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Contributing to Apos - Database Manager

Thank you for considering contributing to Apos – Database Manager. It is people like you that make Apos—← Database Manager such a great tool.

1.1 Where do I go from here?

If you've noticed a bug or have a feature request, make one! It is generally best if you get confirmation of your bug or approval for your feature request this way before starting to code.

1.2 Fork & create a branch

If this is something you think you can fix, then fork and create a branch with a descriptive name. A good branch name would be (where issue #325 is the ticket you're working on):
git checkout -b 325-add-japanese-translations

1.3 Get the test suite running

Make sure you're using the latest version of Node.js and npm. Install the project's dependencies: $npm \ install$

Run the test suite to ensure everything is working correctly: $_{\tt npm\ test}$

1.4 Implement your fix or feature

At this point, you're ready to make your changes! Feel free to ask for help; everyone is a beginner at first.

1.5 Make a Pull Request

At this point, you should switch back to your main branch and make sure it is up to date with the latest code from the main repository:

```
git remote add upstream git@github.com:DefinitelyNotSimon13/Apos.git git checkout main git pull upstream main
```

Then update your feature branch from your local copy of main, and push it!

```
git checkout 325-add-japanese-translations
git rebase main
git push --set-upstream origin 325-add-japanese-translations
```

Go to the Apos – Database Manager repository and create a new Pull Request. Fill out the form and wait for the approval!

1.6 Keeping your Pull Request updated

If a maintainer asks you to "rebase" your PR, they're saying that a lot of code has changed, and that you need to update your branch, so it's easier to merge.

To learn more about rebasing in Git, there are a lot of good resources but here's the suggested workflow:

```
git checkout 325-add-japanese-translations
git pull --rebase upstream main
git push --force-with-lease 325-add-japanese-translations
```

1.7 Merging a PR (maintainers only)

A PR can only be merged into main by a maintainer if:

- · It is passing CI.
- It has been approved by at least two maintainers. If it was a maintainer who opened the PR, only one extra approval is needed.
- It has no requested changes.
- · It is up to date with the current main.

Any maintainer is allowed to merge a PR if these conditions are met.

This CONTRIBUTING.md file provides a guide for contributors on how to create a branch, run the test suite, implement a fix or feature, make a pull request, and keep a pull request updated. It also provides instructions for maintainers on how to merge a pull request.

Apos - Database Manager

Developed by Simon Blum, Apos - Database Manager is a comprehensive Windows application designed to manage SQLite3 databases.

The application provides an intuitive and user-friendly interface for performing a variety of database operations. Whether you need to open, read, edit tables, or execute custom SQLite3 commands, Apos - Database Manager has got you covered.

The name "Apos" is inspired by the ancient Greek word "", which translates to "storage" or "warehouse".

2.1 Key Features

- Efficient Database Operations: Open, read, and edit tables within SQLite3 databases with ease.
- Custom SQLite3 Commands: Execute custom SQLite3 commands for advanced database operations.
- Intuitive User Interface: Navigate through the application effortlessly with the GUI, built using the Qt framework.

2.2 Prerequisites

· Windows Operating System

2.3 Installation

To install Apos - Database Manager, follow these steps:

- 1. Navigate to the Releases page.
- 2. Download the latest installer.
- 3. Run the installer and follow the on-screen instructions.

2.4 Usage

- 1. **Opening a Database**: Launch the application and click on the "Open Database" button to select the desired SQLite3 database file.
- Executing Commands: Enter custom SQLite3 commands in the "Command Box" and click the "Execute" button
- 3. **Managing Tables**: Use the GUI to perform various table operations such as "Add," "Update," and "Select Table".

2.5 Project Structure

The project is organized into several directories:

- /source: Contains the main entry point for the application (main.cpp).
- /classes/backendClasses: Contains classes related to the backend logic of the application, such as StartupHandler and ObjectHandler.
- /classes/frontendClasses: Contains classes related to the frontend logic of the application, such as WindowHandler and various window classes.
- /classes/databaseClasses: Contains classes related to database operations, such as DatabaseHandler and TableHandler.
- /resources: Stores additional resources used by the application, such as translation files and the application logo.
- /docs: Contains the Doxygen-generated documentation for the project.

2.6 Documentation

Comprehensive documentation for Apos - Database Manager is available on the $\mbox{GitHub Pages website}$ and in the $\mbox{docs directory of this repository}$.

2.7 Contributing

As a solo developer, I welcome contributions to the project! Please refer to the Contribution Guidelines for details.

2.8 License

Apos - Database Manager is licensed under the LGPL-3.0 License.

2.9 Acknowledgments

- · A big thank you to the Qt framework community for their invaluable resources and support.
- [Any other acknowledgments or credits]

Topic Index

3.1 Topics

Here is a list of all topics with brief descriptions:

nstructors and Desctructors
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Functions
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Namespace Index

4.1 Namespace List

Here is a list of all namespaces with brief descriptions:

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AposDatabase																							57
AposFrontend .					 																		57
AppInitialization					 																		58
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Hierarchical Index

5.1 Class Hierarchy

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

AposBackend::ObjectHandler		 	 										6	51
AposBackend::StartupHandler		 	 										6	34
AposDatabase::DatabaseHandler		 	 										6	35
AposDatabase::TableHandler		 	 										6	37
AposFrontend::TranslatableWindow		 	 										7	'9
AposFrontend::DevWindow		 			 	 						 	. 7	'0
AposFrontend::LauncherWindow .		 			 	 						 	. 7	'5
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QWidget														
AposFrontend::SettingsWindow		 	 		 	 							. 7	7

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Class Index

6.1 Class List

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

AposBackend::ObjectHandler	
Part of the application's backend logic	61
AposBackend::StartupHandler	
Provides the functionality for initializing the application's translator and ObjectHandler	64
AposDatabase::DatabaseHandler	
Provides the functionality for initializing and closing the database, executing SQL commands,	
and getting the active database and SQL error	65
AposDatabase::TableHandler	
Provides the functionality for generating a table model, inserting into a table, and getting the	
active table name, table model, and last table error	67
AposFrontend::DevWindow	
Provides the user interface for the developer window	70
AposFrontend::LauncherWindow	
Provides the user interface for the launcher window	75
AposFrontend::SettingsWindow	
Provides the user interface for the settings window	77
AposFrontend::TranslatableWindow	
An abstract base class that provides a function for retranslating the user interface	79
AposFrontend::WindowHandler	
Provides the functionality for managing the application's windows	80

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File Index

7.1 File List

Here is a list of all files with brief descriptions:

C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/objecthandler.cpp
Source file for the ObjectHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/objecthandler.hpp
Header file for the ObjectHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/startuphandler.cpp
Source file for the StartupHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/startuphandler.hpp
Header file for the StartupHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/databasehandler.cpp
Source file for the DatabaseHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/databasehandler.hpp
Header file for the DatabaseHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/tablehandler.cpp
Source file for the TableHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/tablehandler.hpp
Header file for the TableHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/devwindow.cpp
Source file for the DevWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/devwindow.hpp
Header file for the DevWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/launcherwindow.cpp
Source file for the LauncherWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/launcherwindow.hpp
Header file for the LauncherWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/settingswindow.cpp
Source file for the SettingsWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/settingswindow.hpp
Header file for the SettingsWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/translatablewindow.cpg
Source file for the TranslatableWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/translatablewindow.hpp
Header file for the TranslatableWindow class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/windowhandler.cpp
Source file for the WindowHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/windowhandler.hpp
Header file for the WindowHandler class
C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/source/main.cpp
Main entry point for the application

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Topic Documentation

8.1 Constructors and Desctructors

Group of constructors and destructors in the application.

Functions

AposBackend::ObjectHandler::ObjectHandler (QSharedPointer < QApplication > newApplication, QShared ←
 Pointer < AposDatabase::DatabaseHandler > newDbHandler, QSharedPointer < AposDatabase::TableHandler
 > newTableHandler)

Constructor for the ObjectHandler class.

AposBackend::StartupHandler::StartupHandler (const QSharedPointer< QApplication) & application)

Constructor for the StartupHandler class.

AposDatabase::DatabaseHandler::DatabaseHandler()

Constructor for the DatabaseHandler class.

AposDatabase::TableHandler::TableHandler (QSharedPointer < DatabaseHandler > newDbHandler)

Constructor for the TableHandler class.

 AposDatabase::TableHandler::TableHandler (QSharedPointer< DatabaseHandler > newDbHandler, const QString &tableName)

Constructor for the TableHandler class.

AposDatabase::TableHandler::~TableHandler ()

Destructor for the TableHandler class.

AposFrontend::DevWindow::DevWindow (QWidget *parent=nullptr, QSharedPointer< AposBackend::ObjectHandler > objectHandler=nullptr)

Constructor for the DevWindow class.

AposFrontend::DevWindow::~DevWindow () override

Destructor for the DevWindow class.

AposFrontend::LauncherWindow::LauncherWindow (QWidget *parent=nullptr, QSharedPointer< AposBackend::ObjectHandler
 > newObjectHandler=nullptr)

Constructor for the LauncherWindow class.

AposFrontend::LauncherWindow::~LauncherWindow () override

Destructor for the LauncherWindow class.

AposFrontend::SettingsWindow::SettingsWindow (QWidget *parent=nullptr, QSharedPointer< AposBackend::ObjectHandler > newObjectHandler=nullptr)

Constructor for the SettingsWindow class.

AposFrontend::SettingsWindow::~SettingsWindow () override

Destructor for the SettingsWindow class.

AposFrontend::TranslatableWindow::TranslatableWindow()

Constructor for the TranslatableWindow class.

AposFrontend::WindowHandler::WindowHandler (QSharedPointer< AposBackend::ObjectHandler > new←
 ObjectHandler)

Constructor for the WindowHandler class.

8.1.1 Detailed Description

Group of constructors and destructors in the application.

This group contains all the constructors and destructors used in the application. These functions are responsible for initializing and cleaning up objects.

8.1.2 Function Documentation

8.1.2.1 DatabaseHandler()

```
AposDatabase::DatabaseHandler::DatabaseHandler ( ) [default]
```

Constructor for the DatabaseHandler class.

This constructor initializes the DatabaseHandler object.

8.1.2.2 DevWindow()

```
AposFrontend::DevWindow::DevWindow (

QWidget * parent = nullptr,

QSharedPointer< AposBackend::ObjectHandler > objectHandler = nullptr ) [explicit]
```

Constructor for the DevWindow class.

This constructor initializes the DevWindow object with a parent widget and an ObjectHandler object.

Parameters

parent	Pointer to the parent widget.
objectHandler	Shared pointer to the ObjectHandler object.

Definition at line 23 of file devwindow.cpp.

8.1.2.3 LauncherWindow()

Constructor for the LauncherWindow class.

This constructor initializes the LauncherWindow object with a parent widget and an ObjectHandler object.

Parameters

parent	Pointer to the parent widget.
newObjectHandler	Shared pointer to the ObjectHandler object.

Definition at line 26 of file launcherwindow.cpp.

8.1.2.4 ObjectHandler()

Constructor for the ObjectHandler class.

This constructor initializes the ObjectHandler object with a QApplication object, a DatabaseHandler object, and a TableHandler object.

Parameters

newApplication	Shared pointer to the QApplication object.
newDbHandler	Shared pointer to the DatabaseHandler object.
newTableHandler	Shared pointer to the TableHandler object.

Definition at line 26 of file objecthandler.cpp.

8.1.2.5 SettingsWindow()

Constructor for the SettingsWindow class.

This constructor initializes the SettingsWindow object with a parent widget and an ObjectHandler object.

Parameters

parent	Pointer to the parent widget.
newObjectHandler	Shared pointer to the ObjectHandler object.

Definition at line 27 of file settingswindow.cpp.

8.1.2.6 StartupHandler()

Constructor for the StartupHandler class.

This constructor initializes the StartupHandler object with a QApplication object.

Parameters

	application	Shared pointer to the QApplication object.	
--	-------------	--	--

Definition at line 26 of file startuphandler.cpp.

8.1.2.7 TableHandler() [1/2]

Constructor for the TableHandler class.

This constructor initializes the TableHandler object with a DatabaseHandler object.

Parameters

newDbHandler	Shared pointer to the DatabaseHandler object.
--------------	---

Definition at line 29 of file tablehandler.cpp.

8.1.2.8 TableHandler() [2/2]

Constructor for the TableHandler class.

This constructor initializes the TableHandler object with a DatabaseHandler object and a table name.

Parameters

	newDbHandler	Shared pointer to the DatabaseHandler object.
ĺ	tableName	The name of the table.

Definition at line 33 of file tablehandler.cpp.

8.1.2.9 TranslatableWindow()

```
AposFrontend::TranslatableWindow::TranslatableWindow ( ) [default]
```

Constructor for the TranslatableWindow class.

This constructor initializes the TranslatableWindow object.

8.1.2.10 WindowHandler()

```
AposFrontend::WindowHandler::WindowHandler (

QSharedPointer< AposBackend::ObjectHandler > newObjectHandler ) [explicit]
```

Constructor for the WindowHandler class.

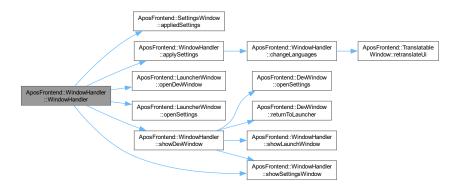
This constructor initializes the WindowHandler object with an ObjectHandler object.

Parameters

newObjectHandlei	Shared pointer to the ObjectHandler object.
------------------	---

Definition at line 28 of file windowhandler.cpp.

Here is the call graph for this function:



8.1.2.11 ∼DevWindow()

AposFrontend::DevWindow::~DevWindow () [override]

Destructor for the **DevWindow** class.

This destructor cleans up the DevWindow object.

Definition at line 29 of file devwindow.cpp.

8.1.2.12 ~LauncherWindow()

 ${\tt AposFrontend::LauncherWindow::} {\sim} {\tt LauncherWindow~(~)} \quad [override]$

Destructor for the LauncherWindow class.

This destructor cleans up the LauncherWindow object.

Definition at line 33 of file launcherwindow.cpp.

8.2 Database Functions 21

8.1.2.13 ∼SettingsWindow()

AposFrontend::SettingsWindow::~SettingsWindow () [override]

Destructor for the SettingsWindow class.

This destructor cleans up the SettingsWindow object.

Definition at line 35 of file settingswindow.cpp.

8.1.2.14 \sim TableHandler()

AposDatabase::TableHandler::~TableHandler ()

Destructor for the TableHandler class.

This destructor cleans up the TableHandler object.

Definition at line 44 of file tablehandler.cpp.

8.2 Database Functions

Group of database functions in the application.

Classes

· class AposBackend::ObjectHandler

The ObjectHandler class is a part of the application's backend logic.

class AposDatabase::DatabaseHandler

Provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

· class AposDatabase::TableHandler

Provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

Functions

void AposDatabase::DatabaseHandler::closeDatabase ()

Closes the database.

bool AposDatabase::DatabaseHandler::executeCommand (const QString &command)

Executes a SQL command.

void AposDatabase::TableHandler::generateTableModel ()

Generates a table model.

void AposDatabase::TableHandler::generateTableModel (const QString &tableName)

Generates a table model with a specified table name.

 bool AposDatabase::TableHandler::insertIntoTable (const QString &tableName, const QString &value1, const QString &value2, const QString &value3, const QString &value4, const QString &value5)

Inserts into a table.

• void AposFrontend::DevWindow::initDatabase ()

Initializes the database.

void AposFrontend::DevWindow::closeDatabase (const QSharedPointer< AposDatabase::DatabaseHandler > &db)

Closes the database.

· void AposFrontend::DevWindow::setModelViews ()

Sets the model views.

• void AposFrontend::DevWindow::setModelViews (const QSharedPointer< QSqlTableModel > &tableModel)

Sets the model views with a table model.

8.2.1 Detailed Description

Group of database functions in the application.

This group contains all the functions that interact with the database. These functions are responsible for creating, reading, updating, and deleting data in the database.

8.2.2 Function Documentation

8.2.2.1 closeDatabase() [1/2]

```
void AposDatabase::DatabaseHandler::closeDatabase ( )
```

Closes the database.

This function closes the database of the DatabaseHandler object.

Definition at line 34 of file databasehandler.cpp.

8.2.2.2 closeDatabase() [2/2]

Closes the database.

This function closes the database of the DevWindow object.

Parameters

db Shared pointer to the DatabaseHandler object.

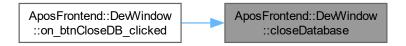
Definition at line 93 of file devwindow.cpp.

Here is the call graph for this function:



8.2 Database Functions 23

Here is the caller graph for this function:



8.2.2.3 executeCommand()

Executes a SQL command.

This function executes a specified SQL command.

Parameters

```
command The SQL command to execute.
```

Returns

Boolean value indicating whether the command was executed successfully.

Definition at line 39 of file databasehandler.cpp.

8.2.2.4 generateTableModel() [1/2]

```
void AposDatabase::TableHandler::generateTableModel ( )
```

Generates a table model.

This function generates a table model for the TableHandler object.

Definition at line 49 of file tablehandler.cpp.

8.2.2.5 generateTableModel() [2/2]

Generates a table model with a specified table name.

This function generates a table model for the TableHandler object with a specified table name.

Parameters

tableName The name of the table.

Definition at line 57 of file tablehandler.cpp.

8.2.2.6 initDatabase()

```
void AposFrontend::DevWindow::initDatabase ( ) [private]
```

Initializes the database.

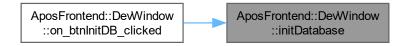
This function initializes the database of the DevWindow object.

Definition at line 79 of file devwindow.cpp.

Here is the call graph for this function:



Here is the caller graph for this function:



8.2.2.7 insertIntoTable()

Inserts into a table.

This function inserts into a table with specified values.

8.2 Database Functions 25

Parameters

tableName	The name of the table.
value1	The first value to insert.
value2	The second value to insert.
value3	The third value to insert.
value4	The fourth value to insert.
value5	The fifth value to insert.

Returns

Boolean value indicating whether the insertion was successful.

Definition at line 67 of file tablehandler.cpp.

8.2.2.8 setModelViews() [1/2]

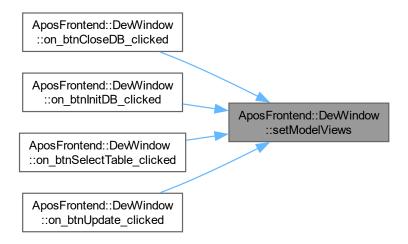
```
void AposFrontend::DevWindow::setModelViews ( ) [private]
```

Sets the model views.

This function sets the model views of the DevWindow object.

Definition at line 65 of file devwindow.cpp.

Here is the caller graph for this function:



8.2.2.9 setModelViews() [2/2]

Sets the model views with a table model.

This function sets the model views of the DevWindow object with a specified table model.

Parameters

tableModel	Shared pointer to the QSqlTableModel object.
------------	--

Definition at line 58 of file devwindow.cpp.

8.3 Initialization

Group of initialization functions in the application.

Classes

· class AposBackend::StartupHandler

Provides the functionality for initializing the application's translator and ObjectHandler.

Functions

bool AposBackend::ObjectHandler::initDatabaseObject ()

Initializes the database object.

• bool AposBackend::ObjectHandler::initTableObject (const QString &inputTableName)

Initializes the table object.

QSharedPointer< ObjectHandler > AposBackend::StartupHandler::startUp ()

Initializes the application's translator and ObjectHandler.

• static QSharedPointer< QTranslator > AposBackend::StartupHandler::initTranslator ()

Initializes the application's translator.

• void AposBackend::StartupHandler::installTranslator ()

Installs the application's translator.

QSharedPointer< ObjectHandler > AposBackend::StartupHandler::initObjectHandler ()

Initializes the application's ObjectHandler.

bool AposDatabase::DatabaseHandler::initDatabase ()

Initializes the database.

• void AposFrontend::SettingsWindow::installTranslator ()

Installs the application's translator.

8.3.1 Detailed Description

Group of initialization functions in the application.

This group contains all the functions that are responsible for initializing various components of the application, such as the QApplication, StartupHandler, ObjectHandler, and WindowHandler objects.

8.3 Initialization 27

8.3.2 Function Documentation

8.3.2.1 initDatabase()

```
bool AposDatabase::DatabaseHandler::initDatabase ( )
```

Initializes the database.

This function initializes the database of the DatabaseHandler object.

Returns

Boolean value indicating whether the database is initialized.

Definition at line 26 of file databasehandler.cpp.

8.3.2.2 initDatabaseObject()

```
bool AposBackend::ObjectHandler::initDatabaseObject ( )
```

Initializes the database object.

This function initializes the database object of the ObjectHandler object.

Returns

Boolean value indicating whether the database object is initialized.

Definition at line 34 of file objecthandler.cpp.

8.3.2.3 initObjectHandler()

QSharedPointer< ObjectHandler > AposBackend::StartupHandler::initObjectHandler () [private] Initializes the application's ObjectHandler.

This function initializes the application's ObjectHandler.

Returns

Shared pointer to the initialized ObjectHandler object.

Definition at line 66 of file startuphandler.cpp.

Here is the caller graph for this function:



8.3.2.4 initTableObject()

Initializes the table object.

This function initializes the table object of the ObjectHandler object with a specified table name.

Parameters

inputTableName	The name of the table.
----------------	------------------------

Returns

Boolean value indicating whether the table object is initialized.

Definition at line 40 of file objecthandler.cpp.

8.3.2.5 initTranslator()

QSharedPointer< QTranslator > AposBackend::StartupHandler::initTranslator () [static], [private]

Initializes the application's translator.

This function initializes the application's translator.

Returns

Shared pointer to the initialized QTranslator object.

Definition at line 51 of file startuphandler.cpp.

Here is the caller graph for this function:



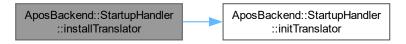
8.3.2.6 installTranslator() [1/2]

void AposBackend::StartupHandler::installTranslator () [private]

Installs the application's translator.

This function installs the application's translator.

Definition at line 44 of file startuphandler.cpp.



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Here is the caller graph for this function:



8.3.2.7 installTranslator() [2/2]

void AposFrontend::SettingsWindow::installTranslator () [private]

Installs the application's translator.

This function installs the application's translator.

Definition at line 71 of file settingswindow.cpp.

Here is the caller graph for this function:



8.3.2.8 startUp()

QSharedPointer< ObjectHandler > AposBackend::StartupHandler::startUp ()

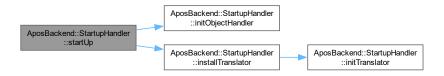
Initializes the application's translator and ObjectHandler.

This function initializes the application's translator and ObjectHandler.

Returns

Shared pointer to the initialized ObjectHandler object.

Definition at line 33 of file startuphandler.cpp.



8.4 Log Functions

Group of log functions in the application.

Functions

void AposFrontend::DevWindow::logEvent (const QString &message, const QSqlError &error)
 Logs an event with a message and a SQL error.

void AposFrontend::DevWindow::logEvent (const QString &message)

Logs an event with a message.

8.4.1 Detailed Description

Group of log functions in the application.

This group contains all the functions that are responsible for logging information. These functions are used to log information for debugging and tracking purposes.

8.4.2 Function Documentation

8.4.2.1 logEvent() [1/2]

Logs an event with a message.

This function logs an event with a specified message.

Parameters

message	The message of the event.

Definition at line 43 of file devwindow.cpp.

8.4.2.2 logEvent() [2/2]

Logs an event with a message and a SQL error.

This function logs an event with a specified message and a SQL error.

8.5 Signal Functions 31

Parameters

message	The message of the event.	
error	The SQL error of the event.	

Definition at line 38 of file devwindow.cpp.

8.5 Signal Functions

Group of signal functions in the application.

Signals

• void AposFrontend::DevWindow::returnToLauncher ()

Signal for returning to the launcher.

void AposFrontend::DevWindow::openSettings ()

Signal for opening the settings.

void AposFrontend::LauncherWindow::openDevWindow()

Signal for opening the developer window.

void AposFrontend::LauncherWindow::openSettings ()

Signal for opening the settings.

void AposFrontend::SettingsWindow::appliedSettings ()

Signal for applying settings.

8.5.1 Detailed Description

Group of signal functions in the application.

This group contains all the signal functions in the application. These functions are used to emit signals that can be handled by slot functions.

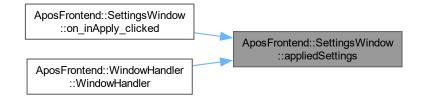
8.5.2 Signals

8.5.2.1 appliedSettings

 $\verb"void AposFrontend"::SettingsWindow::appliedSettings () \\ [signal]$

Signal for applying settings.

This signal is emitted when the user applies the settings. Here is the caller graph for this function:

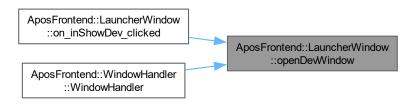


8.5.2.2 openDevWindow

void AposFrontend::LauncherWindow::openDevWindow () [signal]

Signal for opening the developer window.

This signal is emitted when the user wants to open the developer window. Here is the caller graph for this function:



8.5.2.3 openSettings [1/2]

void AposFrontend::DevWindow::openSettings () [signal]

Signal for opening the settings.

This signal is emitted when the user wants to open the settings. Here is the caller graph for this function:

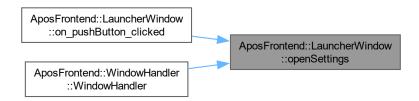


8.5.2.4 openSettings [2/2]

void AposFrontend::LauncherWindow::openSettings () [signal]

Signal for opening the settings.

This signal is emitted when the user wants to open the settings. Here is the caller graph for this function:



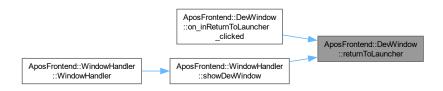
8.6 Slot Functions 33

8.5.2.5 returnToLauncher

void AposFrontend::DevWindow::returnToLauncher () [signal]

Signal for returning to the launcher.

This signal is emitted when the user wants to return to the launcher. Here is the caller graph for this function:



8.6 Slot Functions

Group of slot functions in the application.

Private Slots

void AposFrontend::DevWindow::on_btnInitDB_clicked ()

Slot for the 'InitDB' button click event.

void AposFrontend::DevWindow::on_btnCloseDB_clicked ()

Slot for the 'CloseDB' button click event.

void AposFrontend::DevWindow::on btnExecute clicked ()

Slot for the 'Execute' button click event.

void AposFrontend::DevWindow::on_btnSelectTable_clicked ()

Slot for the 'SelectTable' button click event.

void AposFrontend::DevWindow::on btnAdd clicked ()

Slot for the 'Add' button click event.

void AposFrontend::DevWindow::on_btnUpdate_clicked ()

Slot for the 'Update' button click event.

void AposFrontend::DevWindow::on clearCommandAfterExecute stateChanged (int arg1)

Slot for the 'clearCommandAfterExecute' state change event.

void AposFrontend::DevWindow::on clearInputsAfterInsert stateChanged (int arg1)

Slot for the 'clearInputsAfterInsert' state change event.

void AposFrontend::DevWindow::on_inReturnToLauncher_clicked ()

Slot for the 'ReturnToLauncher' button click event.

void AposFrontend::DevWindow::on_inSettings_clicked ()

Slot for the 'Settings' button click event.

void AposFrontend::LauncherWindow::on_inShowDev_clicked ()

Slot for the 'ShowDev' button click event.

void AposFrontend::LauncherWindow::on_pushButton_clicked ()

Slot for the 'PushButton' button click event.

void AposFrontend::SettingsWindow::on inClose clicked ()

Slot for the 'Close' button click event.

void AposFrontend::SettingsWindow::on_inApply_clicked ()

Slot for the 'Apply' button click event.

void AposFrontend::SettingsWindow::on_inLanguage_currentIndexChanged (int index)

Slot for the 'Language' combo box index change event.

8.6.1 Detailed Description

Group of slot functions in the application.

This group contains all the slot functions in the application. These functions are used to handle signals emitted by other objects.

8.6.2 Private Slots

8.6.2.1 on_btnAdd_clicked

```
void AposFrontend::DevWindow::on_btnAdd_clicked ( ) [private], [slot]
```

Slot for the 'Add' button click event.

This slot is triggered when the 'Add' button is clicked.

Definition at line 166 of file devwindow.cpp.

Here is the call graph for this function:



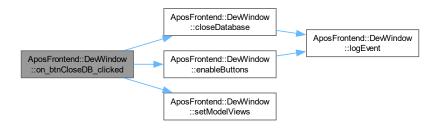
8.6.2.2 on_btnCloseDB_clicked

```
void AposFrontend::DevWindow::on_btnCloseDB_clicked ( ) [private], [slot]
```

Slot for the 'CloseDB' button click event.

This slot is triggered when the 'CloseDB' button is clicked.

Definition at line 144 of file devwindow.cpp.



8.6 Slot Functions 35

8.6.2.3 on_btnExecute_clicked

void AposFrontend::DevWindow::on_btnExecute_clicked () [private], [slot]

Slot for the 'Execute' button click event.

This slot is triggered when the 'Execute' button is clicked.

Definition at line 150 of file devwindow.cpp.

Here is the call graph for this function:



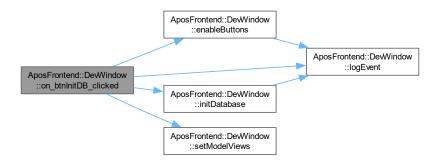
8.6.2.4 on_btnInitDB_clicked

void AposFrontend::DevWindow::on_btnInitDB_clicked () [private], [slot]

Slot for the 'InitDB' button click event.

This slot is triggered when the 'InitDB' button is clicked.

Definition at line 131 of file devwindow.cpp.



8.6.2.5 on_btnSelectTable_clicked

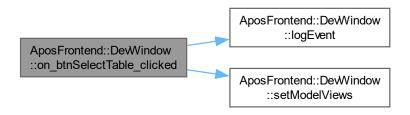
```
void AposFrontend::DevWindow::on_btnSelectTable_clicked ( ) [private], [slot]
```

Slot for the 'SelectTable' button click event.

This slot is triggered when the 'SelectTable' button is clicked.

Definition at line 160 of file devwindow.cpp.

Here is the call graph for this function:



8.6.2.6 on_btnUpdate_clicked

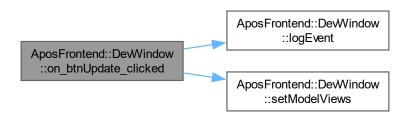
```
void AposFrontend::DevWindow::on_btnUpdate_clicked ( ) [private], [slot]
```

Slot for the 'Update' button click event.

This slot is triggered when the 'Update' button is clicked.

Definition at line 179 of file devwindow.cpp.

Here is the call graph for this function:



8.6.2.7 on_clearCommandAfterExecute_stateChanged

```
void AposFrontend::DevWindow::on_clearCommandAfterExecute_stateChanged ( int \ arg1 \ ) \ \ [private], \ [slot]
```

Slot for the 'clearCommandAfterExecute' state change event.

This slot is triggered when the state of the 'clearCommandAfterExecute' checkbox is changed.

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Parameters

arg1 The new state of the checkbox.

Definition at line 185 of file devwindow.cpp.

Here is the call graph for this function:



8.6.2.8 on_clearInputsAfterInsert_stateChanged

Slot for the 'clearInputsAfterInsert' state change event.

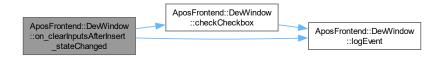
This slot is triggered when the state of the 'clearInputsAfterInsert' checkbox is changed.

Parameters

arg1 The new state of the checkbox.

Definition at line 190 of file devwindow.cpp.

Here is the call graph for this function:



8.6.2.9 on_inApply_clicked

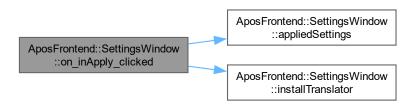
void AposFrontend::SettingsWindow::on_inApply_clicked () [private], [slot]

Slot for the 'Apply' button click event.

This slot is triggered when the 'Apply' button is clicked.

Definition at line 48 of file settingswindow.cpp.

Here is the call graph for this function:



8.6.2.10 on_inClose_clicked

```
void AposFrontend::SettingsWindow::on_inClose_clicked ( ) [private], [slot]
```

Slot for the 'Close' button click event.

This slot is triggered when the 'Close' button is clicked.

Definition at line 43 of file settingswindow.cpp.

8.6.2.11 on_inLanguage_currentIndexChanged

```
void AposFrontend::SettingsWindow::on_inLanguage_currentIndexChanged (
                int index ) [private], [slot]
```

Slot for the 'Language' combo box index change event.

This slot is triggered when the index of the 'Language' combo box is changed.

Parameters

index	The new index of the combo box.
-------	---------------------------------

Definition at line 59 of file settingswindow.cpp.

8.6.2.12 on_inReturnToLauncher_clicked

```
void AposFrontend::DevWindow::on_inReturnToLauncher_clicked ( ) [private], [slot]
```

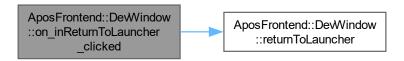
Slot for the 'ReturnToLauncher' button click event.

8.6 Slot Functions 39

This slot is triggered when the 'ReturnToLauncher' button is clicked.

Definition at line 195 of file devwindow.cpp.

Here is the call graph for this function:



8.6.2.13 on_inSettings_clicked

void AposFrontend::DevWindow::on_inSettings_clicked () [private], [slot]

Slot for the 'Settings' button click event.

This slot is triggered when the 'Settings' button is clicked.

Definition at line 203 of file devwindow.cpp.

Here is the call graph for this function:



8.6.2.14 on_inShowDev_clicked

void AposFrontend::LauncherWindow::on_inShowDev_clicked () [private], [slot]

Slot for the 'ShowDev' button click event.

This slot is triggered when the 'ShowDev' button is clicked.

Definition at line 37 of file launcherwindow.cpp.



8.6.2.15 on_pushButton_clicked

void AposFrontend::LauncherWindow::on_pushButton_clicked () [private], [slot]

Slot for the 'PushButton' button click event.

This slot is triggered when the 'PushButton' button is clicked.

Definition at line 41 of file launcherwindow.cpp.

Here is the call graph for this function:



8.7 UI Functions

Group of UI functions in the application.

Classes

· class AposFrontend::LauncherWindow

Provides the user interface for the launcher window.

• class AposFrontend::SettingsWindow

Provides the user interface for the settings window.

· class AposFrontend::TranslatableWindow

An abstract base class that provides a function for retranslating the user interface.

• class AposFrontend::WindowHandler

Provides the functionality for managing the application's windows.

Functions

• void AposFrontend::DevWindow::retranslateUi () override

Retranslates the user interface.

· void AposFrontend::DevWindow::enableButtons (bool databaseLoaded)

Enables or disables the buttons.

void AposFrontend::DevWindow::assignInputs ()

Assigns the inputs.

· void AposFrontend::DevWindow::clearInputs (bool clearBool)

Clears the inputs.

bool AposFrontend::DevWindow::checkCheckbox (int argCb)

Checks a checkbox.

void AposFrontend::DevWindow::clearCommandBox (bool clearBool)

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Clears the command box.

· void AposFrontend::LauncherWindow::retranslateUi () override

Retranslates the user interface.

• void AposFrontend::SettingsWindow::retranslateUi () override

Retranslates the user interface.

virtual void AposFrontend::TranslatableWindow::retranslateUi ()=0

Retranslates the user interface.

void AposFrontend::WindowHandler::showLaunchWindow ()

Shows the launcher window.

• void AposFrontend::WindowHandler::changeLanguages ()

Changes languages.

Private Slots

void AposFrontend::WindowHandler::showDevWindow ()

Shows the developer window.

void AposFrontend::WindowHandler::showSettingsWindow ()

Shows the settings window.

void AposFrontend::WindowHandler::applySettings ()

Applies settings.

8.7.1 Detailed Description

Group of UI functions in the application.

This group contains all the functions that are responsible for handling the user interface of the application.

8.7.2 Function Documentation

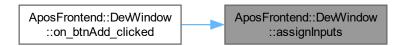
8.7.2.1 assignInputs()

```
void AposFrontend::DevWindow::assignInputs ( ) [private]
```

Assigns the inputs.

This function assigns the inputs of the DevWindow object.

Definition at line 71 of file devwindow.cpp.



8.7.2.2 changeLanguages()

```
void AposFrontend::WindowHandler::changeLanguages ( ) [private]
```

Changes languages.

This function changes the language of the application's user interface.

Definition at line 70 of file windowhandler.cpp.

Here is the call graph for this function:



Here is the caller graph for this function:



8.7.2.3 checkCheckbox()

Checks a checkbox.

This function checks a checkbox of the DevWindow object based on a specified integer value.

Parameters

argCb	Integer value indicating the state of the checkbox.
-------	---

Returns

Boolean value indicating whether the checkbox is checked.

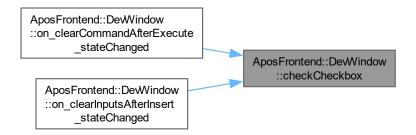
Definition at line 100 of file devwindow.cpp.

8.7 UI Functions 43

Here is the call graph for this function:



Here is the caller graph for this function:



8.7.2.4 clearCommandBox()

Clears the command box.

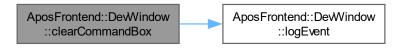
This function clears the command box of the DevWindow object based on a specified boolean value.

Parameters

clearBool	Boolean value indicating whether to clear the command box.
-----------	--

Definition at line 124 of file devwindow.cpp.

Here is the call graph for this function:



Here is the caller graph for this function:



8.7.2.5 clearInputs()

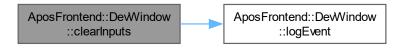
Clears the inputs.

This function clears the inputs of the DevWindow object based on a specified boolean value.

Parameters

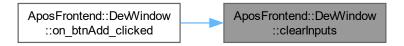
clearBool Boolean value indicating whether to clear the inputs.

Definition at line 113 of file devwindow.cpp.



8.7 UI Functions 45

Here is the caller graph for this function:



8.7.2.6 enableButtons()

Enables or disables the buttons.

This function enables or disables the buttons of the DevWindow object based on whether the database is loaded.

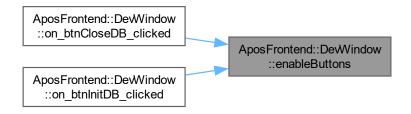
Parameters

abaseLoaded Boolean value indicating whether the databa	ase is loaded.
---	----------------

Definition at line 48 of file devwindow.cpp.

Here is the call graph for this function:





8.7.2.7 retranslateUi() [1/4]

```
void AposFrontend::DevWindow::retranslateUi ( ) [override], [virtual]
```

Retranslates the user interface.

This function retranslates the user interface of the DevWindow object.

Implements AposFrontend::TranslatableWindow.

Definition at line 199 of file devwindow.cpp.

8.7.2.8 retranslateUi() [2/4]

```
void AposFrontend::LauncherWindow::retranslateUi ( ) [override], [virtual]
```

Retranslates the user interface.

This function retranslates the user interface of the LauncherWindow object.

Implements AposFrontend::TranslatableWindow.

Definition at line 45 of file launcherwindow.cpp.

8.7.2.9 retranslateUi() [3/4]

```
void AposFrontend::SettingsWindow::retranslateUi ( ) [override], [virtual]
```

Retranslates the user interface.

This function retranslates the user interface of the SettingsWindow object.

Implements AposFrontend::TranslatableWindow.

Definition at line 39 of file settingswindow.cpp.

8.7.2.10 retranslateUi() [4/4]

```
virtual void AposFrontend::TranslatableWindow::retranslateUi ( ) [pure virtual]
```

Retranslates the user interface.

This is a pure virtual function that needs to be implemented by derived classes. It is used to retranslate the user interface of the window.

Implemented in AposFrontend::DevWindow, AposFrontend::LauncherWindow, and AposFrontend::SettingsWindow.



8.7 UI Functions 47

8.7.2.11 showLaunchWindow()

void AposFrontend::WindowHandler::showLaunchWindow ()

Shows the launcher window.

This function shows the launcher window of the application.

Definition at line 40 of file windowhandler.cpp.

Here is the caller graph for this function:



8.7.3 Private Slots

8.7.3.1 applySettings

void AposFrontend::WindowHandler::applySettings () [private], [slot]

Applies settings.

This slot is triggered when the user applies the settings.

Definition at line 66 of file windowhandler.cpp.

Here is the call graph for this function:





8.7.3.2 showDevWindow

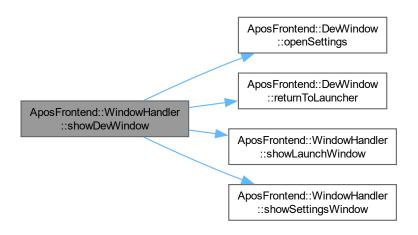
void AposFrontend::WindowHandler::showDevWindow () [private], [slot]

Shows the developer window.

This slot is triggered when the user wants to open the developer window.

Definition at line 49 of file windowhandler.cpp.

Here is the call graph for this function:



Here is the caller graph for this function:



8.7.3.3 showSettingsWindow

void AposFrontend::WindowHandler::showSettingsWindow () [private], [slot]

Shows the settings window.

This slot is triggered when the user wants to open the settings window.

Definition at line 62 of file windowhandler.cpp.

8.8 Utility Functions 49

Here is the caller graph for this function:



8.8 Utility Functions

Group of utility functions in the application.

Group of utility functions in the application.

This group contains all the utility functions in the application. These functions provide various utility services such as string manipulation, data conversion, etc.

8.9 Variables

Group of variables in the application.

Variables

- QSharedPointer< QApplication > AposBackend::ObjectHandler::ptrApplication Shared pointer to the QApplication object.
- QSharedPointer< AposDatabase::DatabaseHandler > AposBackend::ObjectHandler::ptrDbHandler
 Shared pointer to the DatabaseHandler object.
- QSharedPointer < AposDatabase::TableHandler > AposBackend::ObjectHandler::ptrTableHandler
 Shared pointer to the TableHandler object.
- QSharedPointer< QApplication > AposBackend::StartupHandler::ptrApplication Shared pointer to the QApplication object.
- $\bullet \ \ QShared Pointer < Object Handler > A pos Backend :: Start up Handler :: ptr Object Handler = Control of the Proposition of the Proposition$

Shared pointer to the ObjectHandler object.

QSqlError AposDatabase::DatabaseHandler::lastSqlError

The SQL error of the DatabaseHandler object.

• QSqlDatabase AposDatabase::DatabaseHandler::activeDatabase

The active database of the DatabaseHandler object.

- QSharedPointer < QSqlDatabase > AposDatabase::DatabaseHandler::ptrActiveDatabase
 Shared pointer to the active database.
- QString AposDatabase::DatabaseHandler::databasePath = R"(C:\Users\Clean\Documents\Projekte\Apos-DatabaseManager\Project\resources\defaultDatabase\userDatabase.db)"

The path to the database.

QString AposDatabase::TableHandler::activeTableName = "userTable"

The active table name of the TableHandler object.

 $\bullet \ \ QShared Pointer < Database Handler > Apos Database :: Table Handler :: ptr Db Handler \\$

Shared pointer to the DatabaseHandler object.

 $\bullet \ \, \mathsf{QSharedPointer} {<} \, \mathsf{QSqlTableModel} > \mathsf{AposDatabase} {::} \mathsf{TableHandler} {::} \mathsf{ptrTableModel}$

Shared pointer to the QSqlTableModel object.

QSqlError AposDatabase::TableHandler::lastTableError

The last table error of the TableHandler object.

• Ui::DevWindow * AposFrontend::DevWindow::ui

Pointer to the user interface of the DevWindow object.

QSharedPointer< AposBackend::ObjectHandler > AposFrontend::DevWindow::ptrObjectHandler = nullptr

Shared pointer to the ObjectHandler object.

QString AposFrontend::DevWindow::input1

String values for the inputs.

bool AposFrontend::DevWindow::clearCommand = false

Boolean values for clearing the command and the inputs.

• Ui::LauncherWindow * AposFrontend::LauncherWindow::ui

Pointer to the user interface of the LauncherWindow object.

QSharedPointer < AposBackend::ObjectHandler > AposFrontend::LauncherWindow::objectHandler = nullptr
 Shared pointer to the ObjectHandler object.

• Ui::SettingsWindow * AposFrontend::SettingsWindow::ui

Pointer to the user interface of the SettingsWindow object.

QSharedPointer < AposBackend::ObjectHandler > AposFrontend::SettingsWindow::ptrObjectHandler
 Shared pointer to the ObjectHandler object.

QSharedPointer< QTranslator > AposFrontend::SettingsWindow::ptrTranslator

Shared pointer to the QTranslator object.

int AposFrontend::SettingsWindow::languageIndex {}

The index of the selected language.

int AposFrontend::SettingsWindow::tempLanguageIndex {}

The temporary index of the selected language.

bool AposFrontend::SettingsWindow::languageChanged {}

Indicates whether the language has changed.

QSharedPointer< LauncherWindow > AposFrontend::WindowHandler::ptrLauncherWindow

Shared pointer to the LauncherWindow object.

QSharedPointer< DevWindow > AposFrontend::WindowHandler::ptrDevWindow

Shared pointer to the DevWindow object.

 $\bullet \ \ QShared Pointer < Settings Window > A pos Front end::Window Handler::ptr Settings Window \\$

Shared pointer to the SettingsWindow object.

QSharedPointer< AposBackend::ObjectHandler > AposFrontend::WindowHandler::ptrObjectHandler

Shared pointer to the ObjectHandler object.

8.9.1 Detailed Description

Group of variables in the application.

This group contains all the variables used in the application. These variables are used to store data and pass it between functions.

8.9.2 Variable Documentation

8.9.2.1 activeDatabase

QSqlDatabase AposDatabase::DatabaseHandler::activeDatabase [private]

The active database of the DatabaseHandler object.

This variable is used to store the active database of the DatabaseHandler object.

Definition at line 101 of file databasehandler.hpp.

8.9 Variables 51

8.9.2.2 activeTableName

```
QString AposDatabase::TableHandler::activeTableName = "userTable" [private]
```

The active table name of the TableHandler object.

This variable is used to store the active table name of the TableHandler object.

Definition at line 141 of file tablehandler.hpp.

8.9.2.3 clearCommand

```
bool AposFrontend::DevWindow::clearCommand = false [private]
```

Boolean values for clearing the command and the inputs.

These boolean values are used to determine whether to clear the command, and the inputs of the DevWindow object.

Definition at line 355 of file devwindow.hpp.

8.9.2.4 databasePath

```
QString AposDatabase::DatabaseHandler::databasePath = R"(C:\Users\Clean\Documents\Projekte\)
Apos-DatabaseManager\Project\resources\defaultDatabase\userDatabase.db)" [private]
```

The path to the database.

This variable is used to store the path to the database.

Definition at line 115 of file databasehandler.hpp.

8.9.2.5 input1

```
QString AposFrontend::DevWindow::input1 [private]
```

String values for the inputs.

These string values are used to store the inputs of the DevWindow object.

Definition at line 346 of file devwindow.hpp.

8.9.2.6 languageChanged

```
bool AposFrontend::SettingsWindow::languageChanged {} [private]
```

Indicates whether the language has changed.

This variable is used to indicate whether the language has changed.

Definition at line 152 of file settingswindow.hpp.

8.9.2.7 languageIndex

```
int AposFrontend::SettingsWindow::languageIndex {} [private]
```

The index of the selected language.

This variable is used to store the index of the selected language.

Definition at line 138 of file settingswindow.hpp.

8.9.2.8 lastSqlError

```
QSqlError AposDatabase::DatabaseHandler::lastSqlError [private]
```

The SQL error of the DatabaseHandler object.

This variable is used to store the SQL error of the DatabaseHandler object.

Definition at line 94 of file databasehandler.hpp.

8.9.2.9 lastTableError

```
QSqlError AposDatabase::TableHandler::lastTableError [private]
```

The last table error of the TableHandler object.

This variable is used to store the last table error of the TableHandler object.

Definition at line 162 of file tablehandler.hpp.

8.9.2.10 objectHandler

```
QSharedPointer<AposBackend::ObjectHandler> AposFrontend::LauncherWindow::objectHandler = nullptr [private]
```

Shared pointer to the ObjectHandler object.

This shared pointer is used to access the ObjectHandler object.

Definition at line 112 of file launcherwindow.hpp.

8.9.2.11 ptrActiveDatabase

```
QSharedPointer<QSqlDatabase> AposDatabase::DatabaseHandler::ptrActiveDatabase [private]
```

Shared pointer to the active database.

This shared pointer is used to access the active database of the DatabaseHandler object.

Definition at line 108 of file databasehandler.hpp.

8.9 Variables 53

8.9.2.12 ptrApplication [1/2]

QSharedPointer<QApplication> AposBackend::ObjectHandler::ptrApplication [private]

Shared pointer to the QApplication object.

This shared pointer is used to access the QApplication object.

Definition at line 140 of file objecthandler.hpp.

8.9.2.13 ptrApplication [2/2]

 ${\tt QSharedPointer} < {\tt QApplication} > {\tt AposBackend::StartupHandler::ptrApplication} \quad [private]$

Shared pointer to the QApplication object.

This shared pointer is used to access the QApplication object.

Definition at line 95 of file startuphandler.hpp.

8.9.2.14 ptrDbHandler [1/2]

QSharedPointer<AposDatabase::DatabaseHandler> AposBackend::ObjectHandler::ptrDbHandler [private]

Shared pointer to the DatabaseHandler object.

This shared pointer is used to access the DatabaseHandler object.

Definition at line 147 of file objecthandler.hpp.

8.9.2.15 ptrDbHandler [2/2]

QSharedPointer<DatabaseHandler> AposDatabase::TableHandler::ptrDbHandler [private]

Shared pointer to the DatabaseHandler object.

This shared pointer is used to access the DatabaseHandler object.

Definition at line 148 of file tablehandler.hpp.

8.9.2.16 ptrDevWindow

QSharedPointer<DevWindow> AposFrontend::WindowHandler::ptrDevWindow [private]

Shared pointer to the DevWindow object.

This shared pointer is used to access the DevWindow object.

Definition at line 105 of file windowhandler.hpp.

8.9.2.17 ptrLauncherWindow

QSharedPointer<LauncherWindow> AposFrontend::WindowHandler::ptrLauncherWindow [private]

Shared pointer to the LauncherWindow object.

This shared pointer is used to access the LauncherWindow object.

Definition at line 98 of file windowhandler.hpp.

8.9.2.18 ptrObjectHandler [1/4]

QSharedPointer<ObjectHandler> AposBackend::StartupHandler::ptrObjectHandler [private]

Shared pointer to the ObjectHandler object.

This shared pointer is used to access the ObjectHandler object.

Definition at line 102 of file startuphandler.hpp.

8.9.2.19 ptrObjectHandler [2/4]

QSharedPointer<AposBackend::ObjectHandler> AposFrontend::DevWindow::ptrObjectHandler = nullptr [private]

Shared pointer to the ObjectHandler object.

This shared pointer is used to access the ObjectHandler object.

Definition at line 337 of file devwindow.hpp.

8.9.2.20 ptrObjectHandler [3/4]

QSharedPointer<AposBackend::ObjectHandler> AposFrontend::SettingsWindow::ptrObjectHandler [private]

Shared pointer to the ObjectHandler object.

This shared pointer is used to access the ObjectHandler object.

Definition at line 124 of file settingswindow.hpp.

8.9.2.21 ptrObjectHandler [4/4]

QSharedPointer<AposBackend::ObjectHandler> AposFrontend::WindowHandler::ptrObjectHandler [private]

Shared pointer to the ObjectHandler object.

This shared pointer is used to access the ObjectHandler object.

Definition at line 119 of file windowhandler.hpp.

8.9 Variables 55

8.9.2.22 ptrSettingsWindow

QSharedPointer<SettingsWindow> AposFrontend::WindowHandler::ptrSettingsWindow [private]

Shared pointer to the SettingsWindow object.

This shared pointer is used to access the SettingsWindow object.

Definition at line 112 of file windowhandler.hpp.

8.9.2.23 ptrTableHandler

QSharedPointer<AposDatabase::TableHandler> AposBackend::ObjectHandler::ptrTableHandler [private]

Shared pointer to the TableHandler object.

This shared pointer is used to access the TableHandler object.

Definition at line 154 of file objecthandler.hpp.

8.9.2.24 ptrTableModel

QSharedPointer<QSqlTableModel> AposDatabase::TableHandler::ptrTableModel [private]

Shared pointer to the QSqlTableModel object.

This shared pointer is used to access the QSqlTableModel object.

Definition at line 155 of file tablehandler.hpp.

8.9.2.25 ptrTranslator

 $\verb|QSharedPointer<|QTranslator>| AposFrontend::SettingsWindow::ptrTranslator | [private]|$

Shared pointer to the QTranslator object.

This shared pointer is used to access the QTranslator object.

Definition at line 131 of file settingswindow.hpp.

8.9.2.26 tempLanguageIndex

int AposFrontend::SettingsWindow::tempLanguageIndex {} [private]

The temporary index of the selected language.

This variable is used to store the temporary index of the selected language.

Definition at line 145 of file settingswindow.hpp.

8.9.2.27 ui [1/3]

```
Ui::DevWindow* AposFrontend::DevWindow::ui [private]
```

Pointer to the user interface of the DevWindow object.

This pointer is used to access the user interface of the DevWindow object.

Definition at line 328 of file devwindow.hpp.

8.9.2.28 ui [2/3]

```
Ui::LauncherWindow* AposFrontend::LauncherWindow::ui [private]
```

Pointer to the user interface of the LauncherWindow object.

This pointer is used to access the user interface of the LauncherWindow object.

Definition at line 105 of file launcherwindow.hpp.

8.9.2.29 ui [3/3]

```
Ui::SettingsWindow* AposFrontend::SettingsWindow::ui [private]
```

Pointer to the user interface of the SettingsWindow object.

This pointer is used to access the user interface of the SettingsWindow object.

Definition at line 117 of file settingswindow.hpp.

Chapter 9

Namespace Documentation

9.1 AposBackend Namespace Reference

Classes

· class ObjectHandler

The ObjectHandler class is a part of the application's backend logic.

· class StartupHandler

Provides the functionality for initializing the application's translator and ObjectHandler.

9.2 AposDatabase Namespace Reference

Classes

· class DatabaseHandler

Provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

class TableHandler

Provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

9.3 AposFrontend Namespace Reference

Classes

class DevWindow

Provides the user interface for the developer window.

· class LauncherWindow

Provides the user interface for the launcher window.

· class SettingsWindow

Provides the user interface for the settings window.

· class TranslatableWindow

An abstract base class that provides a function for retranslating the user interface.

· class WindowHandler

Provides the functionality for managing the application's windows.

9.4 Applnitialization Namespace Reference

Functions

QSharedPointer< AposBackend::StartupHandler > initializeStartupHandler (const QSharedPointer< QApplication > &newApp)

Initialize the StartupHandler object.

QSharedPointer< AposBackend::ObjectHandler > initializeObjectHandler (const QSharedPointer
 AposBackend::StartupHandler > &startupHandler)

Initialize the ObjectHandler object.

QSharedPointer< AposFrontend::WindowHandler > initializeWindowHandler (const QSharedPointer
 AposBackend::ObjectHandler > &objectHandler)

Initialize the WindowHandler object.

9.4.1 Detailed Description

< Include the StartupHandler class < Include the WindowHandler class < Include the QApplication class < Include the QDebug class for debugging < Include the QScopedPointer class for memory management

9.4.2 Function Documentation

9.4.2.1 initializeObjectHandler()

Initialize the ObjectHandler object.

This function initializes the StartupHandler object with the QApplication object, then uses the StartupHandler object to initialize and return the ObjectHandler object.

Parameters

startupHan	dler	Pointer to the StartupHandler object.	This is used to initialize the ObjectHandler object.
------------	------	---------------------------------------	--

Returns

Unique pointer to the initialized ObjectHandler object

Exceptions

std::runtime_error	if the QApplication pointer is null or if the ObjectHandler fails to initialize.

Definition at line 131 of file main.cpp.

Here is the caller graph for this function:



9.4.2.2 initializeStartupHandler()

```
\label{lem:QSharedPointer} $$ QSharedPointer< AppSBackend::StartupHandler > AppInitialization::initializeStartupHandler ( const QSharedPointer< QApplication > & newApp )
```

Initialize the StartupHandler object.

This function initializes the StartupHandler object with the QApplication object.

Parameters

the QApplication object. This is used to initialize the StartupHandler object	newApp Shared pointer to the QApplication object
---	--

Returns

Shared pointer to the initialized StartupHandler object

Exceptions

std::runtime_error	if the QApplication pointer is null.

Definition at line 120 of file main.cpp.



9.4.2.3 initializeWindowHandler()

 $\label{lem:QSharedPointer} $$ QSharedPointer< AposFrontend::WindowHandler > AppInitialization::initializeWindowHandler (const QSharedPointer< AposBackend::ObjectHandler > & objectHandler)$

Initialize the WindowHandler object.

This function initializes the WindowHandler object with the ObjectHandler object and shows the launch window.

Parameters

objectHandler	Unique pointer to the ObjectHandler object. This is used to initialize the WindowHandler object.
---------------	--

Returns

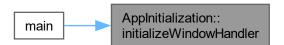
Unique pointer to the initialized WindowHandler object

Exceptions

std::runtime_error if the ObjectHandler pointer is null, or if the WindowHandler object fails to initialize.
--

Definition at line 143 of file main.cpp.

Here is the caller graph for this function:



9.5 Ui Namespace Reference

Chapter 10

Class Documentation

10.1 AposBackend::ObjectHandler Class Reference

The ObjectHandler class is a part of the application's backend logic.

```
#include <objecthandler.hpp>
```

Public Member Functions

ObjectHandler (QSharedPointer < QApplication > newApplication, QSharedPointer < AposDatabase::DatabaseHandler > newDbHandler, QSharedPointer < AposDatabase::TableHandler > newTableHandler)

Constructor for the ObjectHandler class.

• bool initDatabaseObject ()

Initializes the database object.

bool initTableObject (const QString &inputTableName)

Initializes the table object.

void setActiveTableName (const QString &newActiveTableName)

Sets the active table name.

 $\bullet \ \ QSharedPointer < QSqlDatabase > \underline{getActiveDatabase} \ () \ const$

Gets the active database.

• QSharedPointer< AposDatabase::TableHandler > getPtrTableHandler () const

Gets the table handler.

• QSharedPointer< AposDatabase::DatabaseHandler > getPtrDbHandler () const

Gets the database handler.

const QString & getActiveTableName () const

Gets the active table name.

• const QSqlError & getTableSqlError () const

Gets the table SQL error.

const QSharedPointer< QApplication > & getPtrApplication () const

Gets the QApplication object.

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Private Attributes

• QSharedPointer< QApplication > ptrApplication

Shared pointer to the QApplication object.

• QSharedPointer< AposDatabase::DatabaseHandler > ptrDbHandler

Shared pointer to the DatabaseHandler object.

• QSharedPointer< AposDatabase::TableHandler > ptrTableHandler

Shared pointer to the TableHandler object.

10.1.1 Detailed Description

The ObjectHandler class is a part of the application's backend logic.

Provides the functionality for initializing the database and table objects, setting the active table name, and getting the active database, table handler, database handler, active table name, and table SQL error.

See also

AposDatabase::DatabaseHandler AposDatabase::TableHandler

QApplication QSharedPointer

QDebug QtSql

Definition at line 48 of file objecthandler.hpp.

10.1.2 Member Function Documentation

10.1.2.1 getActiveDatabase()

 ${\tt QSharedPointer<\ QSqlDatabase\ >\ AposBackend::ObjectHandler::getActiveDatabase\ (\)\ constraints}$

Gets the active database.

This function gets the active database of the ObjectHandler object.

Returns

Shared pointer to the active QSqlDatabase object.

Definition at line 70 of file objecthandler.cpp.

10.1.2.2 getActiveTableName()

const QString & AposBackend::ObjectHandler::getActiveTableName () const

Gets the active table name.

This function gets the active table name of the ObjectHandler object.

Returns

The active table name.

Definition at line 62 of file objecthandler.cpp.

10.1.2.3 getPtrApplication()

```
const QSharedPointer< QApplication > & AposBackend::ObjectHandler::getPtrApplication ( ) const
```

Gets the QApplication object.

This function gets the QApplication object of the ObjectHandler object.

Returns

Shared pointer to the QApplication object.

Definition at line 78 of file objecthandler.cpp.

10.1.2.4 getPtrDbHandler()

```
QSharedPointer< AposDatabase::DatabaseHandler > AposBackend::ObjectHandler::getPtrDbHandler () const
```

Gets the database handler.

This function gets the database handler of the ObjectHandler object.

Returns

Shared pointer to the DatabaseHandler object.

Definition at line 58 of file objecthandler.cpp.

10.1.2.5 getPtrTableHandler()

```
\label{lem:QSharedPointer} QSharedPointer < AposDatabase:: Table Handler > AposBackend:: Object Handler:: getPtrTable Handler () const
```

Gets the table handler.

This function gets the table handler of the ObjectHandler object.

Returns

Shared pointer to the TableHandler object.

Definition at line 54 of file objecthandler.cpp.

10.1.2.6 getTableSqlError()

```
const QSqlError & AposBackend::ObjectHandler::getTableSqlError ( ) const
```

Gets the table SQL error.

This function gets the table SQL error of the ObjectHandler object.

Returns

The table SQL error.

Definition at line 66 of file objecthandler.cpp.

10.1.2.7 setActiveTableName()

Sets the active table name.

This function sets the active table name of the ObjectHandler object.

Parameters

newActiveTableName	The new active table name.
--------------------	----------------------------

Definition at line 74 of file objecthandler.cpp.

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

- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/objecthandler.hpp
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/objecthandler.cpp

10.2 AposBackend::StartupHandler Class Reference

Provides the functionality for initializing the application's translator and ObjectHandler.

```
#include <startuphandler.hpp>
```

Public Member Functions

 $\bullet \ \ Startup Handler \ (const \ QShared Pointer < QApplication) > \& application) \\$

Constructor for the StartupHandler class.

QSharedPointer< ObjectHandler > startUp ()

Initializes the application's translator and ObjectHandler.

Private Member Functions

· void installTranslator ()

Installs the application's translator.

• QSharedPointer< ObjectHandler > initObjectHandler ()

Initializes the application's ObjectHandler.

Static Private Member Functions

static QSharedPointer< QTranslator > initTranslator ()
 Initializes the application's translator.

Private Attributes

QSharedPointer< QApplication > ptrApplication

Shared pointer to the QApplication object.

QSharedPointer< ObjectHandler > ptrObjectHandler

Shared pointer to the ObjectHandler object.

10.2.1 Detailed Description

Provides the functionality for initializing the application's translator and ObjectHandler.

The StartupHandler class is a part of the application's backend logic. It interacts with the QApplication object and uses the ObjectHandler class to manage the application's objects.

See also

ObjectHandler

QApplication

QSharedPointer

QDebug

QtSql

QTranslator

QLocale

Definition at line 49 of file startuphandler.hpp.

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

- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/startuphandler.hpp
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/backendClasses/startuphandler.cpp

10.3 AposDatabase::DatabaseHandler Class Reference

Provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

#include <databasehandler.hpp>

Public Member Functions

• DatabaseHandler ()

Constructor for the DatabaseHandler class.

• bool initDatabase ()

Initializes the database.

• void closeDatabase ()

Closes the database.

• bool executeCommand (const QString &command)

Executes a SQL command.

• QSharedPointer< QSqlDatabase > getActiveDatabase ()

Gets the active database.

const QSqlError & getSqlError () const

Gets the SQL error.

Private Attributes

• QSqlError lastSqlError

The SQL error of the DatabaseHandler object.

QSqlDatabase activeDatabase

The active database of the DatabaseHandler object.

QSharedPointer< QSqlDatabase > ptrActiveDatabase

Shared pointer to the active database.

• QString databasePath = R"(C:\Users\Clean\Documents\Projekte\Apos-DatabaseManager\Project\resources\default ← Database\userDatabase.db)"

The path to the database.

10.3.1 Detailed Description

Provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

The DatabaseHandler class is a part of the application's backend logic.

See also

QtSql

QSqlDatabase

QSqlError

QSharedPointer

QDebug

Definition at line 40 of file databasehandler.hpp.

10.3.2 Member Function Documentation

10.3.2.1 getActiveDatabase()

```
QSharedPointer< QSqlDatabase > AposDatabase::DatabaseHandler::getActiveDatabase ( )
```

Gets the active database.

This function gets the active database of the DatabaseHandler object.

Returns

Shared pointer to the active QSqlDatabase object.

Definition at line 52 of file databasehandler.cpp.

10.3.2.2 getSqlError()

```
const QSqlError & AposDatabase::DatabaseHandler::getSqlError ( ) const
```

Gets the SQL error.

This function gets the SQL error of the DatabaseHandler object.

Returns

The SQL error.

Definition at line 56 of file databasehandler.cpp.

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

- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/databasehandler.hpp
- $\bullet \ \ C:/Users/Clean/Documents/Projekte/Apos-Database Manager/Project/classes/database Classes/database Andler.cpp$

10.4 AposDatabase::TableHandler Class Reference

Provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

```
#include <tablehandler.hpp>
```

Public Member Functions

• TableHandler (QSharedPointer< DatabaseHandler > newDbHandler)

Constructor for the TableHandler class.

TableHandler (QSharedPointer < DatabaseHandler > newDbHandler, const QString &tableName)

Constructor for the TableHandler class.

∼TableHandler ()

Destructor for the TableHandler class.

void generateTableModel ()

Generates a table model.

void generateTableModel (const QString &tableName)

Generates a table model with a specified table name.

 bool insertIntoTable (const QString &tableName, const QString &value1, const QString &value2, const QString &value3, const QString &value4, const QString &value5)

Inserts into a table.

void setActiveTableName (const QString &newActiveTableName)

Sets the active table name.

QSharedPointer< QSqlTableModel > getTableModel ()

Gets the table model.

const QString & getActiveTableName () const

Gets the active table name.

const QSqlError & getLastTableError () const

Gets the last table error.

Private Attributes

QString activeTableName = "userTable"

The active table name of the TableHandler object.

QSharedPointer< DatabaseHandler > ptrDbHandler

Shared pointer to the DatabaseHandler object.

QSharedPointer< QSqlTableModel > ptrTableModel

Shared pointer to the QSqlTableModel object.

QSqlError lastTableError

The last table error of the TableHandler object.

10.4.1 Detailed Description

Provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

The TableHandler class is a part of the application's backend logic.

See also

DatabaseHandler

QSharedPointer

QDebug

QtSql

QSqlTableModel

QSqlError

QSqlQuery

QSqlDatabase

Definition at line 48 of file tablehandler.hpp.

10.4.2 Member Function Documentation

10.4.2.1 getActiveTableName()

```
const QString & AposDatabase::TableHandler::getActiveTableName ( ) const
```

Gets the active table name.

This function gets the active table name of the TableHandler object.

Returns

The active table name.

Definition at line 92 of file tablehandler.cpp.

10.4.2.2 getLastTableError()

```
const QSqlError & AposDatabase::TableHandler::getLastTableError ( ) const
```

Gets the last table error.

This function gets the last table error of the TableHandler object.

Returns

The last table error.

Definition at line 100 of file tablehandler.cpp.

10.4.2.3 getTableModel()

```
QSharedPointer< QSqlTableModel > AposDatabase::TableHandler::getTableModel ( )
```

Gets the table model.

This function gets the table model of the TableHandler object.

Returns

Shared pointer to the QSqlTableModel object.

Definition at line 104 of file tablehandler.cpp.

10.4.2.4 setActiveTableName()

Sets the active table name.

This function sets the active table name of the TableHandler object.

Parameters

newActiveTableName	The new active table name.
--------------------	----------------------------

Definition at line 96 of file tablehandler.cpp.

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

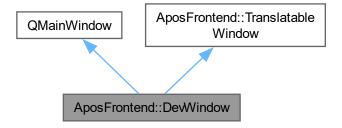
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/tablehandler.hpp
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/databaseClasses/tablehandler.cpp

10.5 AposFrontend::DevWindow Class Reference

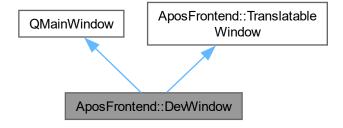
Provides the user interface for the developer window.

#include <devwindow.hpp>

Inheritance diagram for AposFrontend::DevWindow:



Collaboration diagram for AposFrontend::DevWindow:



Signals

void returnToLauncher ()

Signal for returning to the launcher.

· void openSettings ()

Signal for opening the settings.

Public Member Functions

DevWindow (QWidget *parent=nullptr, QSharedPointer< AposBackend::ObjectHandler > object
 Handler=nullptr)

Constructor for the DevWindow class.

∼DevWindow () override

Destructor for the DevWindow class.

void logEvent (const QString &type, const QString &message)

Logs an event with a type and a message.

void logEvent (const QString &message, const QSqlError &error)

Logs an event with a message and a SQL error.

void logEvent (const QString &message)

Logs an event with a message.

void retranslateUi () override

Retranslates the user interface.

Public Member Functions inherited from AposFrontend::TranslatableWindow

• TranslatableWindow ()

Constructor for the TranslatableWindow class.

Private Slots

void on_btnInitDB_clicked ()

Slot for the 'InitDB' button click event.

void on_btnCloseDB_clicked ()

Slot for the 'CloseDB' button click event.

void on_btnExecute_clicked ()

Slot for the 'Execute' button click event.

void on_btnSelectTable_clicked ()

Slot for the 'SelectTable' button click event.

void on_btnAdd_clicked ()

Slot for the 'Add' button click event.

• void on_btnUpdate_clicked ()

Slot for the 'Update' button click event.

void on_clearCommandAfterExecute_stateChanged (int arg1)

Slot for the 'clearCommandAfterExecute' state change event.

void on_clearInputsAfterInsert_stateChanged (int arg1)

Slot for the 'clearInputsAfterInsert' state change event.

void on_inReturnToLauncher_clicked ()

Slot for the 'ReturnToLauncher' button click event.

void on_inSettings_clicked ()

Slot for the 'Settings' button click event.

Private Member Functions

· void initDatabase ()

Initializes the database.

void closeDatabase (const QSharedPointer< AposDatabase::DatabaseHandler > &db)

Closes the database.

void setModelViews ()

Sets the model views.

void setModelViews (const QSharedPointer< QSqlTableModel) &tableModel)

Sets the model views with a table model.

· void enableButtons (bool databaseLoaded)

Enables or disables the buttons.

void assignInputs ()

Assigns the inputs.

• void clearInputs (bool clearBool)

Clears the inputs.

bool checkCheckbox (int argCb)

Checks a checkbox.

void clearCommandBox (bool clearBool)

Clears the command box.

Private Attributes

• Ui::DevWindow * ui

Pointer to the user interface of the DevWindow object.

QSharedPointer< AposBackend::ObjectHandler > ptrObjectHandler = nullptr

Shared pointer to the ObjectHandler object.

QString input1

String values for the inputs.

- QString input2
- QString input3
- · QString input4
- QString input5
- bool clearCommand = false

Boolean values for clearing the command and the inputs.

• bool clearInput = false

10.5.1 Detailed Description

Provides the user interface for the developer window.

The DevWindow class provides the functionality for logging events, retranslating the user interface, initializing and closing the database, setting model views, enabling buttons, assigning inputs, checking checkboxes, and clearing inputs and the command box.

See also

QMainWindow

TranslatableWindow

AposBackend::ObjectHandler

Definition at line 49 of file devwindow.hpp.

10.5.2 Member Function Documentation

10.5.2.1 logEvent()

Logs an event with a type and a message.

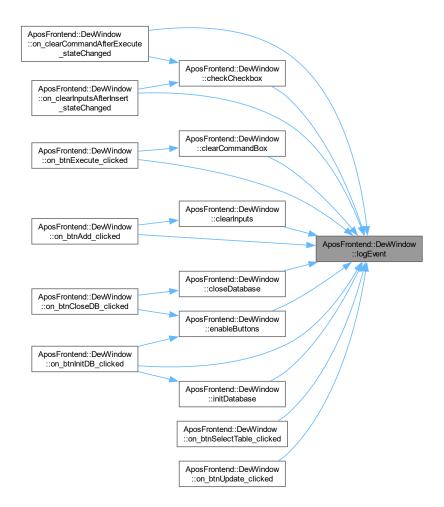
This function logs an event with a specified type and message.

Parameters

type	The type of the event.
message	The message of the event.

Definition at line 33 of file devwindow.cpp.

Here is the caller graph for this function:



10.5.3 Member Data Documentation

10.5.3.1 clearInput

```
bool AposFrontend::DevWindow::clearInput = false [private]
```

Definition at line 355 of file devwindow.hpp.

10.5.3.2 input2

```
QString AposFrontend::DevWindow::input2 [private]
```

Definition at line 346 of file devwindow.hpp.

10.5.3.3 input3

```
QString AposFrontend::DevWindow::input3 [private]
```

Definition at line 346 of file devwindow.hpp.

10.5.3.4 input4

```
QString AposFrontend::DevWindow::input4 [private]
```

Definition at line 346 of file devwindow.hpp.

10.5.3.5 input5

```
QString AposFrontend::DevWindow::input5 [private]
```

Definition at line 346 of file devwindow.hpp.

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

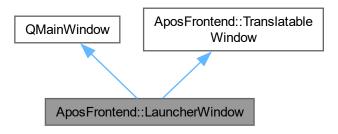
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/devwindow.hpp
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/devwindow.cpp

10.6 AposFrontend::LauncherWindow Class Reference

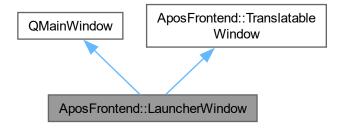
Provides the user interface for the launcher window.

#include <launcherwindow.hpp>

Inheritance diagram for AposFrontend::LauncherWindow:



Collaboration diagram for AposFrontend::LauncherWindow:



Signals

- void openDevWindow ()
 - Signal for opening the developer window.
- void openSettings ()

Signal for opening the settings.

Public Member Functions

• LauncherWindow (QWidget *parent=nullptr, QSharedPointer< AposBackend::ObjectHandler > newObject ← Handler=nullptr)

Constructor for the LauncherWindow class.

∼LauncherWindow () override

Destructor for the LauncherWindow class.

• void retranslateUi () override

Retranslates the user interface.

Public Member Functions inherited from AposFrontend::TranslatableWindow

TranslatableWindow ()

Constructor for the TranslatableWindow class.

Private Slots

· void on inShowDev clicked ()

Slot for the 'ShowDev' button click event.

void on_pushButton_clicked ()

Slot for the 'PushButton' button click event.

Private Attributes

• Ui::LauncherWindow * ui

Pointer to the user interface of the LauncherWindow object.

• QSharedPointer< AposBackend::ObjectHandler > objectHandler = nullptr

Shared pointer to the ObjectHandler object.

10.6.1 Detailed Description

Provides the user interface for the launcher window.

The LauncherWindow class provides the functionality for opening the developer window and settings. It interacts with the QMainWindow and TranslatableWindow classes and uses the ObjectHandler class to manage the application's objects.

See also

AposBackend::ObjectHandler

TranslatableWindow

QMainWindow

Definition at line 45 of file launcherwindow.hpp.

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

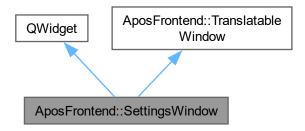
- $\bullet \ \ C:/Users/Clean/Documents/Projekte/Apos-Database Manager/Project/classes/frontend Classes/launcherwindow.hpp$
- $\bullet \ \ C:/Users/Clean/Documents/Projekte/Apos-Database Manager/Project/classes/frontend Classes/launcherwindow.cpp$

10.7 AposFrontend::SettingsWindow Class Reference

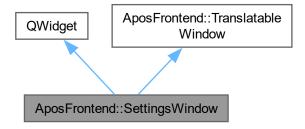
Provides the user interface for the settings window.

#include <settingswindow.hpp>

Inheritance diagram for AposFrontend::SettingsWindow:



Collaboration diagram for AposFrontend::SettingsWindow:



Signals

void appliedSettings ()
 Signal for applying settings.

Public Member Functions

Constructor for the SettingsWindow class.

∼SettingsWindow () override

Destructor for the SettingsWindow class.

• void retranslateUi () override

Retranslates the user interface.

Public Member Functions inherited from AposFrontend::TranslatableWindow

• TranslatableWindow ()

Constructor for the TranslatableWindow class.

Private Slots

• void on inClose clicked ()

Slot for the 'Close' button click event.

void on_inApply_clicked ()

Slot for the 'Apply' button click event.

· void on_inLanguage_currentIndexChanged (int index)

Slot for the 'Language' combo box index change event.

Private Member Functions

• void installTranslator ()

Installs the application's translator.

Private Attributes

Ui::SettingsWindow * ui

Pointer to the user interface of the SettingsWindow object.

QSharedPointer< AposBackend::ObjectHandler > ptrObjectHandler

Shared pointer to the ObjectHandler object.

QSharedPointer< QTranslator > ptrTranslator

Shared pointer to the QTranslator object.

int languageIndex {}

The index of the selected language.

int tempLanguageIndex {}

The temporary index of the selected language.

bool languageChanged {}

Indicates whether the language has changed.

10.7.1 Detailed Description

Provides the user interface for the settings window.

The SettingsWindow class provides the functionality for applying settings and retranslating the user interface. It interacts with the QWidget and TranslatableWindow classes and uses the ObjectHandler class to manage the application's objects.

See also

AposBackend::ObjectHandler

TranslatableWindow

QWidget

QTranslator

QSharedPointer

Definition at line 49 of file settingswindow.hpp.

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

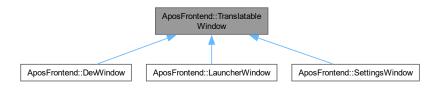
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/settingswindow.hpp
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/settingswindow.cpp

10.8 AposFrontend::TranslatableWindow Class Reference

An abstract base class that provides a function for retranslating the user interface.

#include <translatablewindow.hpp>

Inheritance diagram for AposFrontend::TranslatableWindow:



Public Member Functions

• TranslatableWindow ()

Constructor for the TranslatableWindow class.

• virtual void retranslateUi ()=0

Retranslates the user interface.

10.8.1 Detailed Description

An abstract base class that provides a function for retranslating the user interface.

The TranslatableWindow class is a part of the application's frontend logic. It is used as a base class for other classes that need to retranslate their user interface.

Definition at line 26 of file translatablewindow.hpp.

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

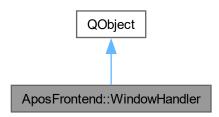
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/translatablewindow.hpp
- $\bullet \quad \hbox{C:/Users/Clean/Documents/Projekte/Apos-Database Manager/Project/classes/frontend Classes/translatable window.cpp} \\$

10.9 AposFrontend::WindowHandler Class Reference

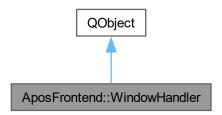
Provides the functionality for managing the application's windows.

#include <windowhandler.hpp>

Inheritance diagram for AposFrontend::WindowHandler:



Collaboration diagram for AposFrontend::WindowHandler:



Public Member Functions

- WindowHandler (QSharedPointer < AposBackend::ObjectHandler > newObjectHandler)
 Constructor for the WindowHandler class.
- void showLaunchWindow ()

Shows the launcher window.

Private Slots

• void showDevWindow ()

Shows the developer window.

void showSettingsWindow ()

Shows the settings window.

· void applySettings ()

Applies settings.

Private Member Functions

• void changeLanguages ()

Changes languages.

Private Attributes

QSharedPointer< LauncherWindow > ptrLauncherWindow

Shared pointer to the LauncherWindow object.

QSharedPointer< DevWindow > ptrDevWindow

Shared pointer to the DevWindow object.

QSharedPointer< SettingsWindow > ptrSettingsWindow

Shared pointer to the SettingsWindow object.

QSharedPointer< AposBackend::ObjectHandler > ptrObjectHandler

Shared pointer to the ObjectHandler object.

10.9.1 Detailed Description

Provides the functionality for managing the application's windows.

The WindowHandler class is a part of the application's frontend logic. It provides the functionality for showing the launcher window, developer window, and settings window. It also applies settings and changes languages.

See also

AposBackend::ObjectHandler

LauncherWindow

DevWindow

SettingsWindow

QSharedPointer

QObject

Definition at line 48 of file windowhandler.hpp.

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

- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/windowhandler.hpp
- C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/Project/classes/frontendClasses/windowhandler.cpp

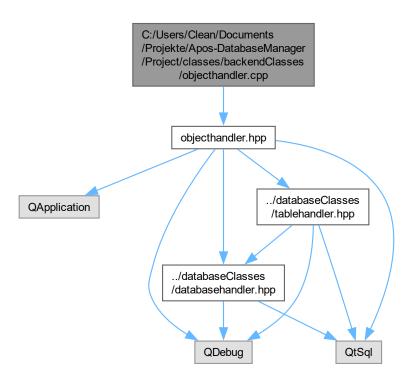
Chapter 11

File Documentation

11.1 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ ← Project/classes/backendClasses/objecthandler.cpp File Reference

Source file for the ObjectHandler class.

#include "objecthandler.hpp"
Include dependency graph for objecthandler.cpp:



Namespaces

• namespace AposBackend

11.1.1 Detailed Description

Source file for the ObjectHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the ObjectHandler class, which is a part of the application's backend logic. The ObjectHandler class provides the functionality for initializing the database and table objects, setting the active table name, and getting the active database, table handler, database handler, active table name, and table SQL error

Note

The application is part of a student project and is not intended for commercial use.

See also

AposDatabase::DatabaseHandler
AposDatabase::TableHandler

QApplication

QSharedPointer

QDebug

QtSql

Definition in file objecthandler.cpp.

11.2 objecthandler.cpp

```
Go to the documentation of this file.
```

```
00001
00022 #include "objecthandler.hpp"
00023
00024 namespace AposBackend {
00025
00026
          ObjectHandler::ObjectHandler(QSharedPointer<QApplication> newApplication,
00027
                                        QSharedPointer<AposDatabase::DatabaseHandler> newDbHandler,
00028
                                        QSharedPointer<AposDatabase::TableHandler> newTableHandler)
00029
              ptrApplication = newApplication;
00030
              ptrDbHandler = newDbHandler;
00031
              ptrTableHandler = newTableHandler;
00032
00033
00034
         bool ObjectHandler::initDatabaseObject() {
00035
              bool initializedDatabaseObject = false;
```

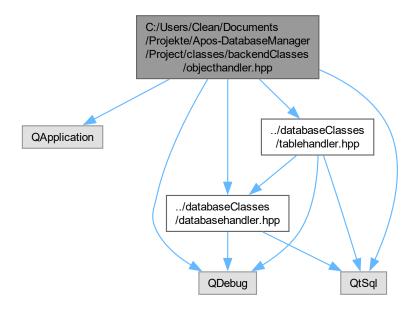
```
initializedDatabaseObject = ptrDbHandler->initDatabase();
00037
              return initializedDatabaseObject;
00038
00039
00040
         bool ObjectHandler::initTableObject(const QString &inputTableName) {
            bool initializedTableObject = false;
00042
00043
                  ptrTableHandler->generateTableModel(inputTableName);
00044
                  initializedTableObject = true;
00045
              catch (const std::exception &e) {
00046
                 qDebug() « "Error: " « e.what();
initializedTableObject = false;
00047
                 qDebug() « "Error:
00048
00049
00050
              return initializedTableObject;
00051
00052
00053
         QSharedPointer<AposDatabase::TableHandler> ObjectHandler::getPtrTableHandler() const {
00054
00055
             return ptrTableHandler;
00056
00057
00058
        QSharedPointer<AposDatabase::DatabaseHandler> ObjectHandler::getPtrDbHandler() const {
00059
             return ptrDbHandler;
00060
00061
00062
        const OString &ObjectHandler::getActiveTableName() const {
00063
            return ptrTableHandler->getActiveTableName();
00064
00065
00066
        const QSqlError &ObjectHandler::getTableSqlError() const {
00067
            return ptrTableHandler->getLastTableError();
00068
00069
00070
          [[maybe_unused]] QSharedPointer<QSqlDatabase> ObjectHandler::getActiveDatabase() const {
00071
              return ptrDbHandler->getActiveDatabase();
00072
00073
00074
         [[maybe_unused]] void ObjectHandler::setActiveTableName(const QString &newActiveTableName) {
00075
            ptrTableHandler->setActiveTableName(newActiveTableName);
00076
00077
00078
       const QSharedPointer<QApplication> &ObjectHandler::getPtrApplication() const {
00079
            return ptrApplication;
08000
00081
00082 }
00083
00085
00086
```

11.3 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/backendClasses/objecthandler.hpp File Reference

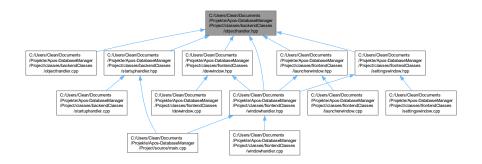
Header file for the ObjectHandler class.

```
#include <QApplication>
#include <QDebug>
#include <QtSql>
#include "../databaseClasses/databasehandler.hpp"
#include "../databaseClasses/tablehandler.hpp"
```

Include dependency graph for objecthandler.hpp:



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



Classes

• class AposBackend::ObjectHandler

The ObjectHandler class is a part of the application's backend logic.

Namespaces

• namespace AposBackend

11.4 objecthandler.hpp 87

11.3.1 Detailed Description

Header file for the ObjectHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1 alpha.2 @license LGPL-V3

This file contains the declaration of the ObjectHandler class, which is a part of the application's backend logic. The ObjectHandler class provides the functionality for initializing the database and table objects, setting the active table name, and getting the active database, table handler, database handler, active table name, and table SQL error.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposDatabase::DatabaseHandler
AposDatabase::TableHandler
QApplication
QSharedPointer
QDebug
QtSql

Definition in file objecthandler.hpp.

11.4 objecthandler.hpp

Go to the documentation of this file.

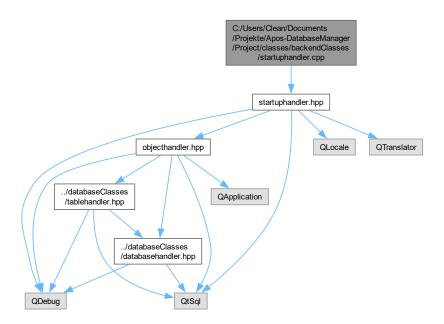
```
00001
00023 #pragma once
00024
00025 #include <QApplication>
00026 #include <QDebug>
00027 #include <QtSql>
00028
00029 #include "../databaseClasses/databasehandler.hpp"
00030 #include "../databaseClasses/tablehandler.hpp"
00031
00032
00033 namespace AposBackend {
00048
          class ObjectHandler {
00049
          public:
00058
              ObjectHandler (OSharedPointer < OApplication > newApplication,
00059
                            QSharedPointer<AposDatabase::DatabaseHandler> newDbHandler,
00060
                            QSharedPointer<AposDatabase::TableHandler> newTableHandler);
```

```
00068
              bool initDatabaseObject();
00069
00077
              bool initTableObject(const QString &inputTableName);
00078
00085
              [[maybe_unused]] void setActiveTableName(const QString &newActiveTableName);
00086
00093
              [[maybe_unused]] [[nodiscard]] QSharedPointer<QSqlDatabase> getActiveDatabase() const;
00094
00101
              [[nodiscard]] QSharedPointer<AposDatabase::TableHandler> getPtrTableHandler() const;
00102
00109
              [[nodiscard]] QSharedPointer<AposDatabase::DatabaseHandler> getPtrDbHandler() const;
00110
00117
              [[nodiscard]] const QString &getActiveTableName() const;
00118
00125
              [[nodiscard]] const QSqlError &getTableSqlError() const;
00126
00133
              [[nodiscard]] const QSharedPointer<QApplication> &getPtrApplication() const;
00134
         private:
00140
              QSharedPointer<QApplication> ptrApplication;
00141
00147
              QSharedPointer<AposDatabase::DatabaseHandler> ptrDbHandler;
00148
              QSharedPointer<AposDatabase::TableHandler> ptrTableHandler;
00154
00155
          };
00156 }
```

11.5 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ ← Project/classes/backendClasses/startuphandler.cpp File Reference

Source file for the StartupHandler class.

#include "startuphandler.hpp"
Include dependency graph for startuphandler.cpp:



Namespaces

namespace AposBackend

11.5.1 Detailed Description

Source file for the StartupHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the StartupHandler class, which is a part of the application's backend logic. The StartupHandler class provides the functionality for initializing the application's translator and ObjectHandler.

Note

The application is part of a student project and is not intended for commercial use.

See also

ObjectHandler

QApplication

QSharedPointer

QDebug

QtSql

QTranslator

QLocale

Definition in file startuphandler.cpp.

11.6 startuphandler.cpp

Go to the documentation of this file.

```
00001
00022 #include "startuphandler.hpp"
00023
00024 namespace AposBackend {
00025
00026
         StartupHandler::StartupHandler(const QSharedPointer<QApplication> &application) {
00027
              if (application == nullptr) {
                  throw std::runtime_error("QApplication pointer is null");
00028
00029
00030
              this->ptrApplication = application;
00031
00032
00033
         QSharedPointer<ObjectHandler> StartupHandler::startUp() {
00034
00035
                  installTranslator();
00036
                  ptrObjectHandler = initObjectHandler();
```

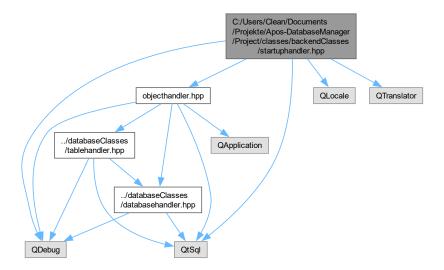
```
} catch (const std::exception &e) {
00038
                  qDebug() « "Exception caught in StartupHandler::startUp: " « e.what();
00039
                  ptrObjectHandler = nullptr;
00040
00041
              return ptrObjectHandler;
00042
00043
00044
          void StartupHandler::installTranslator() {
              QSharedPointer<QTranslator> translator = initTranslator();
00045
              if (ptrApplication->installTranslator(translator.data())) {
00046
                  qDebug() « "Translator installed";
00047
00048
00049
00050
00051
          OSharedPointer<OTranslator> StartupHandler::initTranslator() {
00052
              OSharedPointer<OTranslator> translator(new OTranslator());
00053
              const QStringList uiLanguages = QLocale::system().uiLanguages();
00054
              for (const QString &locale: uiLanguages) {
                  const QString baseName = "Apos-DatabaseManager_" + QLocale(locale).name();
if (translator->load(":/il8n/" + baseName)) {
00055
00056
00057
                      break;
00058
00059
00060
              if (translator->isEmpty()) {
00061
                  throw std::runtime_error("Failed to load translator");
00062
00063
              return translator;
00064
          }
00065
00066
          QSharedPointer<ObjectHandler> StartupHandler::initObjectHandler() {
00067
              QSharedPointer<AposDatabase::DatabaseHandler (new AposDatabase::DatabaseHandler());
00068
              QSharedPointer<AposDatabase::TableHandler> tableHandler(new
     AposDatabase::TableHandler(dbHandler));
00069
              if (dbHandler == nullptr || tableHandler == nullptr) {
00070
                  throw std::runtime_error("Failed to initialize DatabaseHandler or TableHandler");
00071
              return QSharedPointer<ObjectHandler>(new ObjectHandler(ptrApplication, dbHandler,
00072
      tableHandler));
00073
00074
00075 }
```

11.7 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ ← Project/classes/backendClasses/startuphandler.hpp File Reference

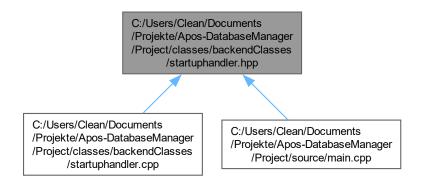
Header file for the StartupHandler class.

```
#include <QDebug>
#include <QtSql>
#include <QLocale>
#include <QTranslator>
#include "objecthandler.hpp"
```

Include dependency graph for startuphandler.hpp:



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



Classes

· class AposBackend::StartupHandler

Provides the functionality for initializing the application's translator and ObjectHandler.

Namespaces

• namespace AposBackend

11.7.1 Detailed Description

Header file for the StartupHandler class.

Author

Simon Blum

Date

13.11.2023

Version

```
0.1 alpha.2 @license LGPL-V3
```

This file contains the declaration of the StartupHandler class, which is a part of the application's backend logic. The StartupHandler class provides the functionality for initializing the application's translator and ObjectHandler.

Note

The application is part of a student project and is not intended for commercial use.

See also

ObjectHandler

QApplication

QSharedPointer

QDebug

QtSql

QTranslator

QLocale

Definition in file startuphandler.hpp.

11.8 startuphandler.hpp

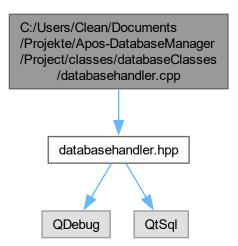
Go to the documentation of this file.

```
00022 #pragma once
00023
00024 #include <QDebug>
00025 #include <QtSql>
00026 #include <QLocale>
00027 #include <QTranslator>
00028
00029 #include "objecthandler.hpp"
00030
00031
00032 namespace AposBackend {
00049
         class StartupHandler {
00050
         public:
00057
              explicit StartupHandler(const OSharedPointer<OApplication> &application);
00058
00065
              QSharedPointer<ObjectHandler> startUp();
00066
              static QSharedPointer<QTranslator> initTranslator();
00073
00074
08000
              void installTranslator();
00081
00088
              QSharedPointer<ObjectHandler> initObjectHandler();
00089
00095
              QSharedPointer<QApplication> ptrApplication;
00096
00102
              QSharedPointer<ObjectHandler> ptrObjectHandler;
00103
          };
00104 }
```

11.9 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/databaseClasses/databasehandler.cpp File Reference

Source file for the DatabaseHandler class.

#include "databasehandler.hpp"
Include dependency graph for databasehandler.cpp:



Namespaces

• namespace AposDatabase

11.9.1 Detailed Description

Source file for the DatabaseHandler class.

Author

Simon Blum

Date

13.11.2023

Version

```
0.1 alpha.2 @license LGPL-V3
```

This file contains the implementation of the DatabaseHandler class, which is a part of the application's backend logic. The DatabaseHandler class provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

Note

The application is part of a student project and is not intended for commercial use.

See also

QtSql

QSqlDatabase

QSqlError

QSharedPointer

QDebug

Definition in file databasehandler.cpp.

11.10 databasehandler.cpp

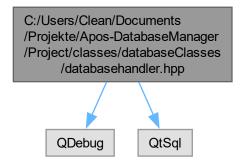
Go to the documentation of this file.

```
00001
00020 #include "databasehandler.hpp"
00022 namespace AposDatabase {
00023
00024
         DatabaseHandler::DatabaseHandler() = default;
00025
00026
          bool DatabaseHandler::initDatabase() {
00027
00028
              activeDatabase = QSqlDatabase::addDatabase("QSQLITE", "db1");
00029
              activeDatabase.setDatabaseName(databasePath);
00030
              ptrActiveDatabase = QSharedPointer<QSqlDatabase>(&activeDatabase);
00031
              return activeDatabase.open();
00032
00033
00034
          void DatabaseHandler::closeDatabase() {
00035
             activeDatabase.close();
00036
              QSqlDatabase::removeDatabase("db1");
00037
00038
00039
         bool DatabaseHandler::executeCommand(const QString &command) {
00040
              bool guervExecuted = false;
              QSqlQuery query (activeDatabase);
00041
00042
              if (!query.exec(command)) {
00043
                  lastSqlError = query.lastError();
00044
                  qDebug() « lastSqlError.text();
00045
                  queryExecuted = false;
00046
              } else {
00047
                  queryExecuted = true;
00048
00049
              return queryExecuted;
00050
00051
00052
          OSharedPointer<OSqlDatabase> DatabaseHandler::getActiveDatabase() {
00053
              return ptrActiveDatabase;
00054
00055
00056
         const QSqlError &DatabaseHandler::getSqlError() const {
00057
              return lastSqlError;
00058
00059 }
```

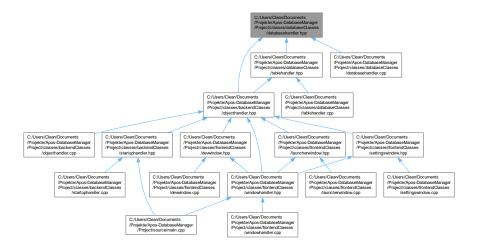
11.11 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/databaseClasses/databasehandler.hpp File Reference

Header file for the DatabaseHandler class.

#include <QDebug>
#include <QtSql>
Include dependency graph for databasehandler.hpp:



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



Classes

· class AposDatabase::DatabaseHandler

Provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

Namespaces

• namespace AposDatabase

11.11.1 Detailed Description

Header file for the DatabaseHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the declaration of the DatabaseHandler class, which is a part of the application's backend logic. The DatabaseHandler class provides the functionality for initializing and closing the database, executing SQL commands, and getting the active database and SQL error.

Note

The application is part of a student project and is not intended for commercial use.

See also

QtSal

QSqlDatabase

QSqlError

QSharedPointer

QDebug

Definition in file databasehandler.hpp.

11.12 databasehandler.hpp

Go to the documentation of this file.

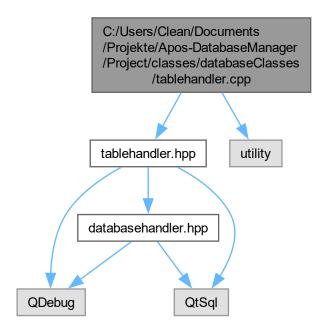
```
00001
00021 #pragma once
00022
00023 #include <QDebug>
00024 #include <QtSql>
00025
00026
00027 namespace AposDatabase {
00040
         class DatabaseHandler {
00041
         public:
00047
             DatabaseHandler();
00048
00055
             bool initDatabase();
00056
00062
             void closeDatabase();
00063
00071
              bool executeCommand(const QString &command);
00072
00079
              QSharedPointer<QSqlDatabase> getActiveDatabase();
00080
00087
              [[nodiscard]] const QSqlError &getSqlError() const;
        private:
88000
00094
             QSqlError lastSqlError;
00095
00101
              QSqlDatabase activeDatabase;
00102
              QSharedPointer<QSqlDatabase> ptrActiveDatabase;
00108
00109
00115
              QString databasePath =
      \verb|R" (C:\Users\Clean\Documents\Projekte\Apos-DatabaseManager\Project\resources\defaultDatabase\userDatabase.db)"; \\
00116
00117 }
```

11.13 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/← Project/classes/databaseClasses/tablehandler.cpp File Reference

Source file for the TableHandler class.

```
#include "tablehandler.hpp"
#include <utility>
```

Include dependency graph for tablehandler.cpp:



Namespaces

• namespace AposDatabase

11.13.1 Detailed Description

Source file for the TableHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the TableHandler class, which is a part of the application's backend logic. The TableHandler class provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

Note

The application is part of a student project and is not intended for commercial use.

See also

DatabaseHandler

QSharedPointer

QDebug

QtSql

QSqlTableModel

QSqlError

QSqlQuery

QSqlDatabase

Definition in file tablehandler.cpp.

11.14 tablehandler.cpp

```
00001
00023 #include "tablehandler.hpp"
00024
00025 #include <utility>
00027 namespace AposDatabase {
00028
00029
         TableHandler::TableHandler(QSharedPointer<DatabaseHandler> newDbHandler) {
00030
             ptrDbHandler = std::move(newDbHandler);
00031
00032
00033
          TableHandler::TableHandler(QSharedPointer<DatabaseHandler> newDbHandler, const QString &tableName)
00034
              ptrDbHandler = std::move(newDbHandler);
              activeTableName = tableName;
00035
00036
             ptrTableModel = QSharedPointer<QSqlTableModel>(
00037
                      new QSqlTableModel(nullptr, *ptrDbHandler->getActiveDatabase()));
00038
              ptrTableModel->setTable(tableName);
00039
              if (!ptrTableModel->select()) {
    throw std::runtime_error("Failed to select table");
00040
00041
00042
         }
00043
00044
         TableHandler::~TableHandler() {
           ptrTableModel = nullptr;
00045
              gDebug() « "TableHandler destroyed";
00046
00047
         }
00048
00049
         void TableHandler::generateTableModel() {
00050
             ptrTableModel = QSharedPointer<QSqlTableModel>(new QSqlTableModel(nullptr,
      *ptrDbHandler->getActiveDatabase()));
00051
             ptrTableModel->setTable(activeTableName);
00052
              if (!ptrTableModel->select())
00053
                  throw std::runtime_error("Failed to select table");
00054
              }
00055
          }
00056
00057
         void TableHandler::generateTableModel(const QString &tableName) {
00058
             activeTableName = tableName;
00059
              ptrTableModel = QSharedPointer<QSqlTableModel>(new QSqlTableModel(nullptr,
      *ptrDbHandler->getActiveDatabase()));
           ptrTableModel.data()->setTable(activeTableName);
00060
00061
              if (!ptrTableModel.data()->select()) {
00062
                  qDebug() « "Failed to select table:" « ptrTableModel->lastError();
```

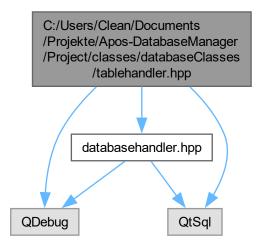
```
throw std::runtime_error("Failed to select table");
00064
00065
00066
00067
          bool TableHandler::insertIntoTable(const OString &tableName, const OString &value1, const OString
00068
                                                const QString &value3, const QString &value4, const QString
00069
               bool querrySuccess = false;
               QSqlQuery query(*ptrDbHandler->getActiveDatabase());
00070
00071
              if (!query.prepare(
00072
                       OString("INSERT INTO %1 VALUES (:value1, :value2, :value3, :value4,
      :value5)").arg(tableName))) {
                  lastTableError = query.lastError();
querrySuccess = false;
00073
00074
00075
00076
              } else {
                  query.bindValue(":value1", value1);
00078
                   query.bindValue(":value2", value2);
                   query.bindValue(":value3", value3);
query.bindValue(":value4", value4);
query.bindValue(":value5", value5);
00079
08000
00081
00082
                   if (!query.exec()) {
00083
                       lastTableError = query.lastError();
                       querrySuccess = false;
00085
                   } else {
00086
                       querrySuccess = true;
00087
                   }
00088
00089
               return querrySuccess;
00090
          }
00092
          const QString &TableHandler::getActiveTableName() const {
00093
               return activeTableName;
00094
00095
00096
          void TableHandler::setActiveTableName(const QString &newActiveTableName) {
00097
               activeTableName = newActiveTableName;
00098
00099
00100
        const QSqlError &TableHandler::getLastTableError() const {
00101
             return lastTableError;
00102
00103
00104
        QSharedPointer<QSqlTableModel> TableHandler::getTableModel() {
             return ptrTableModel;
00106
00107 }
```

11.15 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/databaseClasses/tablehandler.hpp File Reference

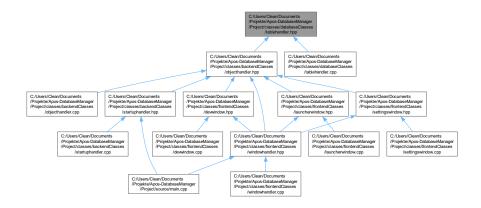
Header file for the TableHandler class.

```
#include <QDebug>
#include <QtSql>
#include "databasehandler.hpp"
```

Include dependency graph for tablehandler.hpp:



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



Classes

• class AposDatabase::TableHandler

Provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

Namespaces

• namespace AposDatabase

11.15.1 Detailed Description

Header file for the TableHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the declaration of the TableHandler class, which is a part of the application's backend logic. The TableHandler class provides the functionality for generating a table model, inserting into a table, and getting the active table name, table model, and last table error.

Note

The application is part of a student project and is not intended for commercial use.

See also

DatabaseHandler

QSharedPointer

QDebug

QtSql

QSqlTableModel

QSqlError

QSqlQuery

QSqlDatabase

Definition in file tablehandler.hpp.

11.16 tablehandler.hpp

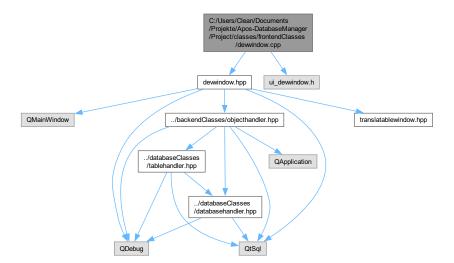
```
00024 #pragma once
00025
00026 #include <QDebug>
00027 #include <QtSql>
00028
00029 #include "databasehandler.hpp"
00030
00031
//-----
00032 namespace AposDatabase {
00048 class TableHandler {
00049 public:
00056 explicit TableHandler (QSharedPointer<DatabaseHandler> newDbHandler);
```

```
00065
              TableHandler (QSharedPointer < DatabaseHandler > newDbHandler, const QString & tableName);
00066
00072
              ~TableHandler();
00073
00079
              void generateTableModel();
08000
00087
              void generateTableModel(const QString &tableName);
00088
00101
              bool insertIntoTable(const QString &tableName, const QString &value1, const QString &value2,
00102
                                    const QString &value3, const QString &value4, const QString &value5);
00103
00110
              void setActiveTableName (const OString &newActiveTableName):
00111
00118
              QSharedPointer<QSqlTableModel> getTableModel();
00119
00126
              [[nodiscard]] const QString &getActiveTableName() const;
00127
00134
              [[nodiscard]] const QSqlError &getLastTableError() const;
00135
00141
              QString activeTableName = "userTable";
00142
00148
              QSharedPointer<DatabaseHandler> ptrDbHandler;
00149
              QSharedPointer<QSqlTableModel> ptrTableModel;
00155
00156
00162
              QSqlError lastTableError;
00163
00164 }
```

11.17 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ ← Project/classes/frontendClasses/devwindow.cpp File Reference

Source file for the DevWindow class.

```
#include "devwindow.hpp"
#include "ui_devwindow.h"
Include dependency graph for devwindow.cpp:
```



Namespaces

namespace AposFrontend

11.17.1 Detailed Description

Source file for the DevWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the DevWindow class, which is a part of the application's frontend logic. The DevWindow class inherits from QMainWindow and TranslatableWindow, and it provides the user interface for the developer window.

Note

The application is part of a student project and is not intended for commercial use.

See also

QMainWindow

TranslatableWindow

AposBackend::ObjectHandler

Definition in file devwindow.cpp.

11.18 devwindow.cpp

```
00001
00018 #include "devwindow.hpp"
00019 #include "ui_devwindow.h"
00020
00021 namespace AposFrontend {
00022
00023
          DevWindow::DevWindow(QWidget *parent, QSharedPointer<AposBackend::ObjectHandler> newObjectHandler)
00024
                     : QMainWindow(parent), ui(new Ui::DevWindow) {
00025
                ui->setupUi(this);
00026
                ptrObjectHandler = std::move(newObjectHandler);
00027
00028
00029
           DevWindow::~DevWindow() {
00030
                delete ui;
00031
00032
00033
           void DevWindow::logEvent(const QString &type,const QString &message) {
   ui->outLog->append("Log | " + type + ": " + message);
   qDebug() « "Logged: " + type + " - " + message;
00034
00035
00036
```

11.18 devwindow.cpp 105

```
00037
           void DevWindow::logEvent(const QString &message,const QSqlError &error) {
   ui->outLog->append("Log | " + message + "-" + error.text());
   qDebug() « "Logged: " + message + " - " + error.text();
00038
00039
00040
00041
00042
           void DevWindow::logEvent(const QString &message) {
   ui->outLog->append("Log | " + message);
   qDebug() « "Logged: " + message;
00043
00044
00045
00046
00047
00048
           void DevWindow::enableButtons(bool databaseLoaded) {
00049
                ui->btnAdd->setEnabled(databaseLoaded);
00050
                ui->btnCloseDB->setEnabled(databaseLoaded):
00051
                ui->btnUpdate->setEnabled(databaseLoaded);
                ui->btnExecute->setEnabled(databaseLoaded);
00052
00053
                ui->btnSelectTable->setEnabled(databaseLoaded);
00054
                ui->btnInitDB->setEnabled(!databaseLoaded);
00055
                logEvent("action", "Buttons enabled/disabled");
00056
           }
00057
00058
           void DevWindow::setModelViews(const QSharedPointer<QSqlTableModel) {</pre>
00059
                qDebug() «"SharedPointer.data(): " « tableModel->database();
00060
                ui->outTable->setModel(tableModel.data());
00061
                ui->outColumn->setModel(tableModel.data());
00062
                ui->outList->setModel(tableModel.data());
00063
00064
00065
           void DevWindow::setModelViews() {
00066
                ui->outTable->setModel(nullptr);
00067
                ui->outColumn->setModel(nullptr);
00068
                ui->outList->setModel(nullptr);
00069
00070
00071
           void DevWindow::assignInputs() {
00072
                input1 = ui->inInput1->text();
input2 = ui->inInput2->text();
00073
00074
                input3 = ui->inInput3->text();
00075
                input4 = ui->inInput4->text();
00076
                input5 = ui->inInput5->text();
00077
00078
00079
           void DevWindow::initDatabase() {
00080
                if (!ptrObjectHandler->initDatabaseObject()) {
00081
                    logEvent("Error initiating database", ptrobjectHandler->getPtrDbHandler()->getSqlError());
00082
00083
00084
                else {
00085
                    logEvent("action", "Database initiated");
                    logEvent("action",
00086
                              QString(ptrObjectHandler->getPtrDbHandler()->getActiveDatabase()->databaseName())
00087
00088
                    logEvent("status", ptrObjectHandler->getPtrDbHandler()->getActiveDatabase()->isOpen()
00089
                                                                                                  ? "Database open":
       "Database closed");
00090
                }
00091
00092
00093
           void DevWindow::closeDatabase(const QSharedPointer<AposDatabase::DatabaseHandler>& db) {
00094
                db->closeDatabase();
00095
                logEvent("action",
                                      "Database closed");
00096
                logEvent("status",
00097
                          ptrObjectHandler->getPtrDbHandler()->getActiveDatabase()->isOpen() ? "Database open"
       : "Database closed");
00098
           }
00099
00100
           bool DevWindow::checkCheckbox(int argCb) {
00101
                bool checked = false;
                if (argCb == 2) {
    checked = true;
00102
00103
                } else if (argCb == 0) {
00104
00105
                   checked = false;
                } else {
00106
00107
                    logEvent("warning", "Something went wrong!");
00108
                    checked = false;
00109
00110
                return checked;
00111
           }
```

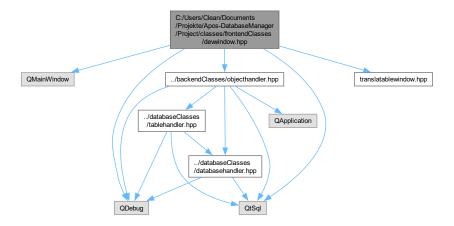
```
00112
00113
          void DevWindow::clearInputs(bool clearBool) {
00114
               if (clearBool) {
00115
                   ui->inInput1->clear();
                   ui->inInput2->clear();
00116
                   ui->inInput3->clear();
00117
00118
                   ui->inInput4->clear();
00119
                   ui->inInput5->clear();
00120
                   logEvent("action", "cleared inputs");
              }
00121
00122
          }
00123
00124
          void DevWindow::clearCommandBox(bool clearBool) {
00125
              if (clearBool) {
00126
                   ui->inCommand->clear();
                   logEvent("action", "tried to clear command-line");
00127
00128
00129
          }
00130
00131
          void DevWindow::on_btnInitDB_clicked() {
00132
               initDatabase():
00133
               gDebug() « "Database initialized";
               if(!ptrObjectHandler->initTableObject("userTable")){
00134
00135
                   logEvent("Error initiating table", ptrObjectHandler->getTableSqlError());
00136
00137
00138
               gDebug() « "TableHander initialized";
00139
               setModelViews(ptrObjectHandler->getPtrTableHandler()->getTableModel());
00140
               qDebug() « "ModelViews set";
00141
               enableButtons(true);
00142
00143
00144
          void DevWindow::on btnCloseDB clicked() {
00145
               setModelViews();
00146
               closeDatabase(ptrObjectHandler->getPtrDbHandler());
00147
               enableButtons(false);
00148
00149
00150
          void DevWindow::on_btnExecute_clicked() {
00151
              if (!ptrObjectHandler->getPtrDbHandler()->executeCommand(ui->inCommand->toPlainText())) {
00152
                   logEvent("Error executing command", ptrObjectHandler->getPtrDbHandler()->getSqlError());
00153
                   clearCommandBox(clearCommand);
00154
                   return;
00155
00156
               clearCommandBox(clearCommand);
00157
               logEvent("action", "Command executed");
00158
00159
00160
          void DevWindow::on_btnSelectTable_clicked() {
00161
               ptrObjectHandler->getPtrTableHandler()->generateTableModel();
               logEvent("action", "Table selected");
00162
00163
               setModelViews(ptrObjectHandler->getPtrTableHandler()->getTableModel());
00164
00165
00166
          void DevWindow::on_btnAdd_clicked() {
00167
              assignInputs();
00168
       (!ptrObjectHandler->getPtrTableHandler()->insertIntoTable(ptrObjectHandler->getActiveTableName(),
      input1, input2,
                                                                          input3,
00169
00170
                                                                          input4, input5)) {
00171
                   logEvent("Insert Error", ptrObjectHandler->getTableSqlError());
00172
                   clearInputs(clearInput);
00173
00174
               clearInputs(clearInput);
logEvent("action", "Values inserted");
00175
00176
00177
          }
00178
00179
          void DevWindow::on_btnUpdate_clicked() {
00180
               ptrObjectHandler->getPtrTableHandler()->generateTableModel();
               setModelViews(ptrObjectHandler->getPtrTableHandler()->getTableModel());
logEvent("action", "Table view updated");
00181
00182
00183
00184
00185
          \verb"void DevWindow": on\_clearCommandAfterExecute\_stateChanged(int arg1) \ \{
               clearCommand = checkCheckbox(arg1);
logEvent("status", "Command will clear after execute: " + QString(clearCommand ? "true" :
00186
00187
```

```
"false"));
00188
00189
00190
         void DevWindow::on_clearInputsAfterInsert_stateChanged(int arg1) {
           clearInput = checkCheckbox(arg1);
  logEvent("status", "Inputs will be cleared after execution: " + QString(clearInput ? "true" :
00191
00192
00193
00194
          void DevWindow::on_inReturnToLauncher_clicked() {
00195
00196
              emit returnToLauncher();
00197
00198
//-----
00199 void De
        void DevWindow::retranslateUi() {
            ui->retranslateUi(this);
00200
00202
00203
        void DevWindow::on_inSettings_clicked() {
00204
            emit openSettings();
00205
00206 }
```

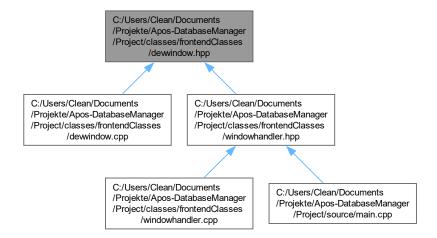
11.19 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/devwindow.hpp File Reference

Header file for the DevWindow class.

```
#include <QMainWindow>
#include <QDebug>
#include <QtSql>
#include "../backendClasses/objecthandler.hpp"
#include "translatablewindow.hpp"
Include dependency graph for devwindow.hpp:
```



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



Classes

· class AposFrontend::DevWindow

Provides the user interface for the developer window.

Namespaces

- namespace Ui
- namespace AposFrontend

11.19.1 Detailed Description

Header file for the DevWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the declaration of the DevWindow class, which is a part of the application's frontend logic. The DevWindow class inherits from QMainWindow and TranslatableWindow, and it provides the user interface for the developer window.

11.20 devwindow.hpp 109

Note

The application is part of a student project and is not intended for commercial use.

See also

TranslatableWindow

AposBackend::ObjectHandler

QMainWindow

QSharedPointer

QDebug

QtSql

Definition in file devwindow.hpp.

11.20 devwindow.hpp

```
00001
00022 #pragma once
00024 #include <QMainWindow>
00025 #include <QDebug>
00026 #include <QtSql>
00027
00028 #include "../backendClasses/objecthandler.hpp"
00029 #include "translatablewindow.hpp"
00030
00031
00032 namespace Ui { class DevWindow; }
00033
00034 namespace AposFrontend {
00049
         class DevWindow : public QMainWindow, public TranslatableWindow {
00050
          Q_OBJECT
00051
         public:
00062
             explicit DevWindow(OWidget *parent = nullptr, OSharedPointer<AposBackend::ObjectHandler>
     objectHandler = nullptr);
00063
00071
              ~DevWindow() override;
00072
00082
              void logEvent(const QString &type, const QString &message);
00083
00094
              void logEvent(const QString &message, const QSqlError &error);
00095
00105
              void logEvent(const QString &message);
00106
00114
             void retranslateUi() override;
         signals:
00115
00122
              void returnToLauncher();
00123
00131
              void openSettings();
00132
          private slots:
00140
              void on_btnInitDB_clicked();
00141
00149
              void on_btnCloseDB_clicked();
00150
00158
              void on_btnExecute_clicked();
00159
              void on_btnSelectTable_clicked();
00167
00168
00176
              void on btnAdd clicked();
00177
00185
              void on_btnUpdate_clicked();
00186
00196
              void on_clearCommandAfterExecute_stateChanged(int arg1);
00197
00207
              void on clearInputsAfterInsert stateChanged(int argl);
00208
00216
              void on_inReturnToLauncher_clicked();
```

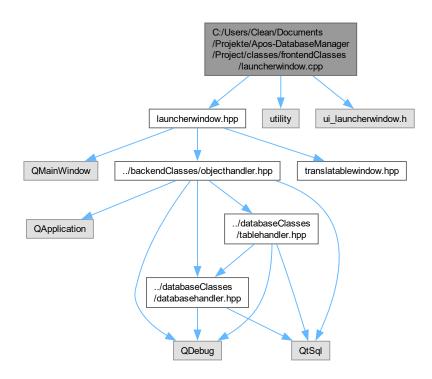
```
00225
              void on_inSettings_clicked();
00226
          private:
              void initDatabase();
00234
00235
00245
              void closeDatabase(const QSharedPointer<AposDatabase::DatabaseHandler> &db);
00254
00255
              void setModelViews(const QSharedPointer<QSqlTableModel>& tableModel);
00265
00266
00276
              void enableButtons(bool databaseLoaded);
00277
00285
              void assignInputs();
00286
00296
              void clearInputs(bool clearBool);
00297
00308
              bool checkCheckbox(int argCb);
00309
00319
              void clearCommandBox(bool clearBool);
00320
              Ui::DevWindow *ui;
00328
00329
              QSharedPointer<AposBackend::ObjectHandler> ptrObjectHandler = nullptr;
00337
00338
              QString input1, input2, input3, input4, input5;
00347
00355
              bool clearCommand = false, clearInput = false;
00356
          };
00357
00358 }
```

11.21 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/launcherwindow.cpp File Reference

Source file for the LauncherWindow class.

```
#include "launcherwindow.hpp"
#include <utility>
#include "ui_launcherwindow.h"
```

Include dependency graph for launcherwindow.cpp:



Namespaces

• namespace AposFrontend

11.21.1 Detailed Description

Source file for the LauncherWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the LauncherWindow class, which is a part of the application's frontend logic. The LauncherWindow class inherits from QMainWindow and TranslatableWindow, and it provides the user interface for the launcher window.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposBackend::ObjectHandler

TranslatableWindow

QMainWindow

Definition in file launcherwindow.cpp.

11.22 launcherwindow.cpp

```
Go to the documentation of this file.
```

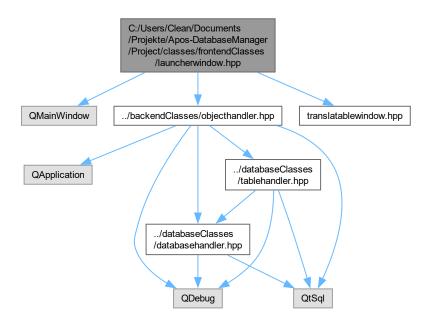
```
00018 #include "launcherwindow.hpp"
00019
00020 #include <utility>
00021 #include "ui_launcherwindow.h"
00023
00024 namespace AposFrontend {
00025
         LauncherWindow::LauncherWindow(QWidget *parent, QSharedPointer<AposBackend::ObjectHandler>
     newObjectHandler) :
      QMainWindow(parent),
00027
00028
                 ui(new Ui::LauncherWindow) {
         ui->setupUi(this);
00029
00030
            objectHandler = std::move(newObjectHandler);
00031
       }
00033
       LauncherWindow::~LauncherWindow() {
00034
             delete ui;
00035
00036
00037
       void LauncherWindow::on_inShowDev_clicked() {
00038
            emit openDevWindow();
00039
00040
00041     void LauncherWindow::on_pushButton_clicked() {
00042
            emit openSettings();
00043
00044
00045
        void LauncherWindow::retranslateUi() {
00046
00047 }
```

11.23 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/launcherwindow.hpp File Reference

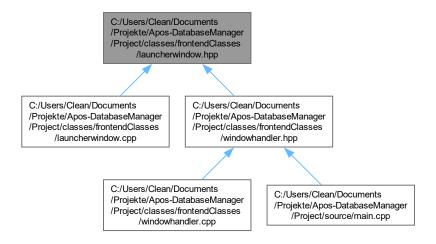
Header file for the LauncherWindow class.

```
#include <QMainWindow>
#include "../backendClasses/objecthandler.hpp"
```

#include "translatablewindow.hpp"
Include dependency graph for launcherwindow.hpp:



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



Classes

· class AposFrontend::LauncherWindow

Provides the user interface for the launcher window.

Namespaces

- namespace Ui
- namespace AposFrontend

11.23.1 Detailed Description

Header file for the LauncherWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the declaration of the LauncherWindow class, which is a part of the application's frontend logic. The LauncherWindow class inherits from QMainWindow and TranslatableWindow, and it provides the user interface for the launcher window.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposBackend::ObjectHandler

TranslatableWindow

QMainWindow

Definition in file launcherwindow.hpp.

11.24 launcherwindow.hpp

Go to the documentation of this file.

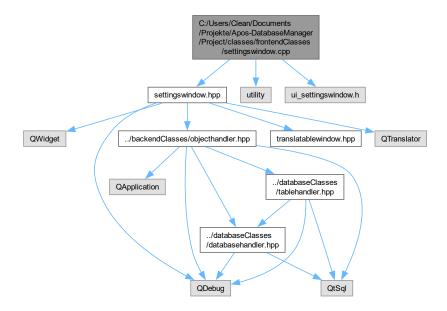
```
00001
00019 #pragma once
00020
00021 #include <QMainWindow>
00023 #include "../backendClasses/objecthandler.hpp"
00024 #include "translatablewindow.hpp"
00025
00026
00027 namespace Ui {
00028
        class LauncherWindow;
00029 }
00030
00031 namespace AposFrontend {
         class LauncherWindow : public QMainWindow, public TranslatableWindow {
          Q_OBJECT
00046
         public:
00047
00055
             explicit LauncherWindow(QWidget *parent = nullptr,
                                      QSharedPointer<AposBackend::ObjectHandler> newObjectHandler =
00056
     nullptr);
00057
00063
              ~LauncherWindow() override;
00064
00070
             void retranslateUi() override;
        signals:
00071
00077
             void openDevWindow();
00084
             void openSettings();
00085
       private slots:
00091
             void on_inShowDev_clicked();
00092
00098
             void on_pushButton_clicked();
00099
        private:
00105
             Ui::LauncherWindow *ui;
00106
00112
              QSharedPointer<AposBackend::ObjectHandler> objectHandler = nullptr;
00113
         };
00114 }
```

11.25 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/settingswindow.cpp File Reference

Source file for the SettingsWindow class.

```
#include "settingswindow.hpp"
#include <utility>
#include "ui_settingswindow.h"
```

Include dependency graph for settingswindow.cpp:



Namespaces

namespace AposFrontend

11.25.1 Detailed Description

Source file for the SettingsWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the SettingsWindow class, which is a part of the application's frontend logic. The SettingsWindow class inherits from QWidget and TranslatableWindow, and it provides the user interface for the settings window.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposBackend::ObjectHandler

TranslatableWindow

QWidget

QTranslator

QSharedPointer

Definition in file settingswindow.cpp.

11.26 settingswindow.cpp

```
00001
00020 #include "settingswindow.hpp"
00021
00022 #include <utility>
00023 #include "ui_settingswindow.h"
00024
00025
00026 namespace AposFrontend {
          SettingsWindow::SettingsWindow(QWidget *parent, QSharedPointer<AposBackend::ObjectHandler>
00027
     newObjectHandler) :
00028
                  QWidget (parent),
00029
                   ui(new Ui::SettingsWindow) {
              ui->setupUi(this);
ptrObjectHandler = std::move(newObjectHandler);
00030
00031
00032
              ptrTranslator = QSharedPointer<QTranslator>(new QTranslator);
00033
          }
00034
00035
          SettingsWindow::~SettingsWindow() {
00036
               delete ui;
00037
00038
          void SettingsWindow::retranslateUi() {
00039
00040
             ui->retranslateUi(this);
00041
00042
00043
          void SettingsWindow::on_inClose_clicked() {
00044
              this->hide();
00045
00046
00047
00048
          void SettingsWindow::on_inApply_clicked() {
00049
             if (languageChanged) {
00050
                   qDebug() « "New Language will be applied";
00051
                   languageIndex = tempLanguageIndex;
00052
00053
                   installTranslator();
00054
00055
               emit appliedSettings();
00056
          }
00057
00058
00059
          void SettingsWindow::on_inLanguage_currentIndexChanged(int index) {
              tempLanguageIndex = index;
00061
               qDebug() « "checkboxIndex: " « index « "tempIndex: " « tempLanguageIndex « "index: " «
      languageIndex;
              if (tempLanguageIndex == languageIndex) {
   qDebug() « "Language not changed";
00062
00063
00064
                   languageChanged = false;
00065
                   return;
00066
00067
               qDebug() « "Language changed";
00068
               languageChanged = true;
00069
          }
00070
          void SettingsWindow::installTranslator() {
    qDebug() « "Language Index: " « languageIndex;
00072
00073
00074
               QTranslator *translator = ptrTranslator.data();
00075
               if(ptrObjectHandler->getPtrApplication()->removeTranslator(translator)){
00076
                   gDebug() « "removed translator";
00077
00078
               else{
```

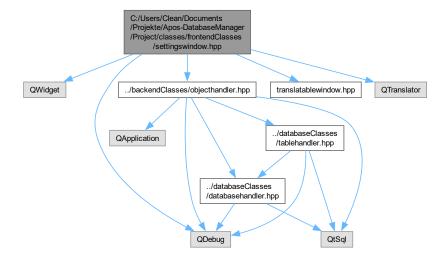
```
qDebug() « "could not remove translator";
08000
00081
              ptrTranslator = QSharedPointer<QTranslator>(new QTranslator);
00082
              switch (languageIndex) {
00083
                 case 0:
00084
                      (void)ptrTranslator->load(":/i18n/Apos-DatabaseManager_en_GB");
00085
                     qDebug() « "tried to load english";
00086
                      translator = ptrTranslator.data();
00087
                      (void)ptrObjectHandler->getPtrApplication()->installTranslator(translator);
00088
00089
                 case 1:
                     (void)ptrTranslator->load(":/i18n/Apos-DatabaseManager_de_DE");
00090
00091
                     qDebug() « "tried to load german";
00092
                     translator = ptrTranslator.data();
00093
                      (void)ptrObjectHandler->getPtrApplication()->installTranslator(translator);
00094
00095
                 default:
00096
                     qDebug() « "no language selected";
                     break;
00098
             }
00099
         }
00100 }
```

11.27 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/settingswindow.hpp File Reference

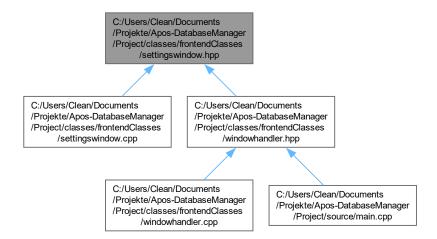
Header file for the SettingsWindow class.

```
#include <QWidget>
#include <QDebug>
#include "../backendClasses/objecthandler.hpp"
#include "translatablewindow.hpp"
#include <QTranslator>
```

Include dependency graph for settingswindow.hpp:



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



Classes

· class AposFrontend::SettingsWindow

Provides the user interface for the settings window.

Namespaces

- namespace Ui
- · namespace AposFrontend

11.27.1 Detailed Description

Header file for the SettingsWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the declaration of the SettingsWindow class, which is a part of the application's frontend logic. The SettingsWindow class inherits from QWidget and TranslatableWindow, and it provides the user interface for the settings window.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposBackend::ObjectHandler

TranslatableWindow

QWidget

QTranslator

QSharedPointer

Definition in file settingswindow.hpp.

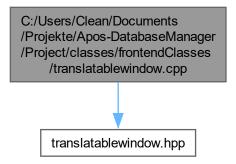
11.28 settingswindow.hpp

```
00021 #pragma once
00022
00023 #include <QWidget>
00024 #include <QDebug>
00025 #include "../backendClasses/objecthandler.hpp"
00026 #include "translatablewindow.hpp"
00027 #include <QTranslator>
00028
00029
00030 namespace Ui {
00031
          class SettingsWindow;
00032 }
00033
00034 namespace AposFrontend {
00049
         class SettingsWindow : public QWidget, public TranslatableWindow {
00050
          O OBJECT
00051
        public:
00059
            explicit SettingsWindow(QWidget *parent = nullptr,
00060
                                       QSharedPointer<AposBackend::ObjectHandler> newObjectHandler =
     nullptr);
00061
00067
              ~SettingsWindow() override;
00068
             void retranslateUi() override;
00075
         signals:
00081
              void appliedSettings();
         private slots:
00082
              void on_inClose_clicked();
00088
00089
00095
              void on_inApply_clicked();
00096
00103
              void on_inLanguage_currentIndexChanged(int index);
         private:
00104
              void installTranslator();
00110
00111
              Ui::SettingsWindow *ui;
00118
00124
              QSharedPointer<AposBackend::ObjectHandler> ptrObjectHandler;
00125
              QSharedPointer<QTranslator> ptrTranslator;
00131
00132
00138
              int languageIndex{};
00139
00145
              int tempLanguageIndex{};
00146
00152
              bool languageChanged{};
00153
          };
00154 }
```

11.29 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/translatablewindow.cpp File Reference

Source file for the TranslatableWindow class.

#include "translatablewindow.hpp"
Include dependency graph for translatablewindow.cpp:



Namespaces

• namespace AposFrontend

11.29.1 Detailed Description

Source file for the TranslatableWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the TranslatableWindow class, which is a part of the application's frontend logic. The TranslatableWindow class is an abstract base class that provides a function for retranslating the user interface.

Note

The application is part of a student project and is not intended for commercial use.

Definition in file translatablewindow.cpp.

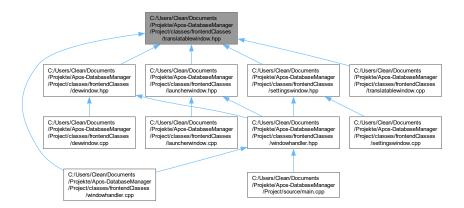
11.30 translatablewindow.cpp

Go to the documentation of this file.

11.31 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/translatablewindow.hpp File Reference

Header file for the TranslatableWindow class.

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



Classes

· class AposFrontend::TranslatableWindow

An abstract base class that provides a function for retranslating the user interface.

Namespaces

· namespace AposFrontend

11.31.1 Detailed Description

Header file for the TranslatableWindow class.

Author

Simon Blum

Date

13.11.2023

Version

0.1 alpha.2 @license LGPL-V3

This file contains the declaration of the TranslatableWindow class, which is a part of the application's frontend logic. The TranslatableWindow class is an abstract base class that provides a function for retranslating the user interface.

Note

The application is part of a student project and is not intended for commercial use.

Definition in file translatablewindow.hpp.

11.32 translatablewindow.hpp

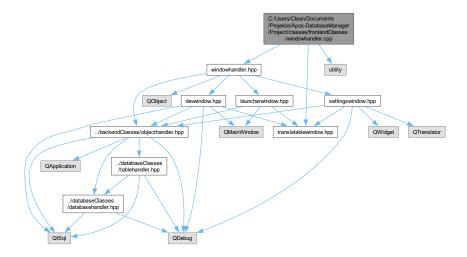
Go to the documentation of this file.

11.33 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/windowhandler.cpp File Reference

Source file for the WindowHandler class.

```
#include "windowhandler.hpp"
#include <utility>
```

#include "translatablewindow.hpp"
Include dependency graph for windowhandler.cpp:



Namespaces

• namespace AposFrontend

11.33.1 Detailed Description

Source file for the WindowHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the implementation of the WindowHandler class, which is a part of the application's frontend logic. The WindowHandler class provides the functionality for managing the application's windows, including the launcher window, developer window, and settings window. It interacts with the LauncherWindow, DevWindow, and SettingsWindow classes and uses the ObjectHandler class to manage the application's objects.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposBackend::ObjectHandler

LauncherWindow

DevWindow

SettingsWindow

QSharedPointer

QObject

Definition in file windowhandler.cpp.

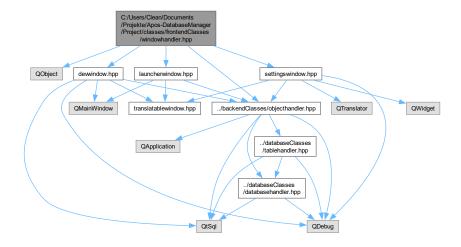
11.34 windowhandler.cpp

```
Go to the documentation of this file.
00022 #include "windowhandler.hpp"
00023
00024 #include <utility>
00025 #include "translatablewindow.hpp"
00027 namespace AposFrontend {
00028
                    WindowHandler::WindowHandler(QSharedPointer<AposBackend::ObjectHandler> newObjectHandler) {
00029
00030
                             ptrObjectHandler = std::move(newObjectHandler);
                            ptrLauncherWindow = QSharedPointer<LauncherWindow>(new LauncherWindow(nullptr,
00031
           ptrObjectHandler));
00032
                            ptrSettingsWindow = QSharedPointer<SettingsWindow>(new SettingsWindow(nullptr,
            ptrObjectHandler));
00033
                            (void)QObject::connect(ptrLauncherWindow.data(), &LauncherWindow::openDevWindow, this,
            &WindowHandler::showDevWindow
00034
                                                               Ot::DirectConnection);
00035
                             (void) QObject::connect(ptrLauncherWindow.data(), &LauncherWindow::openSettings, this,
            &WindowHandler::showSettingsWindow);
                            (void)QObject::connect(ptrSettingsWindow.data(), &SettingsWindow::appliedSettings, this,
            &WindowHandler::applySettings);
00037
00038
00039
                    void WindowHandler::showLaunchWindow() {
                            if (ptrDevWindow != nullptr)
00041
00042
                                     if (!ptrDevWindow->isHidden()) {
00043
                                             ptrDevWindow->hide();
00044
00045
00046
                            ptrLauncherWindow->show();
00047
00048
00049
                    void WindowHandler::showDevWindow() {
00050
                            ptrLauncherWindow->hide();
00051
                             if (ptrDevWindow == nullptr) {
                                    ptrDevWindow = QSharedPointer<DevWindow>(new DevWindow(nullptr, ptrObjectHandler));
00052
00053
                                      (void) QObject::connect(ptrDevWindow.data(), &DevWindow::returnToLauncher, this,
            &WindowHandler::showLaunchWindow,
00054
                                                                        Qt::DirectConnection);
                                     (\verb"void") \verb"QObject"::connect" (\verb"ptrDevWindow".data"), \verb"\&DevWindow"::openSettings", \verb"this", \verb"and the connect" (\verb"ptrDevWindow".data"), \verb"&DevWindow"::openSettings", \verb"this", \verb"and the connect" (\verb"ptrDevWindow".data"), \verb"&DevWindow"::openSettings", \verb"this", \verb"and the connect" (\verb"ptrDevWindow".data"), \verb"&DevWindow"::openSettings", \verb"this", and the connect (\verb"ptrDevWindow".data"), \verb"and the connect" (\verb"ptrDevWindow".data"), \verb"and the connect" (\verb"ptrDevWindow".data"), and the connect (\verb"ptrDevWindow".data"), and the conne
00055
            &WindowHandler::showSettingsWindow,
00056
                                                                        Qt::DirectConnection);
00057
00058
00059
                            ptrDevWindow->show();
00060
                    }
00061
00062
                    void WindowHandler::showSettingsWindow() {
00063
                            ptrSettingsWindow->show();
00064
00065
00066
                    void WindowHandler::applySettings() {
00067
                            changeLanguages();
00068
00069
                    void WindowHandler::changeLanguages() {
00070
00071
                            QWidgetList openWindows = ptrObjectHandler->getPtrApplication()->topLevelWidgets();
                            for (QWidget* widget: std::as_const(openWindows)) {
   auto *tw = dynamic_cast<TranslatableWindow *>(widget);
   if (tw != nullptr) {
00072
00073
00074
00075
                                             qDebug() « "Dynamic cast pointer adress " « tw;
00076
                                             tw->retranslateUi();
00077
00078
00079
                             qDebug() « openWindows;
08000
                    }
00081 }
```

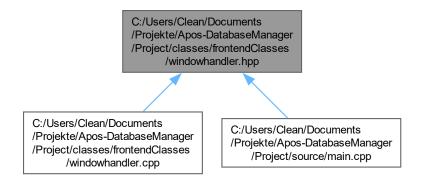
11.35 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/ Project/classes/frontendClasses/windowhandler.hpp File Reference

Header file for the WindowHandler class.

```
#include <QObject>
#include "launcherwindow.hpp"
#include "devwindow.hpp"
#include "settingswindow.hpp"
#include "../backendClasses/objecthandler.hpp"
Include dependency graph for windowhandler.hpp:
```



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



Classes

• class AposFrontend::WindowHandler

Provides the functionality for managing the application's windows.

Namespaces

• namespace AposFrontend

11.35.1 Detailed Description

Header file for the WindowHandler class.

Author

Simon Blum

Date

13.11.2023

Version

0.1_alpha.2 @license LGPL-V3

This file contains the declaration of the WindowHandler class, which is a part of the application's frontend logic. The WindowHandler class provides the functionality for managing the application's windows, including the launcher window, developer window, and settings window. It interacts with the LauncherWindow, DevWindow, and Settings Window classes and uses the ObjectHandler class to manage the application's objects.

Note

The application is part of a student project and is not intended for commercial use.

See also

AposBackend::ObjectHandler

LauncherWindow

DevWindow

SettingsWindow

QSharedPointer

QObject

Definition in file windowhandler.hpp.

11.36 windowhandler.hpp

```
00001
00023 #pragma once
00024
00025 #include <QObject>
00026 #include "launcherwindow.hpp"
00027 #include "devwindow.hpp"
00028 #include "settingswindow.hpp"
00029 #include "../backendClasses/objecthandler.hpp"
00030
00031
00032 namespace AposFrontend {
00048
          class WindowHandler : public QObject {
00049
          public:
00056
               explicit WindowHandler(QSharedPointer<AposBackend::ObjectHandler> newObjectHandler);
00057
00063
               void showLaunchWindow();
```

```
00064
         private slots:
00070
              void showDevWindow();
00071
00077
             void showSettingsWindow();
00078
00084
              void applySettings();
00085
         private:
00091
              void changeLanguages();
00092
00098
              QSharedPointer<LauncherWindow> ptrLauncherWindow;
00099
00105
              QSharedPointer<DevWindow> ptrDevWindow;
00106
              QSharedPointer<SettingsWindow> ptrSettingsWindow;
00113
00119
              QSharedPointer<AposBackend::ObjectHandler> ptrObjectHandler;
00120
          };
00121 }
```

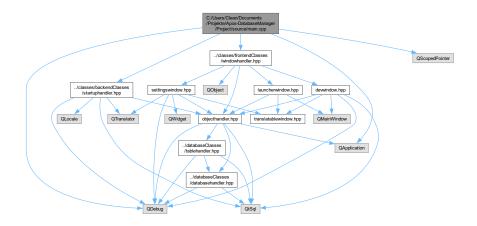
- 11.37 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/

 ← Project/CONTRIBUTING.md File Reference
- 11.38 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/← Project/README.md File Reference
- 11.39 C:/Users/Clean/Documents/Projekte/Apos-DatabaseManager/

 ← Project/source/main.cpp File Reference

Main entry point for the application.

```
#include "../classes/backendClasses/startuphandler.hpp"
#include "../classes/frontendClasses/windowhandler.hpp"
#include <QApplication>
#include <QDebug>
#include <QScopedPointer>
Include dependency graph for main.cpp:
```



Namespaces

• namespace Applnitialization

Functions

- QSharedPointer< AposBackend::StartupHandler > AppInitialization::initializeStartupHandler (const QSharedPointer< QApplication > &newApp)
 - Initialize the StartupHandler object.
- QSharedPointer< AposBackend::ObjectHandler > AppInitialization::initializeObjectHandler (const QSharedPointer< AposBackend::StartupHandler > &startupHandler)

Initialize the ObjectHandler object.

 QSharedPointer< AposFrontend::WindowHandler > AppInitialization::initializeWindowHandler (const QSharedPointer< AposBackend::ObjectHandler > & objectHandler)

Initialize the WindowHandler object.

• int main (int argc, char *argv[])

Main function.

11.39.1 Detailed Description

Main entry point for the application.

Author

Simon Blum

Date

13.11.2023

Version

0.1 alpha.2 @license LGPL-V3

This file contains the main function, which represents the entry point for the application. It initializes the QApplication, StartupHandler, and ObjectHandler objects. It also creates a WindowHandler object and shows the launch window.

The application is built using the Qt framework and follows the object-oriented programming paradigm. The main function initializes the necessary objects and starts the application's event loop. The QApplication object encapsulates the functionality of Qts core application class for GUI-based applications. The StartupHandler, ObjectHandler, and WindowHandler classes are part of the application's backend and frontend logic.

@deviation MISRA 3-1-3 The argv parameter in the main function is a pointer to an array of C-style strings. This array is not explicitly sized, which violates MISRA rule 3-1-3. However, the parameters of the main function are defined by the C++ standard, and changing them would not be compliant with the standard. This deviation is considered acceptable because the size of the argv array is managed by the runtime environment, and the array is guaranteed to be null-terminated. Therefore, the risk of out-of-bounds access is minimal.

@deviation MISRA 7-3-1 The main – defined as qMain – function is part of the global namespace, which violates MISRA rule 7-3-1. However, since the qMain function acts as the main function within the Qt framework, this deviation is considered acceptable.

Note

The application is part of a student project and is not intended for commercial use.

See also

QApplication

StartupHandler

ObjectHandler

WindowHandler

Definition in file main.cpp.

11.39.2 Function Documentation

11.39.2.1 main()

```
int main (
          int argc,
          char * argv[] )
```

Main function.

This is the main function, which is the entry point for the application. It initializes the QApplication, ObjectHandler, and WindowHandler objects, and starts the application's event loop.

Parameters

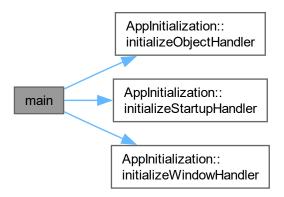
argc	Argument count
argv	Argument vector

Returns

int Application exit status

Definition at line 98 of file main.cpp.

Here is the call graph for this function:



11.40 main.cpp

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```
00042 // System includes
00043 #include <QApplication>
00044 #include <ODebug>
00045 #include <QScopedPointer>
00046 // Declaration of
     functions-
00047 namespace AppInitialization {
00057
         QSharedPointer<AposBackend::StartupHandler> initializeStartupHandler(const
     QSharedPointer<QApplication>& newApp);
00058
00069
          OSharedPointer<AposBackend::ObjectHandler> initializeObjectHandler(
00070
                  const QSharedPointer<AposBackend::StartupHandler>& startupHandler);
00071 //
00083
          OSharedPointer<AposFrontend::WindowHandler>
00084
          initializeWindowHandler(const QSharedPointer<AposBackend::ObjectHandler>& objectHandler);
00085 }
00086 // Implementation of functions
00098 int main(int argc, char *argv[]) { // NOLINT(clion-misra-cpp2008-3-1-3, clion-misra-cpp2008-7-3-1)
00099
          int returnStatus = -1; // Initialize return status to -1 (error state)
00100
00101
              QSharedPointer<QApplication> application(new QApplication(argc, argv));
00102
              qDebug() « "Application Object initialized";
00103
00104
              QSharedPointer<AposBackend::StartupHandler>
00105
                      startupHandler = AppInitialization::initializeStartupHandler(application);
              QSharedPointer<AposBackend::ObjectHandler>
    objectHandler = AppInitialization::initializeObjectHandler(startupHandler);
00106
00107
00108
              QSharedPointer<AposFrontend::WindowHandler> windowHandler =
     AppInitialization::initializeWindowHandler(
00109
                      objectHandler);
00110
              returnStatus = QApplication::exec(); // Update return status
00111
          } catch (const std::exception &e) {
    qDebug() « "Exception caught in main: " « e.what();
00112
00113
00114
00115
          return returnStatus; // Single point of exit
00116 }
00117 //
00118 namespace AppInitialization {
00119
00120
         QSharedPointer<AposBackend::StartupHandler> initializeStartupHandler(const
     QSharedPointer<QApplication>& newApp) {
00121
             if (newApp == nullptr) {
00122
                  throw std::runtime_error("QApplication pointer is null");
00123
00124
00125
              QSharedPointer<AposBackend::StartupHandler> startupHandler(new
      AposBackend::StartupHandler(newApp));
00126
             qDebug() « "StartupHandler Object initialized";
00127
              return startupHandler;
00128
00129
00130
          QSharedPointer<AposBackend::ObjectHandler>
00131
          initializeObjectHandler(const QSharedPointer<AposBackend::StartupHandler>& startupHandler) {
00132
00133
              QSharedPointer<AposBackend::ObjectHandler> objectHandler(startupHandler->startUp());
00134
              if (objectHandler == nullptr)
                  throw std::runtime_error("Failed to initialize ObjectHandler");
00135
00136
00137
              gDebug() « "ObjectHandler Object initialized";
00138
00139
              return objectHandler;
00140
00141
00142
          QSharedPointer<AposFrontend::WindowHandler>
00143
          initializeWindowHandler(const OSharedPointer<AposBackend::ObjectHandler>& objectHandler) {
00144
              if (objectHandler == nullptr) {
00145
                  throw std::runtime_error("ObjectHandler pointer is null");
00146
00147
              OSharedPointer<AposFrontend::WindowHandler> windowHandler(new
00148
     AposFrontend::WindowHandler(objectHandler));
00149
              windowHandler->showLaunchWindow();
00150
              qDebug() « "After DevWindow Show";
00151
00152
              return windowHandler;
00153
          }
00154 }
```

00155	// End of file main.cpp	
00156	// Doxygen-Groups	,
00157		- //

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