Group 5

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Formative Evaluation

Setup used for formative evaluation:
https://palz2b.axshare.com/#id=zeytuk&p=home

General Instructions:
To make the evaluators aware of the application and to give a brief description of it we provided them with the following description and a set of general instructions before they were asked to perform any tasks. The reason behind sharing this was to make the evaluation process simple and make sure that the evaluators had some idea about what the application does.

Description:
Piller is a user friendly mobile application to remind older adults to take their medication.

Key tasks supported:
The application supports key tasks such as inputting the dosage, schedule and purpose of the medication, view/edit the details of the medication, check upcoming medications on the dashboard, text caretakers using a prefilled text messaging feature ,etc.

User evaluation: Low fidelity prototyping

General Instructions:
• Below is a list of 3 independent tasks that we would like you to carry out.
• Please think aloud and verbalize your thoughts while you are performing these tasks.
• If you would like to leave the evaluation at any point of time, please let us know.
• Also, in case of any confusion please do not hesitate to tell us.

Task Cards:

Task 1: Add medication -

You, John, are 60 years old and under treatment for type 2 diabetes. Add a reminder for Insulin, 100ml to be taken at 9pm every day. You take one dose of insulin per day and you have 2 vials of insulin left.
Perform the same task as Lisa, who is 22 years old and taking care of John, her 60 year old diabetic father who lives with you.

Task 2: Change the dosage for a medicine -

You misremembered! The dosage was supposed to be 150ml instead of the 100 ml you just entered. Go back and change the dosage of insulin to 150 ml.

Task 3: Send a text to the caretaker -

John, you have only 2 vials of insulin left! Contact your caretaker, Lisa and let her know you're running low on insulin.

Observations:

Task 1: Both users were able to complete the task successfully.
    One user spent the most time on the schedule tapping away on the time selector. [*This was never our final design. We want to implement a clock interface for them to pick their time but we couldn't implement this design in the prototype as of now.*]
    One user used the progress bar buttons to go back to a section through exploration.
    Both users used the 'Every day' check box in the schedule section which selected all the days of the week.
    Both users didn't notice the camera functionality that could be used to scan to input the name of the medication.

Task 2: Both users were able to complete the task successfully.

Task 3: Both users took some time to figure out the messaging section was hidden under Mr Piller.

They both expected there to be a messaging tab in the bottom panel. But once they found the Mr Piller functionality, they had no issues navigating through categories to select the message they wanted.

Cognitive Walkthrough results :

Task 1 : Add Medication	
Assumption	The user is in the home page of the application

Steps	User clicks on add medication tab
	
	User inputs name by either:
	
	    ● Text input,
	    ● Using the camera button
	
	User clicks next
	
	User inputs purpose
	
	User inputs dosage, number of medication clicks next
	
	User inputs schedule, clicks done
	
	Success screen is displayed and user is taken to home screen

Instructions	Task card: Task 1
Walkthrough comments	1. Older adults may not understand that the "+" sign represents add, a word describing the functionality may be needed.

Piller

S M T (W) Th F Sa

Today's schedule
02 October, 2020

9 AM
Crocin
500 mg / 1 tablet
>

10 AM
Aspirin
200 mg / 2 tablets
>

:)
Mr. Piller

+ ✎ 🔔 ⚙

2. 'ml' option is not available. Need differentiation between liquid or solid medicine - to choose units.

3. What if there is more than one dose a day? I would not like to make duplicate entries with the same name, dosage, with just the timing changed.

4. Input method for time picking is not very ideal.

Task 2 : Change the dosage for a medicine of your choice	
Assumption	The user begins from the home screen of the application
Steps	Users clicks the view/edit button (pencil) The user locates the dosage input box and changes the value Clicks on the save button Success screen is displayed and user is taken to view screen
Instructions	Task card: Task 2
Walkthrough comments	1. User took some time to find the edit button.

Piller

S M T W Th F Sa

Today's schedule
02 October, 2020
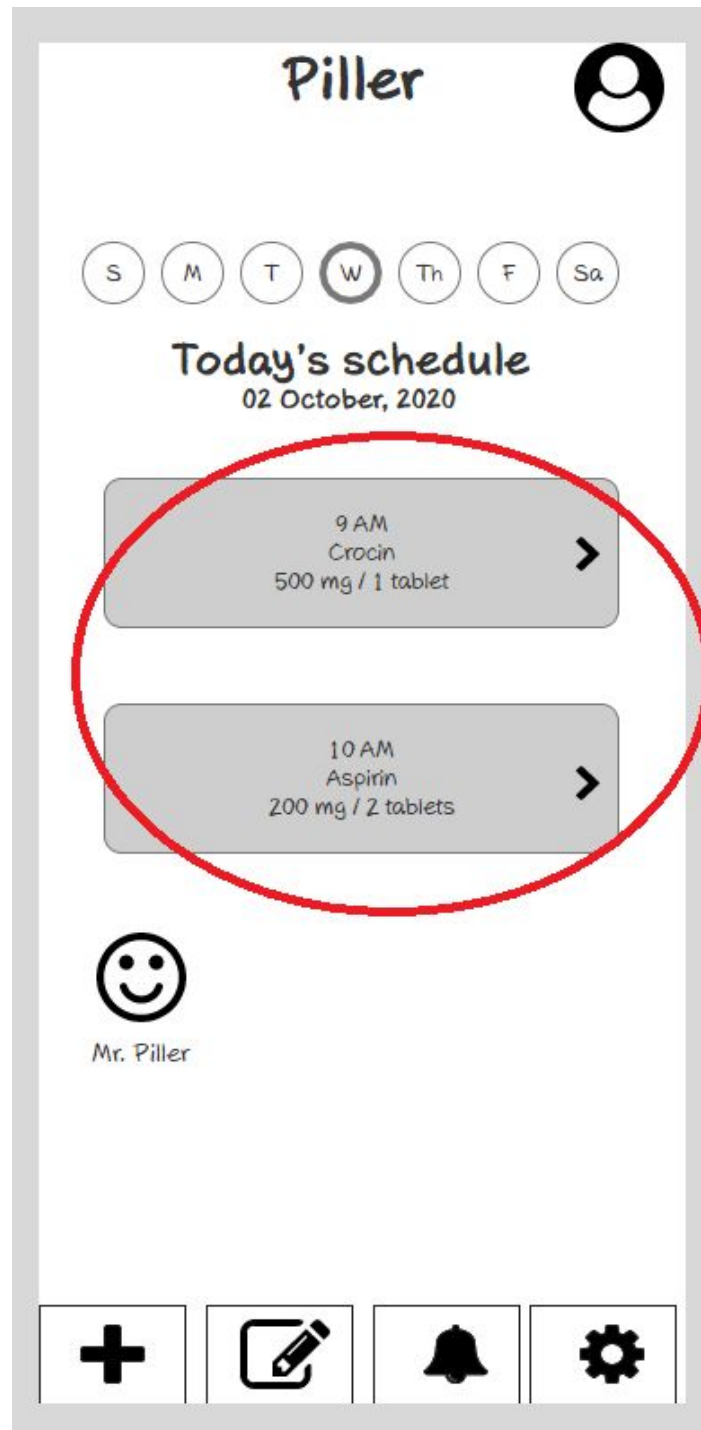
9 AM
Crocin
500 mg / 1 tablet ❯

10 AM
Aspirin
200 mg / 2 tablets ❯

:)

Mr. Piller

➕ 🖊 🔔 ⚙

2. User tried to click on the medicine cards available on the home screen itself under the 'today's schedule' list

Task 3 : Send a text to the caretaker	
Assumption	The user begins at the home screen
Steps	The user clicks on the Mr. Piller button User selects a category based on which prefilled text messages are displayed User selects a message to send User confirms through a dialog box The message sent feedback is shown and after 2 seconds user is taken to the home screen
Instructions	Task card: Task 3
Walkthrough comments	1. User searched for a 'messaging' tab to send a message to the caretaker instead of clicking on Mr Piller

Piller

S M T W Th F Sa

Today's schedule
02 October, 2020

9 AM
Crocin
500 mg / 1 tablet ❯

10 AM
Aspirin
200 mg / 2 tablets ❯

🙂
Mr. Piller

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2. Contact caretaker should be separate from Help and FAQ section since it doesn't come under the idea of 'help' as used in app terminology

Changes we plan to make:

- We will add name of the functionalities along with the metaphors so that it becomes easy to locate and understand
- We will make the scan to input feature in the add medication section more prominent by adding some descriptive text to it and making the camera image bigger
- We will provide a way using which the user can choose one among multiple unit options like mg, iu, ml etc based on the type of medication (solid/liquid)
- We will move the messaging functionality to a new tab on the menu instead of adding it with the help and documentation functionality (Mr Piller)
- We will provide a functionality so that the user can set multiple reminders a day for the same medication.

Individual Contributions :

S.No.	Name	Contributions
1.	Bhuvana Sridhara	- Made prototype for Task -1 - Interview, analysis, observations, walkthrough comments and future changes
2.	Irshad Badarpura	- Made prototype for Task -2 - Interview, analysis, observations, walkthrough comments and future changes
3.	Shreya Shrivastava	- Made prototype for Task -3 - Interview, analysis, observations, walkthrough comments and future changes