Project Overview

Our project is to develop an interactive sunburst chart and integrate that with the database with secure user authentication.

Software functionality

I have been developing a sunburst chart using the Anychart React plugin library. The link to the hosted website with the sunburst chart is here. The sunburst chart has different interactive actions based on the user as mentioned in the diagram below.

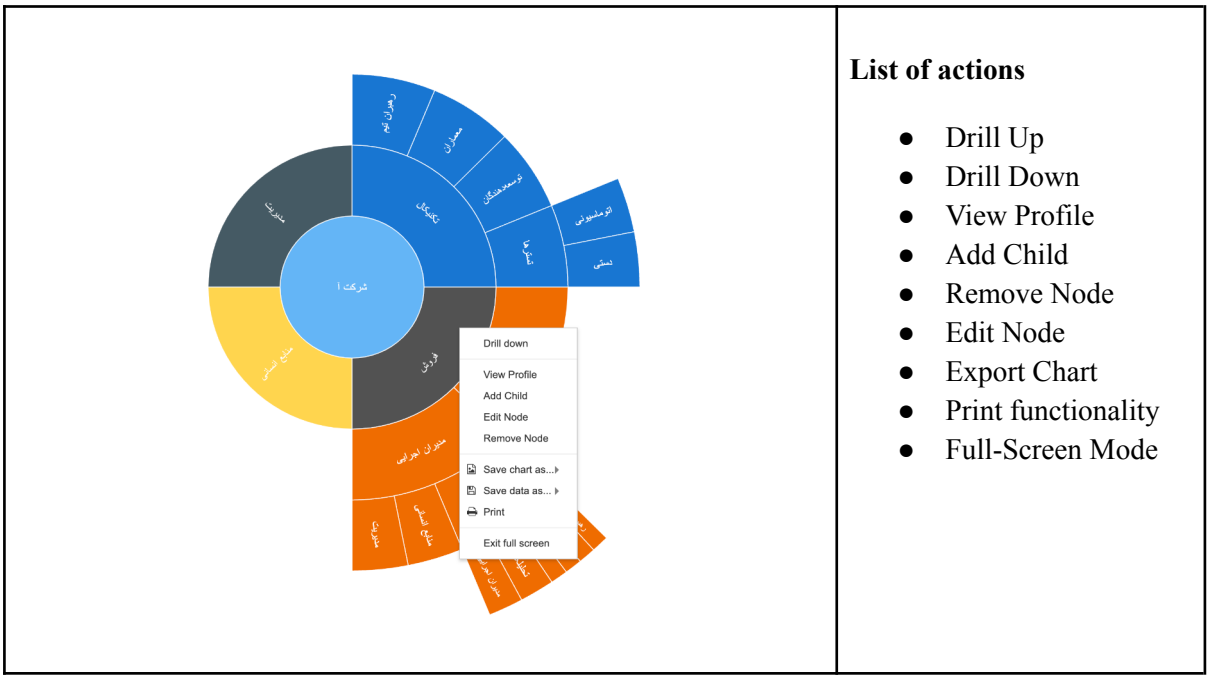

Fig: Diagram of Sunburst Chart and actions that can be performed on it

Users can View Profiles, Add Children, Edit Nodes, Remove Nodes, Export images, Print Images, Drill up and Drill down according to the user privilege. These actions varies according to the user privilege. Additional documentation on the functionality and user actions is hosted on the gitbook for easy access. The integration with the database is still in progress and the hosted website currently has test data only.

Link to commits/PR

The link to the Pull request for the sunburst chart itself is here. Link to other commits and Pull Request contributed by me can be found here. At the moment, the insights page does not shows up all the commits contributed by me due to a Github issue. Unfortunately, past commits cannot be fixed. However, I have taken steps to correct the issue for future contributions following GitHub's guidelines.I kindly request you to review my contributions comprehensively rather than relying solely on GitHub Insights, as it currently misrepresenting my level of contributions. I have written an email regarding it to you as well.

Importance/value

The sunburst chart is the key component of the MVP. It enables the creation of interactive family trees in a sunburst chart format, which was chosen over traditional tree structures due to its compactness.

The client specifically requested this as the primary feature along with the actions that can be performed on it.

Tech/tools used. Challenges faced,

Adapting AnyChart's sunburst chart from vanilla JavaScript to React was challenging due to the lack of React-specific examples. Implementing these functions was more sophisticated than I anticipated, however I conducted extensive research, experiments, and used a sandbox environment for testing. Designing a context menu (menu that appear when user right click on selected node) that suited our project's needs was also challenging. At the same time, supporting Farsi language and making sure exports are working correctly with that language has been additional issue. Furthermore, I'm still working on addressing text visibility issues when zooming in trees with large depth.

Testing

As this feature is a UI component, my testing approach relied on manual visual inspection rather than on automated procedures. I consistently checked the output as I developed the code which ensured it is working correctly as expected and if there are any bugs.

Deployment

The website is hosted on Vercel, which is advantageous because it deploys branches even before they're merged. This feature speeds up testing, debugging and client feedback. The client has access to the website through the mentioned public URL.

Project Management and Group work

We've been in regular communication through Teams chat and hold weekly face-to-face meetings on Mondays. Group meeting minutes are available for reference. Additionally, every two weeks on Tuesdays, we collect client requirements and showcase project progress, gathering feedback during client meetings. Meeting minutes for these sessions are also documented here.

We utilized Trello Prime to create unique tickets for each card, as Trello lacked this feature by default. We adhered to the ticketing convention for branch names and maintained consistency in branch and commit naming conventions. We created different sections to keep track of the task. We have also tried to stick with the deadlines we have projected on the Gantt Chart.

Code Review and Discussion on Github

I've been actively involved in code reviews and GitHub discussions, offering guidance, sharing articles, and providing insights on feature implementation. We've established a rule that code must undergo review before it can be merged, and discussions or suggestions must be resolved before merging. Following are the Pull Requests with comprehensive discussion and peer reviews.

Note: Make sure to expand the conversation as the resolved conversation is hidden by default

- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/12**
- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/13**
- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/14**
- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/17**
- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/19**
- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/15**
- **https://github.com/iheathers/UWA-Sunburst-Family-Tree/pull/20**