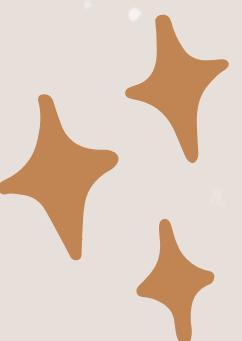
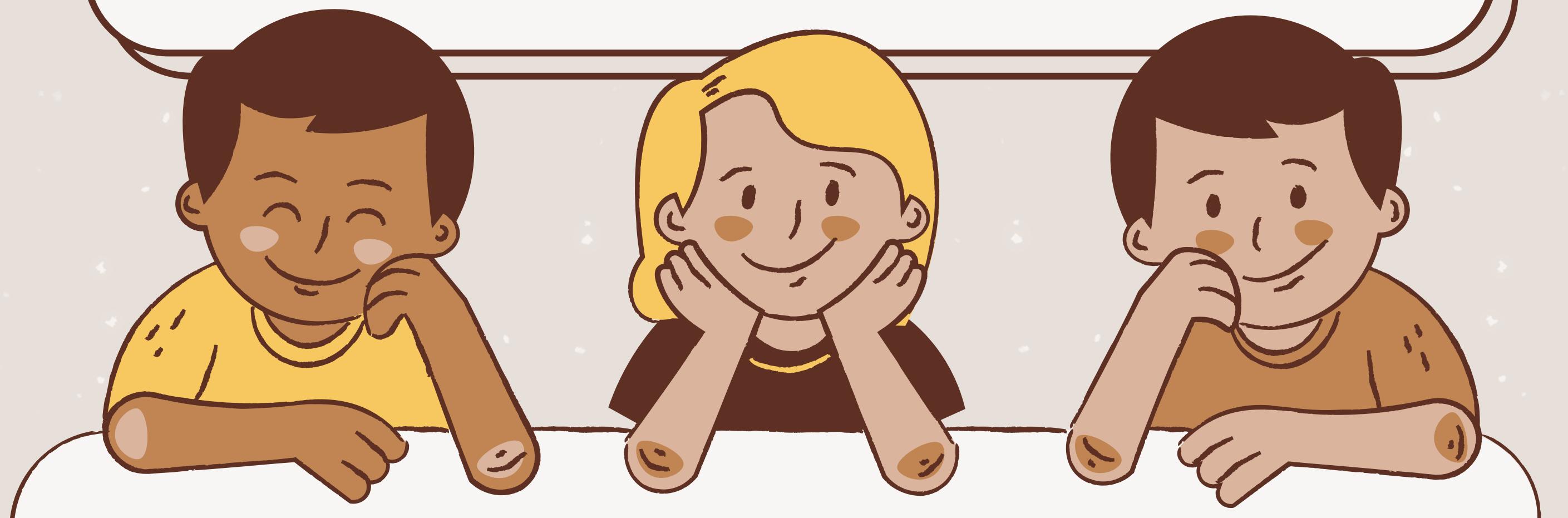


طَقْرَنْهُ أَبْعَدْ
كُرْتَهُ كُرْتَهُ
صِبْرَقْهُ زَرْقُ طَنْهُ
صِبْرَقْهُ زَرْقُ طَنْهُ



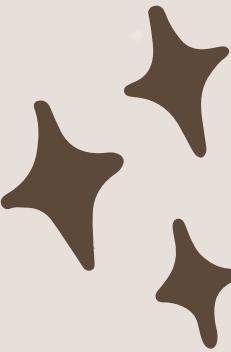
حَمَادَةَيْ



PROJECT MEMBERS

Raniya Al-harbi	441002114	(Leader)
Rahaf Murad	441016924	
Alaa Alomayri	441008331	
Noura Alsalem	438000048	
Shahad Myajan.	441012494	

Supervisor: Dr. Asmaa Alayed

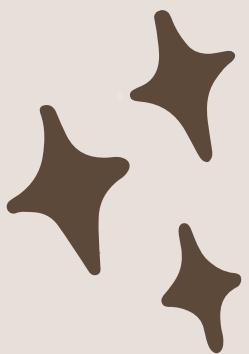


Q

A

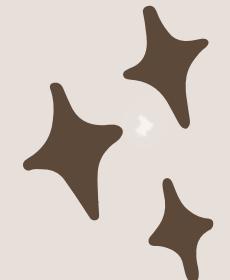
PHASE 1

WORK DIVISION:



	RANIYA	RAHAF	ALAA	NOURA	SHAHAD
INTRODUCTION				★	
TARGET USER AND CONTEXT			★		
USER PROBLEM AND SOLUTION		★	★		
USABILITY GOALS		★			
USER EXPERIENCE GOALS				★	
CONCEPTUAL MODEL	★				
INTERACTION AND INTERFACE TYPE					★
REPORT		★			

TABLE OF CONTENTS:



1-INTRODUCTION

**2- SPECIFICATION OF TARGET
USER AND THEIR CONTEXT**

**3- DESCRIPTION OF USER'S
PROBLEMS**

**4- DESCRIPTION OF THE
SOLUTION**

**5- SPECIFICATION OF USABILITY
GOALS AND USER EXPERIENCE
GOALS**

**5- SPECIFICATION OF USABILITY
GOALS AND USER EXPERIENCE
GOALS**

**6- DEVELOPMENT OF A
CONCEPTUAL MODEL**

**7- SPECIFICATION OF WHICH TYPE
OF INTERACTION & INTERFACE**



1- INTRODUCTION

Title : محفظتي

Description of the idea :

Our project is an application that allows the workers in canteens to receive amounts through the online wallets of students, where their parents can download the application, add thier children, charge the wallet with money, then divide the money into daily expenses, and follow up on his children's purchases on a daily basis. In additon provide some services.

Aim :

Our application aim to help the sutudent to not forget thier expenses also to prevent the stealing the expenses between the student, and will facilitates the process of selling and buying food in canteens, also the parents can check thier childern purchases on a daily basise.

2- Specification of target user and their context

Target Users:

- Students
- Parents

Context :

The application will be available if there is connection to the internet .



3- DESCRIPTION OF USER'S PROBLEMS:

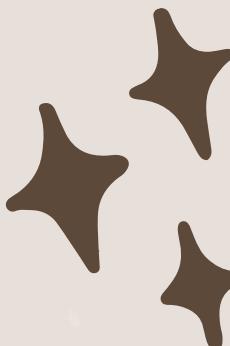
Usually students in primary school don't keep their money in safe place so anyone can steal it or sometimes by mistake they lose it .Also the parents will facing a problem which is giving their children extra money so they go over the budget.

4- DESCRIPTION OF THE SOLUTION :

In order to solve the problem of losing money in primary school, we will create an application that make guardian charge the balance in our application and when the student buys anything from the canteen, the worker will take his information and pay from the charged balance.

5- SPECIFICATION OF USABILITY GOALS

Effectiveness	<ul style="list-style-type: none">• PROVIDES AN EASY WAY FOR A PARENT TO PAY FOR THEIR SON'S PURCHASES• THE CHILD CAN BUY WHAT HE WANTS WITH THE CHARGED BALANCE IN THE APPLICATION
Efficiency	<ul style="list-style-type: none">• QUICK PAYMENT AND RECHARGE THE BALANCE THROUGH A RECHARGE THE CARD• VIEW BALANCE AND ALL DETAILS OF WALLET IN A SHORT TIME
safety	<ul style="list-style-type: none">• ADMIN CHECK THE INFO OF THE CHILD AND HIS CHARGED BALANCE• THE CHILD CANNOT BUY ANYTHING WITHOUT THE APPROVAL OF HIS PARENT
Utility	NAVIGATE BETWEEN SERVICES BY USING BUTTONS AND SCROLLING NAVIGATION BARS
Learnability	THE APPLICATION IS DESIGNED TO BE CLEAR WITH GRAPHICAL BUTTONS TO MAKE IT EASY TO LEARN.
Memorability	THE INTERFACE OF THE APPLICATION IS SIMPLE AND PRACTICAL, WHICH HELPS TO REMEMBER HOW TO USE IT.



5- USER EXPERIENCE GOALS :

Satisfying	THE USERS SUCH AS THE PARENTS AND THE WORKERS SATISFIED WITH WHAT THE APPLICATION OFFER, LIKE ARRANGEMENT OF CANTEEN PRODUCTS, DIVIDING THEM INTO CATEGORIES, AND DISPLAY THEM IN A DISTINCTIVE AND CLEAR MANNER WHICH HELP THE PARENTS TO LOOK AT ALL THE PRODUCTS OF THE CANTEEN, ALSO FOR THE WORKERS TO REACHES TO THE PRODUCT IN A SHORT TIME. IN ADDITION DISPLAYING THE BALANCE OF THE WALLET IN A CLEAR WAY.
Helpful	HELPING THE STUDENTS TO NOT FORGET THEIR MONEY BY LETTING THE PARENTS CHARGE THE WALLET ONLINE. NOT ONLY THAT, THE PARENTS CAN CHECK ALL THE PRODUCTS THEIR CHILDREN BUY, ALSO CAN HELP PROCESS OF SELLING AND BUYING FOOD IN CANTEENS IN AN ORGANIZED WAY.
Engaging	BY DEPENDING ON A SPECIFIC DESIGN FOR EACH INTERFACE AND EMPLOYING CALM, EYE-PLEASING COLORS, WE CREATE A BASIC AND APPEALING DESIGN.
Emotionally fulfilling	THE IDEA OF OUR APPLICATION INTENTIONALLY EVOKE POSITIVE EMOTIONS, SUCH AS HELPFUL AND PLEASURABLE .

6- DEVELOPMENT OF A CONCEPTUAL MODEL :

METAPHOR

school canteen, wallet

CONCEPTS

home , user account

Recharge, store , latest Transactions , Student Field

total purchase, total deposit , total withdrawal ,

total return

wallet ,add Credit Card , product



6- DEVOLPMENT OF A CONCEPTUAL MODEL :

MAPPING:

- store correspond to an actual canteen school
- wallet correspond to an actual wallet
- products to the actual products
- Recharge refer to the actual process recharge
- total purchase refer to the student purchase from the canteen
- total deposit ,total withdrawal , total return correspond to the actual processes that we can deal in the ATM
- Student Field to student



6- DEVOLPMENT OF A CONCEPTUAL MODEL :

RELATIONSHIP:

- home contains a user account ,Student Field , latest Transaction
- Wallet contains add Credit Card , method to Recharge
- Wallet has a total purchases ,total deposit , total withdrawal ,total return
- store contains a products



6- DEVOLPMENT OF A CONCEPTUAL MODEL :

FUNCTIONS :

- 1- add credit card , Recharge a card
- 2- view latest Transactions
- 3- add student to Student Field
- 4- Remove student from Student Field
- 5- constrain the products
- 6- log in
- 7- sign up
- 8- log out
- 9- view Balance
- 10- view Wallet



6- DEVOLPMENT OF A CONCEPTUAL MODEL : FUNCTION RELATIONSHIP ::

- user must first sign up and make an account to take benefits from all the services provided by the system
- to add student in the student fields user must sign up first
- to remove a student from a student field user must have added a student
- user must have sign up before to be able to log in again
- user must first add a credit card to be able to recharge the card
- user must have had added a student to be able to browse thier school canteen
- user can't constrain a product unless he/she sign up first and had added a student into the student field



6- DEVELOPMENT OF A CONCEPTUAL MODEL :

DATA :

- new account created by typing data
- add student by typing data
- new card added by typing data/scan card



7- SPECIFICATION OF WHICH TYPE OF INTERACTION & INTERFACE



INTERACTION TYPE :

1- Instructing :

the user will instruct the system to do what they want such as: send a request to create an account - accept request - log in - charge the wallet - update profile - checkout

2- Responding :

Alert the parents when the wallet is empty- Alert the parents when the child makes a purchase - Alert the parents if the child wants to go over the daily budget

INTERFACE TYPE :

1- WIMP & GUI :

we will be using WIMP & GUI including some parts of it such as menus and icons. using some of the wimp components provides an easy way for the user to learn and use the app as using GUI will provide an attractive Interactive and enjoyable experience.

7- SPECIFICATION OF WHICH TYPE OF INTERACTION & INTERFACE



2- Multimedia:

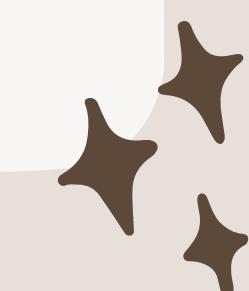
We will be using multimedia to present information to the user in better ways .as it helps clarify requirements and make them easier to understand and more pleasure to the user

3- Mobile interface:

Our app will be running on mobile phones.

4- Touch:

Touch: in our application, the user has to tap buttons and flick the screen up or down to see the lists

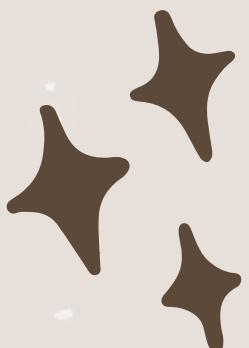


Q

A

PHASE 2

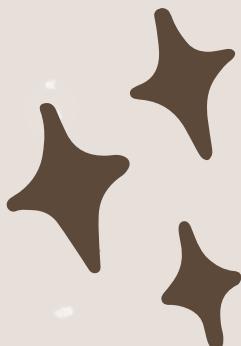
WORK VISION:



	RANIYA	RAHAF	ALAA	NOURA	SHAHAD
QUESTIONNAIRE	★	★	★	★	
EVALUATE TASKS IN THE CURRENT SYSTEM	★				
PILOT TEST				★	
TABULATE THE RESULT	★				
ANALYZE THE RESULT			★		
DEFINE AT LEAST THREE REQUIREMENTS			★		
PRE DESIGN	★				
DESCRIBE THE TOOL USED FOR PROTOTYPE		★			
DESIGN THE PROTOTYPE		★			
DESIGN PRINCIPLES			★		
USER EXPERIENCE GOALS					★
USABILITY GOALS					★
DESCRIBE THE PARTICIPANTS				★	

WORK DIVISION:

	RANIYA	RAHAF	ALAA	NOURA	SHAHAD
DESCRIBE THE ENVIRONMENT				★	
EVALUATE TASKS IN THE PROTOTYPE				★	
OBJECTIVE AND SUBJECTIVE EVALUATION			★		
ANALYZE AND INTERPRET THE RESULT			★		
CONCLUSION			★		



Part 1

Establishing requirements

DRAFT QUESTIONS

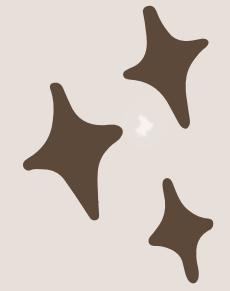
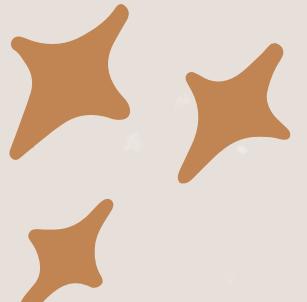
general questions :

1- AGE

2- EDUCATION LEVEL

3- JOB

**4- HOW EXPERIENCED ARE
YOU IN USING TECHNOLOGY?**



DRAFT QUESTIONS

parents questions :

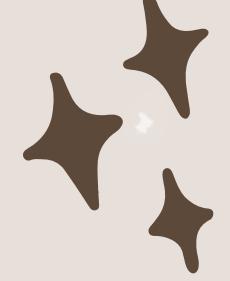


1- WHAT PROBLEMS DO YOU FACE WHEN GIVING YOUR CHILDREN SCHOOL FEES ?

2- WHAT PROBLEMS DOES YOUR SON SUFFER FROM DURING THE PURCHASE PROCESS ?

3- IS IT EASY FOR YOU TO KNOW YOUR CHILDREN'S PURCHASES ?

4- IS IT EASY FOR YOU TO KNOW THE PRICES OF CANTEEN PRODUCTS ?



DRAFT QUESTIONS

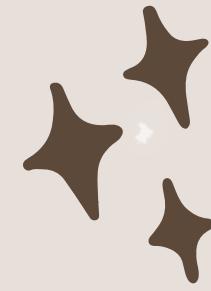
parents questions :

5- CAN YOU CONTROL YOUR CHILDREN'S PURCHASES ?

6- DO YOU THINK THAT OUR APPLICATION WILL HELP IN THE PURCHASE PROCESS?

7- WHAT DO YOU NEED FROM OUR APPLICATION ?

8- LANGUAGE OF THE APPLICATION?



DRAFT QUESTIONS

parents questions :

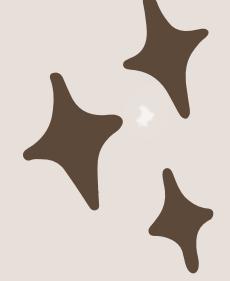


**9- COLORS OF THE
INTERFACE THAT YOU LIKE ?**

**10- WHAT IS YOUR FAVOURITE TO LOG
INTO THE APPLICATION ?**

**11- SUGGESTIONS IN OUR
APPLICATION?**

**12- YOU PREFER ELECTRONIC
PAY OR CASH? LANGUAGE
OF THE APPLICATION?**

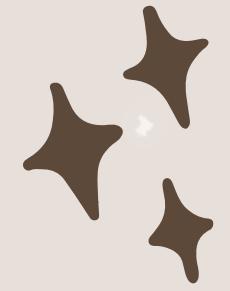
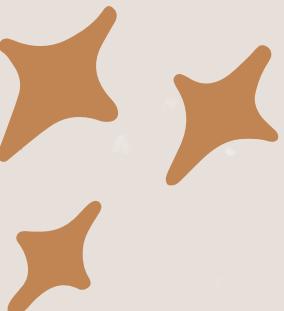


DRAFT QUESTIONS

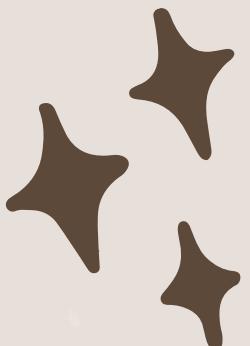
parents questions :

13- FROM YOUR POINT OF VIEW, WHAT ARE THE PROBLEMS THAT THE CANTEEN SELLER FACES WHEN SELLING?

14- FROM YOUR POINT OF VIEW, HOW LONG DOES IT TAKE FOR THE CANTEEN SELLER TO SELL?



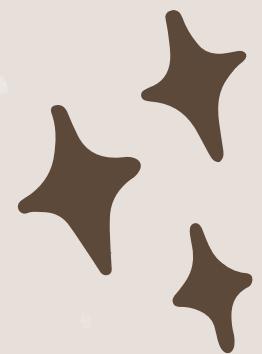
QUESTIONS TO EVALUATION:



user	Add balance	number of errors	Add a son	number of errors
first perant	40 sec	1	50 sec	1
Seconde perant	45 sec	2	1.50 min	2
third perant	1.15min	1	60 sec	1
fourth perant	60 sec	2	59 sec	1
fifth perant	55sec	2	1.34 min	2
sixth perant	49sec	2	45 sec	1
average	54.83 sec		1.10 min	

QUESTIONS TO EVALUATION:

user	Allow/ Prevent products	number of errors
First perant	6.38 sec	1
Seconde perant	9.85 sec	1
third perant	13.39 sec	1
fourth perant	10 sec	1
fifth perant	13.33 sec	1
sixth perant	20.1 sec	1
average	12.175 sec	



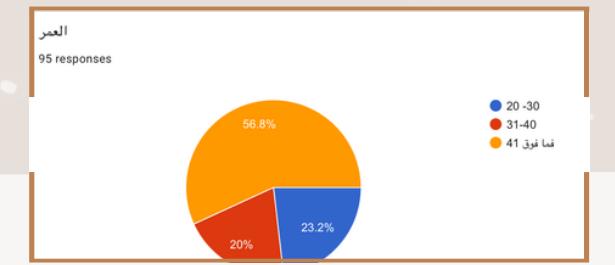
THE PILOTING TEST:

Question	updated Question	Reason
what are the problems that the canteen seller faces when selling?	From your point of view, what are the problems that the canteen seller faces when selling?	We changed the wording of the question so anyone can answer such as the parent and worker can answer.
how long does it take for the canteen seller to sell?	From your point of view, how long does it take for the canteen seller to sell?	We changed the wording of the question so anyone can answer such as the parent and worker can answer.
<p>ما هي احتياجاتك من تطبيق محفظتي ؟</p> <p><input type="radio"/> معرفة منتجات المصحف و اسعارها</p> <p><input type="radio"/> تقييد الطفل بمنتجات معينة</p> <p><input type="radio"/> الادارة على عملية الشراء الكترونياً</p> <p><input type="radio"/> سهولة شحن رصيد للطفل</p> <p><input type="radio"/> غير ذلك...</p>	<p>ما هي احتياجاتك من تطبيق محفظتي ؟</p> <p>B I U ↲ ↳</p> <p><input type="checkbox"/> معرفة منتجات المصحف و اسعارها</p> <p><input type="checkbox"/> تقييد الطفل بمنتجات معينة</p> <p><input type="checkbox"/> الادارة على عملية الشراء الكترونياً</p> <p><input type="checkbox"/> سهولة شحن رصيد للطفل</p> <p><input type="checkbox"/> Other...</p>	we changed the question options so they can choose more than one answer.

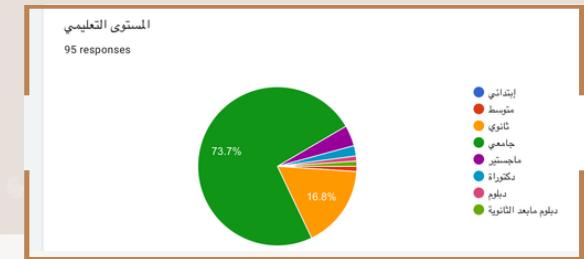
TABULATE AND ANALYSE RESULT

[https://docs.google.com/spreadsheets/d/1PX54
AHrFza_pzZV9TZ0rQDarUmOhAZe9xDPd6KSJYWo
/edit?resourcekey#gid=346388402](https://docs.google.com/spreadsheets/d/1PX54AHrFza_pzZV9TZ0rQDarUmOhAZe9xDPd6KSJYWo/edit?resourcekey#gid=346388402)

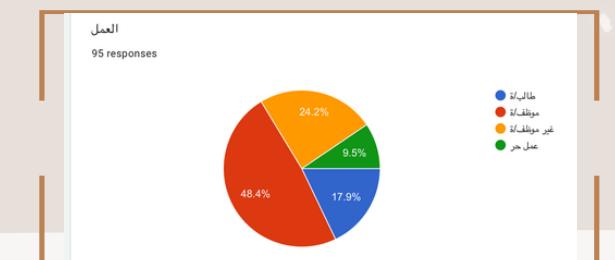
ANALYSIS OF THE RESULTS



The ages ranging from 56.8% for a 41 years or older and 23.3% between 20 and 30 years old , 20% between 31 and 40 years old .

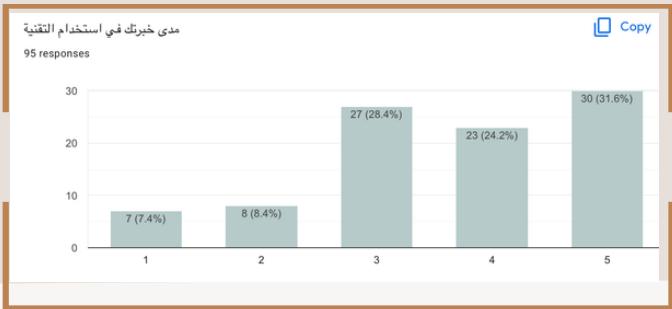


We found that a lot of people had a university level of education at rate of 73.7% and a high school level at rate 16.8% , and a master level 4.2%, a PhD was a 2.1% , and for a diploma and a Post-secondary diploma , middle School all of them at rate 1.1%.

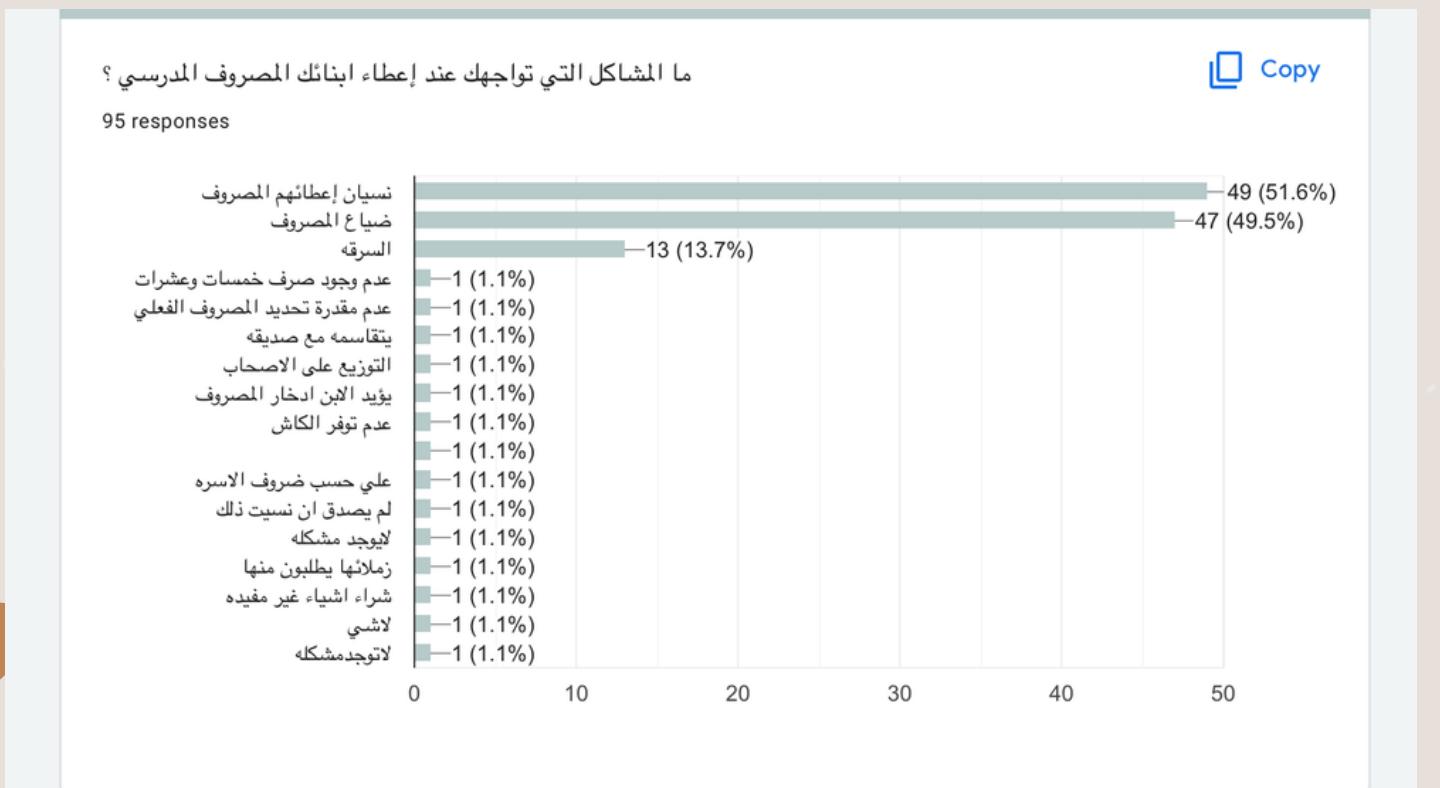


We found that 46 people were 48.4% employees and 23 people were 24.2% not employees, and a 17 people were 17.9% students ,the last one 9 people were 9.5% Freelancing.

ANALYSIS OF THE RESULTS

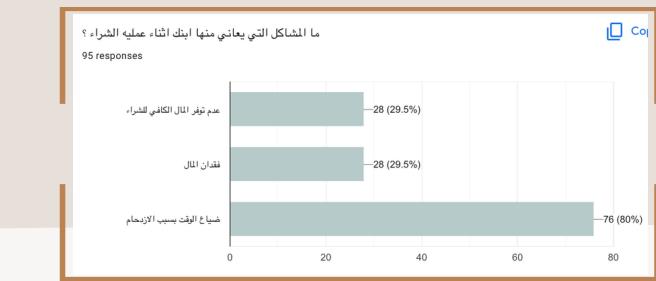


Their technical knowledge was 30 people who chose the highest value of 5 at rate 31.6% , and 27 people chose the value 3 at 28.4%, 23 people chose the value 4 at 24.2%. 8 people chose the value 2 at 8.4 and 7 people chose value 1 at 7.4% so they were beginner in technology.

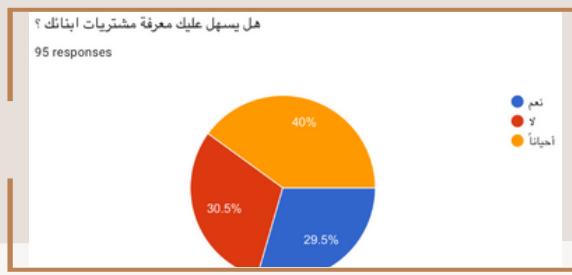


- There is a rate of 51.6% with 49 people who are having problem of forgetting to give their children the money, and 47 people at rate 49.5% having problem in losses the money when they giving it to their children , 13 people at 13.7% having a problem in stealing their children's money .
- There are suggestions from 1.1% of users the problems they having are There is no exchange of fives and tens SRs and Inability to determine the actual expense,share the money with his/her friends, the son supports the savings, cache not available , buying useless things and they said there is no problem

ANALYSIS OF THE RESULTS



- There are 76 people at rate 80% that had a problem in loss of time due to traffic when their children want to buy.
- And 28 people at rate 29.5% for both not having enough money to buy and losing the money.

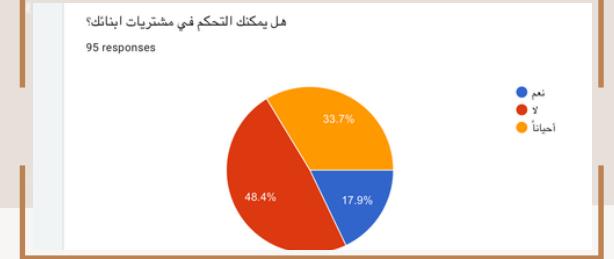


We found that 38 people were 40% they say sometimes they know what their children buy ,and 29 people were 30.5% say no they don't know ,28 people say yes they know .

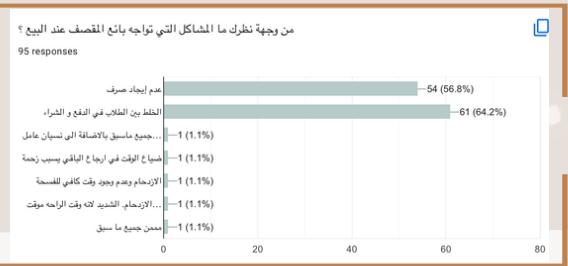


We found that 43 people were 45.3% they say no they don't know what the prices ,and 28 people were 29.5% say yes they know ,24 people were 25.3% say sometimes they know .

ANALYSIS OF THE RESULTS

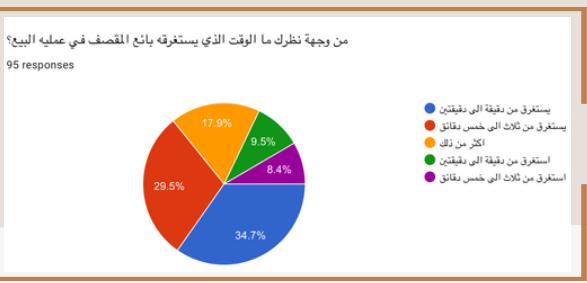


At rate 48.4% they can control the purchase of their children, by 33.7% it is sometimes can control , 17.9% can not control .

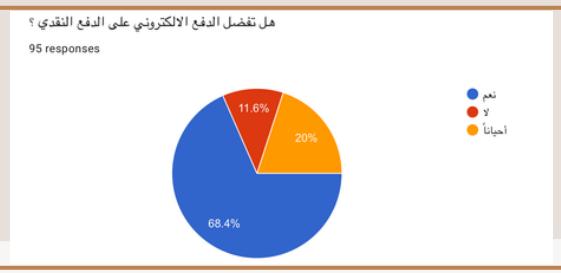


- There are 61 people (64.2%) who found the problem of not finding an exchange, and 54 people (56.8%) who found the problem is confusion between students in payment and purchase.
- There are suggestions from 1.1% of users the problems they having are the canteen worker forgot that he/she took the student's money, losing time in returning the rest causes congestion also there is not enough time for the break time.

ANALYSIS OF THE RESULTS



On average , 44.2% take 1-2 minutes, an average of 37.9% took 3-5 minutes ,17.9% took more than 5 minutes.



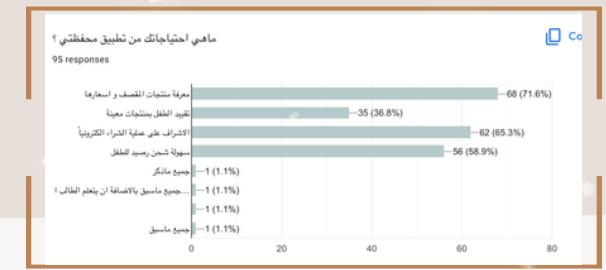
At rate 68.4% they prefer online payment, and 20% sometimes they prefer it ,11.6% they don't prefer online payment .



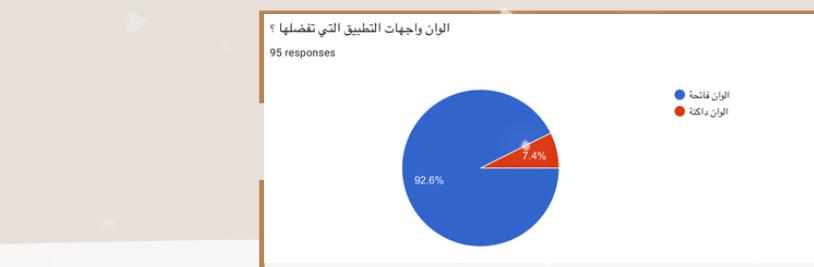
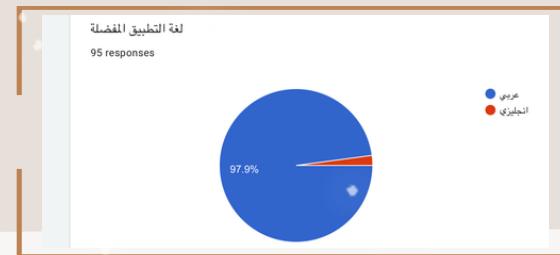
73.7% answered it will help improve the purchase process and 25.3% answered it might help ,1.1% answered by it will not help.

ANALYSIS OF THE RESULTS

On average , 44.2% take 1-2 minutes, an average of 37.9% took 3-5 minutes ,17.9% took more the 5 minutes.

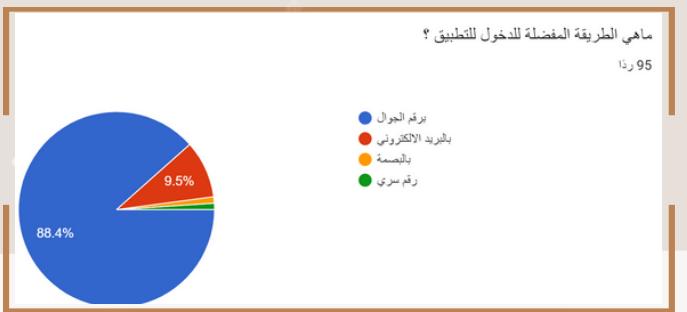


97.9% wanted the application language to be Arabic and 2.1% in English



92.6% prefer light colors and 7.4% dark colors.

ANALYSIS OF THE RESULTS



An average of 88.4% prefer the method of entering the application through a mobile number and 9.5% prefer to login by email, 1.1% prefer the password and the fingerprint.

As for the user's suggestions, the questions were opened and the answers were different.

اقتر احات تقدمها لنا في تطبيق محفظتي

95 ردًا

يسهل على الآباء معرفة مشتريات الإناء

الجهاز الذي يحمله الطفل لا يمكن له ضياعه او فقدانه من قبل الطفل أثناء تواجده بالمدرسة

تفعيل التطبيق بامر وفتح مكينة معرفة وقت شراء الطفل للظهور واضافة خانة لاطفال المصايبين بالسكنى والمسنة ووجبات مخصصة لهم

بالتوفيق وبارك الله فيكم

لا نهي

تقديم البرنامج بطريقة سهلة وواضحة

ان يكون بطريقة سهلة وواضحة للجميع

تحديد مبلغ معين للمصروف واصدار تنبية لولي الامر عند تجاوز المبلغ المحدد

استخدامه في تلبية محدد ومبسط و سريع

اقتر احات تقدمها لنا في تطبيق محفظتي

95 ردًا

تكون سهلة لصغرى والكبار

ان يكون اختياري وليس الازامي ليس الجميع يستخدمون التقنية

يكون لدى كل طفل محفظه

نوعيات المباع في المقصف خصوصا في اطفال عندهم حساسيه من اكل معين

لقد اعجبتني فكرة التطبيق وارجو تطبيقه في اقرب وقت وسائل الله لكم المسداد

إمكانية الشرح برقم الجوال

بالتوفيق قذاما

الله يوفقكم اعتقد ان التطبيق يساعد الآباء والأمهات معرفة ما يحصل عليه من المقصف وهذا شيء جيد

اقتر احات تقدمها لنا في تطبيق محفظتي

95 ردًا

لا يوجد اختراحات

تكون مرنه

ان تطبق علينا

الله يوفقكم

الاستعجال بتطبيق محفظتي

التطبيق جميل و سهل على أولياء الامور عملية اعطاء المصروف لكن من وجهة نظرى يحرم الطفل من اكتساب مهارة البيع والشراء و معرفة الباقى والحرص و الدقة فى هذه المسألة مما يخرج لنا للمجتمع شريحة لا تتعامل مع المال سوى بطريقة الكترونية ، وجهة نظر شخصية

سهولة الاستخدام والدفع

اضافة دفع بالنقاط والشراء والدفع لاحق عند عدم توفر صيد

اقتر احات تقدمها لنا في تطبيق محفظتي

95 ردًا

تسهيل استخدامها للأطفال

تكون المحفظه متصلة بسااعة يليسها الطفل ويحاسب فيها

شيء مميز وجديد موقفي

ربطها برسمه تصبيه لولي امر الطالب

تبسيط واجهة التطبيق لتتناسب جميع المستخدمين

تطبيق ممتاز ومفيد جدا

يكون تطبيق أمن ومحظ جميع عمليات الشراء لأجل الرجوع إليها فيما بعد

افضل ان يكون سهل الاستخدام وسريع وما تكون في مختلطات كثيرة

DESIGN REQUIREMENTS

EASE OF ACCESS TO THE APPLICATION BY PHONE NUMBER .

USING ICONS TO MAKE IT EASIER TO UNDERSTAND AND HELPING LABEL.

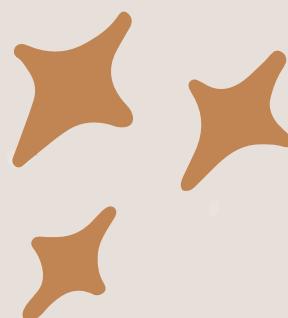
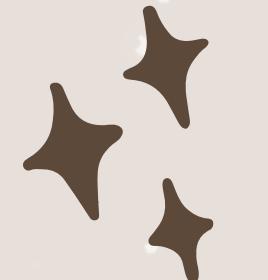
EASY ACCESS TO SPECIFIC STUDENT PROFILE .

LIGHT COLOR FOR THE APPLICATION.

SIMPLES INTERFACE TO REMEMBER .

ADD MANY STUDENTS.

RECHARGE THE CARD WITH MONEY .



SUMMARIZE THE RESULT

the number of respondents to the questionnaire was 95 , most of whom were university students and employee between the age of 40 and 20 and their level of technical knowledge was between 5 and 3

In this questionnaire, many parents interacted and expressed their interest in this application. They also put forward many reasons that make them need to apply My Wallet. Therefore, the parents' answers showed that they have a real problem with the school expenses of their children, and the reasons that make them suffer from this problem varied, as well as with regard to Knowing their children's purchases, parents' responses varied, mostly between sometimes and not

It was also difficult for them to know the prices of the school canteen and to control the purchases of their children Therefore, it became clear to us that parents really struggle in controlling the school expenses of their children, as well as their daily meals, food in a timely manner, knowledge of canteen products, and so on.

SUMMARIZE THE RESULT

However, this survey also revealed to us that most parents prefer electronic payment over cash payment and agreed that the Mahfazati application will greatly help in reducing these problems.

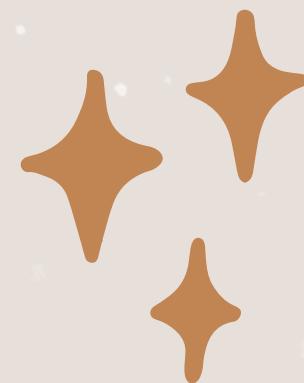
Their preference for the Arabic language for this application and the light colors of the interfaces of the application and their preferred way to enter the application using the mobile number

so it has been clear to us that our application is what parents look for and need

Part 2

Pre Design

ATTENTION

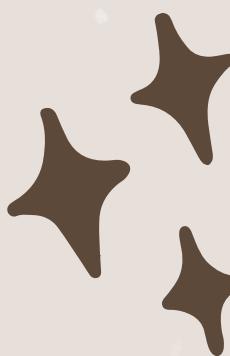


meaning of target users

Design Implication

- 1- user focus on the product (picture + price)
- 2-user focus on the balance
- 3- user focus on the student field

- 1-using a border and show the product price and picture in suitable and appropriate way
- 2- using colours and border that would make it more stand out to user as place it above to catch the user attention
- 3- place the student field in the home page as using meaningful icon and border in appropriate size as using an plus icon that indicate to add more students



PERCEPTION

meaning of target users

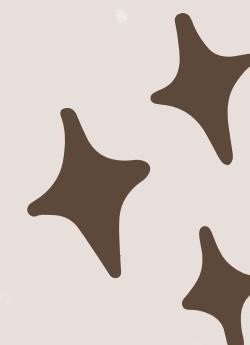
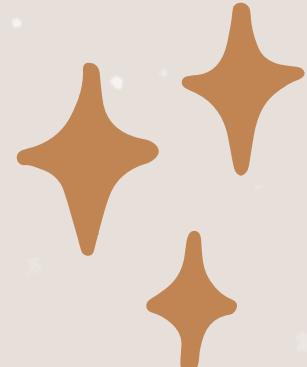
Design Implication

1- user understand main functions correctly

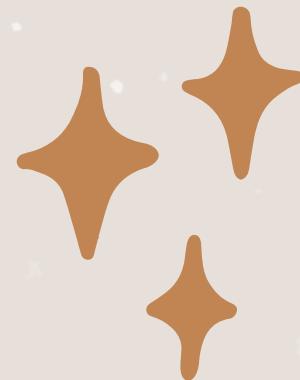
3- user understand how to distinguish between main services

1-use clear and understandable words

3-using icons that would distinguish between their meaning and putting appropriate distances



MEMORY



meaning of target
users

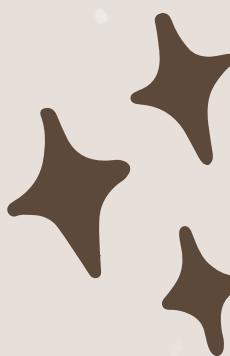
Design Implication

1-user remember to charge
the card again

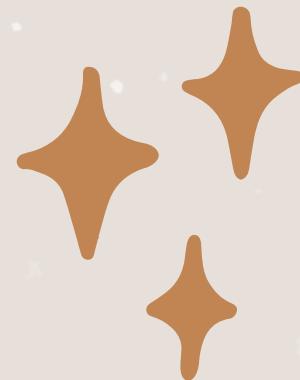
2-user remember how to
use the app functions
properly after a while

1-using simple
procedures that don't
overload user memory

2- design interfaces that
promote recognition
rather than recall to
make the app more easy
to remember



LEARNING

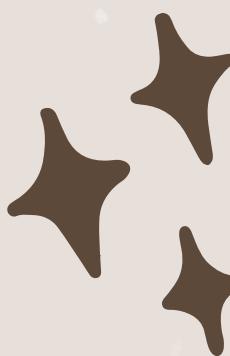


meaning of target
users

1-user explore Useful
services in the application

Design Implication

1- design interfaces that
encourage exploration to
make the user more
exciting to explore the app



PROBLEM SOLVING



meaning of target
users

Design Implication

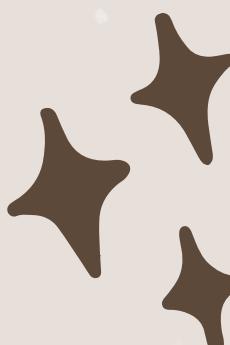
1-user Recharge a card in
a correct way

2-user make the final
decision on a student
expenses and constraint

products

1-provide additional
information/functions for
users who wish to understand
more about how to carry out
an activity more effectively

2- application offer the
products with their prices in
an arranged way and provide
an option to constraint a
product

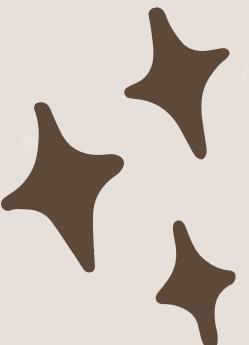


Part 3 Prototype



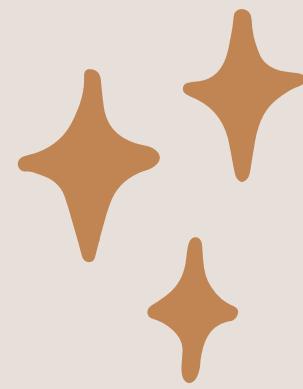
DESCRIBE THE TOOL

Adalo: is an app-building software that supports building websites and applications without needing to learn how to code. it is similar to Bubble and other no-code platforms in that its goal is to offer a platform to design and host websites and applications that include databases, workflow actions, and integrations. Adalo also has the ability to publish to Android and iOS devices, thus creating native mobile apps.



Part 3

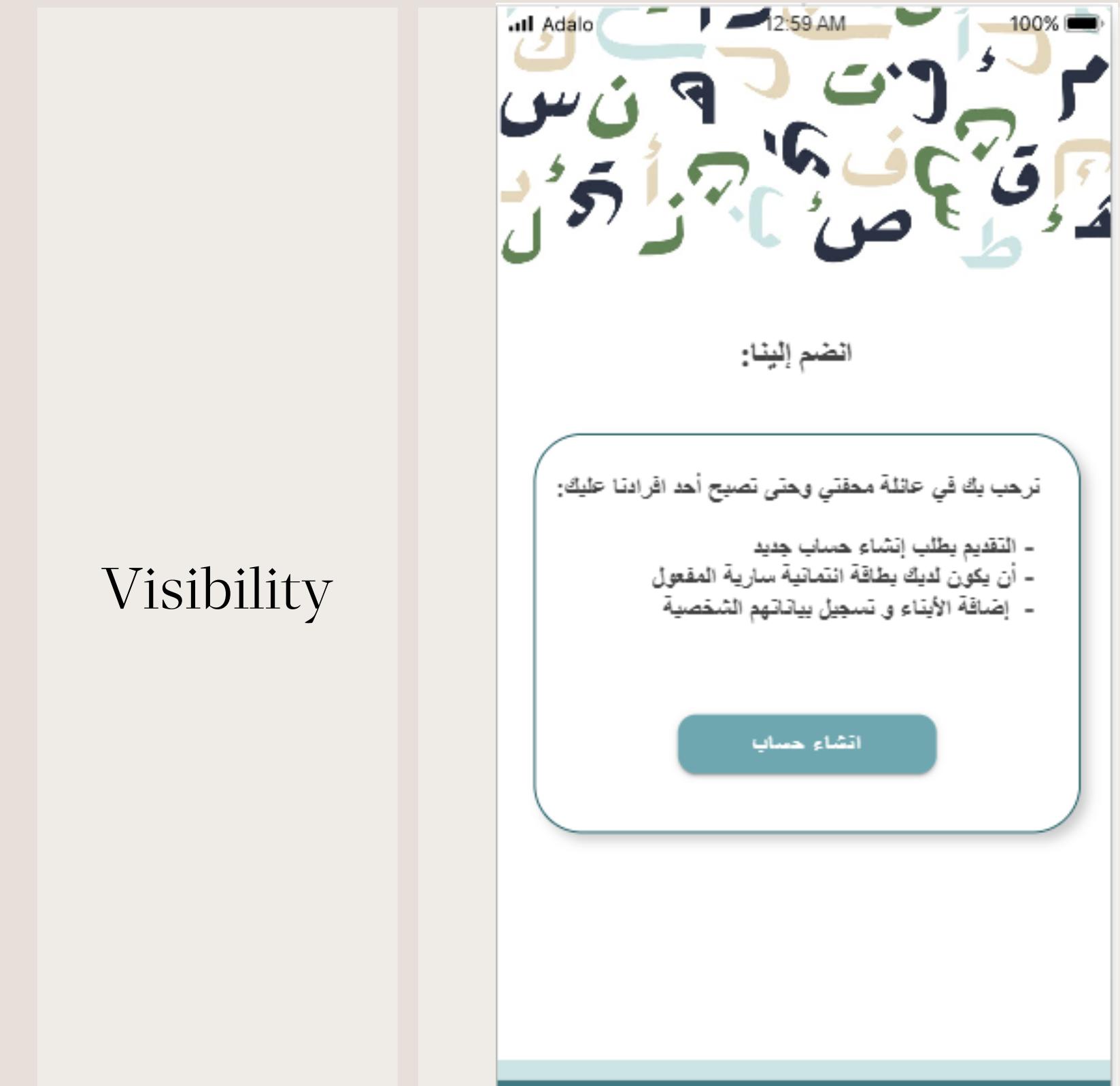
The Design Principle



Design Principle

Visibility

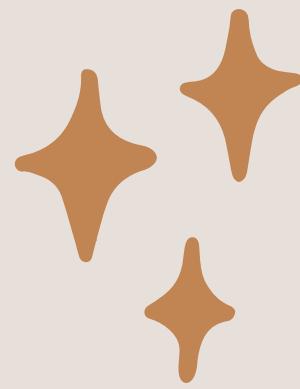
Prototype interface



Justification

This page shows explicit instructions when the parent wants to join our application and add his child.





Design Principle

Feedback

Prototype interface

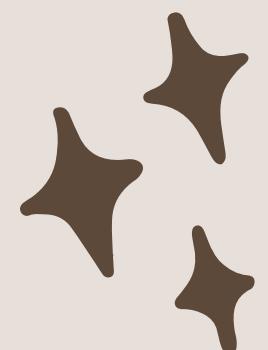


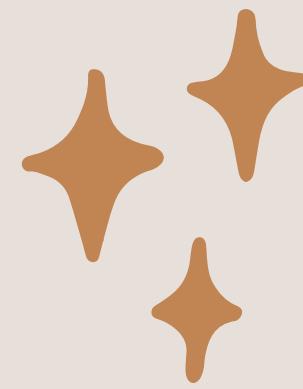
The prototype interface shows a form for adding a student. It includes fields for:

- رقم الهوية (ID Number) with placeholder "ادخل رقم الهوية" (Enter ID number).
- الاسم الثاني (Second Name) with placeholder "ادخل الاسم الثاني" (Enter second name).
- الحد اليومي (Daily Limit) with placeholder "ادخل الحد اليومي للمصروف" (Enter daily limit for spending).
- صورة الطالب (Student Photo) with a "Choose Photo" button.
- A teal-colored "إضافة" (Add) button at the bottom.

Justification

The system will send confirmation message when the parent add his/her child to the application





Design Principle



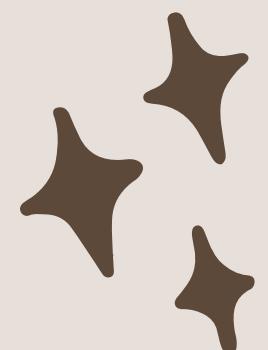
Prototype interface

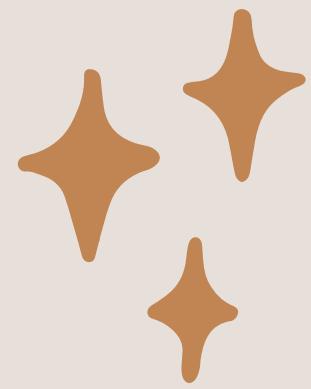


Constraints

Justification

The parent can prevent his/her child from buying any product that the parent would not want the child to eat.

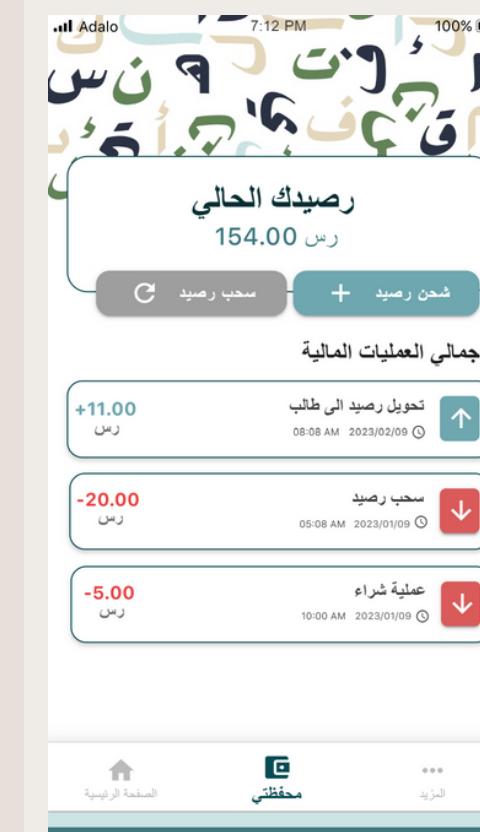




Design Principle



Consistency



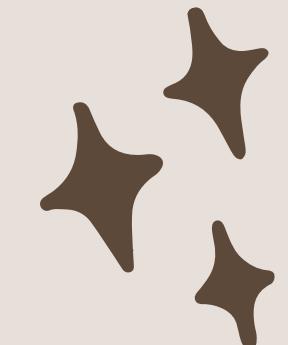
Prototype interface

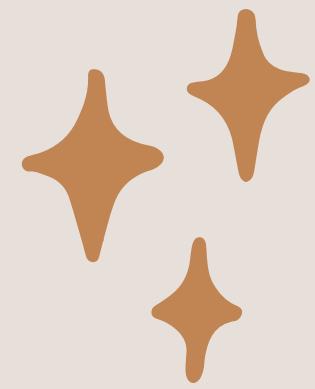


Justification

External :
We use the same
icons and the same
order in all of the app.

Internal:
The way of displaying
the children accounts
and the products is
the same on all these
pages

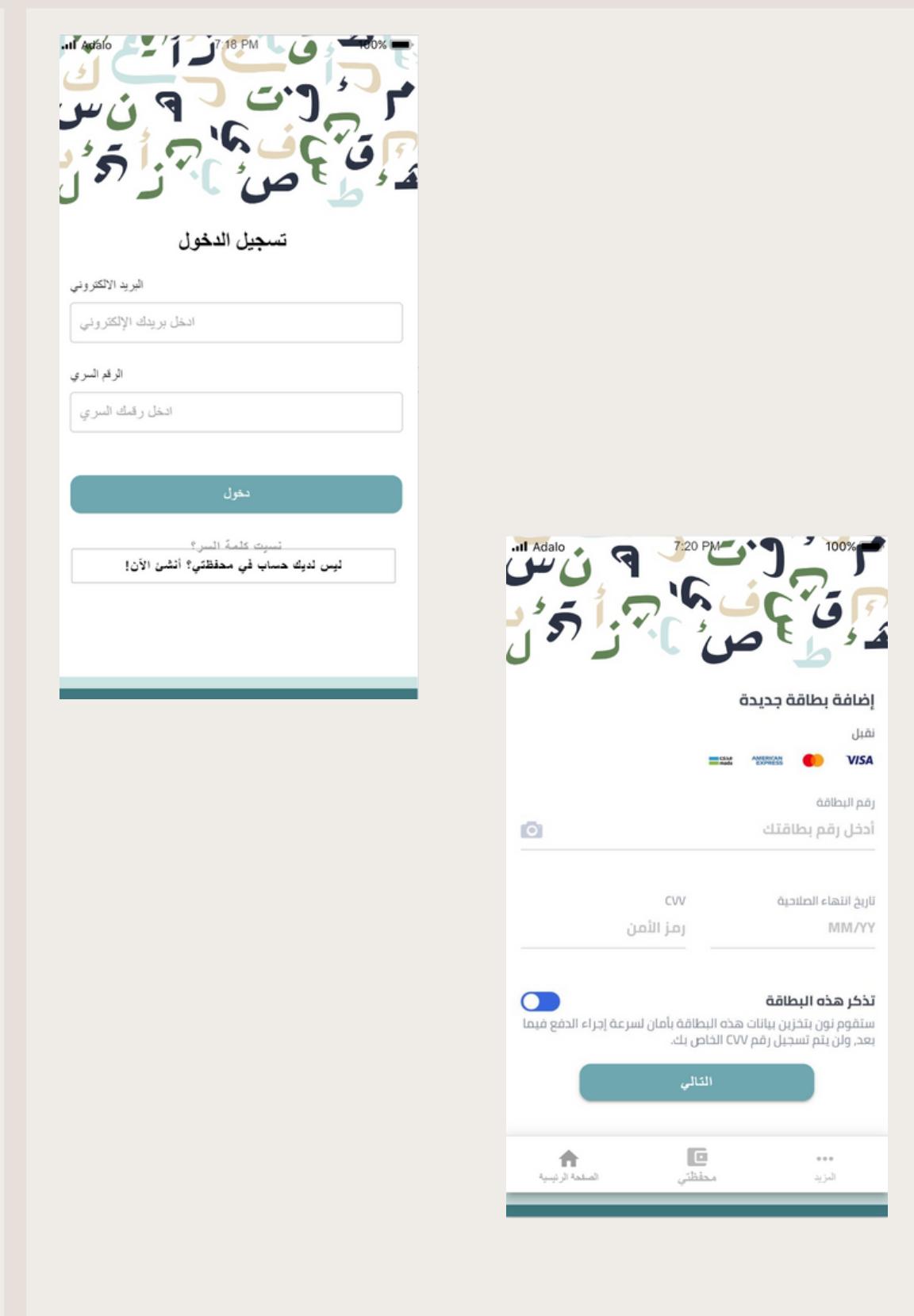
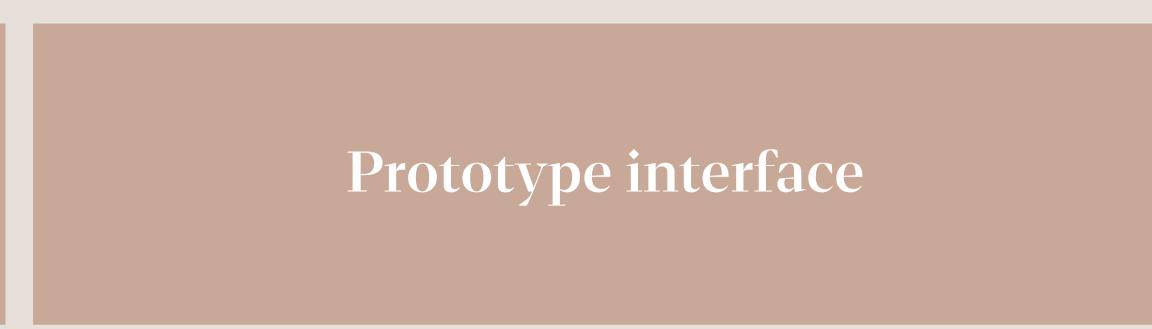




Design Principle

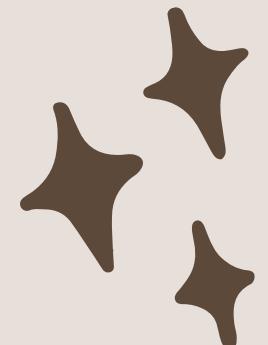


Affordance



Justification

By using the right icons to indicate their meaning and their function on many pages in the app.



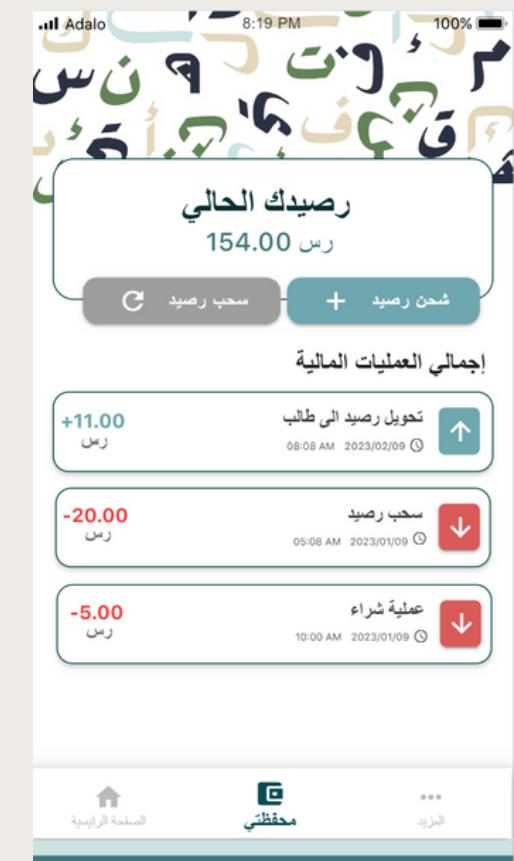
Part 3

User experience goals

User Experience goals

Helpful:

Prototype interface



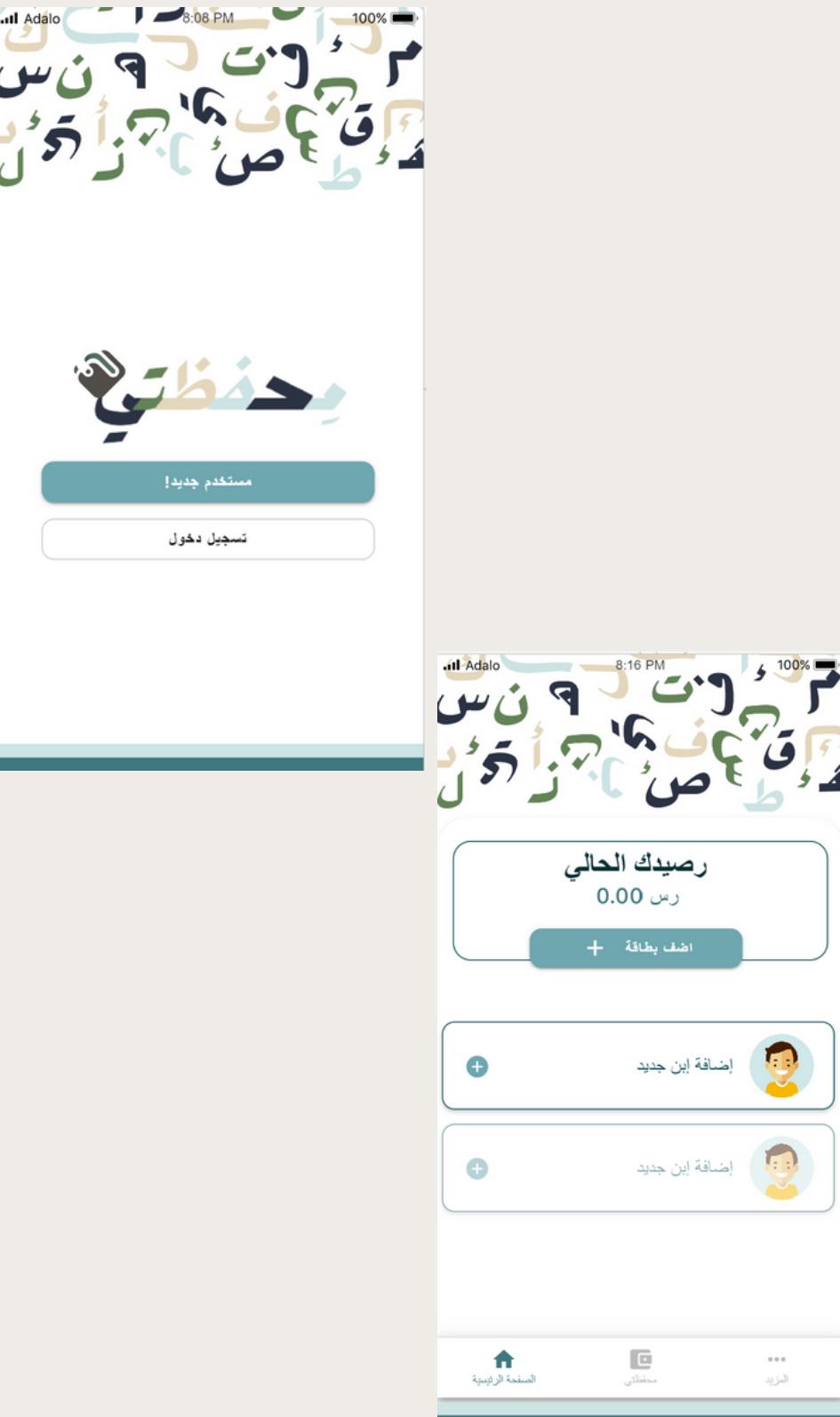
Justification

It helps parents keep track of their children's purchases from the canteen and determine for them a daily allowance that is forbidden to be exceeded except with the permission of the parents.

User Experience goals

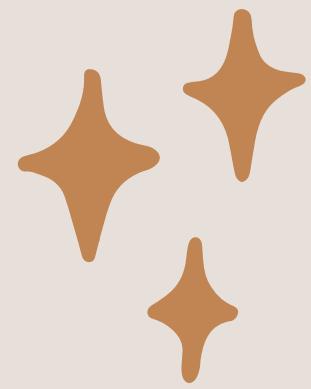
Satisfying:

Prototype interface



Justification

We have used consistent colors that are compatible with the idea of the application to provide the user with a comfortable and satisfactory experience for him.



User Experience goals

Emotionally
Fulfilling:

Prototype interface

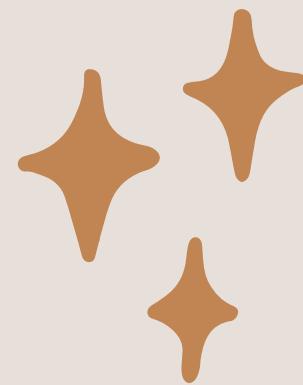


Justification

It helps to reduce theft and waste of money, which leads to parents feeling safe and reassured that their children will not face these problems.



Part 3 Usability goals



Usability Goal

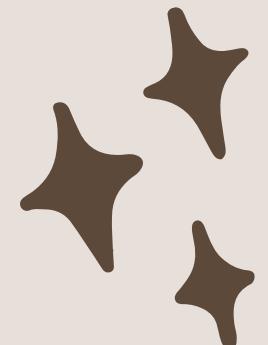
Prototype interface

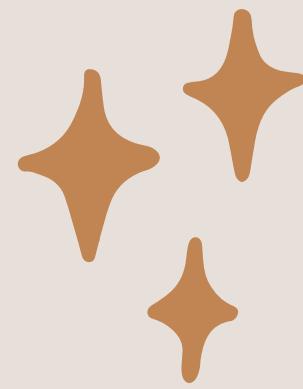
Justification

Effectiveness:



The main idea of our application is to help children maintain their expenses and facilitate their purchases from the canteen. Also the parents can monitor their children's purchases and the amount that was spent.

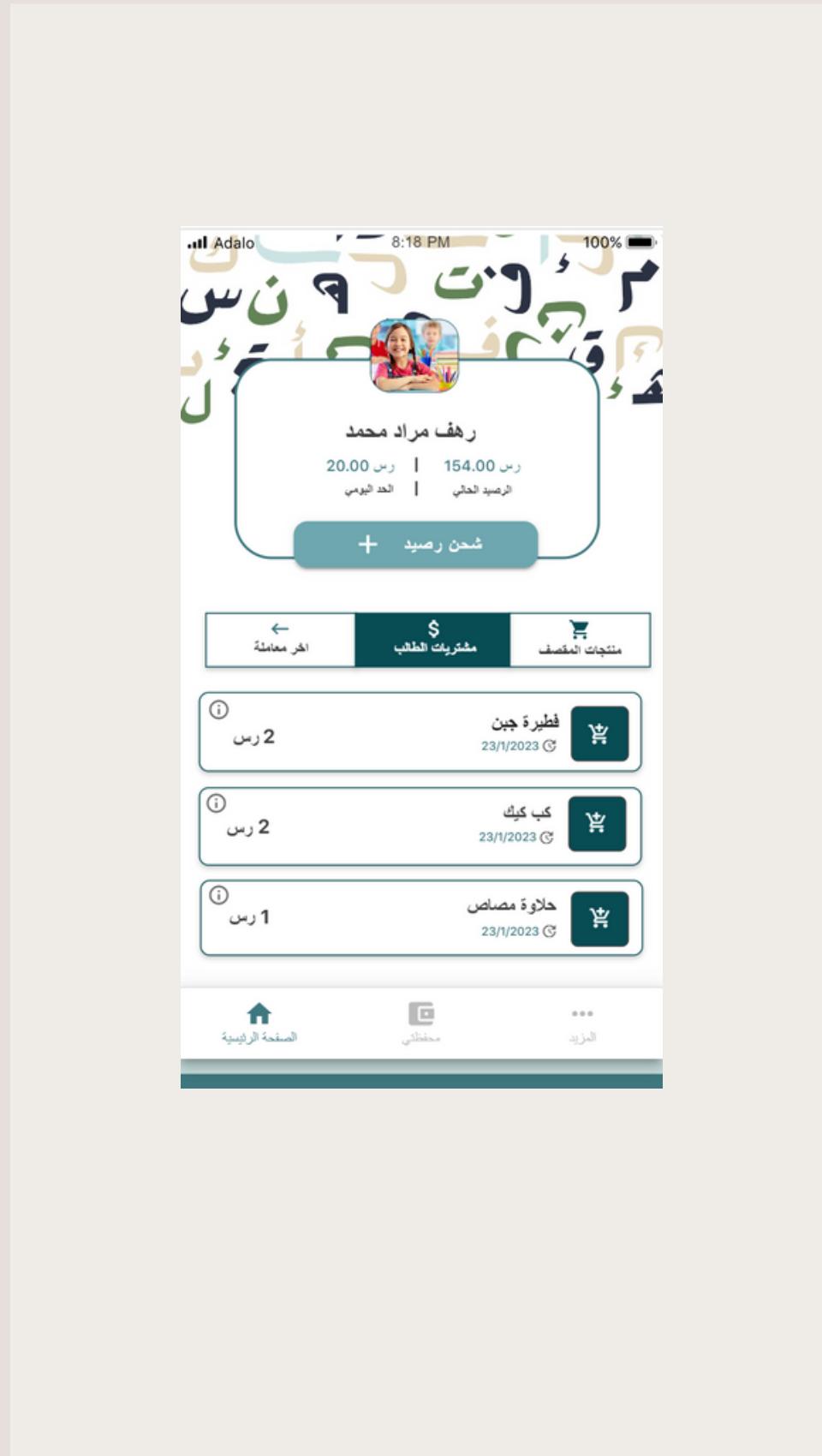




Usability Goal

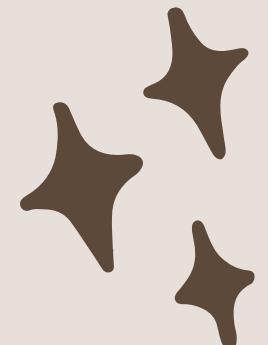
Learnability:

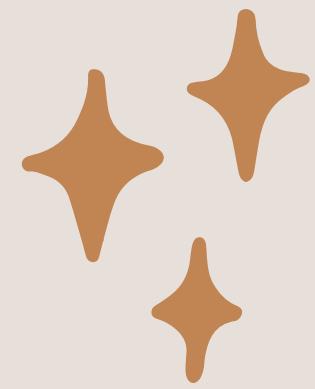
Prototype interface



Justification

Our application provides icons known by people, which makes it easier for users to learn how to use the application for the first time.

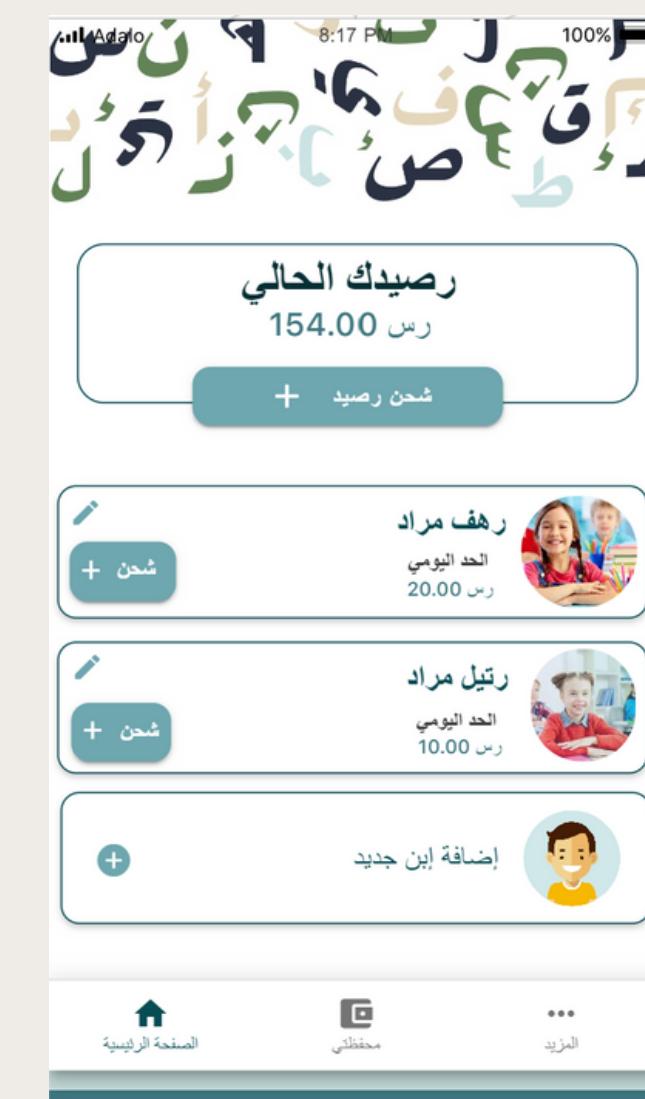




Usability Goal

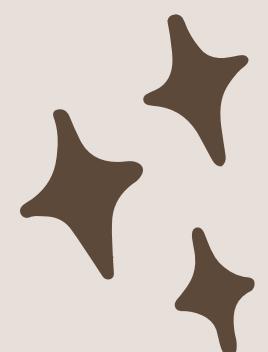
Efficiency:

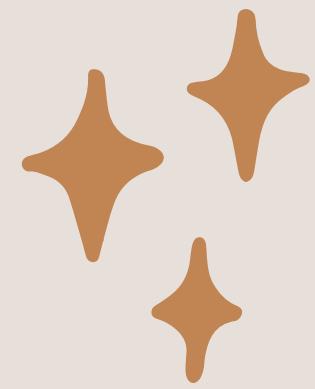
Prototype interface



Justification

The user does not need to enter his credit card data and his children's data every time he accesses the application. The system saves this data from its first registration and shows it to the user every time he uses the application or makes a login.

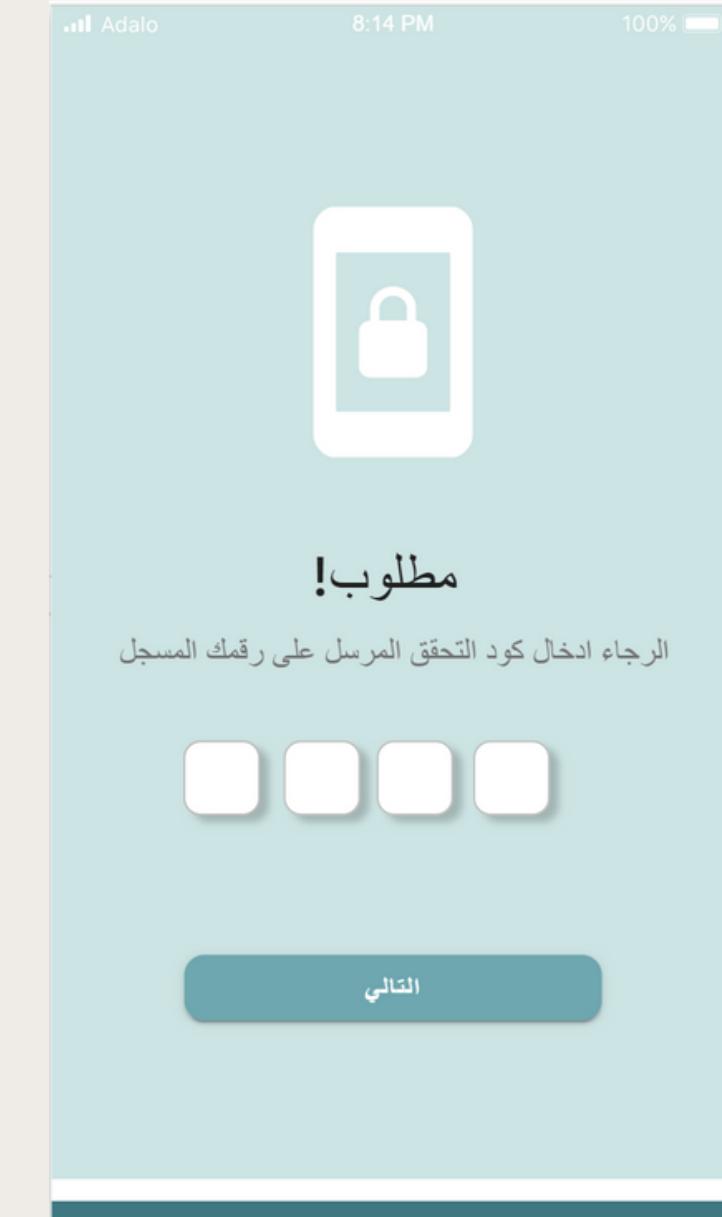




Usability Goal

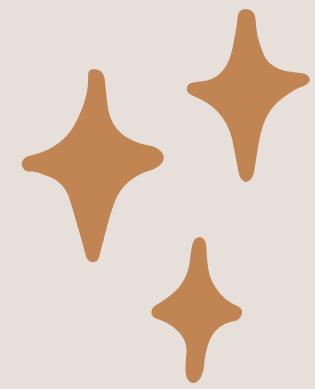
Safety:

Prototype interface



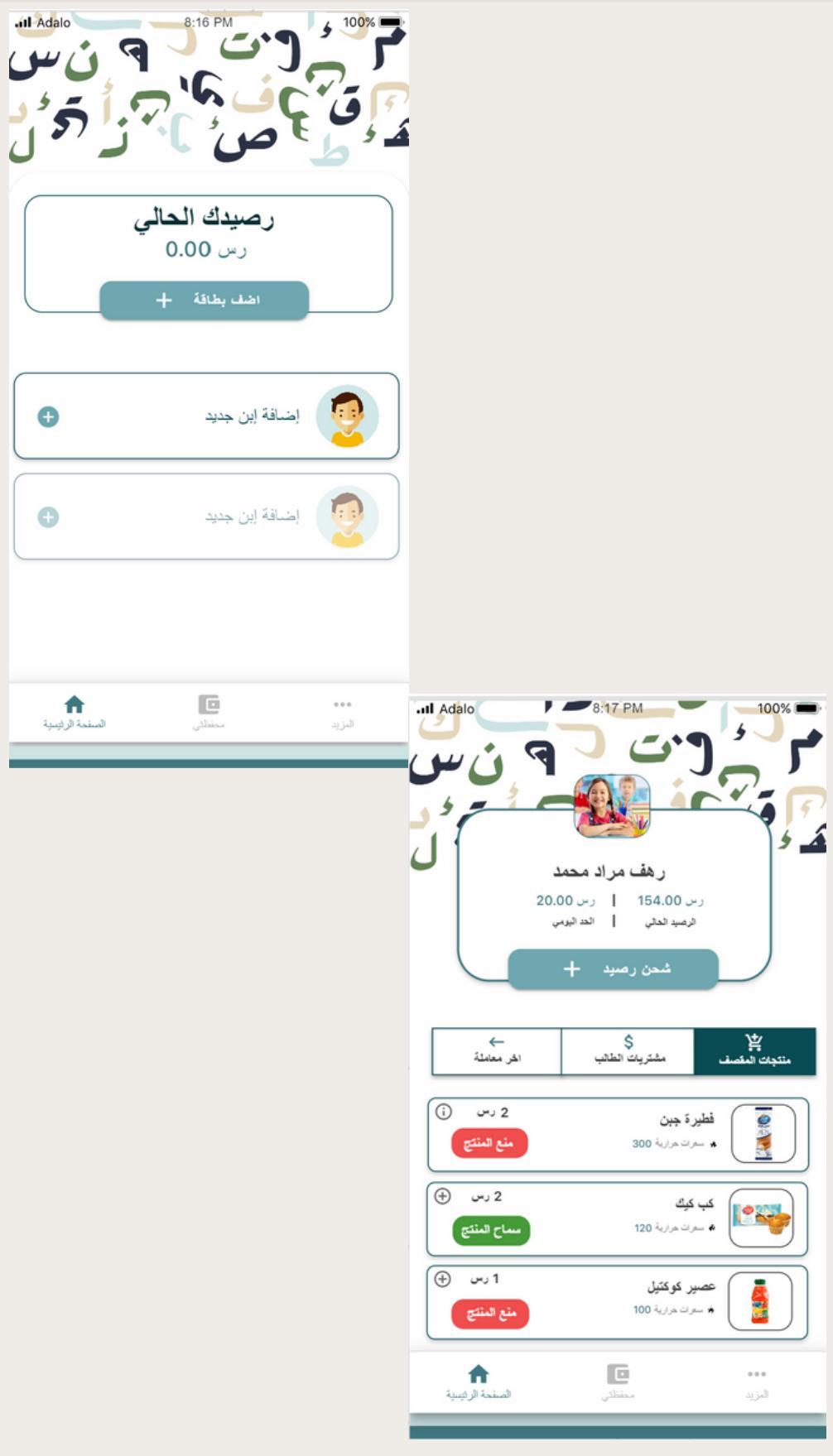
Justification

After the user logs in or adds his credit card, the system requests a verification code sent to the user's phone to verify his identity.



Usability Goal

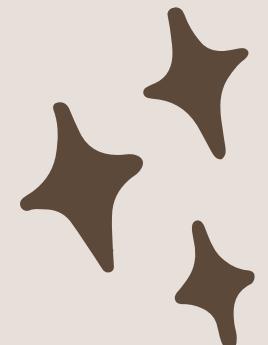
Memorability:



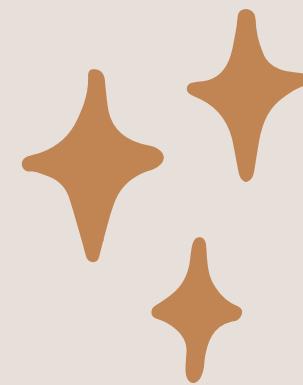
Prototype interface

Justification

We used labeled icons in our application to ensure that the meaning was conveyed quickly and consistently understood.



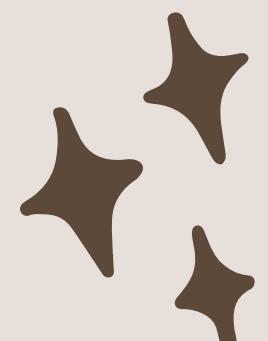
Part 4 Usability Testing

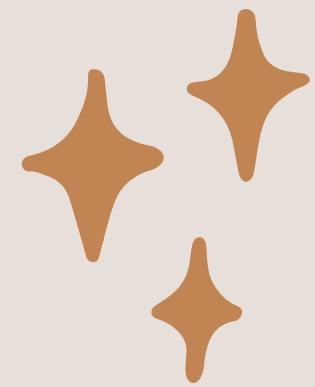


Describe the participants

In this evaluation operation 11 participants were involved, 10 of them were Parents, their age range between 31-49 years.

Age	Qualification	Parent
33	University	Parent
38	University	Parent
36	University	Parent
40	University	Parent
41	High School	Parent
43	University	Parent
31	University	Parent
42	University	Parent
49	University	Parent
31	High School	Parent





Users	Add a balance	Add a son	Allow/prevent products	Number of errors
First Parent	20 sec	1.50 min	2 sec	0
Second Parent	30.40 sec	1.22 min	1.50 sec	0
3th Parent	40.20 sec	1 mins	1 sec	0
4th Parent	30.22 sec	1.30 mins	2.30 sec	0
5th Parent	10.01 sec	1.43 mins	1.43 sec	0
6th Parent	43.22 sec	40.04 sec	3.04 sec	0
7th Parent	10.4 sec	1 mins	2 sec	0
8th Parent	13.02 sec	1.22 mins	5 sec	0
9th Parent	15 sec	1 mins	3 sec	0
10th Parent	11 sec	50 sec	1.11 sec	0
The average	43.92 sec	31.46 sec	2 sec	

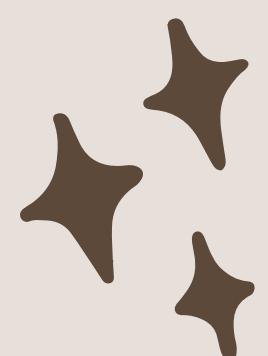
Describe the environment of the test

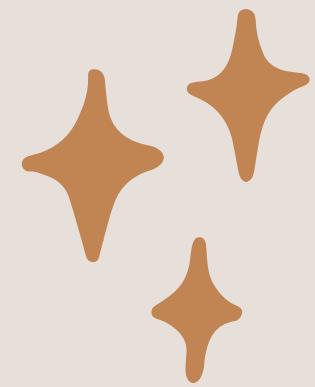
The environment was our home and the family work and the university, because the participants were our families and friends.

Describe list of tasks

For the Parents:

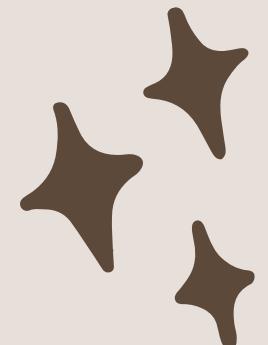
1. Add A son
2. Add balance
3. Allow/ prevent products

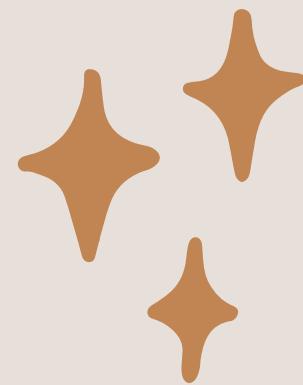




Evaluation of the prototype

Users	Was the application useful and helpful to you?	Have you had difficulty using the application?	Does the color was comfortable?	Were the interface well designed?
First	yes	no	yes	yes
Second	yes	yes	yes	no
Third	yes	no	yes	yes
4th	no	yes	yes	no
5th	yes	no	yes	yes
6th	yes	no	yes	yes
7th	yes	no	yes	yes
8th	no	no	yes	yes
9th	yes	yes	yes	yes
10th	yes	yes	no	no





Analyze and interpret the result

Add a balance

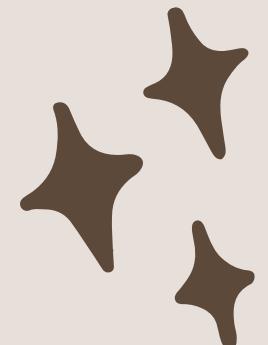
The participant took 54.83 sec when they added a balance ,But in mahfazty adding the balance for child took 43.92 as an average time because of the ready-made templates to put the card .

Due to the similarity of the steps, The difference between the old interface and mahfazty was number of errors and the time ,For the average time spent on Maqsafy was 12.175 sec and the time on Mahfazty to prevent or allow the item for the child took less the 2 second due to the presence of the prevent and allow icon on each product.

Allow/prevent products

Add a son

The average time it took for the parent to add the child on the Maqsafy is 1.10 min .As for average time spent on the Mahfazty prototype is 31.46 sec.



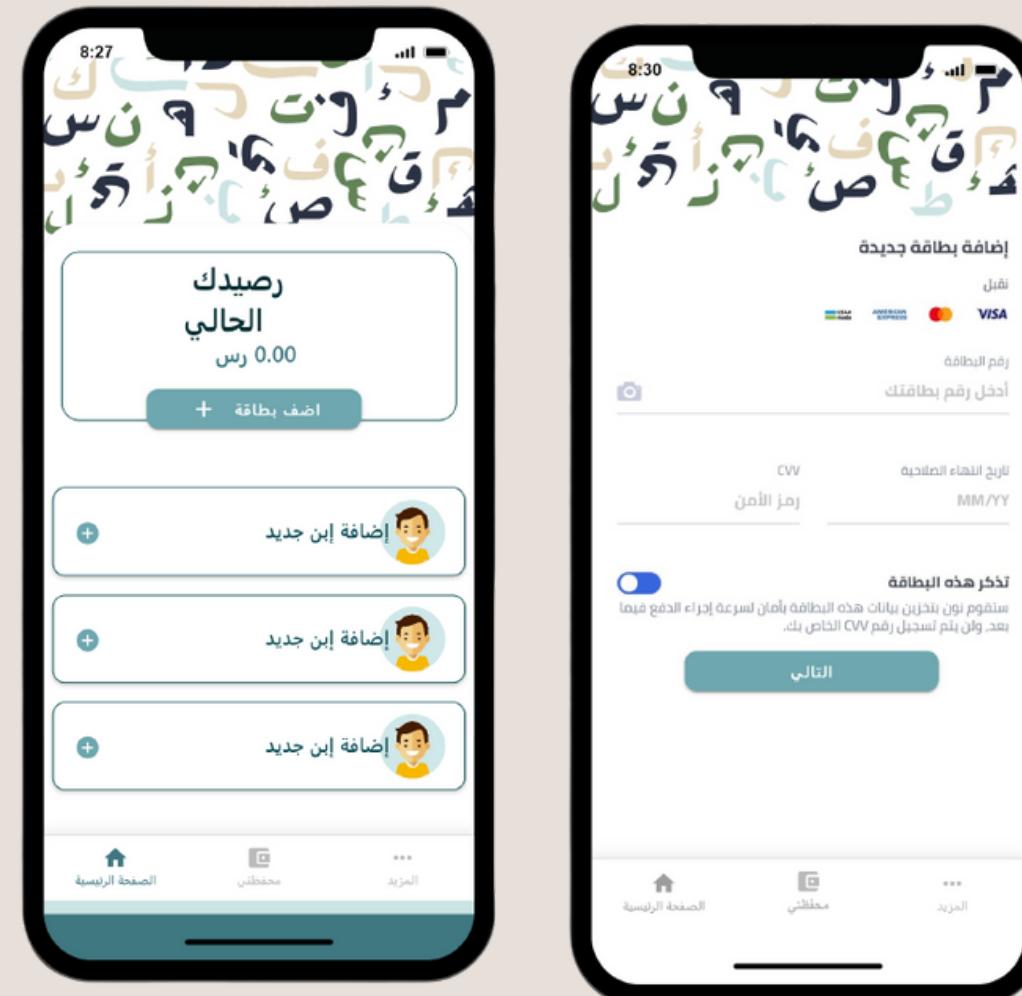
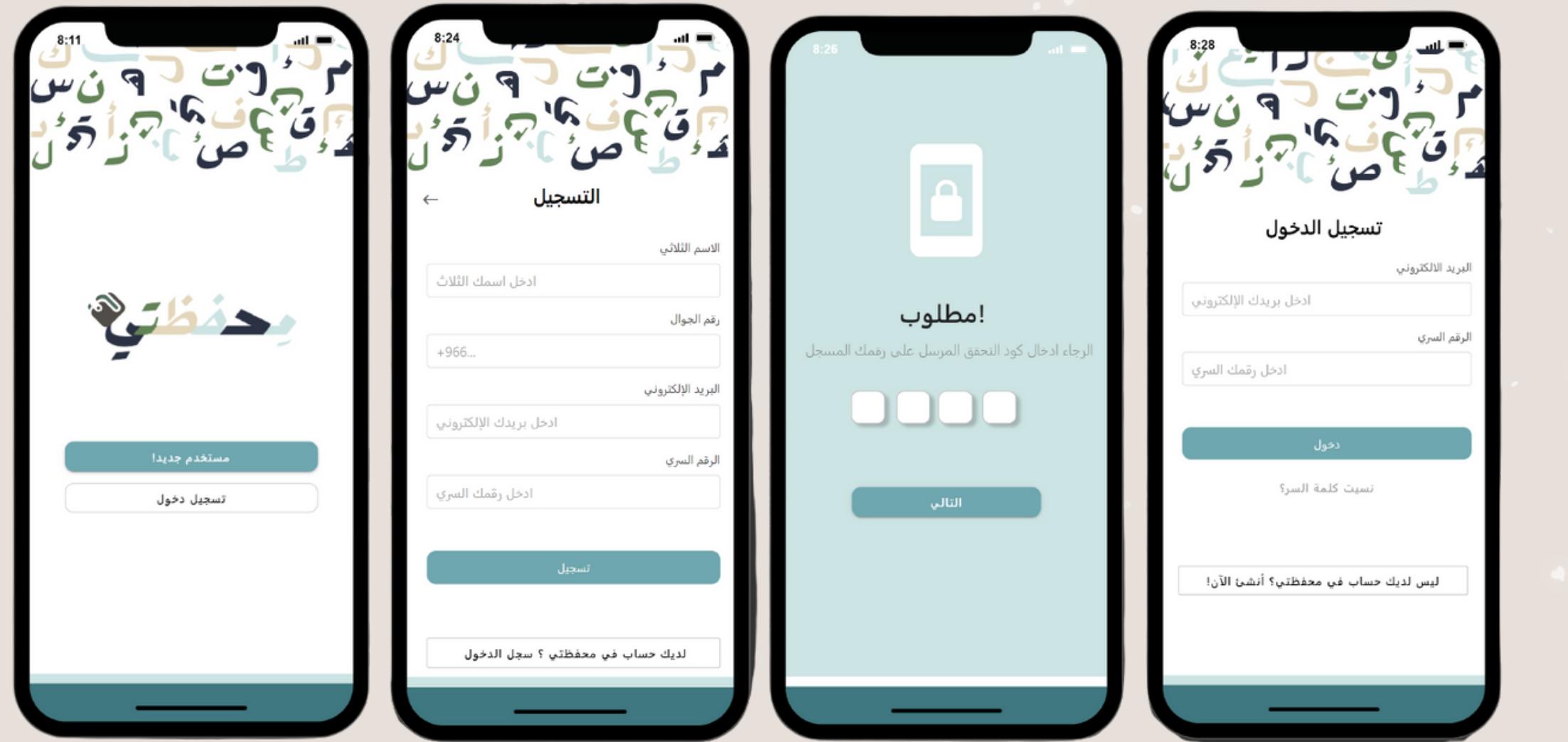
CONCLUSION

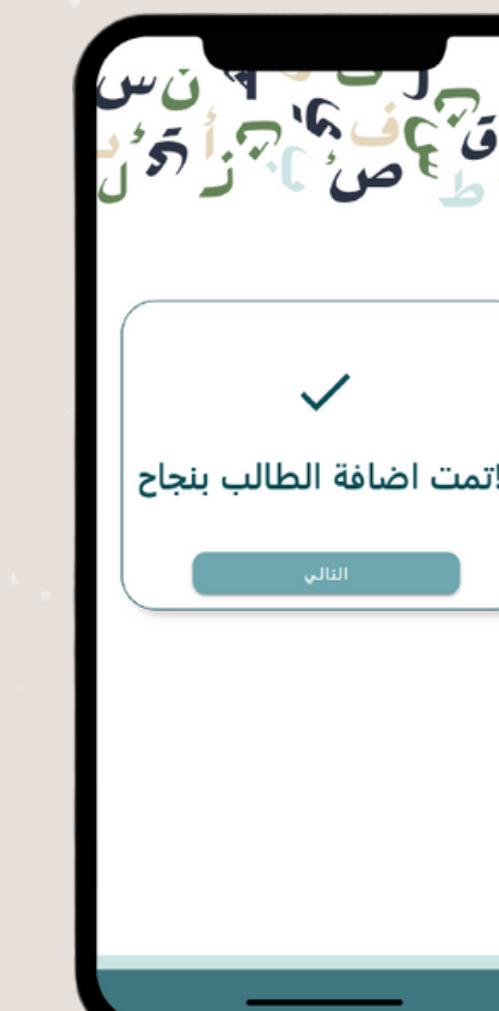
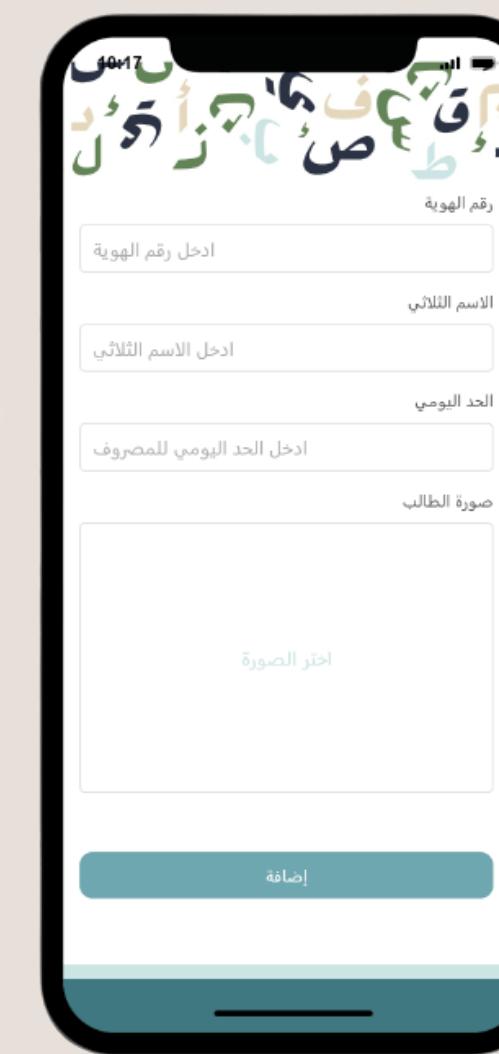
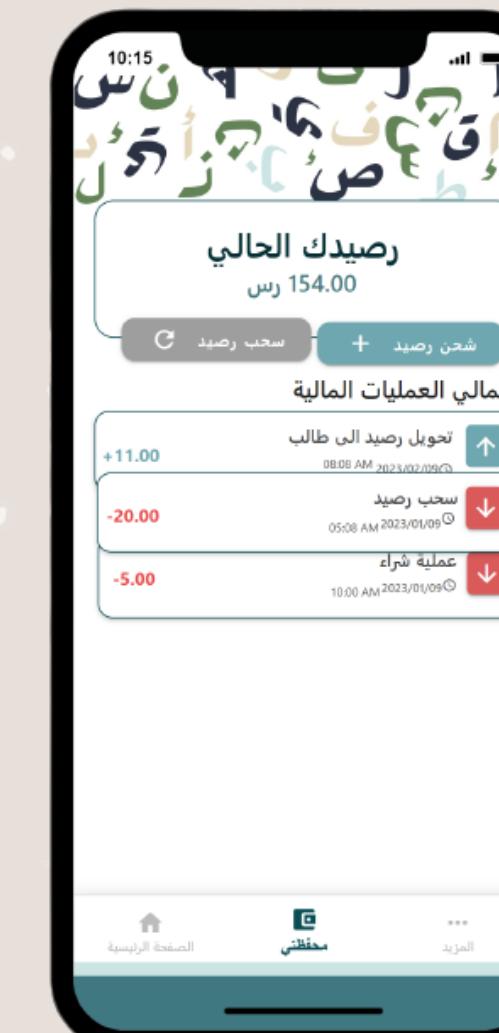


The development of this system led to providing an environment for parents and children ,in mahfazty app we have many services to help the parents to give their children money without consider where the money goes and what the child buy , as it provide the adding money on the card in the child wallet in an easy and reliable way.

Users' impression was positive and most of them expressed their admiration for the idea of the application and it will be helpful for them, and they expressed their interest and willingness to use the application realistically.

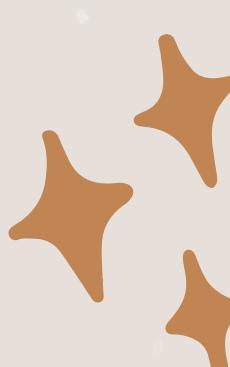
Appendix





Prototype link :

<https://previewer.adalo.com/d2e8b0e6-b716-4c93-ab9b-30c2fa8990fb>



REFERENCES

- <https://www.maqsafy.com/pictuers>
- <https://www.flaticon.com/>



THANK YOU

