TRUST
Transitional Care Using Supportive Techniques
Sponsors: Drs. Lorraine Evangelista and Hassan Ghasemzadeh
Mentors: Jackie Nguyen and Ramen Fallahzadeh
Team Pluto: Gene Lee, Kameron Haramoto, Kristofer Taylor, and Nathan VelaBorja

Abstract
Chronic disease management accounts for more than 80% of all healthcare costs in the U.S. One of these chronic conditions is HF. Our goal is to demonstrate technical feasibility and usability of a smartphone app that addresses patients and their caregivers with advanced HF as potential end-users through a patient-centered care approach. The first component of the app is to educate and counsel patients and their caregivers in a way that allows for self-care at their fingertips, powered by HFSA educational content. The second component of the app is to collect analytic app usage data to personalize health care, qualify app content, and determine project success.

Requirements
- UI must be senior-friendly.
- Event data collection and transmission to server must be reliable and secure to ensure validity.
- Bring this app to both Android and iOS users.
- App must not rely on internet connectivity.

Solution Approach
- Fully develop the Android app, then move to iOS.
- Setup server database, application database, and php scripts for communication.
- Focus on Advance Care Planning, but also include other important reading modules.
- Enrich application with usability features such as Bookmarks, TTS, and Tutorials.

Results
- Both Android and iOS apps are finished and fully functioning.
- Server and application databases are working smoothly and storing analytic data.
- Senior-approved UI on both platforms with great usability.
- Project ready for use in studies by sponsors.
- Android app currently on the Google Play Store.

Future Work
- Deploy iOS app to App Store.
- Add all reading modules from the HFSA.
- Add interactive symptom management system.

Glossary
HF - Heart Failure
TTS - Text to Speech
HFSA - Heart Failure Society of America
UI - User Interface

Acknowledgments
Team Pluto would like to express our gratitude to the following parties for allowing us to accomplish our goals for this project:
- Dr. Crandall for helping guide us from beginning to end, identifying our problems and suggesting solutions.
- Dr. Evangelista and Ms. Nguyen for working with us, listening to our suggestions, and understanding when we had to change directions.
- Mr. Fallahzadeh for giving us suggestions and pointing us in the right direction during many of our technical challenges.

Team Pluto