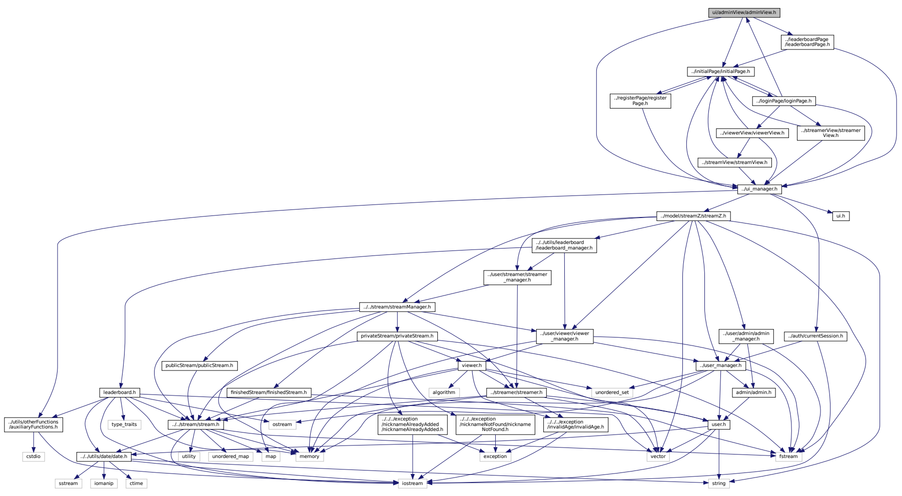
Deals with the Admin's View in the UI.

5.68 ui/adminView/adminView.h File Reference

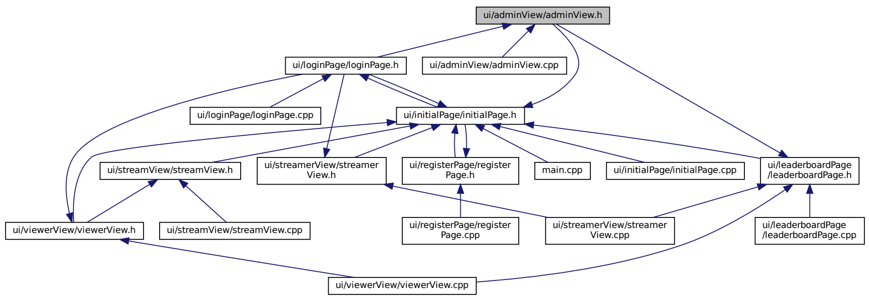
```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
```

`#include "../leaderboardPage/leaderboardPage.h"`

Include dependency graph for adminView.h:



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


ui/adminView/adminView.h
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp
ui/initialPage/initialPage.h
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/registerPage/register Page.h
main.cpp
ui/initialPage/initialPage.cpp
ui/leaderboardPage /leaderboardPage.h
ui/viewerView/viewerView.h
ui/streamView/streamView.cpp
ui/registerPage/register Page.cpp
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/viewerView/viewerView.cpp

Classes

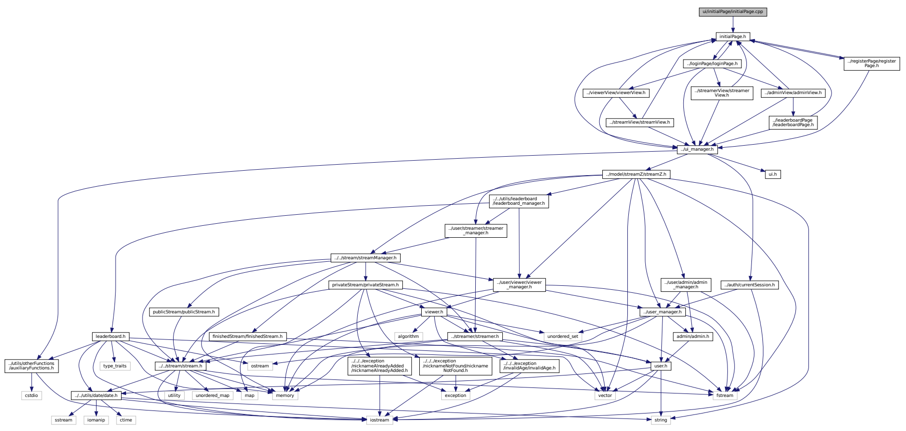
- class AdminView

5.69 ui/initialPage/initialPage.cpp File Reference

Deals with the Initial Page in the UI.

```
#include "initialPage.h"
```

Include dependency graph for initialPage.cpp:



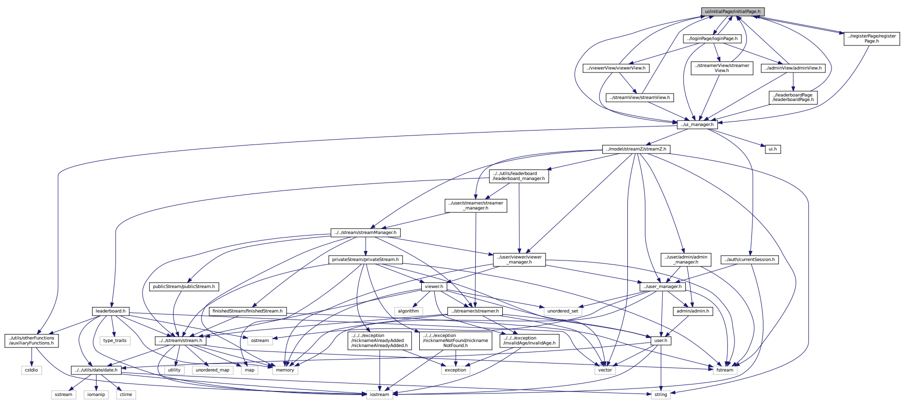
5.69.1 Detailed Description

Deals with the Initial Page in the UI.

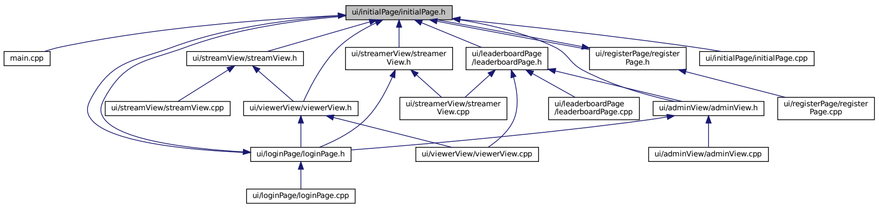
5.70 ui/initialPage/initialPage.h File Reference

```
#include "../ui_manager.h"
#include "../loginPage/loginPage.h"
#include "../registerPage/registerPage.h"
```

Include dependency graph for initialPage.h:



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


ui/initialPage/initialPage.h
main.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
ui/registerPage/register Page.h
ui/initialPage/initialPage.cpp
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/loginPage/loginPage.h
ui/viewerView/viewerView.cpp
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

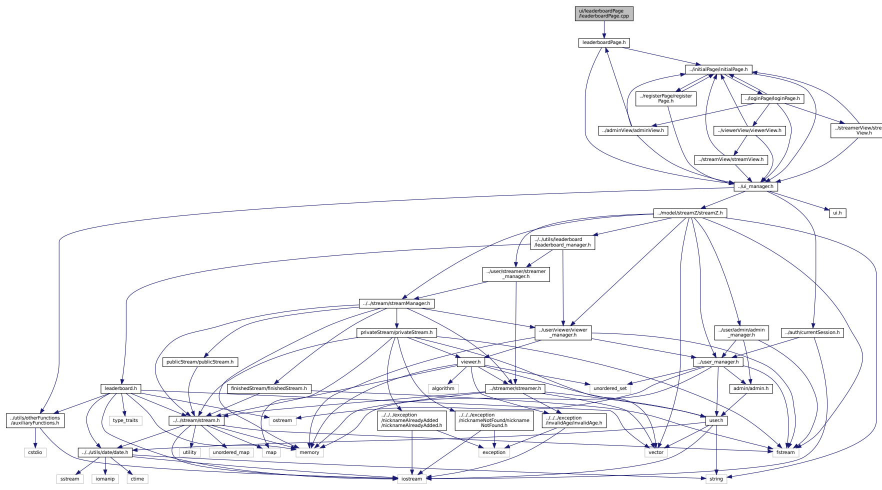
- class InitialPage

5.71 ui/leaderboardPage/leaderboardPage.cpp File Reference

Deals with the Leaderboard Page in the UI.

`#include "leaderboardPage.h"`

Include dependency graph for leaderboardPage.cpp:


ui/leaderboardPage/leaderboardPage.cpp
leaderboardPage.h
../initialPage/initialPage.h
../registerPage/register Page.h
../loginPage/loginPage.h
../adminView/adminView.h
../viewerView/viewerView.h
../streamerView/streamer View.h
../streamView/streamView.h
../ui_manager.h
ui.h
../model/streamZ/streamZ.h
../../utils/leaderboard/leaderboard_manager.h
../user/streamer/streamer_manager.h
../../stream/streamManager.h
../user/viewer/viewer_manager.h
../user/admin/admin_manager.h
../auth/currentSession.h
privateStream/privateStream.h
publicStream/publicStream.h
viewer.h
../user_manager.h
leaderboard.h
finishedStream/finishedStream.h
algorithm
../streamer/streamer.h
unordered_set
admin/admin.h
../utils/otherFunctions/auxiliaryFunctions.h
type_traits
../../stream/stream.h
ostream
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nickname NotFound.h
../../../exception/invalidAge/invalidAge.h
user.h
cstdio
../../utils/date/date.h
utility
unordered_map
map
memory
exception
vector
fstream
sstream
iomanip
ctime
iostream
string

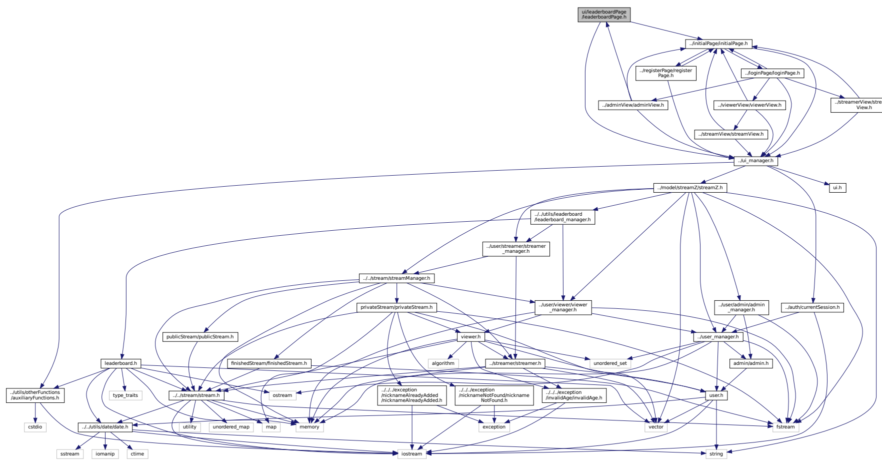
5.71.1 Detailed Description

Deals with the Leaderboard Page in the UI.

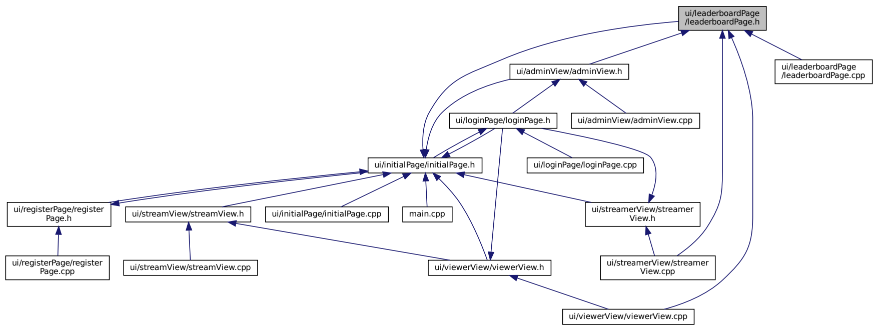
5.72 ui/leaderboardPage/leaderboardPage.h File Reference

```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
```

Include dependency graph for leaderboardPage.h:


ui/leaderboardPage/leaderboardPage.h
../initialPage/initialPage.h
../registerPage/register Page.h
../loginPage/loginPage.h
../adminView/adminView.h
../viewerView/viewerView.h
../streamerView/streamer View.h
../streamView/streamView.h
../ui_manager.h
ui.h
../model/streamZ/streamZ.h
../../utils/leaderboard/leaderboard_manager.h
../user/streamer/streamer_manager.h
../../stream/streamManager.h
../user/viewer/viewer_manager.h
../user/admin/admin_manager.h
../auth/currentSession.h
privateStream/privateStream.h
publicStream/publicStream.h
viewer.h
../user_manager.h
leaderboard.h
finishedStream/finishedStream.h
algorithm
../streamer/streamer.h
unordered_set
admin/admin.h
../utils/otherFunctions/auxiliaryFunctions.h
type_traits
../../stream/stream.h
ostream
../../../exception/nicknameAlreadyAdded/nicknameAlreadyAdded.h
../../../exception/nicknameNotFound/nickname NotFound.h
../../../exception/invalidAge/invalidAge.h
user.h
cstdio
../../utils/date/date.h
utility
unordered_map
map
memory
exception
vector
fstream
sstream
iomanip
ctime
iostream
string

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


ui/leaderboardPage/leaderboardPage.h
ui/adminView/adminView.h
ui/leaderboardPage/leaderboardPage.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/initialPage/initialPage.h
ui/loginPage/loginPage.cpp
ui/registerPage/registerPage.h
ui/streamView/streamView.h
ui/initialPage/initialPage.cpp
main.cpp
ui/streamerView/streamerView.h
ui/registerPage/registerPage.cpp
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamerView.cpp
ui/viewerView/viewerView.cpp

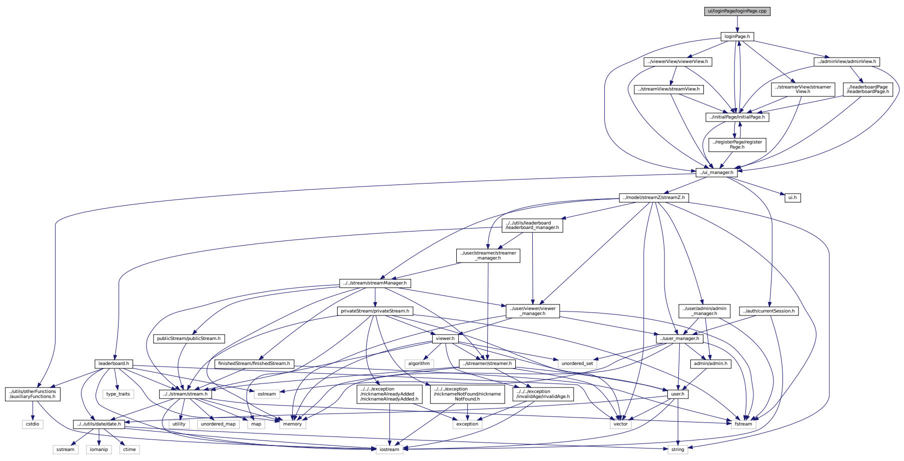
Classes

- class LeaderboardPage

5.73 ui/loginPage/loginPage.cpp File Reference

Deals with the Login Page in the UI.

`#include "loginPage.h"`
Include dependency graph for loginPage.cpp:



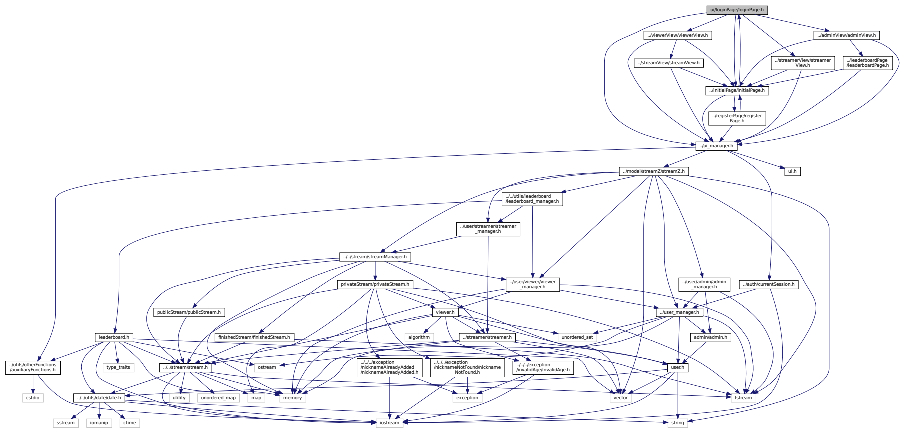
5.73.1 Detailed Description

Deals with the Login Page in the UI.

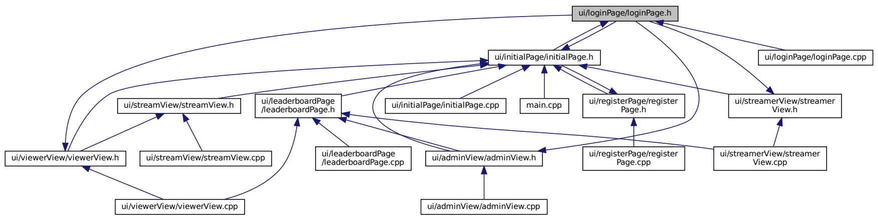
5.74 ui/loginPage/loginPage.h File Reference

```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
#include "../viewerView/viewerView.h"
#include "../streamerView/streamerView.h"
#include "../adminView/adminView.h"
```

Include dependency graph for loginPage.h:



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


ui/loginPage/loginPage.h
ui/initialPage/initialPage.h
ui/loginPage/loginPage.cpp
ui/streamView/streamView.h
ui/leaderboardPage /leaderboardPage.h
ui/initialPage/initialPage.cpp
main.cpp
ui/registerPage/register Page.h
ui/streamerView/streamer View.h
ui/viewerView/viewerView.h
ui/streamView/streamView.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/streamerView/streamer View.cpp
ui/viewerView/viewerView.cpp
ui/adminView/adminView.cpp

Classes

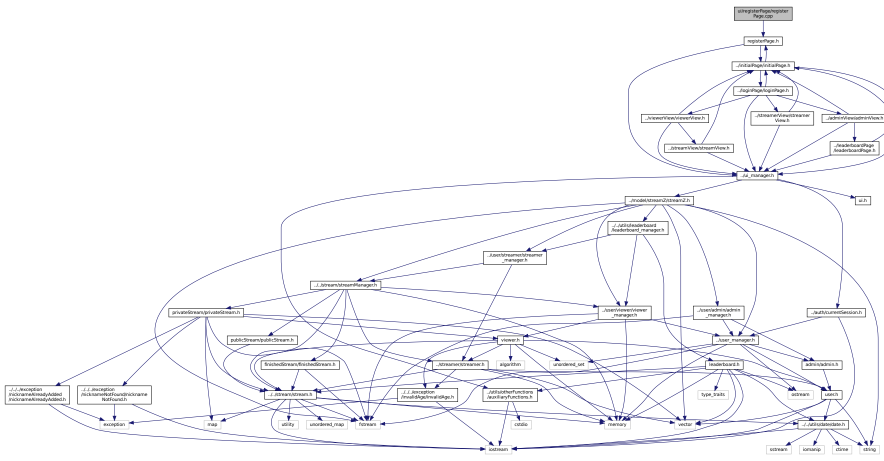
- class LoginPage

5.75 ui/registerPage/registerPage.cpp File Reference

Deals with the Register Page in the UI.

```
#include "registerPage.h"
```

Include dependency graph for registerPage.cpp:



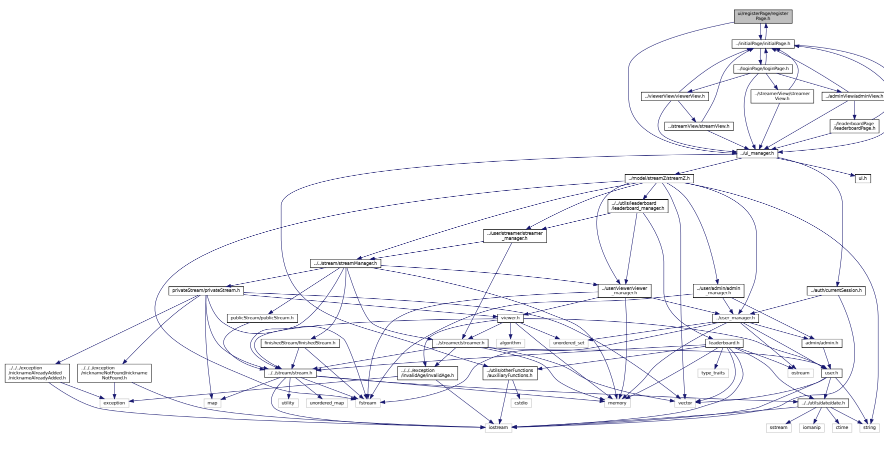
5.75.1 Detailed Description

Deals with the Register Page in the UI.

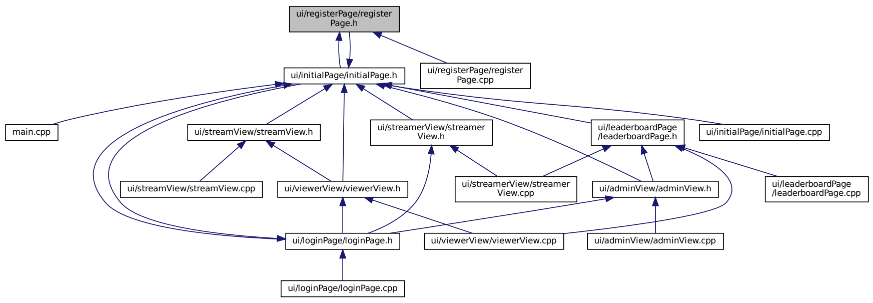
5.76 ui/registerPage/registerPage.h File Reference

```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
```

Include dependency graph for registerPage.h:



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


ui/registerPage/register Page.h
ui/initialPage/initialPage.h
ui/registerPage/register Page.cpp
main.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
ui/initialPage/initialPage.cpp
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/adminView/adminView.h
ui/leaderboardPage /leaderboardPage.cpp
ui/loginPage/loginPage.h
ui/viewerView/viewerView.cpp
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

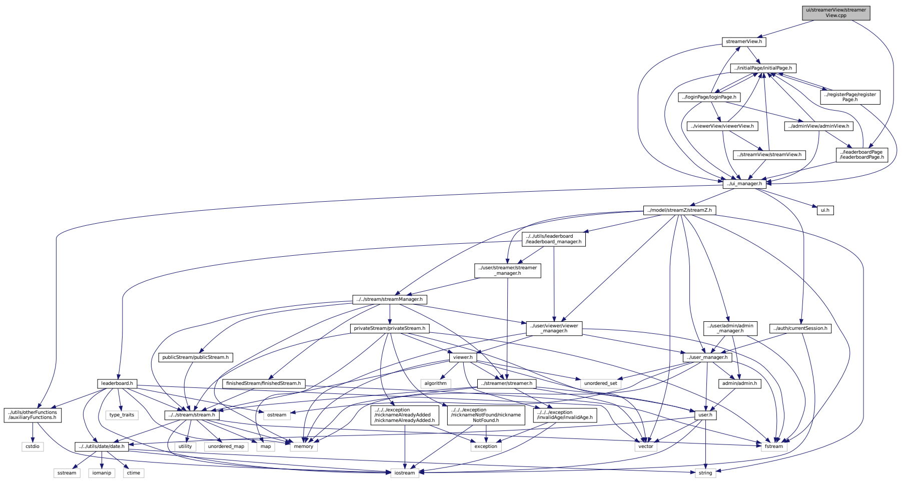
- class RegisterPage

5.77 ui/streamerView/streamerView.cpp File Reference

Deals with the Streamer Page in the UI.

```
#include "streamerView.h"
#include "../leaderboardPage/leaderboardPage.h"
```

Include dependency graph for streamerView.cpp:



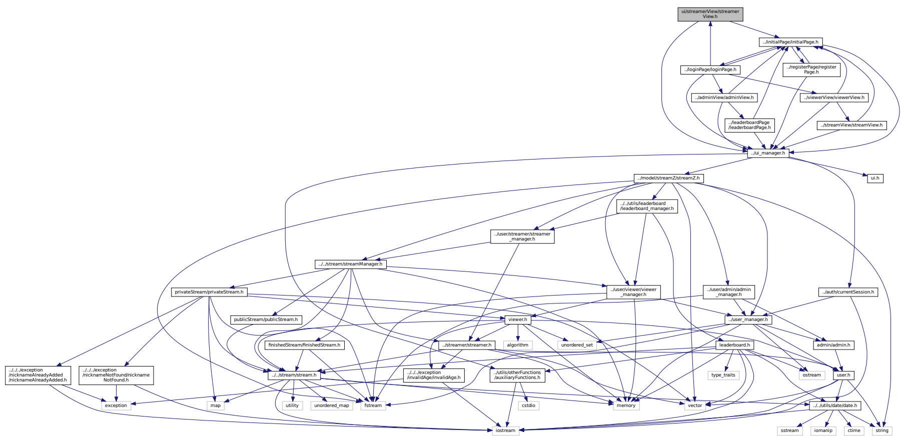
5.77.1 Detailed Description

Deals with the Streamer Page in the UI.

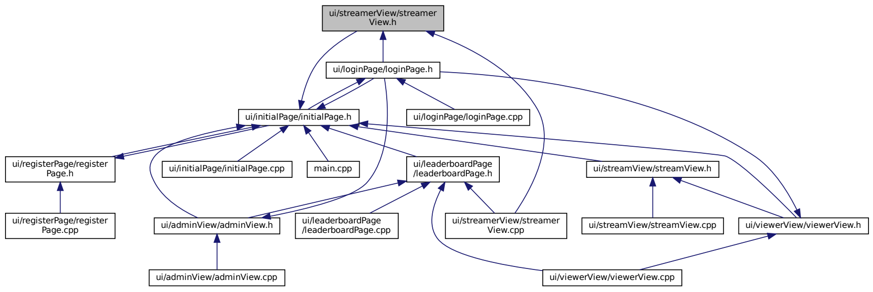
5.78 ui/streamerView/streamerView.h File Reference

```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
```

Include dependency graph for streamerView.h:



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



ui/streamerView/streamer View.h
ui/loginPage/loginPage.h
ui/initialPage/initialPage.h
ui/loginPage/loginPage.cpp
ui/registerPage/register Page.h
ui/initialPage/initialPage.cpp
main.cpp
ui/leaderboardPage /leaderboardPage.h
ui/streamView/streamView.h
ui/registerPage/register Page.cpp
ui/adminView/adminView.h
ui/leaderboardPage /leaderboardPage.cpp
ui/streamerView/streamer View.cpp
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/adminView/adminView.cpp
ui/viewerView/viewerView.cpp

Classes

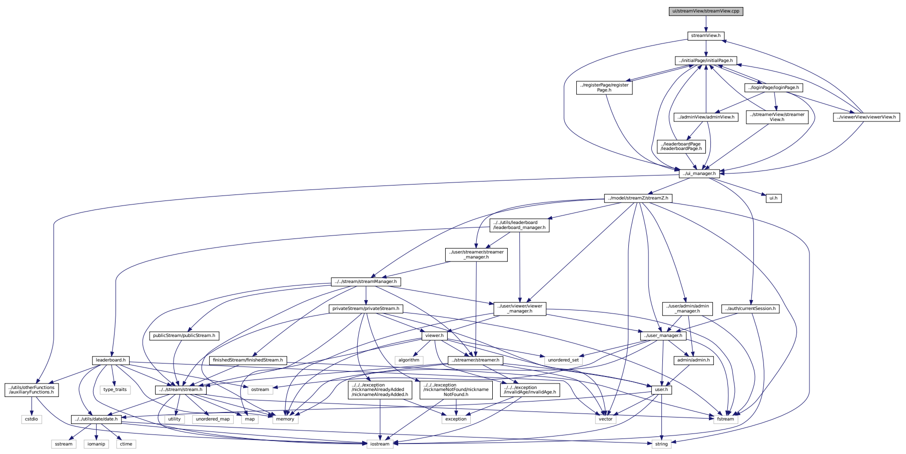
- class StreamerView

5.79 ui/streamView/streamView.cpp File Reference

Deals with the Stream View Page in the UI.

```
#include "streamView.h"
```

Include dependency graph for streamView.cpp:



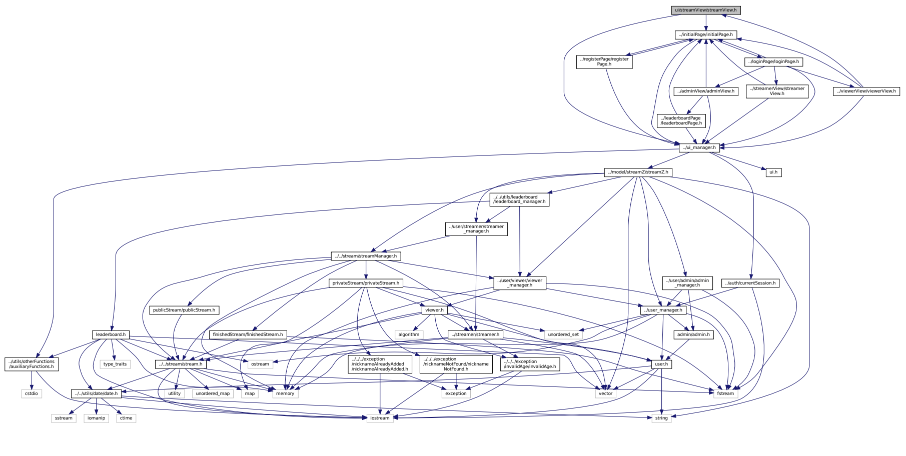
5.79.1 Detailed Description

Deals with the Stream View Page in the UI.

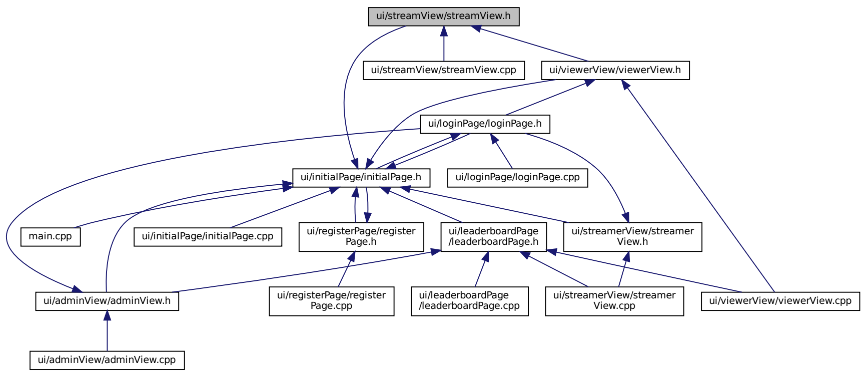
5.80 ui/streamView/streamView.h File Reference

```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
```

Include dependency graph for streamView.h:



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


ui/streamView/streamView.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/loginPage/loginPage.h
ui/initialPage/initialPage.h
ui/loginPage/loginPage.cpp
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register Page.h
ui/leaderboardPage /leaderboardPage.h
ui/streamerView/streamer View.h
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/streamerView/streamer View.cpp
ui/viewerView/viewerView.cpp
ui/adminView/adminView.cpp

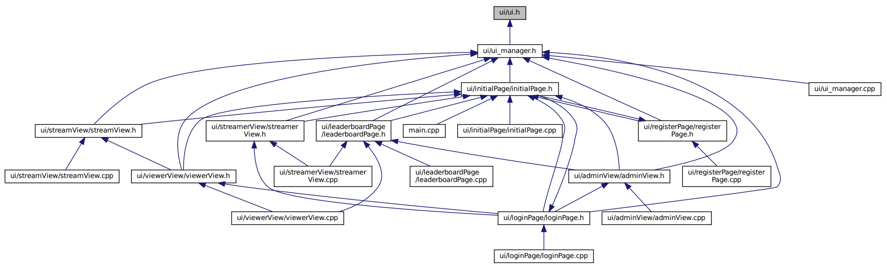
Classes

- class StreamView

5.81 ui/ui.h File Reference

Base class of all UI pages.

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


ui/ui.h
ui/ui_manager.h
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

- class UI

5.81.1 Detailed Description

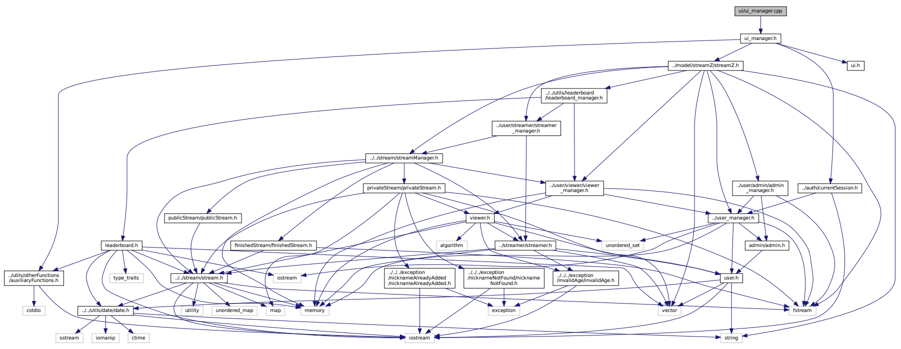
Base class of all UI pages.

5.82 ui/ui_manager.cpp File Reference

Manager of the UI pages.

```
#include "ui_manager.h"
```

Include dependency graph for ui_manager.cpp:



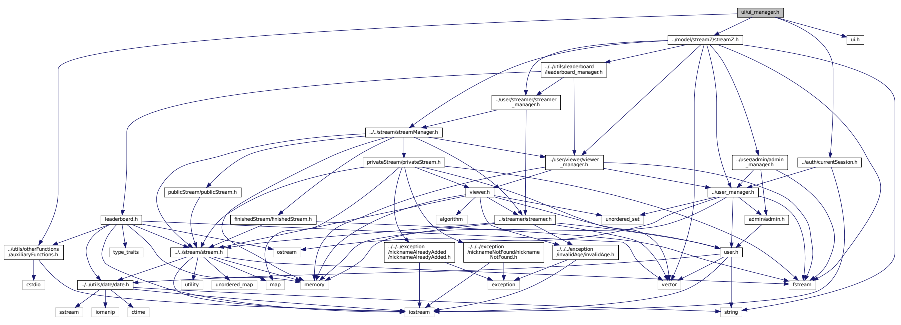
5.82.1 Detailed Description

Manager of the UI pages.

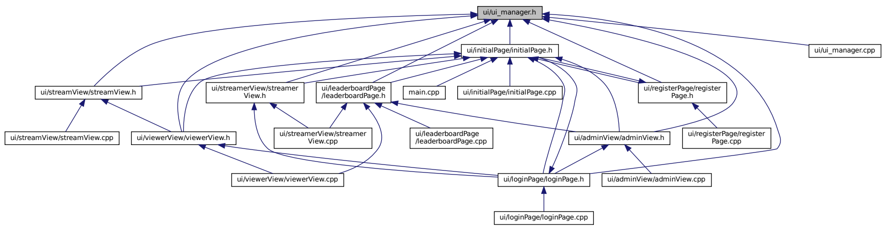
5.83 ui/ui_manager.h File Reference

```
#include "../utils/otherFunctions/auxiliaryFunctions.h"
#include "../model/streamZ/streamZ.h"
#include "../auth/currentSession.h"
#include "ui.h"
```

Include dependency graph for ui_manager.h:



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


ui/ui_manager.h
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer View.h
ui/leaderboardPage /leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer View.cpp
ui/leaderboardPage /leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

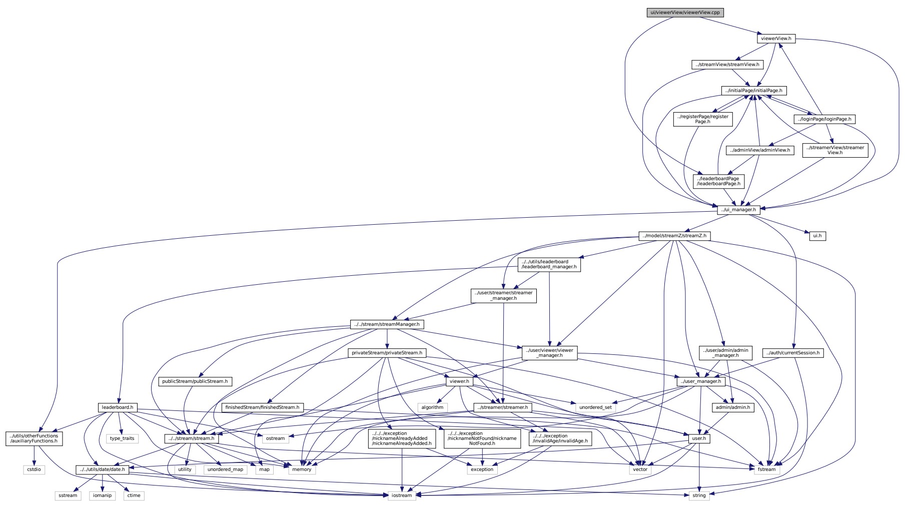
- class UIManager

5.84 ui/viewerView/viewerView.cpp File Reference

Deals with the Viewer View Page in the UI.

```
#include "viewerView.h"
#include "../leaderboardPage/leaderboardPage.h"
```

Include dependency graph for viewerView.cpp:



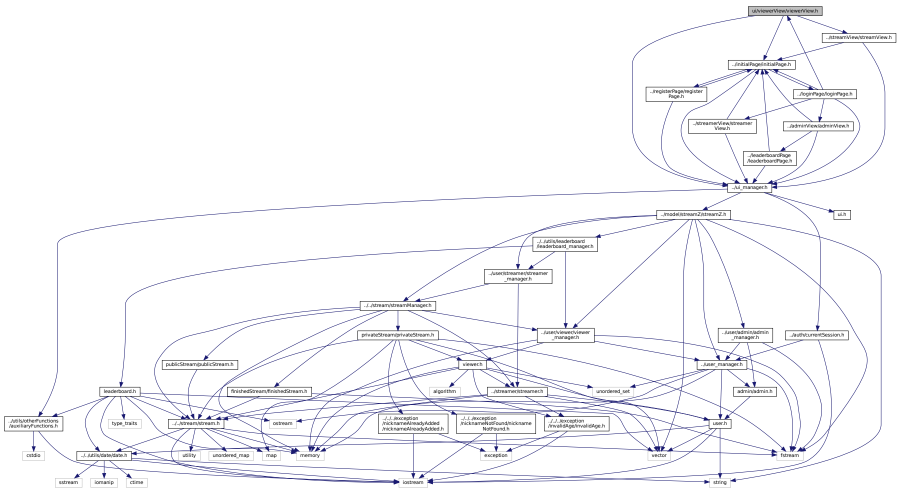
5.84.1 Detailed Description

Deals with the Viewer View Page in the UI.

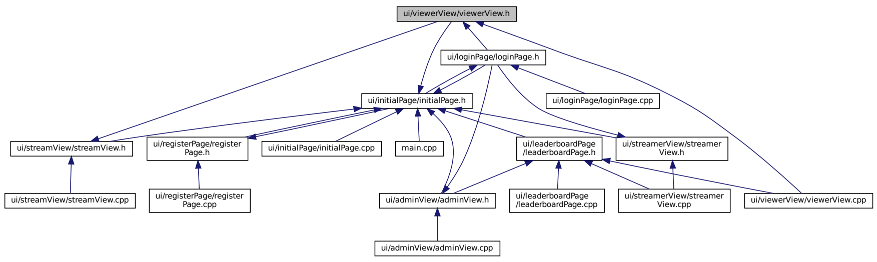
5.85 ui/viewerView/viewerView.h File Reference

```
#include "../ui_manager.h"
#include "../initialPage/initialPage.h"
#include "../streamView/streamView.h"
```

Include dependency graph for viewerView.h:



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


ui/viewerView/viewerView.h
ui/loginPage/loginPage.h
ui/initialPage/initialPage.h
ui/loginPage/loginPage.cpp
ui/streamView/streamView.h
ui/registerPage/register Page.h
ui/initialPage/initialPage.cpp
main.cpp
ui/leaderboardPage /leaderboardPage.h
ui/streamerView/streamer View.h
ui/streamView/streamView.cpp
ui/registerPage/register Page.cpp
ui/adminView/adminView.h
ui/leaderboardPage /leaderboardPage.cpp
ui/streamerView/streamer View.cpp
ui/viewerView/viewerView.cpp
ui/adminView/adminView.cpp

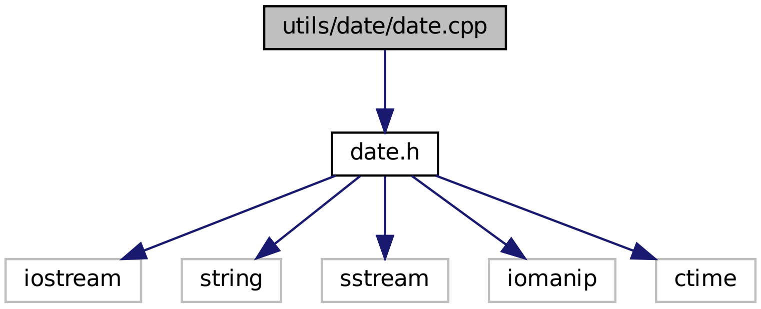
Classes

- class ViewerView

5.86 utils/date/date.cpp File Reference

```
#include "date.h"
```

Include dependency graph for date.cpp:



Functions

- bool isLeap (unsigned int y)
- unsigned int numberOfDays (unsigned int y, unsigned int m)
- std::ostream & operator<< (std::ostream &os, const Date &date)
- std::istream & operator>> (std::istream &is, Date &date)
- Date daysToDate (unsigned int totalDays)
- Date timeElapsed (const Date &d1, const Date &d2)

Variables

- time_t ttime = time(nullptr)
- tm ∗ local_time = localtime(&ttime)

5.86.1 Function Documentation

5.86.1.1 daysToDate()

```
Date daysToDate (
            unsigned int totalDays )
```

Definition at line 258 of file date.cpp.

5.86.1.2 isLeap()

```
bool isLeap (
            unsigned int y )
```

Definition at line 129 of file date.cpp.

5.86.1.3 numberOfDays()

```
unsigned int numberOfDays (
             unsigned int y,
             unsigned int m )
```

Definition at line 134 of file date.cpp.

5.86.1.4 operator<<()

```
std::ostream& operator<< (
             std::ostream & os,
             const Date & date )
```

Definition at line 178 of file date.cpp.

5.86.1.5 operator>>()

```
std::istream& operator>> (
             std::istream & is,
             Date & date )
```

Definition at line 186 of file date.cpp.

5.86.1.6 timeElapsed()

```
Date timeElapsed (
             const Date & d1,
             const Date & d2 )
```

Definition at line 273 of file date.cpp.

5.86.2 Variable Documentation

5.86.2.1 local_time

```
tm* local_time = localtime(&ttime)
```

Definition at line 8 of file date.cpp.

5.86.2.2 ttime

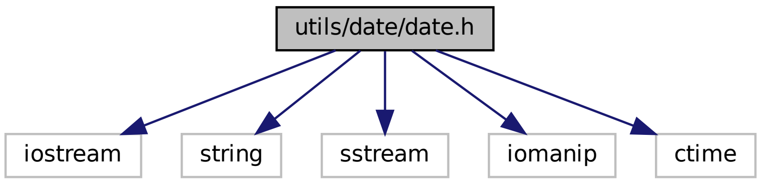
```
time_t ttime = time(nullptr)
```

Definition at line 7 of file date.cpp.

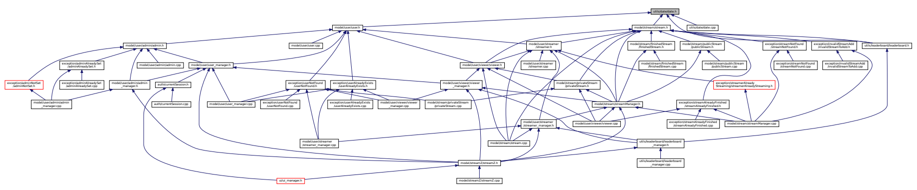
5.87 utils/date/date.h File Reference

```
#include <iostream>
#include <string>
#include <sstream>
#include <iomanip>
#include <ctime>
```

Include dependency graph for date.h:



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



Classes

- class Date

Macros

- #define PROJECT_DATE_H

Functions

- Date daysToDate (unsigned int days)
- Date timeElapsed (const Date &d1, const Date &d2)
- unsigned int numberOfDays (unsigned int year, unsigned int month)
- bool isLeap (unsigned int y)

5.87.1 Macro Definition Documentation

5.87.1.1 PROJECT_DATE_H

```
#define PROJECT_DATE_H
```

Definition at line 63 of file date.h.

5.87.2 Function Documentation

5.87.2.1 daysToDate()

```
Date daysToDate (
             unsigned int days )
```

Definition at line 258 of file date.cpp.

5.87.2.2 isLeap()

```
bool isLeap (
             unsigned int y )
```

Definition at line 129 of file date.cpp.

5.87.2.3 numberOfDays()

```
unsigned int numberOfDays (
             unsigned int year,
             unsigned int month )
```

Definition at line 134 of file date.cpp.

5.87.2.4 timeElapsed()

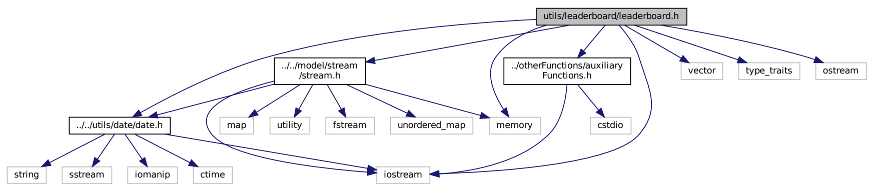
```
Date timeElapsed (
             const Date & d1,
             const Date & d2 )
```

Definition at line 273 of file date.cpp.

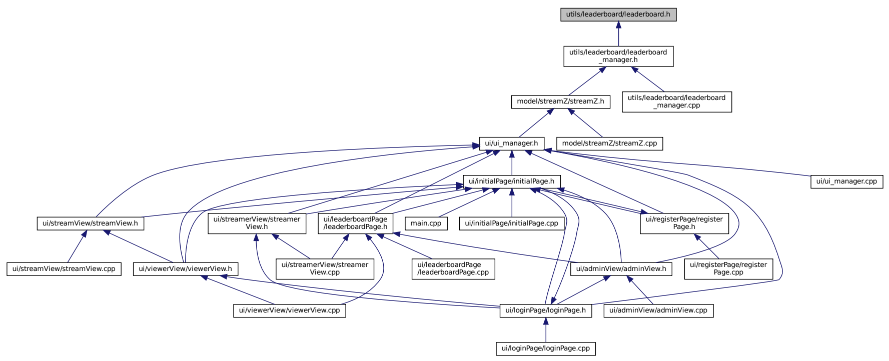
5.88 utils/leaderboard/leaderboard.h File Reference

```
#include <iostream>
#include <vector>
#include <memory>
#include <type_traits>
#include "../../model/stream/stream.h"
#include "../otherFunctions/auxiliaryFunctions.h"
#include "../date/date.h"
#include <ostream>
```

Include dependency graph for leaderboard.h:



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


utils/leaderboard/leaderboard.h
utils/leaderboard/leaderboard
_manager.h
model/streamZ/streamZ.h
utils/leaderboard/leaderboard
_manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamer
View.h
ui/leaderboardPage
/leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/register
Page.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamer
View.cpp
ui/leaderboardPage
/leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/register
Page.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

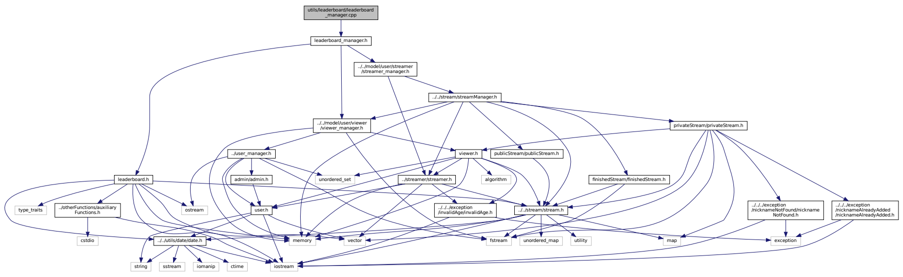
Classes

- class Leaderboard< N >

5.89 utils/leaderboard/leaderboard_manager.cpp File Reference

```
#include "leaderboard_manager.h"
```

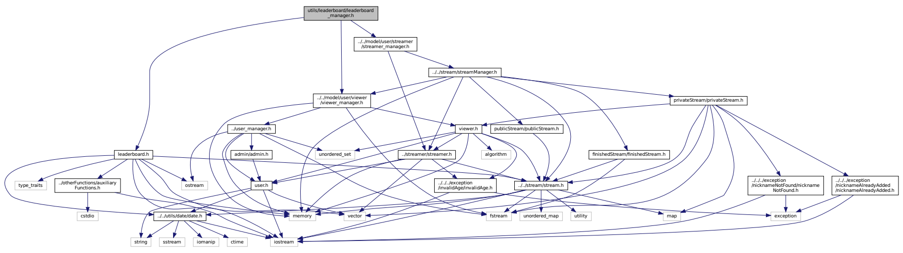
Include dependency graph for leaderboard_manager.cpp:



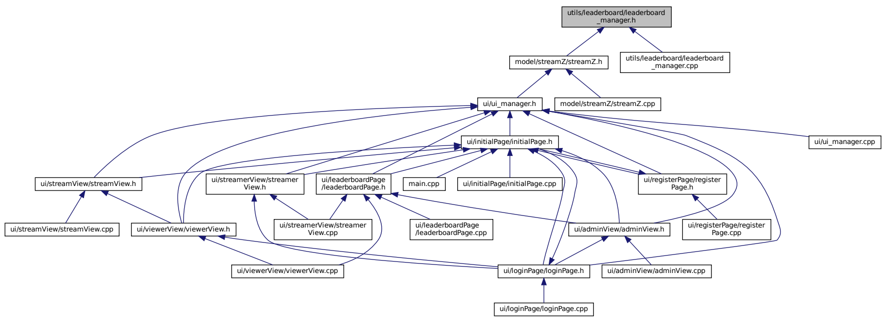
5.90 utils/leaderboard/leaderboard_manager.h File Reference

```
#include "../../model/user/viewer/viewer_manager.h"
#include "../../model/user/streamer/streamer_manager.h"
#include "leaderboard.h"
```

Include dependency graph for leaderboard_manager.h:



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


utils/leaderboard/leaderboard_manager.h
model/streamZ/streamZ.h
utils/leaderboard/leaderboard_manager.cpp
ui/ui_manager.h
model/streamZ/streamZ.cpp
ui/initialPage/initialPage.h
ui/ui_manager.cpp
ui/streamView/streamView.h
ui/streamerView/streamerView.h
ui/leaderboardPage/leaderboardPage.h
main.cpp
ui/initialPage/initialPage.cpp
ui/registerPage/registerPage.h
ui/streamView/streamView.cpp
ui/viewerView/viewerView.h
ui/streamerView/streamerView.cpp
ui/leaderboardPage/leaderboardPage.cpp
ui/adminView/adminView.h
ui/registerPage/registerPage.cpp
ui/viewerView/viewerView.cpp
ui/loginPage/loginPage.h
ui/adminView/adminView.cpp
ui/loginPage/loginPage.cpp

Classes

- class LeaderboardManager

Enumerations

- enum SortStream {
  SortStream::MINIMUM_AGE, SortStream::LANGUAGE, SortStream::GENRE, SortStream::VIEWS,
  SortStream::LIKES, SortStream::DATE, SortStream::TYPE }
- enum SortUser {
  SortUser::NAME, SortUser::NICKNAME, SortUser::BIRTHDATE, SortUser::JOINDATE,
  SortUser::USERTYPE }
- enum SortViewer {
  SortViewer::NAME, SortViewer::NICKNAME, SortViewer::BIRTHDATE, SortViewer::JOINDATE,
  SortViewer::WATCHING_STREAM, SortViewer::NUM_OF_WATCHED_STREAMS }
- enum SortStreamer {
  SortStreamer::NAME, SortStreamer::NICKNAME, SortStreamer::BIRTHDATE, SortStreamer::JOINDATE,
  SortStreamer::VIEWCOUNT, SortStreamer::STREAMING, SortStreamer::NUM_FOLLOWERS }

5.90.1 Enumeration Type Documentation

5.90.1.1 SortStream

```
enum SortStream  [strong]
```

Enumerator

MINIMUM_AGE	
LANGUAGE	
GENRE	
VIEWS	
LIKES	
DATE	
TYPE	

Definition at line 13 of file leaderboard_manager.h.

5.90.1.2 SortStreamer

```
enum SortStreamer  [strong]
```

Enumerator

NAME	
NICKNAME	
BIRTHDATE	
JOINDATE	
VIEWCOUNT	
STREAMING	
NUM_FOLLOWERS	

Definition at line 40 of file leaderboard_manager.h.

5.90.1.3 SortUser

```
enum SortUser  [strong]
```

Enumerator

NAME	
NICKNAME	
BIRTHDATE	
JOINDATE	
USERTYPE	

Definition at line 23 of file leaderboard_manager.h.

5.90.1.4 SortViewer

```
enum SortViewer  [strong]
```

Enumerator

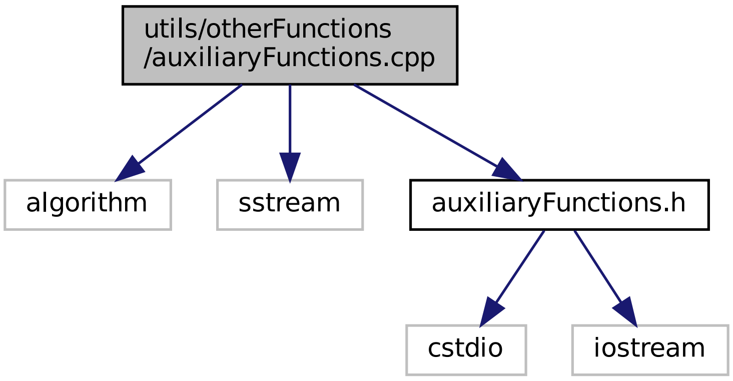
NAME	
NICKNAME	
BIRTHDATE	
JOINDATE	
WATCHING_STREAM	
NUM_OF_WATCHED_STREAMS	

Definition at line 31 of file leaderboard_manager.h.

5.91 utils/otherFunctions/auxiliaryFunctions.cpp File Reference

```
#include <algorithm>
#include <sstream>
#include "auxiliaryFunctions.h"
```

Include dependency graph for auxiliaryFunctions.cpp:



Functions

- bool is_number (const std::string &s)
- unsigned int inputNumber ()
- void getlineCIN (std::string &s)
- std::string shrinkToColumnSize (std::string value)

5.91.1 Function Documentation

5.91.1.1 getlineCIN()

```
void getlineCIN (
            std::string & s )
```

Definition at line 77 of file auxiliaryFunctions.cpp.

5.91.1.2 inputNumber()

```
unsigned int inputNumber ( )
```

Definition at line 64 of file auxiliaryFunctions.cpp.

5.91.1.3 is_number()

```
bool is_number (
            const std::string & s )
```

Definition at line 58 of file auxiliaryFunctions.cpp.

5.91.1.4 shrinkToColumnSize()

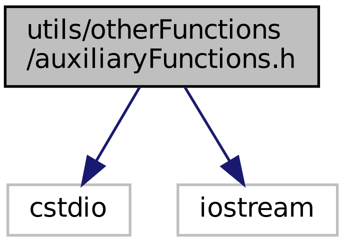
```
std::string shrinkToColumnSize (
            std::string value )
```

Definition at line 83 of file auxiliaryFunctions.cpp.

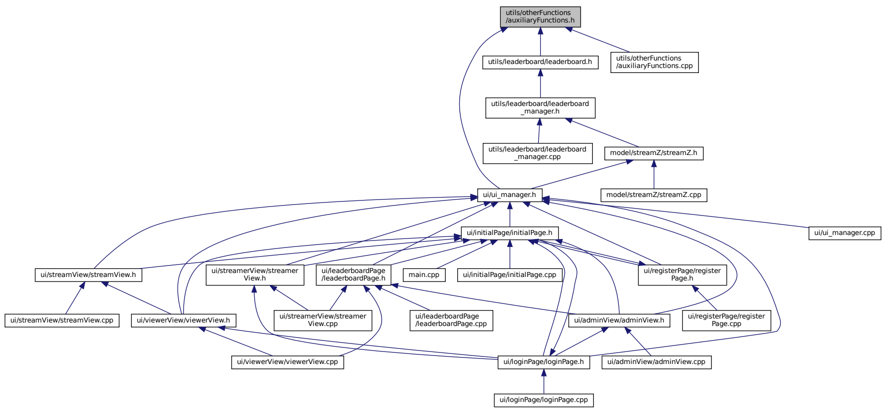
5.92 utils/otherFunctions/auxiliaryFunctions.h File Reference

```
#include <cstdio>
#include <iostream>
```

Include dependency graph for auxiliaryFunctions.h:



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



Functions

- char _getch_ ()
- bool is_number (const std::string &s)
- unsigned int inputNumber ()
- void getlineCIN (std::string &s)
- std::string shrinkToColumnSize (std::string value)

Variables

- constexpr const char ∗ CLEAR_SCREEN = "\x1b[2J"
- constexpr const char ∗ LINE_UP = "\033[A"
- constexpr const char ∗ CLEAR_LINE = "\x1b[2K"
- constexpr const char ∗ GO_TO_BEGINNING_OF_LINE = "\x1b[0G"
- constexpr const char ∗ RESET = "\x1b[0m"
- constexpr const char ∗ HIDE_CURSOR = "\x1b[?25l"
- constexpr const char ∗ SHOW_CURSOR = "\x1b[?25h"
- constexpr const char ∗ GO_TO_TOP = "\033[1;1H"
- constexpr const char ∗ ESC = "\033"
- constexpr const int WIDTH = 15

5.92.1 Function Documentation

5.92.1.1 _getch_()

```
char _getch_ ( )
```

5.92.1.2 getlineCIN()

```
void getlineCIN (
             std::string & s )
```

Definition at line 77 of file auxiliaryFunctions.cpp.

5.92.1.3 inputNumber()

```
unsigned int inputNumber ( )
```

Definition at line 64 of file auxiliaryFunctions.cpp.

5.92.1.4 is_number()

```
bool is_number (
            const std::string & s )
```

Definition at line 58 of file auxiliaryFunctions.cpp.

5.92.1.5 shrinkToColumnSize()

```
std::string shrinkToColumnSize (
            std::string value )
```

Definition at line 83 of file auxiliaryFunctions.cpp.

5.92.2 Variable Documentation

5.92.2.1 CLEAR_LINE

```
constexpr const char* CLEAR_LINE = "\x1b[2K"  [constexpr]
```

Definition at line 19 of file auxiliaryFunctions.h.

5.92.2.2 CLEAR_SCREEN

```
constexpr const char* CLEAR_SCREEN = "\x1b[2J"  [constexpr]
```

Definition at line 17 of file auxiliaryFunctions.h.

5.92.2.3 ESC

```
constexpr const char* ESC = "\033"  [constexpr]
```

Definition at line 25 of file auxiliaryFunctions.h.

5.92.2.4 GO_TO_BEGINNING_OF_LINE

```
constexpr const char* GO_TO_BEGINNING_OF_LINE = "\x1b[0G"  [constexpr]
```

Definition at line 20 of file auxiliaryFunctions.h.

5.92.2.5 GO_TO_TOP

```
constexpr const char* GO_TO_TOP = "\033[1;1H"  [constexpr]
```

Definition at line 24 of file auxiliaryFunctions.h.

5.92.2.6 HIDE_CURSOR

```
constexpr const char* HIDE_CURSOR = "\x1b[?25l"  [constexpr]
```

Definition at line 22 of file auxiliaryFunctions.h.

5.92.2.7 LINE_UP

```
constexpr const char* LINE_UP = "\033[A"  [constexpr]
```

Definition at line 18 of file auxiliaryFunctions.h.

5.92.2.8 RESET

```
constexpr const char* RESET = "\x1b[0m"  [constexpr]
```

Definition at line 21 of file auxiliaryFunctions.h.

5.92.2.9 SHOW_CURSOR

```
constexpr const char* SHOW_CURSOR = "\x1b[?25h"  [constexpr]
```

Definition at line 23 of file auxiliaryFunctions.h.

5.92.2.10 WIDTH

```
constexpr const int WIDTH = 15  [constexpr]
```

Definition at line 26 of file auxiliaryFunctions.h.