Ted Talks stats

Some information

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What I have learned

Making a GUI application using some development patterns such as ListView, TableView

Individual problem specification(implemented features)

1. *Start Clicking on that option brings the user to the frame defined by the following requirements*.

- The window should have a list view on the left side for the Master aspect, and a Detail view on the right side, which activates when an entry from the Master list is selected.
- The user should be able to mark/delete/add information about videos
- The application must be capable of loading the database from a .CSV file and save changes to a .CSV file. (update button)
- A UI element showing the total number of titles
- Saving the list of titles as a file, loading it from a file

Additional features:

- Sorting entries by some field
- A UI element showing the most liked videos
- Finding the most popular TED talks Speaker (in terms of number of talks)

2. *Help*

   The main menu contains an item called Help, whose subitem About opens a dialog window with anonymous information about the author (Student №...). The window also contains a logo of the application which is made of a custom widget component drawing its content by overriding the paintEvent() method. The logo is implemented using drawing primitives; it can't be loaded from a prepared file

Implementation details

1) I wrote several structures:
   - Storing information about each talk(attributes.h.) in a vector of structures
   - Storing necessary information about each talk(filters.h) to filter them by parameters entered by a user
   - Storing details about each video(video.h)
   - Storing titles of talks of each speaker and their number(speaker.h)

Moreover, I have a header file called “GlobalVariables.h” to keep an author number(I made so that it could be changed if a user is different)

2) I used ListVew model to output titles of a talk and see information about it.
3) I used TableView model to organise output data as a table to show inforamtion about likes of videos, popular artists and approppriate talks according to entered filters(these are 3 different tables). Also I can get a link of a talk by pushing a row of a table.
4) I overrode paintEvent() to draw a logo using primitives(points and lines in my case)

Github-repository: https://github.com/KirillKiosa/dsba-itop2022-hw

Results and discussion

1) By comparing a number of talks in March of 2019, 2020(when the the outbreak of coronavirus happened) and 2021, I got the following results: 32, 44, 30 correspondingly. This can mean that there was increased demand for talks to help people to cope with the unknown disease or boost their mood because of a lot of disappointment.
2) I have calculated quantity of talks for 2018, 2019, 2020, 2021 years. And results are as follows: 541, 501, 473, 390 respectively. We can see a downward trend which can be connected with the quarantine, closed public places, canceled event(TED show as well). I assume(40%) that if COVID-19 stays more or less active or some other viruses appear(such as monkeypox) then quantity of talks in 2022 will be even less. However, people might have tired of sedentary lifestyle with a number of restrictions. There can be talks on positive topics to improve happinness of people, on educational purposes(for example, how to cope with the stress, defeat diseases) which can attract a lot of people and, therefore, a number of talks in 2002 will be high.

Conclusion

I have built a rather useful and apractial application which helps a person to choose the most approprate talks in accoradnce to the one’s wishes.

What can be improved:

1) Adapting size of the application to any screen
2) Creating UI elements which allow to show(preferably in a view of a table)
    - Number of talks for each year and information about each talk for a particular year
    - Talks for particular month and year(for example, April 2021)
    - Number of views of each talk by a particular speaker and sorting them(talks) in an descending order
    - Talks for a particular time interval(for example between March 2020 and September 2020)