

iLearnRW

0.0.1

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## Chapter 1

# Main Page

iLearnRW developer repository



## Chapter 2

# Log format

### Actions

- Add difficult word
- Remove difficult word

Profile	Marker	TimeStamp	Action	Value
child1	teacher1	2013-06-14	ADD	cat
child1	child1	2013-06-14	REMOVE	cat



## Chapter 3

# About

This document was generated using Doxygen from a number of (mainly) stub classes.

The documentation is published in the iLearnRW git repository. Currently located in the `playground/Data-Logger` directory.

To be able to build the documentation the following is required:

- Doxygen
- Latex
- Graphviz





## Chapter 4

# Namespace Documentation

### 4.1 Package ilearnrw

#### Packages

- package [datalogger](#)  
*ILogger package.*
- package [prototype](#)
- package [user](#)

### 4.2 Package ilearnrw.datalogger

ILogger package.

#### Classes

- interface [ILogger](#)
- interface [ILoginProvider](#)
- interface [IProfileAccessUpdater](#)  
*Interface to update profiles in the iLearnRW system.*
- class [ProfileAccessUpdater](#)

#### 4.2.1 Detailed Description

ILogger package.

##### Note

Exactly what package the [IProfileAccessUpdater](#) should be part of is still unknown.

### 4.3 Package ilearnrw.prototype

#### Packages

- package [application](#)

## 4.4 Package ilearnrw.prototype.application

### Classes

- class [program](#)

## 4.5 Package ilearnrw.user

### Classes

- class [Category](#)
- enum [GameAction](#)
- class [IlearnException](#)
- enum [LanguageCode](#)
- class [ProblemDefinition](#)
- class [ProblemDefinitionIndex](#)
- class [Subcategory](#)
- class [Tester](#)
- class [User](#)
- class [UserAction](#)
- class [UserDetails](#)
- class [UserPreferences](#)
- class [UserProblem](#)
- class [UserProblemsList](#)
- class [UserProfile](#)
- class [UserSession](#)

## Chapter 5

# Class Documentation

### 5.1 ilearnrw.user.Category Class Reference

Collaboration diagram for ilearnrw.user.Category:

ilearnrw.user.Category
<div>- title</div> <div>- isReadingProblem</div>
<div>+ Category()</div> <div>+ getTitle()</div> <div>+ setTitle()</div> <div>+ isReadingProblem()</div> <div>+ setReadingProblem()</div> <div>+ equals()</div> <div>+ toString()</div>

#### Public Member Functions

- [Category](#) (String [title](#), boolean [isReadingProblem](#))
- String [getTitle](#) ()
- void [setTitle](#) (String [title](#))
- boolean [isReadingProblem](#) ()
- void [setReadingProblem](#) (boolean [isReadingProblem](#))
- boolean [equals](#) (Object obj)
- String [toString](#) ()

#### Private Attributes

- String [title](#)
- boolean [isReadingProblem](#)

### 5.1.1 Constructor & Destructor Documentation

#### 5.1.1.1 `ilearnrw.user.Category.Category ( String title, boolean isReadingProblem )`

References [ilearnrw.user.Category.isReadingProblem\(\)](#), and [ilearnrw.user.Category.title](#).

Referenced by [ilearnrw.user.Category.equals\(\)](#).

### 5.1.2 Member Function Documentation

#### 5.1.2.1 `boolean ilearnrw.user.Category.equals ( Object obj )`

References [ilearnrw.user.Category.Category\(\)](#), [ilearnrw.user.Category.getTitle\(\)](#), and [ilearnrw.user.Category.title](#).

#### 5.1.2.2 `String ilearnrw.user.Category.getTitle ( )`

References [ilearnrw.user.Category.title](#).

Referenced by [ilearnrw.user.Category.equals\(\)](#), and [ilearnrw.user.Subcategory.equals\(\)](#).

#### 5.1.2.3 `boolean ilearnrw.user.Category.isReadingProblem ( )`

Referenced by [ilearnrw.user.Category.Category\(\)](#), [ilearnrw.user.Category.setReadingProblem\(\)](#), and [ilearnrw.user.Category.toString\(\)](#).

#### 5.1.2.4 `void ilearnrw.user.Category.setReadingProblem ( boolean isReadingProblem )`

References [ilearnrw.user.Category.isReadingProblem\(\)](#).

#### 5.1.2.5 `void ilearnrw.user.Category.setTitle ( String title )`

References [ilearnrw.user.Category.title](#).

#### 5.1.2.6 `String ilearnrw.user.Category.toString ( )`

References [ilearnrw.user.Category.isReadingProblem\(\)](#), and [ilearnrw.user.Category.title](#).

### 5.1.3 Member Data Documentation

#### 5.1.3.1 `boolean ilearnrw.user.Category.isReadingProblem [private]`

#### 5.1.3.2 `String ilearnrw.user.Category.title [private]`

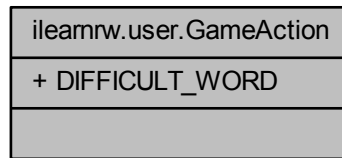
Referenced by [ilearnrw.user.Category.Category\(\)](#), [ilearnrw.user.Category.equals\(\)](#), [ilearnrw.user.Category.getTitle\(\)](#), [ilearnrw.user.Category.setTitle\(\)](#), and [ilearnrw.user.Category.toString\(\)](#).

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

- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/Category.java`

## 5.2 ilearnrw.user.GameAction Enum Reference

Collaboration diagram for ilearnrw.user.GameAction:



### Public Attributes

- [DIFFICULT\\_WORD](#)

#### 5.2.1 Member Data Documentation

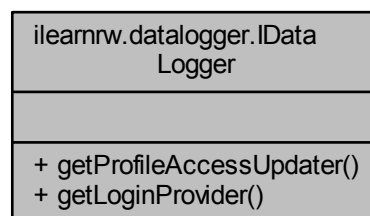
##### 5.2.1.1 ilearnrw.user.GameAction.DIFFICULT\_WORD

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

- [C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/GameAction.java](#)

## 5.3 ilearnrw.datalogger.IDataLogger Interface Reference

Collaboration diagram for ilearnrw.datalogger.IDataLogger:



### Public Member Functions

- [IProfileAccessUpdater](#) `getProfileAccessUpdater()`
- [ILoginProvider](#) `getLoginProvider()`

### 5.3.1 Member Function Documentation

5.3.1.1 `ILoginProvider` `ilearnrw.datalogger.IDataLogger.getLoginProvider ( )`

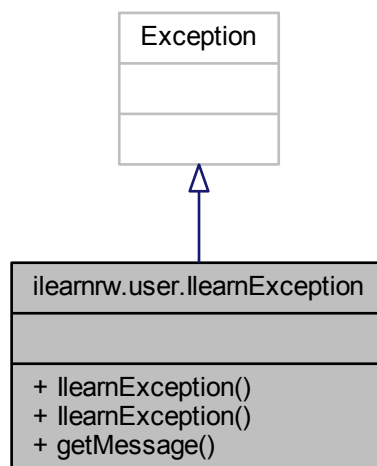
5.3.1.2 `IProfileAccessUpdater` `ilearnrw.datalogger.IDataLogger.getProfileAccessUpdater ( )`

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

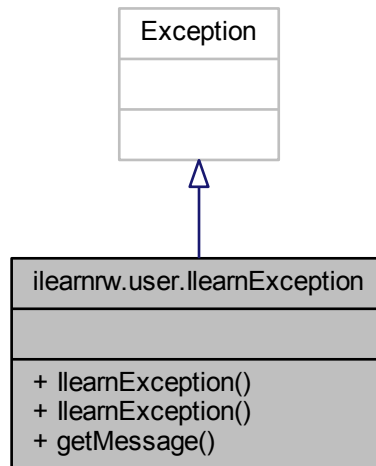
- <C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/IDataLogger.java>

## 5.4 ilearnrw.user.IlearnException Class Reference

Inheritance diagram for `ilearnrw.user.IlearnException`:



Collaboration diagram for ilearnrw.user.IlearnException:



## Public Member Functions

- [IlearnException](#) (String message)
- [IlearnException](#) (String message, Throwable throwable)
- String [getMessage](#) ()

### 5.4.1 Constructor & Destructor Documentation

5.4.1.1 `ilearnrw.user.IlearnException.IlearnException ( String message )`

5.4.1.2 `ilearnrw.user.IlearnException.IlearnException ( String message, Throwable throwable )`

### 5.4.2 Member Function Documentation

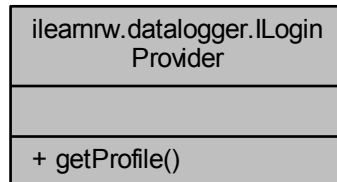
5.4.2.1 `String ilearnrw.user.IlearnException.getMessage ( )`

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

- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/IlearnException.java`

## 5.5 ilearnrw.datalogger.ILoginProvider Interface Reference

Collaboration diagram for ilearnrw.datalogger.ILoginProvider:



### Public Member Functions

- [UserProfile](#) `getProfile` (String *UserName*, String *Password*)

*Authenticates a User.*

### 5.5.1 Member Function Documentation

#### 5.5.1.1 `UserProfile` `ilearnrw.datalogger.ILoginProvider.getProfile` ( String *UserName*, String *Password* )

Authenticates a User.

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

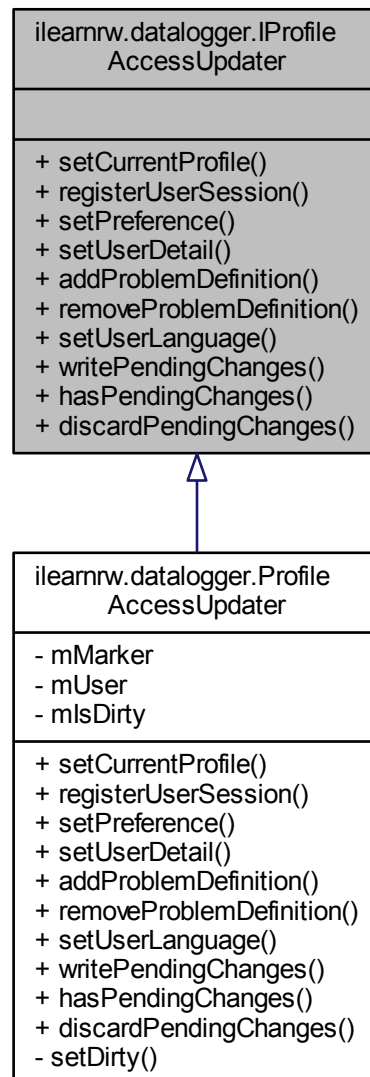
- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/ILoginProider.java`

## 5.6 ilearnrw.datalogger.IProfileAccessUpdater Interface Reference

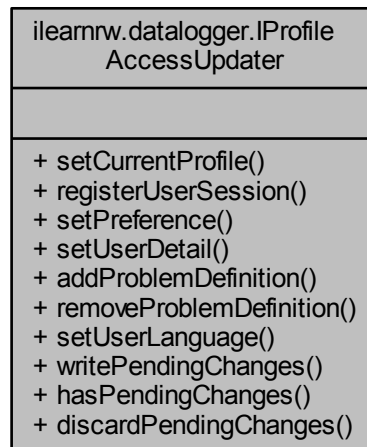
Interface to update profiles in the iLearnRW system.



Inheritance diagram for ilearnrw.datalogger.IProfileAccessUpdater:



Collaboration diagram for `ilearnrw.datalogger.IProfileAccessUpdater`:



## Classes

- class [PendingChangesAvailable](#)  
*Indicates that an action cannot be performed due to pending changes.*
- class [PermissionException](#)  
*The marker does not have permission to perform the requested change.*

## Public Member Functions

- boolean [setCurrentProfile](#) ([UserProfile](#) profile, [UserProfile](#) markerProfile) throws `PermissionException`, `PendingChangesAvailable`  
*Sets the userprofile to work with and who will be the `marker` for the changes.*
- boolean [registerUserSession](#) ([UserSession](#) session)  
*Registers a new User session in the log.*
- boolean [setPreference](#) ([UserPreferences](#) preferences)  
*Registers a change to the users preferences.*
- boolean [setUserDetail](#) ([UserDetails](#) userDetails)  
*Updates a UserDetail.*
- boolean [addProblemDefinition](#) (String URI)  
*Adds a predefined ProblemDefinition to the user profile.*
- boolean [removeProblemDefinition](#) (String URI)  
*Removes a ProblemDefinition.*
- boolean [setUserLanguage](#) ([LanguageCode](#) Language)  
*Sets the userlanguage.*
- [UserProfile](#) [writePendingChanges](#) ()  
*Writes unwritten changes to the back end (persistent storage).*
- boolean [hasPendingChanges](#) ()  
*Checks if there are any changes pending.*
- boolean [discardPendingChanges](#) ()  
*Discards all pending changes.*

### 5.6.1 Detailed Description

Interface to update profiles in the iLearnRW system.

This interface assumes that `Apps` would get a read-only copy of the users profile and would then have to use this interface to make changes to the profile. When the profile has been updated a new readonly copy would have to be fetched.

A nice side-effect is that we can make sure to log all changes to the profile.

Updater also manages

Registry - Handles/stores users/profiles.

UserAdd/delete etc.. Get user (given userid, password)

### 5.6.2 Member Function Documentation

#### 5.6.2.1 `boolean ilearnrw.datalogger.IProfileAccessUpdater.addProblemDefinition ( String URI )`

Adds a predefined `ProblemDefinition` to the user profile.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.2 `boolean ilearnrw.datalogger.IProfileAccessUpdater.discardPendingChanges ( )`

Discards all pending changes.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.3 `boolean ilearnrw.datalogger.IProfileAccessUpdater.hasPendingChanges ( )`

Checks if there are any changes pending.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.4 `boolean ilearnrw.datalogger.IProfileAccessUpdater.registerUserSession ( UserSession session )`

Registers a new User session in the log.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.5 `boolean ilearnrw.datalogger.IProfileAccessUpdater.removeProblemDefinition ( String URI )`

Removes a `ProblemDefinition`.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.6 `boolean ilearnrw.datalogger.IProfileAccessUpdater.setCurrentProfile ( UserProfile profile, UserProfile markerProfile ) throws PermissionException, PendingChangesAvailable`

Sets the userprofile to work with and who will be the `marker` for the changes.

Doing this once saves the application from passing the userprofile to all functions.

The `marker` can be the same as the profile to be edited.

## Exceptions

<a href="#"><i>PermissionException</i></a>	Thrown when the admin profile does not have permissions to update the profile.
<a href="#"><i>PendingChangesAvailable</i></a>	Thrown when there are pending changes are available.

## Parameters

<i>profile</i>	Profile of the user to update
<i>markerProfile</i>	Profile of the user who is doing the update

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.7 boolean ilearnrw.datalogger.IProfileAccessUpdater.setPreference ( *UserPreferences preferences* )

Registers a change to the users preferences.

Should changes to user preferences be logged so that teachers/experts can be notified/see that a preference has been changed?

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.8 boolean ilearnrw.datalogger.IProfileAccessUpdater.setUserDetail ( *UserDetails userDetails* )

Updates a UserDetail.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.9 boolean ilearnrw.datalogger.IProfileAccessUpdater.setUserLanguage ( *LanguageCode language* )

Sets the userlanguage.

Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

#### 5.6.2.10 *UserProfile* ilearnrw.datalogger.IProfileAccessUpdater.writePendingChanges ( )

Writes unwritten changes to the back end (persistent storage).

This will flush all pending operations in the same order as they are added. This is important if for example the same preference is set twice.

## Returns

The new profile after the changes has been applied.

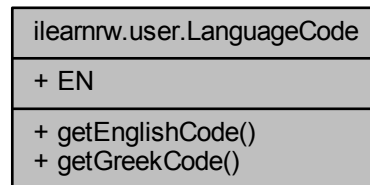
Implemented in [ilearnrw.datalogger.ProfileAccessUpdater](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/[IProfileAccessUpdater.java](#)

## 5.7 ilearnrw.user.LanguageCode Enum Reference

Collaboration diagram for ilearnrw.user.LanguageCode:



### Static Public Member Functions

- static byte [getEnglishCode](#) ()
- static byte [getGreekCode](#) ()

### Public Attributes

- [EN](#)

#### 5.7.1 Member Function Documentation

5.7.1.1 static byte ilearnrw.user.LanguageCode.getEnglishCode ( ) [static]

Referenced by [ilearnrw.user.UserDetails.setLanguage\(\)](#).

5.7.1.2 static byte ilearnrw.user.LanguageCode.getGreekCode ( ) [static]

#### 5.7.2 Member Data Documentation

5.7.2.1 ilearnrw.user.LanguageCode.EN

Referenced by [ilearnrw.user.UserProblemsList.loadProblems\(\)](#), [ilearnrw.user.UserDetails.setLanguage\(\)](#), and [ilearnrw.user.UserProfile.UserProfile\(\)](#).

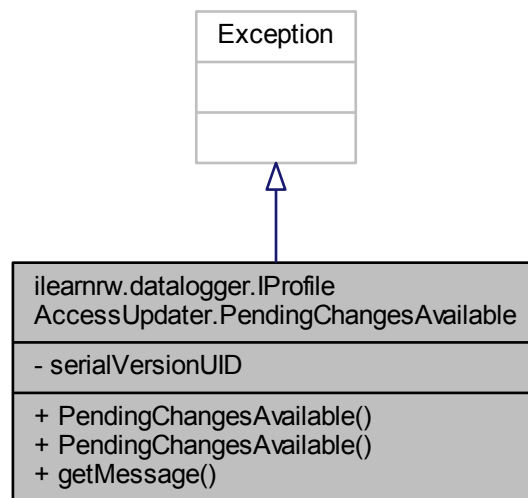
The documentation for this enum was generated from the following file:

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[LanguageCode.java](#)

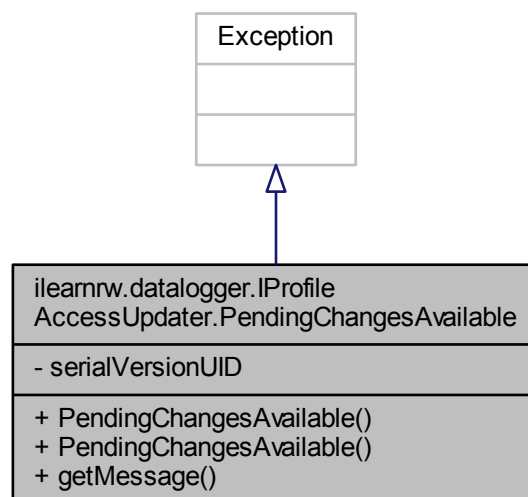
## 5.8 ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable Class Reference

Indicates that an action cannot be performed due to pending changes.

Inheritance diagram for `ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable`:



Collaboration diagram for `ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable`:



## Public Member Functions

- [PendingChangesAvailable](#) (String message)
- [PendingChangesAvailable](#) (String message, Throwable throwable)
- String [getMessage](#) ()

## Static Private Attributes

- static final long [serialVersionUID](#) = 1L

### 5.8.1 Detailed Description

Indicates that an action cannot be performed due to pending changes.

If the action was to be performed the pending changes would be lost.

### 5.8.2 Constructor & Destructor Documentation

5.8.2.1 `ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable.PendingChangesAvailable ( String message )`

5.8.2.2 `ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable.PendingChangesAvailable ( String message,  
Throwable throwable )`

### 5.8.3 Member Function Documentation

5.8.3.1 `String ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable.getMessage ( )`

### 5.8.4 Member Data Documentation

5.8.4.1 `final long ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable.serialVersionUID = 1L` `[static],`  
`[private]`

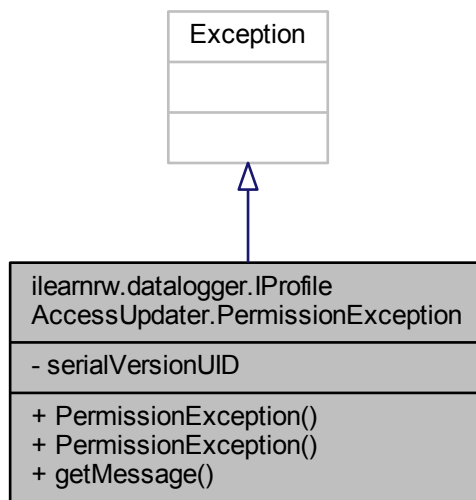
The documentation for this class was generated from the following file:

- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/IProfileAccessUpdater.java`

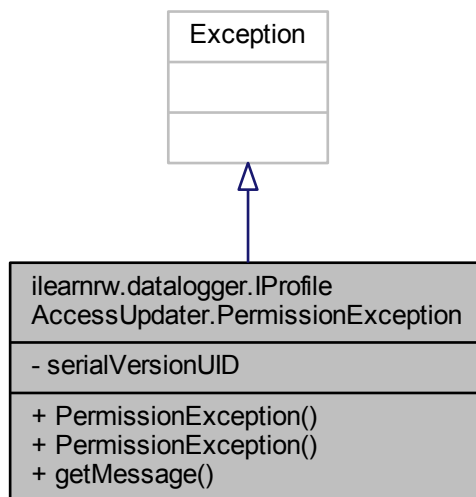
## 5.9 ilearnrw.datalogger.IProfileAccessUpdater.PermissionException Class Reference

The marker does not have permission to perform the requested change.

Inheritance diagram for `ilearnrw.datalogger.IProfileAccessUpdater.PermissionException`:



Collaboration diagram for `ilearnrw.datalogger.IProfileAccessUpdater.PermissionException`:



## Public Member Functions

- [PermissionException](#) (String message)
- [PermissionException](#) (String message, Throwable throwable)
- String [getMessage](#) ()



## Static Private Attributes

- static final long [serialVersionUID](#) = 1L

### 5.9.1 Detailed Description

The marker does not have permission to perform the requested change.

### 5.9.2 Constructor & Destructor Documentation

5.9.2.1 `ilearnrw.datalogger.IProfileAccessUpdater.PermissionException.PermissionException ( String message )`

5.9.2.2 `ilearnrw.datalogger.IProfileAccessUpdater.PermissionException.PermissionException ( String message, Throwable throwable )`

### 5.9.3 Member Function Documentation

5.9.3.1 `String ilearnrw.datalogger.IProfileAccessUpdater.PermissionException.getMessage ( )`

### 5.9.4 Member Data Documentation

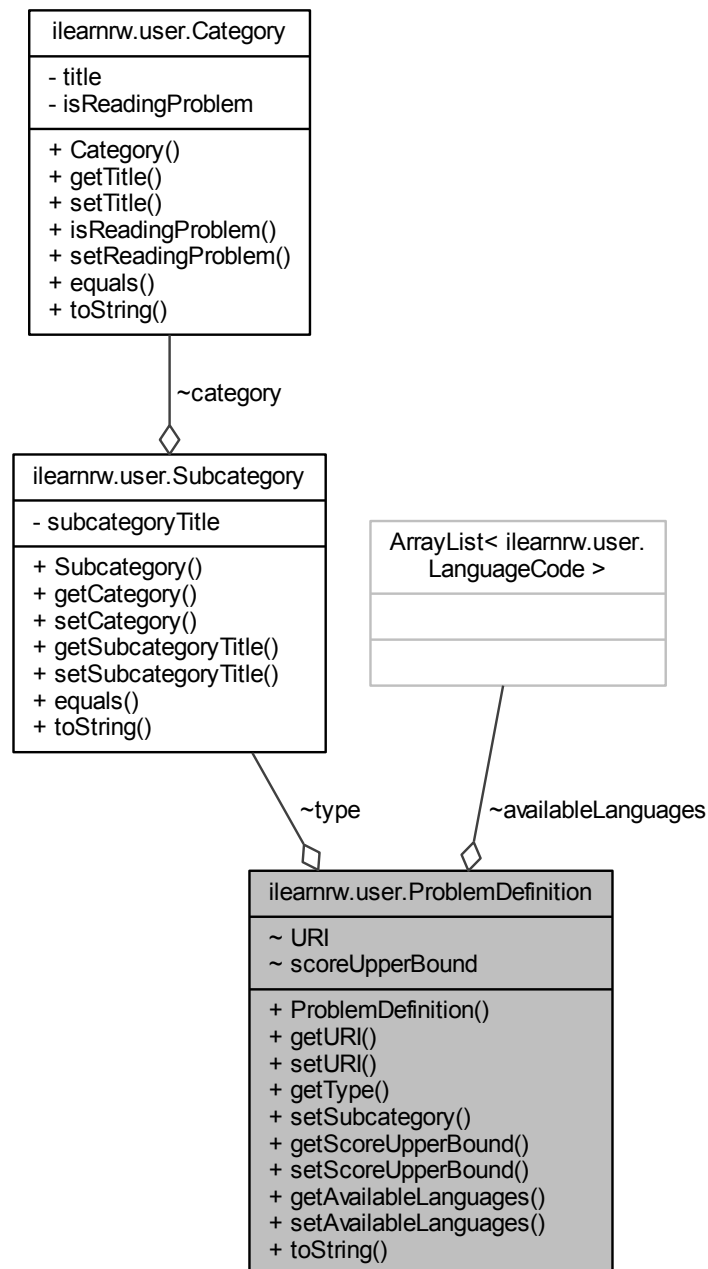
5.9.4.1 `final long ilearnrw.datalogger.IProfileAccessUpdater.PermissionException.serialVersionUID = 1L` `[static],`  
`[private]`

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

- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/IProfileAccessUpdater.java`

## 5.10 ilearnrw.user.ProblemDefinition Class Reference

Collaboration diagram for ilearnrw.user.ProblemDefinition:



### Public Member Functions

- `ProblemDefinition` (String `URI`, `Subcategory` `type`, int `scoreUpperBound`, ArrayList< `LanguageCode` > `availableLanguages`)
- String `getURI` ()

- void [setURI](#) (String uRI)
- [Subcategory](#) [getType](#) ()
- void [setSubcategory](#) ([Subcategory](#) type)
- int [getScoreUpperBound](#) ()
- void [setScoreUpperBound](#) (int [scoreUpperBound](#))
- ArrayList< [LanguageCode](#) > [getAvailableLanguages](#) ()
- void [setAvailableLanguages](#) (ArrayList< [LanguageCode](#) > [availableLanguages](#))
- String [toString](#) ()

### Package Attributes

- String [URI](#)
- [Subcategory](#) type
- int [scoreUpperBound](#)
- ArrayList< [LanguageCode](#) > [availableLanguages](#)

### 5.10.1 Constructor & Destructor Documentation

5.10.1.1 `ilearnrw.user.ProblemDefinition.ProblemDefinition ( String URI, Subcategory type, int scoreUpperBound, ArrayList< LanguageCode > availableLanguages )`

References [ilearnrw.user.ProblemDefinition.availableLanguages](#), [ilearnrw.user.ProblemDefinition.scoreUpperBound](#), [ilearnrw.user.ProblemDefinition.type](#), and [ilearnrw.user.ProblemDefinition.URI](#).

### 5.10.2 Member Function Documentation

5.10.2.1 `ArrayList<LanguageCode> ilearnrw.user.ProblemDefinition.getAvailableLanguages ( )`

References [ilearnrw.user.ProblemDefinition.availableLanguages](#).

Referenced by [ilearnrw.user.UserProblemsList.loadProblems\(\)](#).

5.10.2.2 `int ilearnrw.user.ProblemDefinition.getScoreUpperBound ( )`

References [ilearnrw.user.ProblemDefinition.scoreUpperBound](#).

Referenced by [ilearnrw.user.UserProblem.UserProblem\(\)](#).

5.10.2.3 `Subcategory ilearnrw.user.ProblemDefinition.getType ( )`

References [ilearnrw.user.ProblemDefinition.type](#).

5.10.2.4 `String ilearnrw.user.ProblemDefinition.getURI ( )`

References [ilearnrw.user.ProblemDefinition.URI](#).

5.10.2.5 `void ilearnrw.user.ProblemDefinition.setAvailableLanguages ( ArrayList< LanguageCode > availableLanguages )`

References [ilearnrw.user.ProblemDefinition.availableLanguages](#).

5.10.2.6 `void ilearnrw.user.ProblemDefinition.setScoreUpperBound ( int scoreUpperBound )`

References [ilearnrw.user.ProblemDefinition.scoreUpperBound](#).

#### 5.10.2.7 void `ilearnrw.user.ProblemDefinition.setSubcategory ( Subcategory type )`

References [ilearnrw.user.ProblemDefinition.type](#).

#### 5.10.2.8 void `ilearnrw.user.ProblemDefinition.setURI ( String uRI )`

References [ilearnrw.user.ProblemDefinition.URI](#).

#### 5.10.2.9 String `ilearnrw.user.ProblemDefinition.toString ( )`

References [ilearnrw.user.ProblemDefinition.availableLanguages](#), [ilearnrw.user.ProblemDefinition.scoreUpperBound](#), [ilearnrw.user.ProblemDefinition.type](#), and [ilearnrw.user.ProblemDefinition.URI](#).

### 5.10.3 Member Data Documentation

#### 5.10.3.1 `ArrayList<LanguageCode> ilearnrw.user.ProblemDefinition.availableLanguages` [package]

Referenced by [ilearnrw.user.ProblemDefinition.getAvailableLanguages\(\)](#), [ilearnrw.user.ProblemDefinition.ProblemDefinition\(\)](#), [ilearnrw.user.ProblemDefinition.setAvailableLanguages\(\)](#), and [ilearnrw.user.ProblemDefinition.toString\(\)](#).

#### 5.10.3.2 `int ilearnrw.user.ProblemDefinition.scoreUpperBound` [package]

Referenced by [ilearnrw.user.ProblemDefinition.getScoreUpperBound\(\)](#), [ilearnrw.user.ProblemDefinition.ProblemDefinition\(\)](#), [ilearnrw.user.ProblemDefinition.setScoreUpperBound\(\)](#), and [ilearnrw.user.ProblemDefinition.toString\(\)](#).

#### 5.10.3.3 `Subcategory ilearnrw.user.ProblemDefinition.type` [package]

Referenced by [ilearnrw.user.ProblemDefinition.getType\(\)](#), [ilearnrw.user.ProblemDefinition.ProblemDefinition\(\)](#), [ilearnrw.user.ProblemDefinition.setSubcategory\(\)](#), and [ilearnrw.user.ProblemDefinition.toString\(\)](#).

#### 5.10.3.4 `String ilearnrw.user.ProblemDefinition.URI` [package]

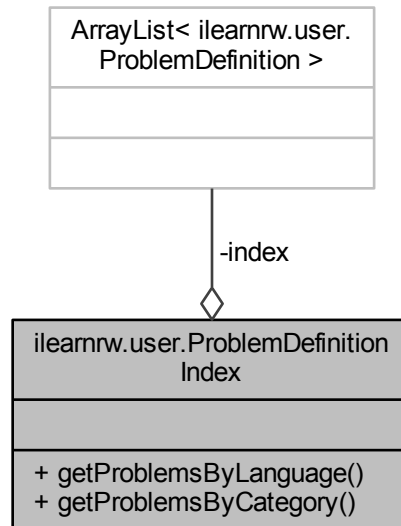
Referenced by [ilearnrw.user.ProblemDefinition.getURI\(\)](#), [ilearnrw.user.ProblemDefinition.ProblemDefinition\(\)](#), [ilearnrw.user.ProblemDefinition.setURI\(\)](#), and [ilearnrw.user.ProblemDefinition.toString\(\)](#).

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

- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/ProblemDefinition.java`

## 5.11 ilearnrw.user.ProblemDefinitionIndex Class Reference

Collaboration diagram for ilearnrw.user.ProblemDefinitionIndex:



### Public Member Functions

- `ArrayList< ProblemDefinition > getProblemsByLanguage (LanguageCode x)`
- `ArrayList< ProblemDefinition > getProblemsByCategory (Category x)`

### Private Attributes

- `ArrayList< ProblemDefinition > index`

### 5.11.1 Member Function Documentation

5.11.1.1 `ArrayList<ProblemDefinition> ilearnrw.user.ProblemDefinitionIndex.getProblemsByCategory ( Category x )`

References [ilearnrw.user.ProblemDefinitionIndex.index](#).

5.11.1.2 `ArrayList<ProblemDefinition> ilearnrw.user.ProblemDefinitionIndex.getProblemsByLanguage ( LanguageCode x )`

References [ilearnrw.user.ProblemDefinitionIndex.index](#).

### 5.11.2 Member Data Documentation

5.11.2.1 `ArrayList<ProblemDefinition> ilearnrw.user.ProblemDefinitionIndex.index` [private]

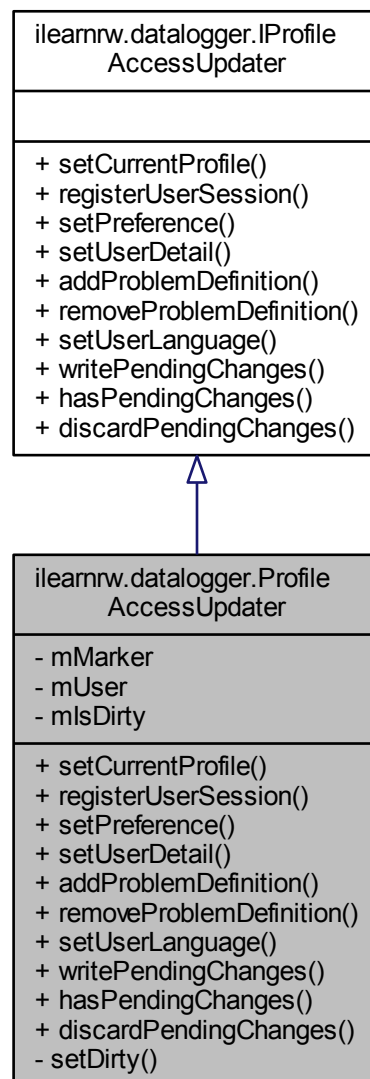
Referenced by [ilearnrw.user.ProblemDefinitionIndex.getProblemsByCategory\(\)](#), and [ilearnrw.user.ProblemDefinitionIndex.getProblemsByLanguage\(\)](#).

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

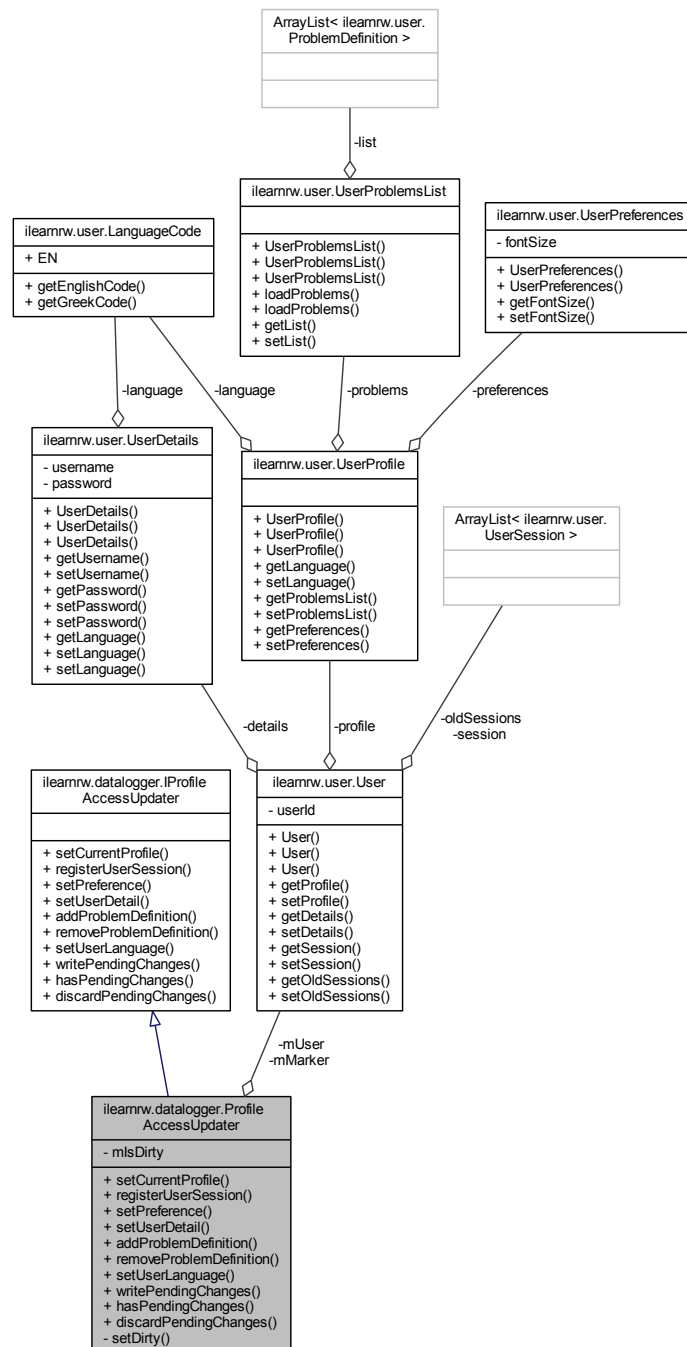
- [C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/ProblemDefinitionIndex.java](#)

## 5.12 ilearnrw.datalogger.ProfileAccessUpdater Class Reference

Inheritance diagram for `ilearnrw.datalogger.ProfileAccessUpdater`:



Collaboration diagram for ilearnrw.datalogger.ProfileAccessUpdater:



## Public Member Functions

- boolean `setCurrentProfile` (`UserProfile` profile, `UserProfile` markerProfile) throws `PermissionException`, - `PendingChangesAvailable`  
Sets the userprofile to work with and who will be the *marker* for the changes.
- boolean `registerUserSession` (`UserSession` session)  
Registers a new User session in the log.

- boolean [setPreference](#) ([UserPreferences](#) pref)  
*Registers a change to the users preferences.*
- boolean [setUserDetail](#) ([UserDetails](#) userDetails)  
*Updates a UserDetail.*
- boolean [addProblemDefinition](#) (String URI)  
*Adds a predefined ProblemDefinition to the user profile.*
- boolean [removeProblemDefinition](#) (String URI)  
*Removes a ProblemDefinition.*
- boolean [setUserLanguage](#) ([LanguageCode](#) Language)  
*Sets the userlanguage.*
- [UserProfile](#) [writePendingChanges](#) ()  
*Writes unwritten changes to the back end (persistent storage).*
- boolean [hasPendingChanges](#) ()  
*Checks if there are any changes pending.*
- boolean [discardPendingChanges](#) ()  
*Discards all pending changes.*

### Private Member Functions

- void [setDirty](#) ()

### Private Attributes

- [User](#) [mMarker](#)  
*The currently selected marker profile.*
- [User](#) [mUser](#)  
*The profile to be updated.*
- boolean [mIsDirty](#)  
*Access to storage-backend.*

## 5.12.1 Detailed Description

### Note

This class currently does not make use of the potential to log every action and the marker.

## 5.12.2 Member Function Documentation

### 5.12.2.1 boolean [ilearnrw.datalogger.ProfileAccessUpdater.addProblemDefinition](#) ( String *URI* )

Adds a predefined ProblemDefinition to the user profile.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

### 5.12.2.2 boolean [ilearnrw.datalogger.ProfileAccessUpdater.discardPendingChanges](#) ( )

Discards all pending changes.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).



## 5.12.2.3 boolean ilearnrw.datalogger.ProfileAccessUpdater.hasPendingChanges ( )

Checks if there are any changes pending.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

5.12.2.4 boolean ilearnrw.datalogger.ProfileAccessUpdater.registerUserSession ( *UserSession session* )

Registers a new User session in the log.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

5.12.2.5 boolean ilearnrw.datalogger.ProfileAccessUpdater.removeProblemDefinition ( *String URI* )

Removes a ProblemDefinition.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

5.12.2.6 boolean ilearnrw.datalogger.ProfileAccessUpdater.setCurrentProfile ( *UserProfile profile*, *UserProfile markerProfile* ) throws *PermissionException*, *PendingChangesAvailable*

Sets the userprofile to work with and who will be the `marker` for the changes.

Doing this once saves the application from passing the userprofile to all functions.

The `marker` can be the same as the profile to be edited.

## Exceptions

<i>PermissionException</i>	Thrown when the admin profile does not have permissions to update the profile.
<i>PendingChangesAvailable</i>	Thrown when there are pending changes are available.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

## 5.12.2.7 void ilearnrw.datalogger.ProfileAccessUpdater.setDirty ( ) [private]

References [ilearnrw.datalogger.ProfileAccessUpdater.mIsDirty](#).

Referenced by [ilearnrw.datalogger.ProfileAccessUpdater.setPreference\(\)](#).

5.12.2.8 boolean ilearnrw.datalogger.ProfileAccessUpdater.setPreference ( *UserPreferences preferences* )

Registers a change to the users preferences.

Should changes to user preferences be logged so that teachers/experts can be notified/see that a preference has been changed?

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

References [ilearnrw.datalogger.ProfileAccessUpdater.setDirty\(\)](#).

5.12.2.9 boolean ilearnrw.datalogger.ProfileAccessUpdater.setUserDetail ( *UserDetails userDetails* )

Updates a UserDetail.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

#### 5.12.2.10 `boolean ilearnrw.datalogger.ProfileAccessUpdater.setUserLanguage ( LanguageCode Language )`

Sets the userlanguage.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

#### 5.12.2.11 `UserProfile ilearnrw.datalogger.ProfileAccessUpdater.writePendingChanges ( )`

Writes unwritten changes to the back end (persistent storage).

This will flush all pending operations in the same order as they are added. This is important if for example the same preference is set twice.

##### Returns

The new profile after the changes has been applied.

Implements [ilearnrw.datalogger.IProfileAccessUpdater](#).

References [ilearnrw.user.User.getProfile\(\)](#), and [ilearnrw.datalogger.ProfileAccessUpdater.mUser](#).

### 5.12.3 Member Data Documentation

#### 5.12.3.1 `boolean ilearnrw.datalogger.ProfileAccessUpdater.mIsDirty` `[private]`

Access to storage-backend.

Referenced by [ilearnrw.datalogger.ProfileAccessUpdater.setDirty\(\)](#).

#### 5.12.3.2 `User ilearnrw.datalogger.ProfileAccessUpdater.mMarker` `[private]`

The currently selected marker profile.

The marker profile is used to show who made a certain change/log in the system

#### 5.12.3.3 `User ilearnrw.datalogger.ProfileAccessUpdater.mUser` `[private]`

The profile to be updated.

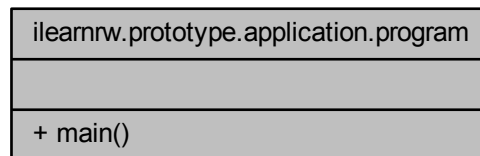
Referenced by [ilearnrw.datalogger.ProfileAccessUpdater.writePendingChanges\(\)](#).

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

- `C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/ProfileAccessUpdater.java`

## 5.13 ilearnrw.prototype.application.program Class Reference

Collaboration diagram for ilearnrw.prototype.application.program:



### Static Public Member Functions

- static void [main](#) (String[] args)

### 5.13.1 Member Function Documentation

5.13.1.1 static void `ilearnrw.prototype.application.program.main ( String[] args )` [static]

#### Parameters

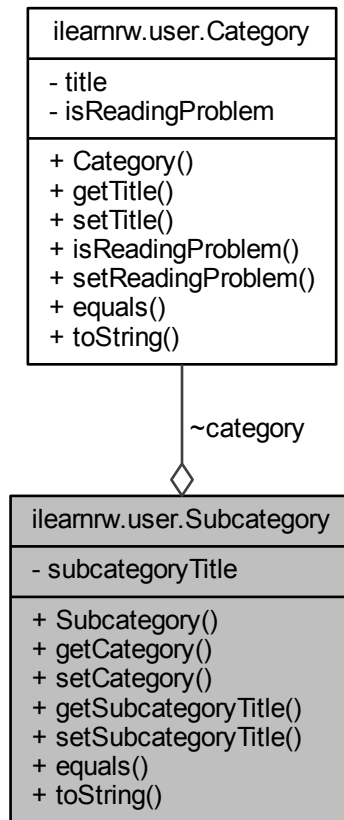
<i>args</i>	
-------------	--

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/prototype/application/[program.java](#)

## 5.14 ilearnrw.user.Subcategory Class Reference

Collaboration diagram for ilearnrw.user.Subcategory:



### Public Member Functions

- [Subcategory](#) (String [subcategoryTitle](#), [Category](#) [category](#))
- [Category](#) [getCategory](#) ()
- void [setCategory](#) ([Category](#) [category](#))
- String [getSubcategoryTitle](#) ()
- void [setSubcategoryTitle](#) (String [subcategoryTitle](#))
- boolean [equals](#) (Object obj)
- String [toString](#) ()

### Package Attributes

- [Category](#) [category](#)

### Private Attributes

- String [subcategoryTitle](#)

### 5.14.1 Constructor & Destructor Documentation

#### 5.14.1.1 ilearnrw.user.Subcategory.Subcategory ( String subcategoryTitle, Category category )

References [ilearnrw.user.Subcategory.category](#), and [ilearnrw.user.Subcategory.subcategoryTitle](#).

Referenced by [ilearnrw.user.Subcategory.equals\(\)](#).

### 5.14.2 Member Function Documentation

#### 5.14.2.1 boolean ilearnrw.user.Subcategory.equals ( Object obj )

References [ilearnrw.user.Subcategory.category](#), [ilearnrw.user.Subcategory.getCategory\(\)](#), [ilearnrw.user.Subcategory.getSubcategoryTitle\(\)](#), [ilearnrw.user.Category.getTitle\(\)](#), [ilearnrw.user.Subcategory.Subcategory\(\)](#), and [ilearnrw.user.Subcategory.subcategoryTitle](#).

#### 5.14.2.2 Category ilearnrw.user.Subcategory.getCategory ( )

References [ilearnrw.user.Subcategory.category](#).

Referenced by [ilearnrw.user.Subcategory.equals\(\)](#).

#### 5.14.2.3 String ilearnrw.user.Subcategory.getSubcategoryTitle ( )

References [ilearnrw.user.Subcategory.subcategoryTitle](#).

Referenced by [ilearnrw.user.Subcategory.equals\(\)](#).

#### 5.14.2.4 void ilearnrw.user.Subcategory.setCategory ( Category category )

References [ilearnrw.user.Subcategory.category](#).

#### 5.14.2.5 void ilearnrw.user.Subcategory.setSubcategoryTitle ( String subcategoryTitle )

References [ilearnrw.user.Subcategory.subcategoryTitle](#).

#### 5.14.2.6 String ilearnrw.user.Subcategory.toString ( )

References [ilearnrw.user.Subcategory.category](#), and [ilearnrw.user.Subcategory.subcategoryTitle](#).

### 5.14.3 Member Data Documentation

#### 5.14.3.1 Category ilearnrw.user.Subcategory.category [package]

Referenced by [ilearnrw.user.Subcategory.equals\(\)](#), [ilearnrw.user.Subcategory.getCategory\(\)](#), [ilearnrw.user.Subcategory.setCategory\(\)](#), [ilearnrw.user.Subcategory.Subcategory\(\)](#), and [ilearnrw.user.Subcategory.toString\(\)](#).

#### 5.14.3.2 String ilearnrw.user.Subcategory.subcategoryTitle [private]

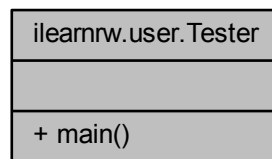
Referenced by [ilearnrw.user.Subcategory.equals\(\)](#), [ilearnrw.user.Subcategory.getSubcategoryTitle\(\)](#), [ilearnrw.user.Subcategory.setSubcategoryTitle\(\)](#), [ilearnrw.user.Subcategory.Subcategory\(\)](#), and [ilearnrw.user.Subcategory.toString\(\)](#).

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

- [C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/Subcategory.java](#)

## 5.15 ilearnrw.user.Tester Class Reference

Collaboration diagram for ilearnrw.user.Tester:



### Static Public Member Functions

- static void [main](#) (String[] args)

#### 5.15.1 Member Function Documentation

##### 5.15.1.1 static void ilearnrw.user.Tester.main ( String[] args ) [static]

###### Parameters

<i>args</i>	
-------------	--

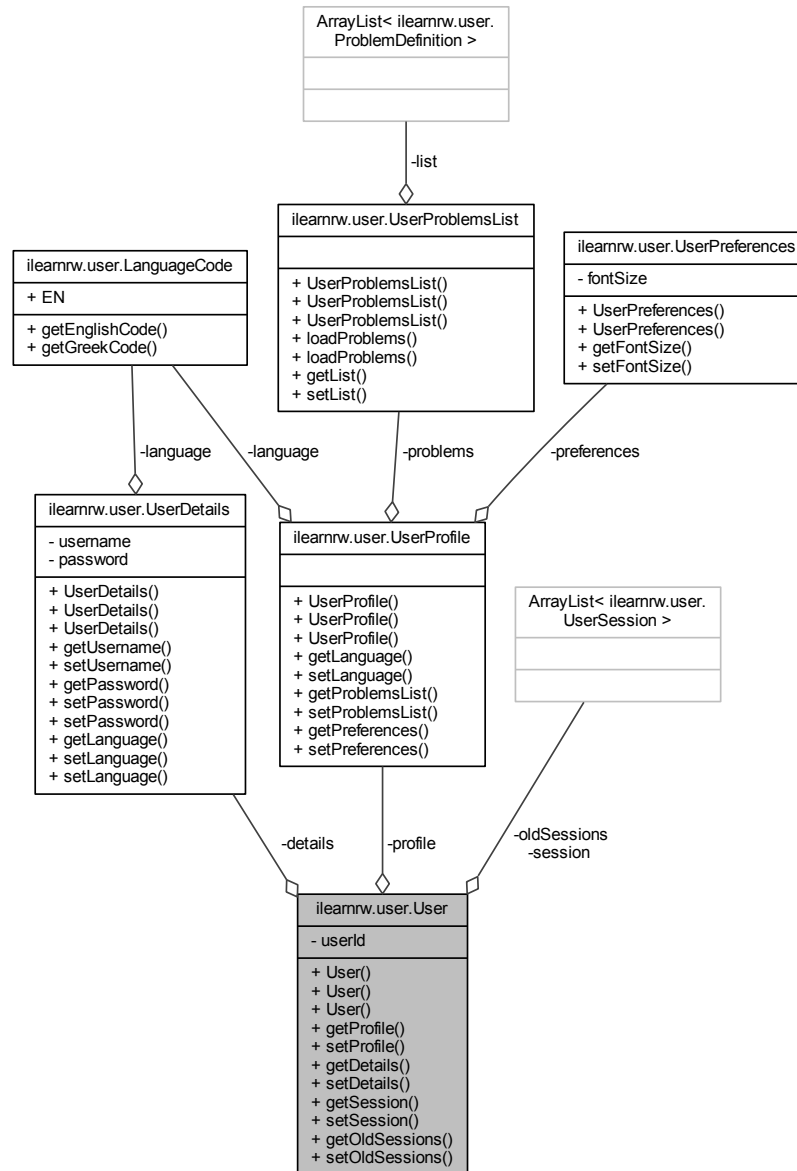
References [ilearnrw.user.UserProblemsList.getList\(\)](#), [ilearnrw.user.UserProfile.getProblemsList\(\)](#), and [ilearnrw.user.User.getProfile\(\)](#).

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

- [C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/Tester.java](#)

## 5.16 ilearnrw.user.User Class Reference

Collaboration diagram for ilearnrw.user.User:



### Public Member Functions

- `User (int userId, UserProfile profile, UserDetails details, ArrayList< UserSession > oldSessions)`
- `User (LanguageCode lc)`
- `User (int userId)`
- `UserProfile getProfile ()`
- `void setProfile (UserProfile profile)`
- `UserDetails getDetails ()`
- `void setDetails (UserDetails details)`
- `ArrayList< UserSession > getSession ()`

- void [setSession](#) ([ArrayList< UserSession > session](#))
- [ArrayList< UserSession > getOldSessions](#) ()
- void [setOldSessions](#) ([ArrayList< UserSession > oldSessions](#))

### Private Attributes

- int [userId](#)
- [UserProfile](#) [profile](#)
- [UserDetails](#) [details](#)
- [ArrayList< UserSession > session](#)
- [ArrayList< UserSession > oldSessions](#)

## 5.16.1 Constructor & Destructor Documentation

5.16.1.1 [ilearnrw.user.User.User](#) ( [int userId](#), [UserProfile profile](#), [UserDetails details](#), [ArrayList< UserSession > oldSessions](#) )

References [ilearnrw.user.User.details](#), [ilearnrw.user.User.oldSessions](#), [ilearnrw.user.User.profile](#), [ilearnrw.user.-User.session](#), and [ilearnrw.user.User.userId](#).

5.16.1.2 [ilearnrw.user.User.User](#) ( [LanguageCode lc](#) )

References [ilearnrw.user.User.details](#), [ilearnrw.user.User.oldSessions](#), [ilearnrw.user.User.profile](#), [ilearnrw.user.-User.session](#), and [ilearnrw.user.User.userId](#).

5.16.1.3 [ilearnrw.user.User.User](#) ( [int userId](#) )

References [ilearnrw.user.User.details](#), [ilearnrw.user.User.oldSessions](#), [ilearnrw.user.User.profile](#), [ilearnrw.user.-User.session](#), and [ilearnrw.user.User.userId](#).

## 5.16.2 Member Function Documentation

5.16.2.1 [UserDetails ilearnrw.user.User.getDetails](#) ( )

References [ilearnrw.user.User.details](#).

5.16.2.2 [ArrayList<UserSession> ilearnrw.user.User.getOldSessions](#) ( )

References [ilearnrw.user.User.oldSessions](#).

5.16.2.3 [UserProfile ilearnrw.user.User.getProfile](#) ( )

References [ilearnrw.user.User.profile](#).

Referenced by [ilearnrw.user.Tester.main\(\)](#), and [ilearnrw.datalogger.ProfileAccessUpdater.writePendingChanges\(\)](#).

5.16.2.4 [ArrayList<UserSession> ilearnrw.user.User.getSession](#) ( )

References [ilearnrw.user.User.session](#).



5.16.2.5 void ilearnrw.user.User.setDetails ( **UserDetails** *details* )

References [ilearnrw.user.User.details](#).

5.16.2.6 void ilearnrw.user.User.setOldSessions ( **ArrayList**< **UserSession** > *oldSessions* )

References [ilearnrw.user.User.oldSessions](#).

5.16.2.7 void ilearnrw.user.User.setProfile ( **UserProfile** *profile* )

References [ilearnrw.user.User.profile](#).

5.16.2.8 void ilearnrw.user.User.setSession ( **ArrayList**< **UserSession** > *session* )

References [ilearnrw.user.User.session](#).

### 5.16.3 Member Data Documentation

5.16.3.1 **UserDetails** ilearnrw.user.User.details [private]

Referenced by [ilearnrw.user.User.getDetails\(\)](#), [ilearnrw.user.User.setDetails\(\)](#), and [ilearnrw.user.User.User\(\)](#).

5.16.3.2 **ArrayList**<**UserSession**> ilearnrw.user.User.oldSessions [private]

Referenced by [ilearnrw.user.User.getOldSessions\(\)](#), [ilearnrw.user.User.setOldSessions\(\)](#), and [ilearnrw.user.User.-User\(\)](#).

5.16.3.3 **UserProfile** ilearnrw.user.User.profile [private]

Referenced by [ilearnrw.user.User.getProfile\(\)](#), [ilearnrw.user.User.setProfile\(\)](#), and [ilearnrw.user.User.User\(\)](#).

5.16.3.4 **ArrayList**<**UserSession**> ilearnrw.user.User.session [private]

Referenced by [ilearnrw.user.User.getSession\(\)](#), [ilearnrw.user.User.setSession\(\)](#), and [ilearnrw.user.User.User\(\)](#).

5.16.3.5 int ilearnrw.user.User.userId [private]

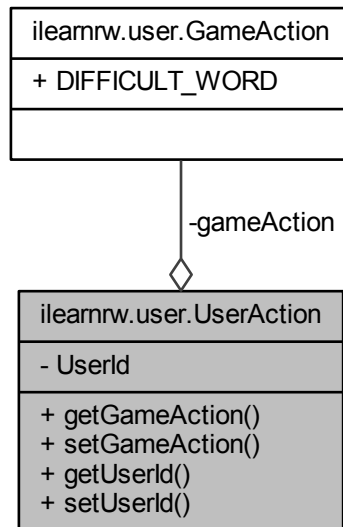
Referenced by [ilearnrw.user.User.User\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[User.java](#)

## 5.17 ilearnrw.user.UserAction Class Reference

Collaboration diagram for ilearnrw.user.UserAction:



### Public Member Functions

- [GameAction](#) [getGameAction](#) ( )
- void [setGameAction](#) ([GameAction](#) [gameAction](#))
- int [getUserId](#) ( )
- void [setUserId](#) (int [userId](#))

### Private Attributes

- [GameAction](#) [gameAction](#)
- int [UserId](#)

### 5.17.1 Member Function Documentation

#### 5.17.1.1 [GameAction](#) [ilearnrw.user.UserAction.getGameAction](#) ( )

References [ilearnrw.user.UserAction.gameAction](#).

#### 5.17.1.2 int [ilearnrw.user.UserAction.getUserId](#) ( )

References [ilearnrw.user.UserAction.UserId](#).

#### 5.17.1.3 void [ilearnrw.user.UserAction.setGameAction](#) ( [GameAction](#) [gameAction](#) )

References [ilearnrw.user.UserAction.gameAction](#).

5.17.1.4 void ilearnrw.user.UserAction.setUserId ( int *userId* )

References [ilearnrw.user.UserAction.UserId](#).

## 5.17.2 Member Data Documentation

5.17.2.1 GameAction ilearnrw.user.UserAction.gameAction [private]

Referenced by [ilearnrw.user.UserAction.getGameAction\(\)](#), and [ilearnrw.user.UserAction.setGameAction\(\)](#).

5.17.2.2 int ilearnrw.user.UserAction.UserId [private]

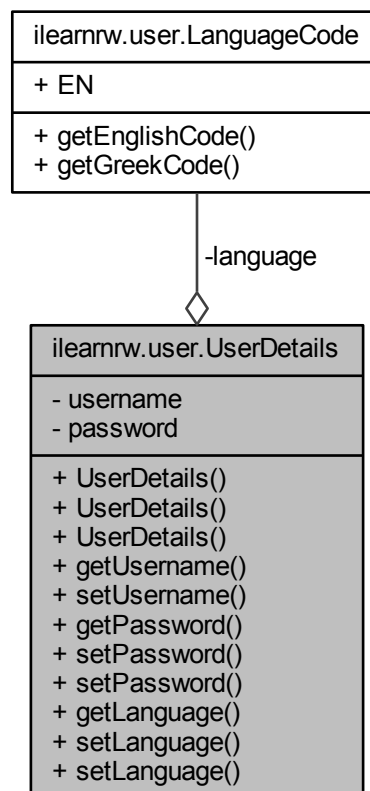
Referenced by [ilearnrw.user.UserAction.getUserId\(\)](#), and [ilearnrw.user.UserAction.setUserId\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[UserAction.java](#)

## 5.18 ilearnrw.user.UserDetails Class Reference

Collaboration diagram for ilearnrw.user.UserDetails:



## Public Member Functions

- [UserDetails](#) (String *username*, int *password*, [LanguageCode](#) *language*)
- [UserDetails](#) ([LanguageCode](#) *language*)
- [UserDetails](#) (int *userId*)
- String [getUsername](#) ()
- void [setUsername](#) (String *username*)
- int [getPassword](#) ()
- void [setPassword](#) (int *password*)
- void [setPassword](#) (String *password*)
- [LanguageCode](#) [getLanguage](#) ()
- void [setLanguage](#) ([LanguageCode](#) *language*)
- void [setLanguage](#) (byte *languageCode*)

## Private Attributes

- String [username](#)
- int [password](#)
- [LanguageCode](#) [language](#)

### 5.18.1 Constructor & Destructor Documentation

5.18.1.1 `ilearnrw.user.UserDetails.UserDetails ( String username, int password, LanguageCode language )`

References [ilearnrw.user.UserDetails.language](#), [ilearnrw.user.UserDetails.password](#), and [ilearnrw.user.UserDetails.username](#).

5.18.1.2 `ilearnrw.user.UserDetails.UserDetails ( LanguageCode language )`

References [ilearnrw.user.UserDetails.language](#), [ilearnrw.user.UserDetails.password](#), and [ilearnrw.user.UserDetails.username](#).

5.18.1.3 `ilearnrw.user.UserDetails.UserDetails ( int userId )`

References [ilearnrw.user.LanguageCode.GR](#), [ilearnrw.user.UserDetails.language](#), [ilearnrw.user.UserDetails.password](#), and [ilearnrw.user.UserDetails.username](#).

### 5.18.2 Member Function Documentation

5.18.2.1 `LanguageCode ilearnrw.user.UserDetails.getLanguage ( )`

References [ilearnrw.user.UserDetails.language](#).

5.18.2.2 `int ilearnrw.user.UserDetails.getPassword ( )`

#### Returns

the hash value of the user's password

References [ilearnrw.user.UserDetails.password](#).

## 5.18.2.3 String ilearnrw.user.UserDetails.getUsername ( )

References [ilearnrw.user.UserDetails.username](#).

## 5.18.2.4 void ilearnrw.user.UserDetails.setLanguage ( LanguageCode language )

## Parameters

<i>the</i>	language code as a enum item
------------	------------------------------

References [ilearnrw.user.UserDetails.language](#).

## 5.18.2.5 void ilearnrw.user.UserDetails.setLanguage ( byte languageCode )

## Parameters

<i>the</i>	language code as a enum item
------------	------------------------------

References [ilearnrw.user.LanguageCode.EN](#), [ilearnrw.user.LanguageCode.getEnglishCode\(\)](#), [ilearnrw.user.LanguageCode.GR](#), and [ilearnrw.user.UserDetails.language](#).

## 5.18.2.6 void ilearnrw.user.UserDetails.setPassword ( int password )

## Parameters

<i>the</i>	hash value of the users password
------------	----------------------------------

References [ilearnrw.user.UserDetails.password](#).

## 5.18.2.7 void ilearnrw.user.UserDetails.setPassword ( String password )

## Parameters

<i>the</i>	user's password as a string
------------	-----------------------------

## 5.18.2.8 void ilearnrw.user.UserDetails.setUsername ( String username )

References [ilearnrw.user.UserDetails.username](#).

## 5.18.3 Member Data Documentation

## 5.18.3.1 LanguageCode ilearnrw.user.UserDetails.language [private]

Referenced by [ilearnrw.user.UserDetails.getLanguage\(\)](#), [ilearnrw.user.UserDetails.setLanguage\(\)](#), and [ilearnrw.user.UserDetails.UserDetails\(\)](#).

## 5.18.3.2 int ilearnrw.user.UserDetails.password [private]

Referenced by [ilearnrw.user.UserDetails.getPassword\(\)](#), [ilearnrw.user.UserDetails.setPassword\(\)](#), and [ilearnrw.user.UserDetails.UserDetails\(\)](#).

### 5.18.3.3 String ilearnrw.user.UserDetails.username [private]

Referenced by [ilearnrw.user.UserDetails.getUsername\(\)](#), [ilearnrw.user.UserDetails.setUsername\(\)](#), and [ilearnrw.user.UserDetails.UserDetails\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[UserDetails.java](#)

## 5.19 ilearnrw.user.UserPreferences Class Reference

Collaboration diagram for ilearnrw.user.UserPreferences:

ilearnrw.user.UserPreferences
- fontSize
+ UserPreferences() + UserPreferences() + getFontSize() + setFontSize()

### Public Member Functions

- [UserPreferences](#) ()
- [UserPreferences](#) (int [fontSize](#))
- int [getFontSize](#) ()
- void [setFontSize](#) (int [fontSize](#))

### Private Attributes

- int [fontSize](#)

## 5.19.1 Constructor & Destructor Documentation

### 5.19.1.1 ilearnrw.user.UserPreferences.UserPreferences ( )

References [ilearnrw.user.UserPreferences.setFontSize\(\)](#).

### 5.19.1.2 ilearnrw.user.UserPreferences.UserPreferences ( int *fontSize* )

References [ilearnrw.user.UserPreferences.setFontSize\(\)](#).

## 5.19.2 Member Function Documentation

### 5.19.2.1 int ilearnrw.user.UserPreferences.getFontSize ( )

References [ilearnrw.user.UserPreferences.fontSize](#).

### 5.19.2.2 void ilearnrw.user.UserPreferences.setFontSize ( int *fontSize* )

References [ilearnrw.user.UserPreferences.fontSize](#).

Referenced by [ilearnrw.user.UserPreferences.UserPreferences\(\)](#).

## 5.19.3 Member Data Documentation

### 5.19.3.1 int ilearnrw.user.UserPreferences.fontSize [private]

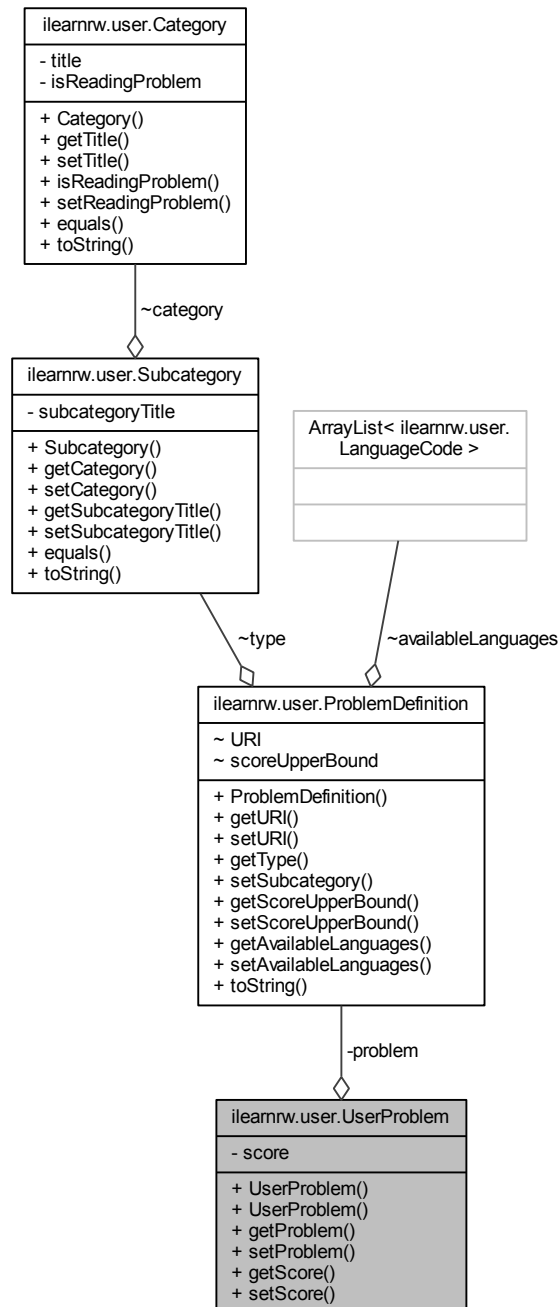
Referenced by [ilearnrw.user.UserPreferences.getFontSize\(\)](#), and [ilearnrw.user.UserPreferences.setFontSize\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[UserPreferences.java](#)

## 5.20 ilearnrw.user.UserProblem Class Reference

Collaboration diagram for ilearnrw.user.UserProblem:



### Public Member Functions

- [UserProblem \(ProblemDefinition problem, int score\)](#)
- [UserProblem \(ProblemDefinition problem\)](#)
- [ProblemDefinition getProblem \(\)](#)



- void [setProblem](#) ([ProblemDefinition problem](#))
- int [getScore](#) ()
- void [setScore](#) (int [score](#))

### Private Attributes

- [ProblemDefinition problem](#)
- int [score](#)

## 5.20.1 Constructor & Destructor Documentation

5.20.1.1 `ilearnrw.user.UserProblem.UserProblem ( ProblemDefinition problem, int score )`

References [ilearnrw.user.UserProblem.problem](#), and [ilearnrw.user.UserProblem.score](#).

5.20.1.2 `ilearnrw.user.UserProblem.UserProblem ( ProblemDefinition problem )`

References [ilearnrw.user.ProblemDefinition.getScoreUpperBound\(\)](#), and [ilearnrw.user.UserProblem.problem](#).

## 5.20.2 Member Function Documentation

5.20.2.1 `ProblemDefinition ilearnrw.user.UserProblem.getProblem ( )`

Returns

the [ProblemDefintion](#) of the user's problem

References [ilearnrw.user.UserProblem.problem](#).

5.20.2.2 `int ilearnrw.user.UserProblem.getScore ( )`

Returns

the frequency that the user does errors related to this problem

References [ilearnrw.user.UserProblem.score](#).

5.20.2.3 `void ilearnrw.user.UserProblem.setProblem ( ProblemDefinition problem )`

References [ilearnrw.user.UserProblem.problem](#).

5.20.2.4 `void ilearnrw.user.UserProblem.setScore ( int score )`

References [ilearnrw.user.UserProblem.score](#).

## 5.20.3 Member Data Documentation

5.20.3.1 `ProblemDefinition ilearnrw.user.UserProblem.problem [private]`

Referenced by [ilearnrw.user.UserProblem.getProblem\(\)](#), [ilearnrw.user.UserProblem.setProblem\(\)](#), and [ilearnrw.user.UserProblem.UserProblem\(\)](#).

5.20.3.2 `int ilearnrw.user.UserProblem.score` `[private]`

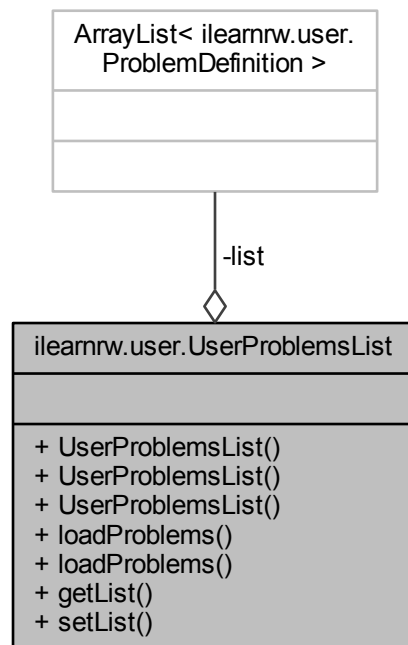
Referenced by [ilearnrw.user.UserProblem.getScore\(\)](#), [ilearnrw.user.UserProblem.setScore\(\)](#), and [ilearnrw.user.UserProblem.UserProblem\(\)](#).

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

- [C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserProblem.java](#)

## 5.21 ilearnrw.user.UserProblemsList Class Reference

Collaboration diagram for `ilearnrw.user.UserProblemsList`:



### Public Member Functions

- [UserProblemsList](#) (`int` `userId`)
- [UserProblemsList](#) ([LanguageCode](#) `lc`)
- [UserProblemsList](#) (`ArrayList< ProblemDefinition >` `list`)
- `void` [loadProblems](#) ([LanguageCode](#) `lc`)
- `void` [loadProblems](#) (`int` `userId`)
- `ArrayList< ProblemDefinition >` [getList](#) ()
- `void` [setList](#) (`ArrayList< ProblemDefinition >` `list`)

### Private Attributes

- `ArrayList< ProblemDefinition >` `list`

### 5.21.1 Constructor & Destructor Documentation

#### 5.21.1.1 ilearnrw.user.UserProblemsList.UserProblemsList ( int *userId* )

References [ilearnrw.user.UserProblemsList.list](#), and [ilearnrw.user.UserProblemsList.loadProblems\(\)](#).

#### 5.21.1.2 ilearnrw.user.UserProblemsList.UserProblemsList ( LanguageCode *lc* )

References [ilearnrw.user.UserProblemsList.list](#), and [ilearnrw.user.UserProblemsList.loadProblems\(\)](#).

#### 5.21.1.3 ilearnrw.user.UserProblemsList.UserProblemsList ( ArrayList< ProblemDefinition > *list* )

References [ilearnrw.user.UserProblemsList.list](#).

### 5.21.2 Member Function Documentation

#### 5.21.2.1 ArrayList<ProblemDefinition> ilearnrw.user.UserProblemsList.getList ( )

References [ilearnrw.user.UserProblemsList.list](#).

Referenced by [ilearnrw.user.Tester.main\(\)](#).

#### 5.21.2.2 void ilearnrw.user.UserProblemsList.loadProblems ( LanguageCode *lc* )

References [ilearnrw.user.LanguageCode.EN](#), [ilearnrw.user.ProblemDefinition.getAvailableLanguages\(\)](#), [ilearnrw.user.LanguageCode.GR](#), and [ilearnrw.user.UserProblemsList.list](#).

Referenced by [ilearnrw.user.UserProblemsList.UserProblemsList\(\)](#).

#### 5.21.2.3 void ilearnrw.user.UserProblemsList.loadProblems ( int *userId* )

References [ilearnrw.user.LanguageCode.EN](#), [ilearnrw.user.LanguageCode.GR](#), and [ilearnrw.user.UserProblemsList.list](#).

#### 5.21.2.4 void ilearnrw.user.UserProblemsList.setList ( ArrayList< ProblemDefinition > *list* )

References [ilearnrw.user.UserProblemsList.list](#).

### 5.21.3 Member Data Documentation

#### 5.21.3.1 ArrayList<ProblemDefinition> ilearnrw.user.UserProblemsList.list [private]

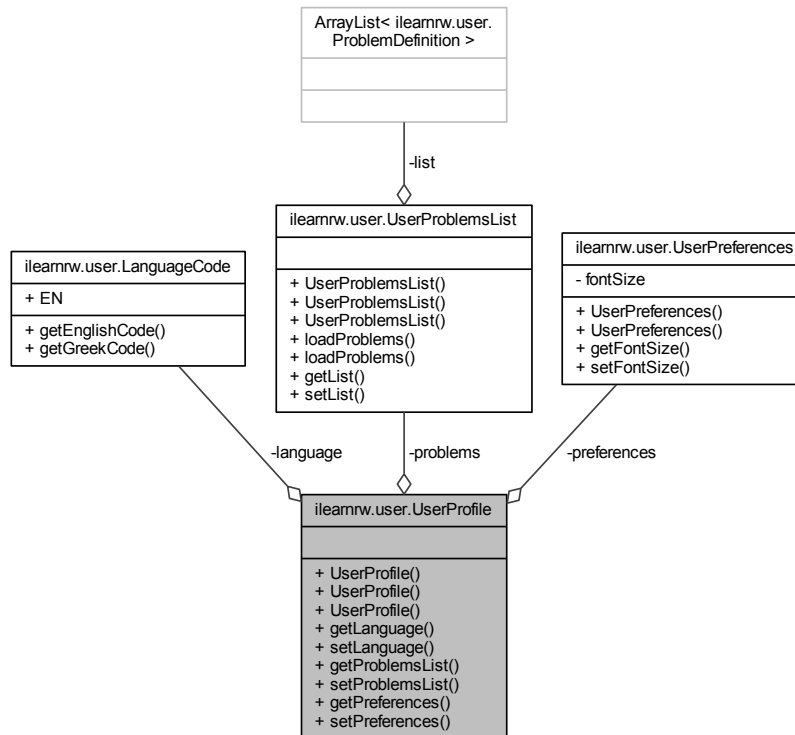
Referenced by [ilearnrw.user.UserProblemsList.getList\(\)](#), [ilearnrw.user.UserProblemsList.loadProblems\(\)](#), [ilearnrw.user.UserProblemsList.setList\(\)](#), and [ilearnrw.user.UserProblemsList.UserProblemsList\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[UserProblemsList.java](#)

## 5.22 ilearnrw.user.UserProfile Class Reference

Collaboration diagram for ilearnrw.user.UserProfile:



### Public Member Functions

- [UserProfile](#) ([LanguageCode](#) language, [UserProblemsList](#) problems, [UserPreferences](#) preferences)
- [UserProfile](#) ([LanguageCode](#) language)
- [UserProfile](#) (int userId)
- [LanguageCode](#) [getLanguage](#) ()
- void [setLanguage](#) ([LanguageCode](#) language)
- [UserProblemsList](#) [getProblemsList](#) ()
- void [setProblemsList](#) ([UserProblemsList](#) problems)
- [UserPreferences](#) [getPreferences](#) ()
- void [setPreferences](#) ([UserPreferences](#) preferences)

### Private Attributes

- [LanguageCode](#) language
- [UserProblemsList](#) problems
- [UserPreferences](#) preferences

#### 5.22.1 Constructor & Destructor Documentation

5.22.1.1 `ilearnrw.user.UserProfile.UserProfile ( LanguageCode language, UserProblemsList problems, UserPreferences preferences )`

References [ilearnrw.user.UserProfile.language](#), [ilearnrw.user.UserProfile.preferences](#), and [ilearnrw.user.UserProfile.problems](#).

5.22.1.2 `ilearnrw.user.UserProfile.UserProfile ( LanguageCode language )`

References [ilearnrw.user.UserProfile.language](#).

5.22.1.3 `ilearnrw.user.UserProfile.UserProfile ( int userId )`

References [ilearnrw.user.LanguageCode.EN](#), [ilearnrw.user.UserProfile.language](#), [ilearnrw.user.UserProfile.preferences](#), and [ilearnrw.user.UserProfile.problems](#).

## 5.22.2 Member Function Documentation

5.22.2.1 `LanguageCode ilearnrw.user.UserProfile.getLanguage ( )`

References [ilearnrw.user.UserProfile.language](#).

5.22.2.2 `UserPreferences ilearnrw.user.UserProfile.getPreferences ( )`

References [ilearnrw.user.UserProfile.preferences](#).

5.22.2.3 `UserProblemsList ilearnrw.user.UserProfile.getProblemsList ( )`

References [ilearnrw.user.UserProfile.problems](#).

Referenced by [ilearnrw.user.Tester.main\(\)](#).

5.22.2.4 `void ilearnrw.user.UserProfile.setLanguage ( LanguageCode language )`

References [ilearnrw.user.UserProfile.language](#).

5.22.2.5 `void ilearnrw.user.UserProfile.setPreferences ( UserPreferences preferences )`

References [ilearnrw.user.UserProfile.preferences](#).

5.22.2.6 `void ilearnrw.user.UserProfile.setProblemsList ( UserProblemsList problems )`

References [ilearnrw.user.UserProfile.problems](#).

## 5.22.3 Member Data Documentation

5.22.3.1 `LanguageCode ilearnrw.user.UserProfile.language` [private]

Referenced by [ilearnrw.user.UserProfile.getLanguage\(\)](#), [ilearnrw.user.UserProfile.setLanguage\(\)](#), and [ilearnrw.user.UserProfile.UserProfile\(\)](#).

### 5.22.3.2 UserPreferences ilearnrw.user.UserProfile.preferences [private]

Referenced by [ilearnrw.user.UserProfile.getPreferences\(\)](#), [ilearnrw.user.UserProfile.setPreferences\(\)](#), and [ilearnrw.user.UserProfile.UserProfile\(\)](#).

### 5.22.3.3 UserProblemsList ilearnrw.user.UserProfile.problems [private]

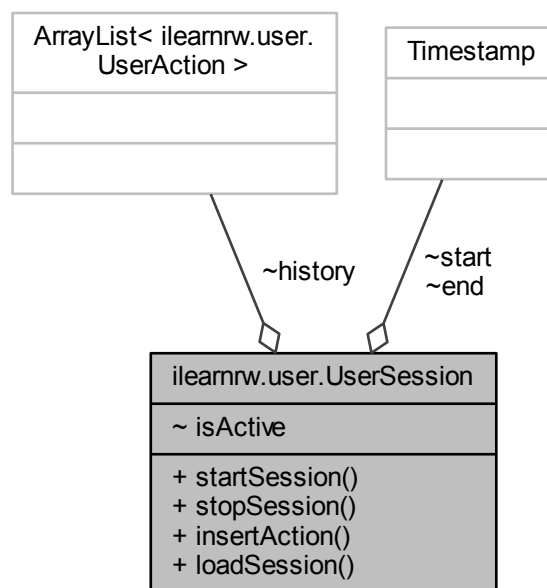
Referenced by [ilearnrw.user.UserProfile.getProblemsList\(\)](#), [ilearnrw.user.UserProfile.setProblemsList\(\)](#), and [ilearnrw.user.UserProfile.UserProfile\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[UserProfile.java](#)

## 5.23 ilearnrw.user.UserSession Class Reference

Collaboration diagram for ilearnrw.user.UserSession:



### Public Member Functions

- void [startSession](#) ()
- void [stopSession](#) ()
- void [insertAction](#) ([UserAction](#) x) throws [IlearnException](#)
- void [loadSession](#) (int userId)

### Package Attributes

- boolean [isActive](#)

- Timestamp [start](#)
- Timestamp [end](#)
- ArrayList< [UserAction](#) > [history](#)

### 5.23.1 Member Function Documentation

#### 5.23.1.1 void ilearnrw.user.UserSession.insertAction ( [UserAction](#) x ) throws [IlearnException](#)

References [ilearnrw.user.UserSession.history](#), and [ilearnrw.user.UserSession.isActive](#).

#### 5.23.1.2 void ilearnrw.user.UserSession.loadSession ( int [userId](#) )

References [ilearnrw.user.UserSession.history](#).

#### 5.23.1.3 void ilearnrw.user.UserSession.startSession ( )

sets the timestamp and turns the boolean variable 'isActive' to true!

References [ilearnrw.user.UserSession.history](#), [ilearnrw.user.UserSession.isActive](#), and [ilearnrw.user.UserSession.start](#).

#### 5.23.1.4 void ilearnrw.user.UserSession.stopSession ( )

sets the timestamp and turns the boolean variable 'isActive' to true!

References [ilearnrw.user.UserSession.end](#), and [ilearnrw.user.UserSession.isActive](#).

### 5.23.2 Member Data Documentation

#### 5.23.2.1 Timestamp ilearnrw.user.UserSession.end [package]

Referenced by [ilearnrw.user.UserSession.stopSession\(\)](#).

#### 5.23.2.2 ArrayList<[UserAction](#)> ilearnrw.user.UserSession.history [package]

Referenced by [ilearnrw.user.UserSession.insertAction\(\)](#), [ilearnrw.user.UserSession.loadSession\(\)](#), and [ilearnrw.user.UserSession.startSession\(\)](#).

#### 5.23.2.3 boolean ilearnrw.user.UserSession.isActive [package]

Referenced by [ilearnrw.user.UserSession.insertAction\(\)](#), [ilearnrw.user.UserSession.startSession\(\)](#), and [ilearnrw.user.UserSession.stopSession\(\)](#).

#### 5.23.2.4 Timestamp ilearnrw.user.UserSession.start [package]

Referenced by [ilearnrw.user.UserSession.startSession\(\)](#).

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

- C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/[UserSession.java](#)





## Chapter 6

# File Documentation

### 6.1 C:/develop/projects/ILearnRW/github/ilearnrw/README.md File Reference

### 6.2 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/DataLogger.java File Reference

#### Packages

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

#### Constant Groups

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

### 6.3 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/IDataLogger.java File Reference

#### Classes

- interface [ilearnrw.datalogger.IDataLogger](#)

#### Packages

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

#### Constant Groups

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

## 6.4 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/ILoginProider.java File Reference

### Classes

- interface [ilearnrw.datalogger.ILoginProvider](#)

### Packages

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

### Constant Groups

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

## 6.5 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/IProfileAccess-Updater.java File Reference

### Classes

- interface [ilearnrw.datalogger.IProfileAccessUpdater](#)  
*Interface to update profiles in the iLearnRW system.*
- class [ilearnrw.datalogger.IProfileAccessUpdater.PermissionException](#)  
*The marker does not have permission to perform the requested change.*
- class [ilearnrw.datalogger.IProfileAccessUpdater.PendingChangesAvailable](#)  
*Indicates that an action cannot be performed due to pending changes.*

### Packages

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

### Constant Groups

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

## 6.6 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/datalogger/ProfileAccess-Updater.java File Reference

### Classes

- class [ilearnrw.datalogger.ProfileAccessUpdater](#)

## Packages

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

## Constant Groups

- package [ilearnrw.datalogger](#)  
*DataLogger package.*

## 6.7 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/prototype/application/program.java File Reference

## Classes

- class [ilearnrw.prototype.application.program](#)

## Packages

- package [ilearnrw.prototype.application](#)

## Constant Groups

- package [ilearnrw.prototype.application](#)

## 6.8 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/Category.java File Reference

## Classes

- class [ilearnrw.user.Category](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.9 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/GameAction.java File Reference

## Classes

- enum [ilearnrw.user.GameAction](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.10 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/IlearnException.java File Reference

### Classes

- class [ilearnrw.user.IlearnException](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.11 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/LanguageCode.java File Reference

### Classes

- enum [ilearnrw.user.LanguageCode](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.12 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/ProblemDefinition.java File Reference

### Classes

- class [ilearnrw.user.ProblemDefinition](#)

#### Packages

- package [ilearnrw.user](#)

#### Constant Groups

- package [ilearnrw.user](#)

### 6.13 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/ProblemDefinition-Index.java File Reference

#### Classes

- class [ilearnrw.user.ProblemDefinitionIndex](#)

#### Packages

- package [ilearnrw.user](#)

#### Constant Groups

- package [ilearnrw.user](#)

### 6.14 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/Subcategory.java File Reference

#### Classes

- class [ilearnrw.user.Subcategory](#)

#### Packages

- package [ilearnrw.user](#)

#### Constant Groups

- package [ilearnrw.user](#)

### 6.15 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/Tester.java File Reference

#### Classes

- class [ilearnrw.user.Tester](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.16 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/User.java File Reference

### Classes

- class [ilearnrw.user.User](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.17 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserAction.java File Reference

### Classes

- class [ilearnrw.user.UserAction](#)

## Packages

- package [ilearnrw.user](#)

## Constant Groups

- package [ilearnrw.user](#)

## 6.18 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserDetails.java File Reference

### Classes

- class [ilearnrw.user.UserDetails](#)

#### Packages

- package [ilearnrw.user](#)

#### Constant Groups

- package [ilearnrw.user](#)

### 6.19 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserPreferences.java File Reference

#### Classes

- class [ilearnrw.user.UserPreferences](#)

#### Packages

- package [ilearnrw.user](#)

#### Constant Groups

- package [ilearnrw.user](#)

### 6.20 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserProblem.java File Reference

#### Classes

- class [ilearnrw.user.UserProblem](#)

#### Packages

- package [ilearnrw.user](#)

#### Constant Groups

- package [ilearnrw.user](#)

### 6.21 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserProblems-List.java File Reference

#### Classes

- class [ilearnrw.user.UserProblemsList](#)

### Packages

- package [ilearnrw.user](#)

### Constant Groups

- package [ilearnrw.user](#)

## 6.22 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserProfile.java File Reference

### Classes

- class [ilearnrw.user.UserProfile](#)

### Packages

- package [ilearnrw.user](#)

### Constant Groups

- package [ilearnrw.user](#)

## 6.23 C:/develop/projects/ILearnRW/github/ilearnrw/src/ilearnrw/user/UserSession.java File Reference

### Classes

- class [ilearnrw.user.UserSession](#)

### Packages

- package [ilearnrw.user](#)

### Constant Groups

- package [ilearnrw.user](#)



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