ConverSwim

Interactive Accessibility Tool for Neurodiverse Dyads

An Ongoing Project of Dr. Annuska Zolyomi's

IDEA Lab
Interaction Design for Education and Accessibility

First Working Prototype by Jaimi Chong

Introduction

ConverSwim, short for 'Conversation Swimlanes', is an interactive **visual tool for capturing** the highlights and lowlights of **conversation between neurodiverse** conversation partners and enabling **reflection** and improved **understanding** of each others' **perspectives**.

Requirements Analysis

Initial:

2.1.2.1. Summary of Priorities

Priorities in *Must-haves*
- Accessibility to both neurodivergent and neurotypical users
- Helpfulness to conversation
- Support for tablets, and as a touch-based application

Priorities in *Should-haves*
- Data exporting, as a temporary replacement for database management
- Quality of life features for the conversation screen

Priorities in *Could-haves*
- Seamless user guides
- Database and corresponding features and constraints for users to interact with server data
- RESTful architecture
- Edge case features for the conversation screen
- Support for computers, as a website, and in varied resolutions

Priorities in *Won't-haves*
- Database security for *HIPPA* compliance
- Machine learning
- Feedback and maintenance support lines
- Support for smartphones, with varied panel arrangements

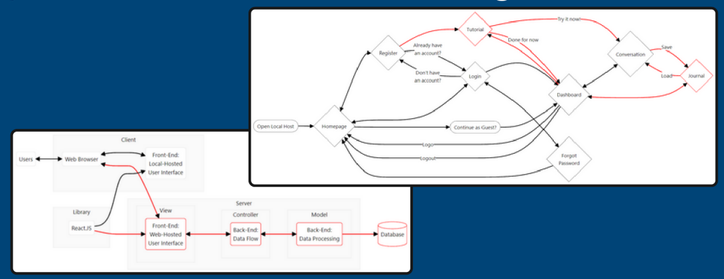
The project was **originally** planned to be a **tablet touch-screen** application, but later shifted to a **computer website format.**

Final:

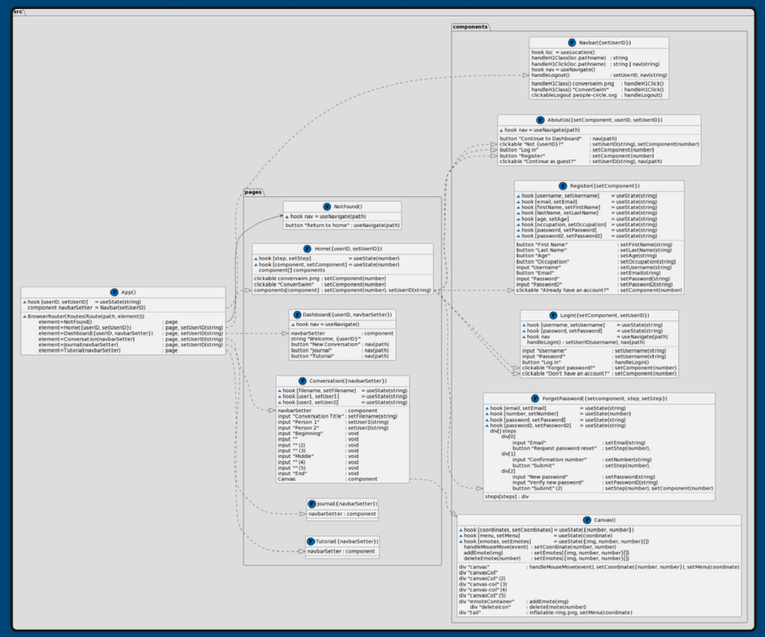
PACT Relation	Requirement	*Type*	*MoSCoW Priority*
PEOPLE	The software's conversation screen and its contents are accessible (i.e. intelligible, findable, learnable) to both neurodivergent and neurotypical users.	*Non-functional*	*MUST-have*
PEOPLE	The interface's menu layers are kept to a minimum	*Functional*	*MUST-have*
ACTIVITIES	The interface does not impede conversation	*Non-functional*	*MUST-have*
CONTEXTS, Process	The software does not distract users by requiring them to remember points mid-conversation	*Non-functional*	*MUST-have*
CONTEXTS, Process	The software emoticon selection can be used by one user at a time.	*Functional*	*MUST-have*
TECHNOLOGIES	The software performs as expected as a website	*Non-functional*	*MUST-have*
TECHNOLOGIES	The software performs as expected on computers	*Non-functional*	*MUST-have*
TECHNOLOGIES	The software supports mouse and keyboard inputs	*Functional*	*MUST-have*

Final Design Plans

System Architecture and User Flow Diagrams:



System Components (UML Diagram):



Implementation