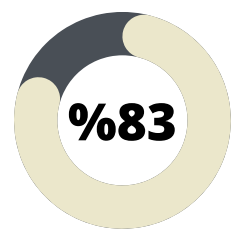


## Introduction

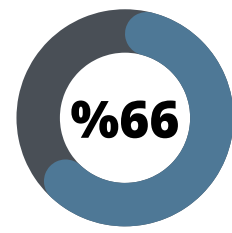
The loss of physical and cognitive abilities in elderly suffering from chronic conditions such as Alzheimer leads to their dependence on others to provide daily care. Family members (Informal caregivers) sometimes need to transfer the caregiving responsibility to another caregiver for some time. Some mistakes may occur to the care recipient, such as receiving a higher dosage of a medicine, due to inaccurate or ineffective communication. In the hospital, care teams use structured handover information exchange tools, such as SBAR(Situation-Background-Assessment-Recommendation) form or I-PASS form. To offer some structure for guiding caregivers throughout the handover process in the home setting, we developed **Sanad**. In this mobile application, we adapt the SBAR tool for the handover of home caregivers. The application facilitates the transfer of the care recipient's information from one caregiver to another caregiver, offering easy access to information, such as medications, care suggestions, and health condition monitoring information.

## Motivation

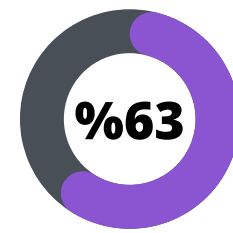
Based on an exploratory survey of home caregivers, we found that most informal caregivers face communication challenges during their caregiving experience. We share high-level results:



Adding notes and suggestions for caregivers to communicate with each other in two different ways (text - voice) because 83% agreed that they could not act without referring to the primary caregiver.



Adding medicines and reminding them of their dates, given that 66% of the responses confirmed that errors occurred in the dates and doses of the medicine.



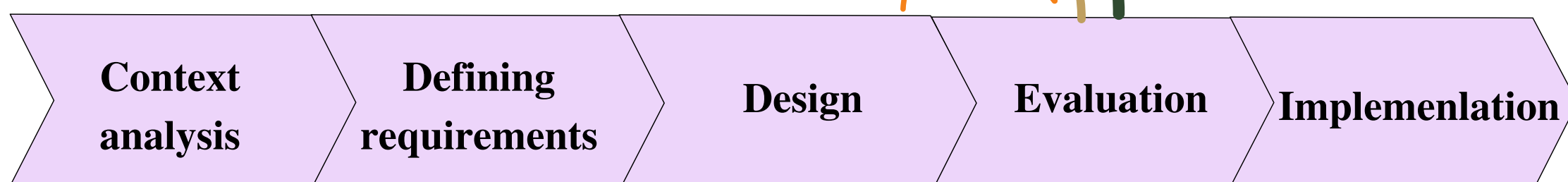
Adding a record for storing blood pressure/sugar readings, because 63% agreed on the importance of writing down blood pressure and sugar measurements for reference.

## Objectives

- To develop an Arabic application that facilitates the transfer of care responsibility among caregivers in the home context.
- To adapt and digitize SBAR information exchange in **SANAD**.

## Methodology

We adopted a user-centered approach to guide the application development process,



- Prototype 1 is designed based on the responses of the users in the questionnaire.
- Prototype 2 is designed based on the feedback of the examination committee in the first term.

- Prototype 3 is designed based on the feedback of users and experts who have been interviewed.
- Final prototype after supervisor feedback

## Tools



Used to develop the app



Language used to develop the app

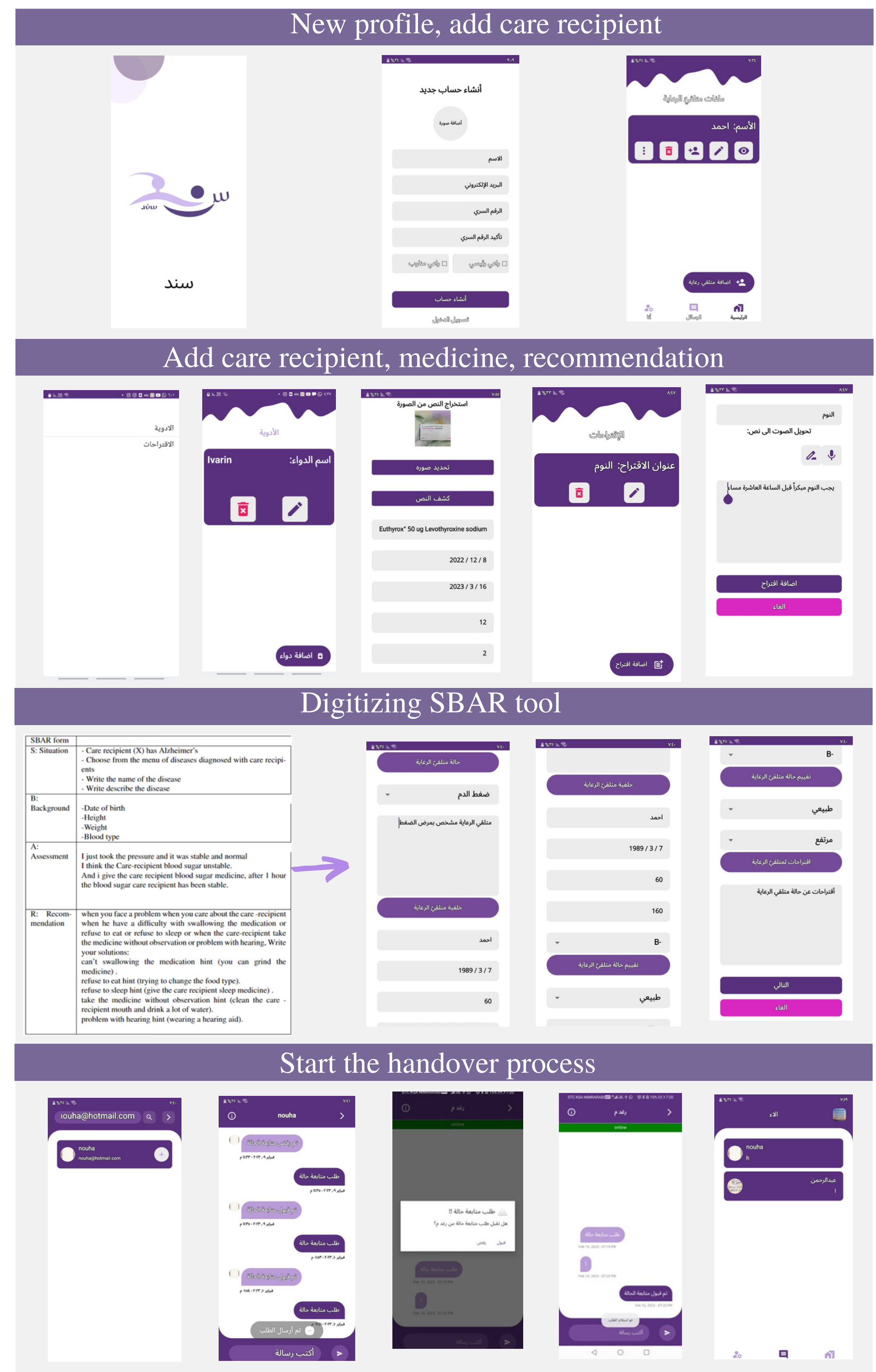


Used to store the data using firestore database



Used for extracting text from images and speech recognition.

## Prototype



## Future Work

- The primary caregiver will be able to add assistant caregivers.
- Add a sleep routine and dietary for the care recipient.
- The primary caregiver can submit a "support request" in advance and will be reminded to update the information 24 hours before passing the shift.
- To support the Kingdom 2030 vision for developing the health technology infrastructure and quality of services, we will investigate the possibility of extending the handover process among informal and formal caregivers.
- Conduct a usability study of Sanad in home settings with real users.

## Conclusion

Finally, this project established a proof of concept mobile application for facilitating commutation among informal caregivers. It supports several functionalities: sign-up, adding care recipients and the handover process to the secondary caregivers. **Sanad** application is created to make it easier to exchange information about care recipients between caregivers, reduce the possibility of error by using the SBAR tool exchange information, and lessen the stress on the caregiver by reducing the amount of data that must be entered manually by utilizing techniques such as convert audio to text and extract text from images.

### References



### Contact



sanadteam01@gmail.com