

# **TALK2ME**

messenger

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2018

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# **1. Introduction**

This project is dedicated to a messenger written in Java.

The most common features of messengers are implemented in the program, however, there is a lot of room for improvements such as file transferring, group chats, sounds and so on. Nevertheless, once we have the core, it is not so difficult to realize how to add those additional features.

## 2. How to use the program

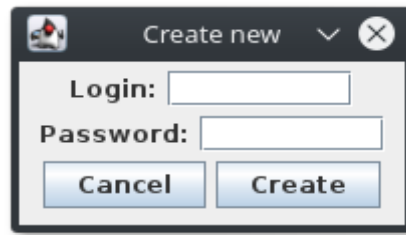
Let's start the program. First of all we will see the starting frame (fig.1).



*Fig.1 Starting frame*

Here, we can see two fields – for login and password. Also, there are 2 buttons - “Enter” and “Create a new account”.

To start using of the program one must have an account. Press “Create a new account” to create an account. You will see a dialogue frame (fig.2).

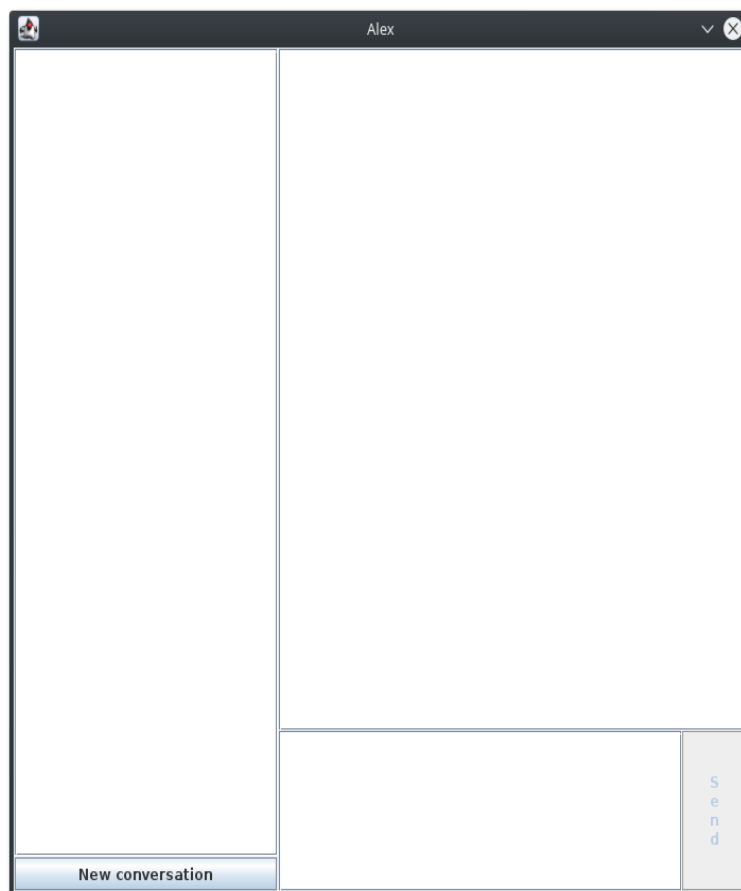


*Fig.2 Create new account*

Enter your login (its length must be between 4 and 8 characters and must not contain ":"), and password (from 4 to 8 characters). Press "OK". If the login is not used yet the frame will disappear. Otherwise, you will get an error message and will have to repeat an attempt.

Once you created an account fill in the "Login" and "Password" fields and press "OK" or just press "Enter".

If you entered correct data you will see the main frame of the program (fig.3).



*Fig.3 Main frame*

The interface is simple to use. The left field is the list of chats with your friends. If you have new messages from your friends which you received while being offline, you will see their names in this field. Otherwise, initially this area is empty.

Push “New conversation” button to find a friend. Enter their name and press “Enter” or “OK”. After it you will see the friend in the list. Select their name and you will see the whole conversation you had in the upper right field.

Write a message in the lower right field and hit “Send” button or just press “Enter” to send the message.

To delete a friend from the list of conversations choose the friend, push the right mouse button and select “Delete”.

To close the program just press the cross.

### 3. PostgreSQL database

The project is built on PostgreSQL database.

The main server is called “Talk2Me” and, since the project is educational, set up on the local machine with the address 127.0.0.1, port 5432.

The server contains one database with two tables – “chats” and “data”.

The “chats” table consists of two columns - “conversation” and “names”. The column “name” keeps two names in the form Name1 AND Name2 for conversationalists Name1 and Name2. Their conversation is stored in the “conversation” column.

The “data” table contains 5 columns - “id”, “login”, “password”, “online” and “news”. The “id” column keeps IDs for all users. The “login” column keeps names of users and “password” their corresponding passwords. The column “online” shows whether the current user is online or not. The column “news” stores names of users who wrote something to the current user when the current user was offline.

## 4. Class Main

This class starts the program.

First of all, it opens a connection between the program and the database. If the database does not contain necessary tables the method `startConnection()` creates them.

The method `getConnection()` is a static method which returns the connection to the server.

After the connection is established, the starting frame opens.



## 5. Class GUI

The class is used to create the starting frame which contains several fields – login and password and also two buttons - “Enter” and “Create new account”.

When the user enters information about their account into the fields and presses “Enter”, then either the program opens another frame with conversations and also sets up online statue in the database to “YES” or creates an error frame.

The class contains several listeners. One of them allows the user to use “Enter” button of their keyboard to log in.

## **6. Class Login**

The class is used to check whether an account exists or not.

It is started when the GUI class detects that the “Enter” button is pressed and either opens a chat frame or creates an error frame.

When the account exists, an instance of the Chat class creates.

## **7. Class newAccount**

The class creates a frame with two fields - “Login” and “Password”.

Every time the button “Create” is hit the method isCorrect is called. It checks whether the data entered is correct.

## 8. Class Chat

The class creates the main frame with conversations and input field.

The button “Send” initially is inactive because there is no conversation yet.

When the user presses “New conversation” button, the class creates a frame with a single field - “Name”. When the user enters the name of their conversationalist, the conversationalist, if they exist, is added to the left area. Class Chat automatically adds the conversation to the upper right area.