Weather Data Project

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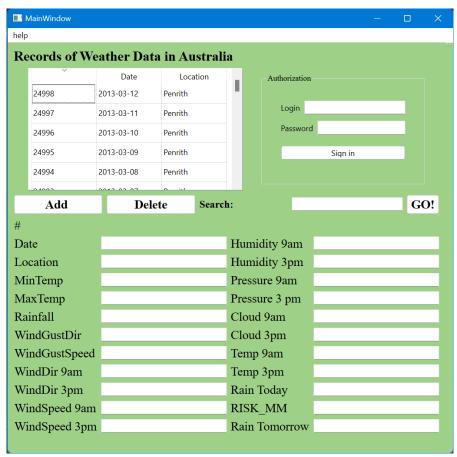
Submission Date: 10/06/2023

Stated problems:

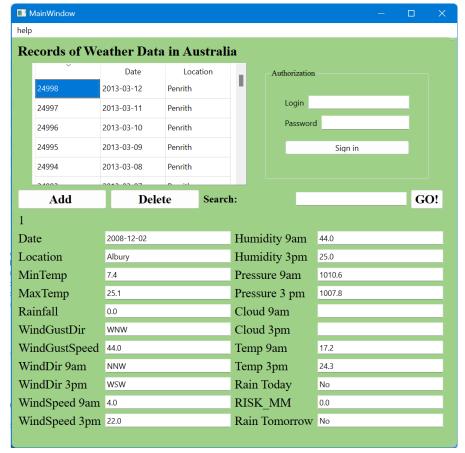
- 1. View several recordings in the main table.
- 2. Make it possible to add recordings.
- 3. Make it possible to delete recordings.
- 4. Make it possible to edit recordings.
- 5. Sort the database by location and date in several orders.
- 6. Consider a logo for such an application.
- 7. Create a registration window for new users (additional feature).
- 8. Make a button for saving changes (additional feature).

General information

Overall, I tried to follow the specification. The main window (pic. 1) shows the general information about weather in Australia like date, location and index number. They can be sorted in several ways, by pushing the name of column (date: from earliest to eldest/from eldest to earlies; location: A - Z/Z - A; index number: from 1 to 24998/ from 24998 to 1). The database can be filtered by index number with the use of "Search:". One click on the row shows all information about it (pic. 2).

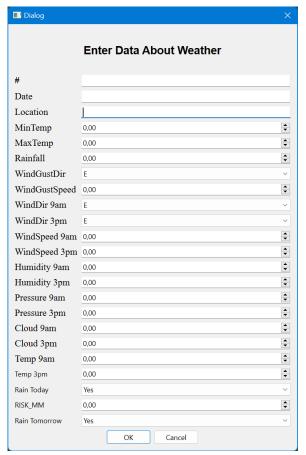


Picture 1



Picture 2

Under the data table you can find two bottons. The right one — "Add" — is responsible for adding a new row with some information (pic. 3). The left bottom — "Delete" — is responsible for deleting chosen row. Moreover, there is an ability to edit data in the table by double click and save it py pressing "Enter" on the keyboard. Also, on the right side og the window there is something like authorization box, where you can type your Login and Password but, unfortunetely, it doesn't work correctly, so it is just like a decoration.



Picture 3

Results:

- 1. The dataset can be sorted in lexicographical order (both ascending and descending), by date and number (also in two directions).
- 2. New rows can be created.
- 3. The data can be edited.
- 4. The opportunity to delete data is implemented.
- 5. Search mechanism for finding data by its index number is created.
- 6. Logo is drawn.
- 7. Tried to create registration box (unsuccessfully).

Conclusion

Summing it all up, all mandatory tasks are covered with some minor differences in the design of the windows.

Given Specification:

Weather Data

 A well-known Australian meteorological company has asked you to create an application that will store records of weather data and allow you to edit them.

Data model

- The database was taken from the site
- Dataset is structured by its attributes:
 - "#" Index of a record (int)
 - "Date" Date of a record (string)
 - "Location" A place where the record was made (string)
 - "MinTemp" Minimal temperature that was detected (float)
 - "MaxTemp" Maximal temperature that was detected (float)
 - "Rainfall" Precipitation amount (float)
 - "Evaporation" Evaporation amount (float)
 - "Sunshine" Amount of sunlight (float)
 - "WindGustDir" Wind direction (string)
 - "WindGustSpeed" Wind speed (float)
- You can delete "Evaporation" and "Sunshine" attributes

Main Features

- Ability to view recordings (Only #, date and location. Other information appears only if the user clicks on a record)
- Ability to add recordings (New special window) (Check if new data has the same type as the whole column if it has not, the application has to show an error message)
- Ability to delete recordings (A button at the bottom of the application which deletes a chosen record)
- Ability to edit recordings (Check if new data has the same type as the whole column if it has not, the application has to show an error message)
- Filters by location and date (In any suitable way)

Additional Features

- Button to save edited data
- Registration and login (First screen)(people with only Admin role can edit and delete records)(The admin role is selected at the registration stage)

GUI sketch

