



Knight Foundation School of Computing and Information Science

Fall 2023 Senior Design Project

Web Based Neurological Assessment

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PROBLEM

Patients with neurological disorders face difficulties attending in-person medical examinations and checkups at on-site practices. These examinations often require the physical presence of patients for completion along with difficult communication between patient and provider.

NeuroTask, a potential solution for patients with neurological disorders, addresses the challenge of on-site medical examinations by easing the accessibility of examinations through virtual means. The software would enable online video calls, task performance, and result storage for each individual user regardless of patient or provider.

This platform aims to offer a personal experience, allowing users to access necessary information, perform assigned tasks and examinations, and schedule appointments.

Providers can review examination results and medical records, enhancing communication and care.

Requirements

- Implement a user-friendly platform to adjust and view upcoming events from providers.
- Implement database functionality to store these individual user's events
- Implement database functionality to handle user's chats and contacts.

Fig 1B: Direct Search Page

Contributions

- Contributed to front-end's design and user interface implementations.
- Implemented basic calendar functionality for users to access and adjust events.
- Implemented Search functionality for user's contact list to improve user accessibility.
- Prepared for project by researching and understanding the tools used to develop our website.
- Ensured functions of the site were capable of being used in mobile format.

Next Steps

- Implement functionality for users to add their own events through the use of the database rather than through the source code.
- Implement chat functionality within Contacts to allow patient and provider to properly communicate.
- Implement the previous examination tools the previous team developed into the web application.

Conclusion

NeuroTask, is a virtual solution for patients with neurological disorders. It addresses the challenges of on-site medical examinations by providing easy accessibility through virtual means. This personalized experience enables users to access essential information, perform tasks and examinations, and schedule appointments. With the use of NeuroTask, we aim to increase the accessibility of neurological examinations and streamline the process for both patient and provider.

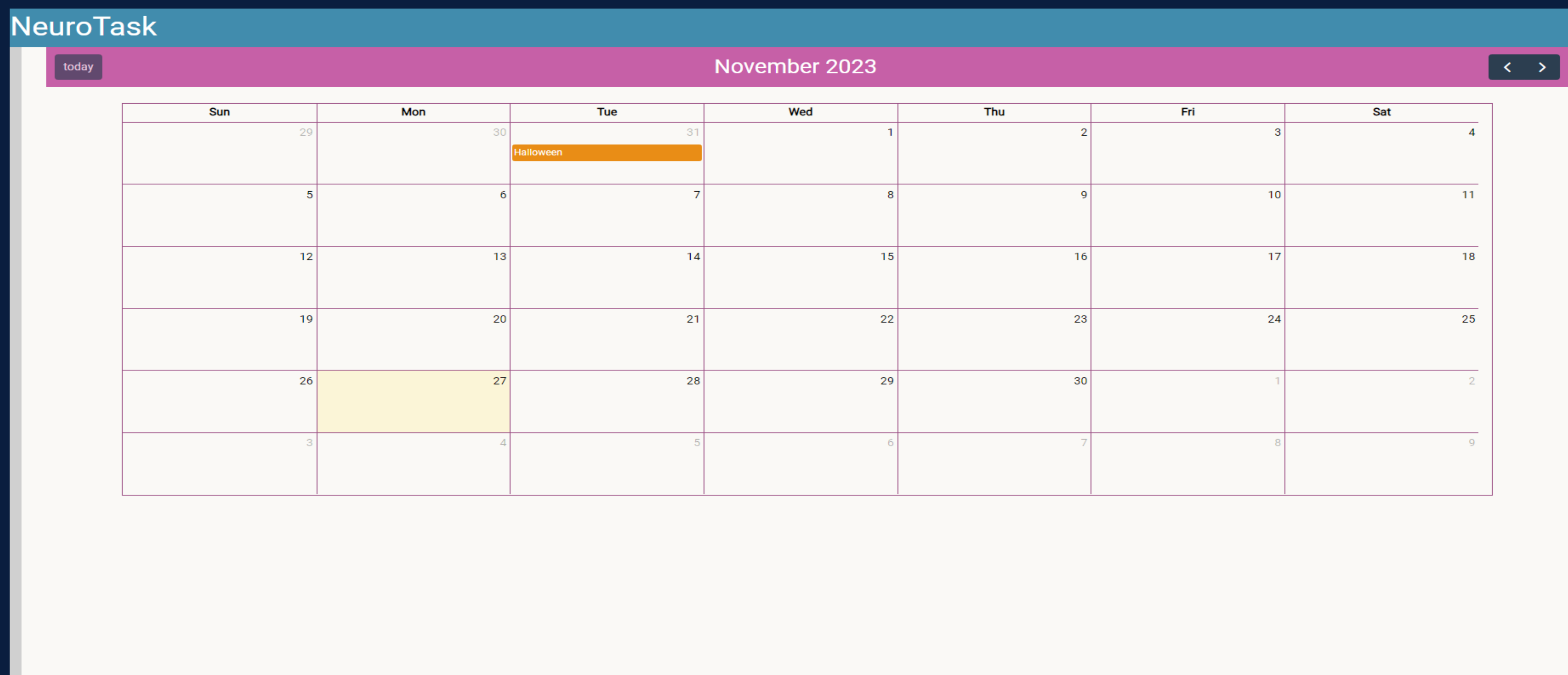


Fig 1A: Calendar Page

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