



# CleanHome

**Convenient Service** 

Boyi Zhang



## Improvements made from feedback



- 1. Complete user stories with a fixed format As a... I want... So that...
- 2. Adding expectation curves to burndown charts
- 3. Modify Github Wiki-page title

## List

- Team member
- Project Introduction
- Problem Statement
- Personas
- MVP demo
- Technology
- Diagram
- Backlog
- Summary



#### **OUR TEAM**



Boyi Zhang

Product manager

## Responsible

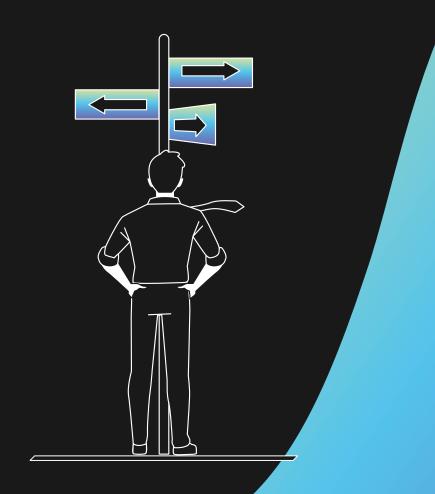
- product design
- UI design
- Implement project code
- Collect user feedback
- Ensure that the project meets user needs



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#### INTRODUCTION

Cleanhome. As a convenient service platform, Cleanhome provides a one-stop housekeeping service for people's daily life, including cleaning, maintenance, gardening and other services.









#### **Problem Statement**

There are many problems with traditional Housekeeping services, such as difficulties make a appointment and guaranteeing service quality.

As one-stop service platform, we can solve most user needs, not just cleaning.



Project Name:	Cleanhome					
Team:	Boyi Zhang					
Project Description:	Housekeeping services can be booked at your available times with free cancellation and changes					
	For customers					
	who book housekeeping					
	the Cleanhome					
	is a web app					
	that Easily book housekeeping services					
	unlike Traditional phone calls to book housekeeping services, available time also needs to be discussed by phone					
	<b>our application</b> Not only are the available times obvious, but they can be changed and canceled at any time for free. We also provide user feedback to improve the quality of our services.					
Benefit Outcomes:	1. Users can book services according to their favorite date and time					
	2. Just click on the service you need to see the available time and make a choice					
	3. Free changes and cancellations					
Github Link:	https://github.com/htmw/2023S-bzhang/wiki					



# Project Description Summary



#### Persona 1

#### **Demographics**

Name: Oliver

Age: 35

Location: New York, NY Job: Stock manager

Salary: \$100,000-\$120,000/year

Family: living alone



#### **Profile**

As an experienced stock manager, Oliver not only has to go to work on time every day, but also prepares for tomorrow's trading after get off work. Because of his work, he always likes to dress professionally and has a lot of suits at home.

#### **Frustration**

- · He has a big apartment and doesn't have time to clean it.
- No time to take the suit to dry cleaning

#### Goals

- Need cleaning service
- Need to take the suit to dry cleaning





#### Persona 2

#### **Demographics**

Name: Anna

Age: 32

Location: New Jersey, NY Job: Full time housewife

Salary: \$0/year

Family: Lives with her husband and has three children





#### **Profile**

She lives in a house with his family. Every day, she cooks for her three children and her husband and cleans the house. Occasionally the yard needs to be cleaned.

#### **Frustration**

- The house is too big, it's tiring to clean it every time.
- When cleaning the garden, the tools are too heavy for her to clean
- · Cleaning takes too much time every time and needs some time to do her own interests

#### Goals

- Cleaning services are needed to clean part of the home
- Need to clean the weeds and water the garden





#### Persona 3

#### **Demographics**

Name: Frank

Age: 25

Location: New York, NY Job: Bank employee

Salary: \$48,000-\$60,000/year

Family: Lives with his girlfriend and a dog



#### **Profile**

As a fresh graduate, he needs to go to the bank to work on time every day. But sometimes because of work, it is necessary to exchange to a bank in another place. Her girlfriend is studying at NYU. He and his girlfriend live in a rented house in New York. They have a dog together.







#### **Frustration**

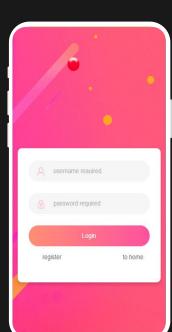
Moving and cleaning is too tiring, he doesn't want to do it himself

#### Goals

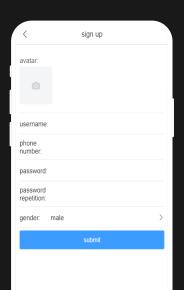
- Need cleaning service after they move
- Clean the newly rented apartment

## **MVP** DEMO

Login page



Signup page

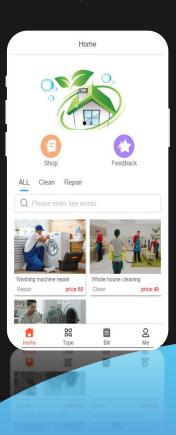




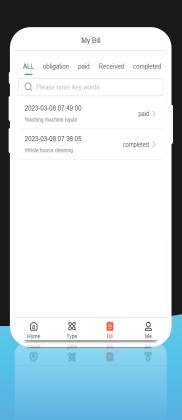


## MVP DEMO

Home page



Order page

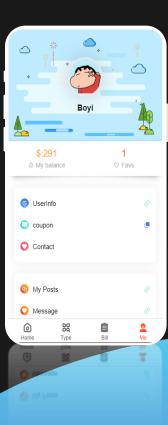




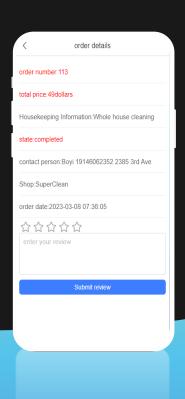


## MVP DEMO

Profile page



Feedback page







# **Technology** Tools







## ML-NLTK (Natural Language Toolkit)

```
example = df['note'][1]
print(example)
Very good service attitude. They wash clothes of different colors separately.
tokens = nltk.word_tokenize(example)
tokens[:10]
['<', 'p', '>', 'Very', 'good', 'service', 'attitude', '.', 'They', 'wash']
tagged = nltk.pos_tag(tokens)
[('<', 'JJ'),
('p', 'NN'),
('>', 'JJ'),
 ('Very', 'RB'),
 ('good', 'JJ'),
 ('service', 'NN'),
('attitude', 'NN'),
('They', 'PRP'),
 ('wash', 'VBP')]
```

```
In [8]:
    sia.polarity_scores('I am so happy!')

Out[8]:
    {'neg': 0.0, 'neu': 0.318, 'pos': 0.682, 'compound': 0.6468}

In [9]:
    sia.polarity_scores('This is the worst thing ever.')

Out[9]:
    {'neg': 0.451, 'neu': 0.549, 'pos': 0.0, 'compound': -0.6249}

In [10]:
    sia.polarity_scores(example)

Out[10]:
    {'neg': 0.0, 'neu': 0.775, 'pos': 0.225, 'compound': 0.4404}
```

## **ML-NLTK** (Natural Language Toolkit)

Ш

#### POS tag list:

CC coordinating conjunction

CD cardinal digit

DT determiner

EX existential there (like: "there is" ... think of it like "there exists")

FW foreign word

IN preposition/subordinating conjunction

JJ adjective 'big'

JJR adjective, comparative 'bigger'

JJS adjective, superlative 'biggest'

LS list marker 1)

MD modal could, will

NN noun, singular 'desk'

NNS noun plural 'desks'

NNP proper noun, singular 'Harrison'

NNPS proper noun, plural 'Americans'

PDT predeterminer 'all the kids'

POS possessive ending parent's

PRP personal pronoun I, he, she

PRP\$ possessive pronoun my, his, hers

RB adverb very, silently,

RBR adverb, comparative better

RBS adverb, superlative best

RP particle give up

TO to go 'to' the store.

UH interjection errrrrrrm

VB verb, base form take

VBD verb, past tense took

VBG verb, gerund/present participle taking

VBN verb, past participle taken

VBP verb, sing. present, non-3d take

VBZ verb, 3rd person sing. present takes

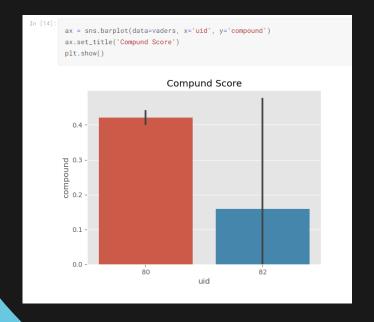
WDT wh-determiner which

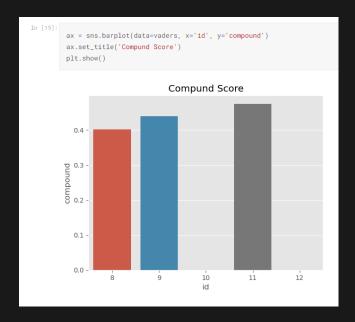
WP wh-pronoun who, what

WP\$ possessive wh-pronoun whose

WRB wh-abverb where, when

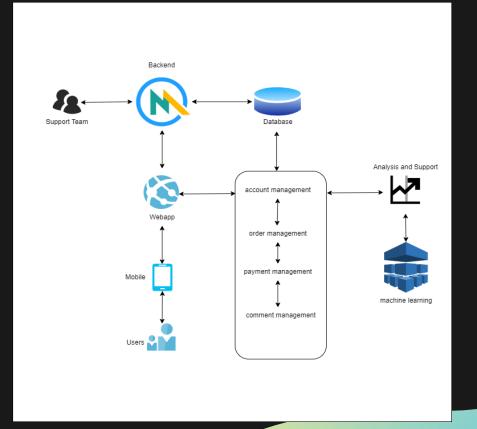
# **ML-NLTK** (Natural Language Toolkit)





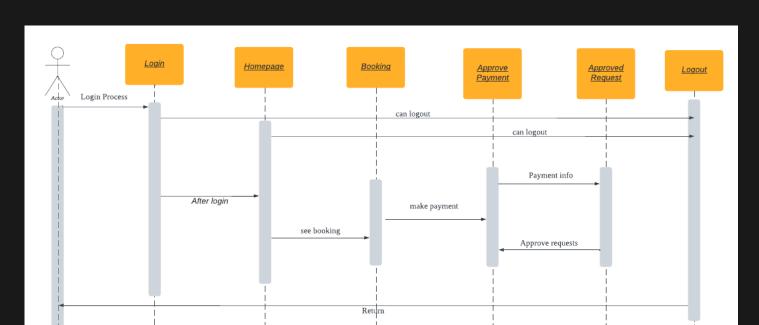


# **Conceptual Diagram**



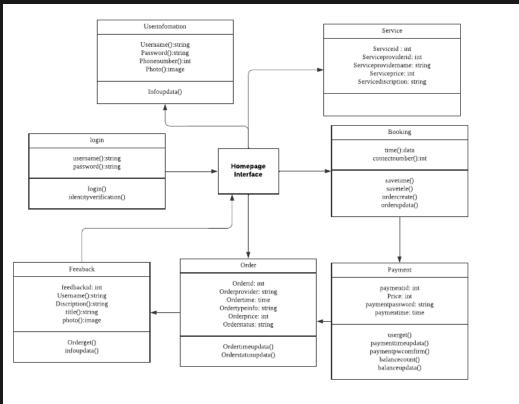


# Sequence Diagram



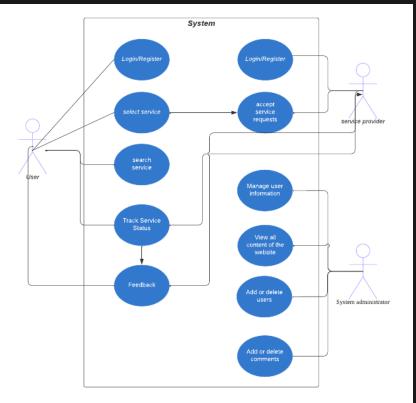


# Class Diagram





# **Use Case Diagram**





# **Sprint 1 Recap**

serial number	Fole	Requirement	Reason	Status	Place
1	Customer	I want to have a separate account	No need to re-enter information every time	Done	Sgriup
2	Customer	I want to log in with my account or email	easy login	Done	Login
3	Customer	I want to upload my avatar on my account	It makes me feel like I'm different	Done	personal information
4	Customer	I want to be able to modify my personal information at any time	Sometimes move or change phone number	Done	personal information
5	Customer	I want to dick on the service I need to make an appointment directly	easy for me to operate	Done	main page
6	Customer	I want to directly select a time slot to make an appointment	Save time by not typing	Done	Book
7	Customer	I want to find the service I need by searching	Let me find the service I need faster	Done	scarch bar
8	Customer	I want to add a description when submitting an order	Clarify what staff need to do	Done	Book
9	Customer	I want to bookmark my favorite services	It's easy to find when you book next time	Done	main page
10	Customer	I want to check if my order is booked successfully	If the order is not successful, you can place a new order	Done	Book
11	Customer	I want to check the status of my order, is there someone to service	Check if someone is coming for the service	Done	Order
12	Customer	I want to be able to cancel my order at any time	There may be some temporary changes that require cancellation of the order	Done	Order
13	Customer	I want to see all services	What services can I find that I need	Done	main page
14	Customer	I want to give some feedback	I can give feedback if I am not satisfied	Done	feedback
15	Customer	I want to be able to pay in the app	Simple payment, no need to prepare cash	in progress	Payment
16	Customer	I want to check my account balance	confirm how much money have	in progress	Payment
17	Customer	I want to be able to query the time of payment	I can confirm when I placed the order	Done	Payment
18	Customer	I want to see what services I have ordered before	Confirm what I ordered before	Done	Order
19	Customer	I wish there was a navigation bar	The page I need that is easy to find	Done	main cage
20	Customer	I want to be able to categorize services	Quickly find the service you need	Done	main page
21	Customer	I want to give feedback on the service so other users can review it	Give useful advice and ensure quality of service	Done	feedback
22	Customer	I would like to receive an SMS or email to confirm my order information	have a written booking instrument	in progress	Order
23	Customer	I want to advance or postpone my booking	Easy to change order information	Done	Order
24	Customer	As an already logged in user. I want to log out of my login	keep my privacy	Done	Logout
25	Customer	I want to know the price of the service on the main interface	It is convenient for me to judge whether this service is suitable for me	Done	main page
26	Customer	I want to see if I have reviewed one of my orders	Will not repeatedly evaluate a service	Done	Order
27	Customer	I want to save my payment method	Convenient for next payment	in progress	Payment
28	Customer	I want to see some information about service	Confirm whether it is the service I want	Done	Information
29	Customer	I want more merchants to provide services on the platform	This can compare the price and service quality to choose my favorite	Done	Shop
30	Customer	I hope to see what service can be displayed when the order is viewed	Let me know clearly what the order is I booked	Done	Order





# **Sprint 2 backlog**

market according	Date	Day to the same of	2	Disting	Disease	
senai number	KOIE	Requirement	Réason	Status	Place	DOUL
15	As a Customer	I want to be able to pay in the app	so that Simple payment, no need to prepare cash	Done	Payment	5
16	As a Customer	I want to check my account balance	so that confirm how much money i have	Done	Payment	5
22	As a Customer	I would like to receive an SMS or email to confirm my order information	so that have a written booking instrument	in progress	Order	1
27	As a Customer	I want to save my payment method	so that Convenient for next payment	Done	Payment	5
28	As a administrator	I want a program that can analyze user reviews	So that I was able to make some positive adjustments to this App and service supervision	Done		8





## **User** Stories

serial number	Role	Requirement	Reason	Status	Place
1	As a Customer	I want to have a separate account	so that no need to re-enter information every time	Done	Sign up
2	As a Customer	I want to log in with my account or email	so that easy login	Done	Login
3	As a Customer	I want to upload my avatar on my account	so that It makes me feel like I'm different	Done	personal information
4	As a Customer	I want to be able to modify my personal information at any time	so that Sometimes move or change phone number	Done	personal information
5	As a Customer	I want to click on the service I need to make an appointment directly	so that leasy for me to operate	Done	main page
6	As a Customer	I want to directly select a time slot to make an appointment	so that Save time by not typing	Done	Book
7	As a Customer	I want to find the service I need by searching	so that Let me find the service I need faster	Done	search bar
8	As a Customer	I want to add a description when submitting an order	so that Clarify what staff need to do	Done	Book
9	As a Customer	I want to bookmark my favorite services	so that It's easy to find when you book next time	Done	main page
10	As a Customer	I want to check if my order is booked successfully	so that If the order is not successful, you can place a new order	Done	Book
11	As a Customer	I want to check the status of my order, is there someone to service	so that Check if someone is coming for the service	Done	Order
12	As a Customer	I want to be able to cancel my order at any time	so that There may be some temporary changes that require cancellation of the	Done	Order
13	As a Customer	I want to see all services	so that can I find the services that I need	Done	main page
14	As a Customer	I want to give some feedback	so that I can give feedback if I am not satisfied	Done	feedback
15	As a Customer	I want to be able to pay in the app	so that Simple payment, no need to prepare cash	Done	Payment
16	As a Customer	I want to check my account balance	so that confirm how much money i have	Done	Payment
17	As a Customer	I want to be able to query the time of payment	so that I can confirm when I placed the order	Done	Payment
18	As a Customer	I want to see what services I have ordered before	so that Confirm what I ordered before	Done	Order
19	As a Customer	I wish there was a navigation bar	so that The page I need that is easy to find	Done	main page
20	As a Customer	I want to be able to categorize services	so that Quickly find the service you need	Done	main page
21	As a Customer	I want to give feedback on the service so other users can review it	so that Give useful advice and ensure quality of service	Done	feedback
22	As a Customer	I would like to receive an SMS or email to confirm my order information	so that have a written booking instrument	in progress	Order
23	As a Customer	I want to advance or postpone my booking	so that Easy to change order information	Done	Order
24	As a Customer	As an already logged in user, I want to log out of my login	so that keep my privacy	Done	Logout
25	As a Customer	I want to know the price of the service on the main interface	so that It is convenient for me to judge whether this service is suitable for me	Done	main page
26	As a Customer	I want to see if I have reviewed one of my orders	so that will not repeatedly evaluate a service	Done	Order
27	As a Customer	I want to save my payment method	so that Convenient for next payment	Done	Payment
28	As a Customer	I want to see some information about service	so that Confirm whether it is the service I want	Done	Information
29	As a Customer	I want more merchants to provide services on the platform	so that This can compare the price and service quality to choose my favorite	Done	Shop
30	As a Customer	I hope to see what service can be displayed when the order is viewed	so that Let me know clearly what the order is I booked	Done	Order





# Acceptance Criteria

ID L	Jser stories ID	Summary of requirment	Acceptance results
ts-1	1, 2	With account registration and login function	Complete the account registration function on the first interface, allowing users to have an independent account and password
ts-2		Users want to be able to upload images	Provide users with the function of uploading pictures on the registration interface and display them in their personal informatic
ts-3		User wants to be able to edit personal information	Provide information changes on the personal information page, allowing users to change personal information
ts-4		Users want to have detailed service information on the main interface and categorize	Display service categories and classifications on the main interface, display service details and prices
ts-5		The user hopes to click on the service to make a reservation directly, and there will be a success prompt	Click on the service card to enter the reservation interface, there will be a prompt after the reservation is successful
ts-6		Users want to book by picking a time instead of typing	Establish time selection function in the reservation interface
ts-7		The user wishes to add a description when booking	Add a description box to the reservation interface, allowing users to type in detail to describe the details of the service they need
ts-8		Users want to be able to view order history and details and cancel orders	Display the service content time of the order on the order interface, and establish the order cancellation function
ts-9		Users want to be able to give feedback on the service	Create a feedback feature that allows users to give feedback on the service by selecting a few stars and a description
ts-10		Users expect to be able to pay and save payment methods on the app	Users can pay in multiple ways on the app, display the balance on the personal interface and save the previous payment method
ts-10		Users want to be able to search for services on the main interface	Create a search bar on the main interface to search and display services
ts-11		The user hopes to receive an email or SMS reminder after the reservation is successful	Send a text message or email to the user for confirmation when the order is generated
ts-12 ts-13		The user wants to modify the order time or information	Create the function of modifying the order in the order interface, allowing users to directly modify the order
ts-15		Users want to have the function of logging out	Create a log out button in the personal interface, and the user will log out and return to the login interface after clicking
ts-14		Users want to see if they have rated an order	Display the order status on the order page, completed, evaluated, etc.
ts-15		Users expect to be able to view event information	Create an activity information function on the main page, and users can enter the page by clicking the picture of the activity
ts-16 ts-17		Users want to be able to view syent information	Create a shop button on the main interface, click to view the merchant
10-17	20	osers mant to be able to view shop	create a shop bottom on the main interiore, due, to view the matchallt
serial number	Role	Requirement	Reason
1	Customer	I want to have a separate account	No need to re-enter information every time
2	Customer	I want to log in with my account or email	easy login
3	Customer	I want to upload my avatar on my account	It makes me feel like I'm different
4	Customer	I want to be able to modify my personal information at any time	Sometimes move or change phone number
5		I want to click on the service I need to make an appointment directly	easy for me to operate
6	Customer	I want to directly select a time slot to make an appointment	Save time by not typing
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9		I want to bookmark my favorite services	It's easy to find when you book next time
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15		I want to be able to pay in the app	Simple payment, no need to prepare cash
16		I want to check my account balance	confirm how much money i have
17		I want to be able to query the time of payment	I can confirm when I placed the order
18	Customer	I want to see what services I have ordered before	Confirm what I ordered before
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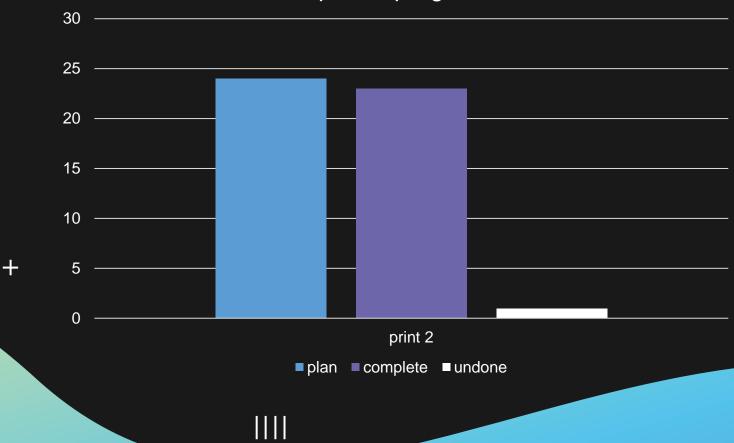
## **Test** Case

User Story ID	Unit to test	Assumptions	Test data	Expected Result	Pass/Fail
US-15	front end	User can make a payment on the web app		The user successfully pays in the app, and it shows that the payment is successful	Pass
US-16	front end	User can check the account balance		The account balance is displayed on the user's personal information page	Pass
US-27	front end	User can save the payment method		The user can save the payment method and display it the next time they pay	Pass
US-28	ML	Administrators can do user comment analysis	"This is the worst thing"	For user evaluation analysis, the positive ones are greater than 0, and the negative ones are less than 0	Pass

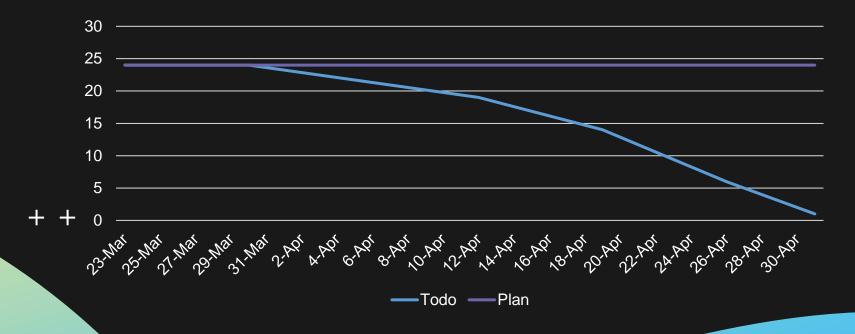
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#### sprint 2 progress

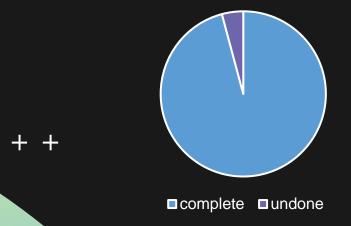


## **Sprint 2 Burndown Charts**



## **Program Completion**

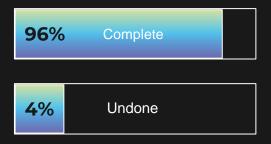
**Program Completion** 



Total: 24

Complete: 23 Undone: 1

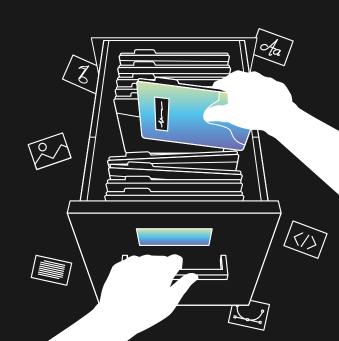
task completion: 96%





#### What went well?

- Completed most of the mission plans
- Followed the rules of agile programming
- User Review Analysis with Machine Learning





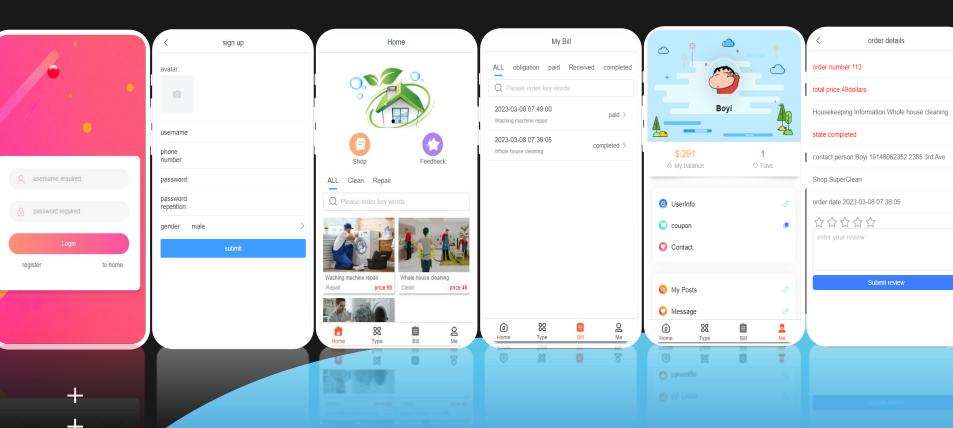
# what need to improved?

- Add more user data
- Add more comments to improve the code
- Find a standard format to write the required documents

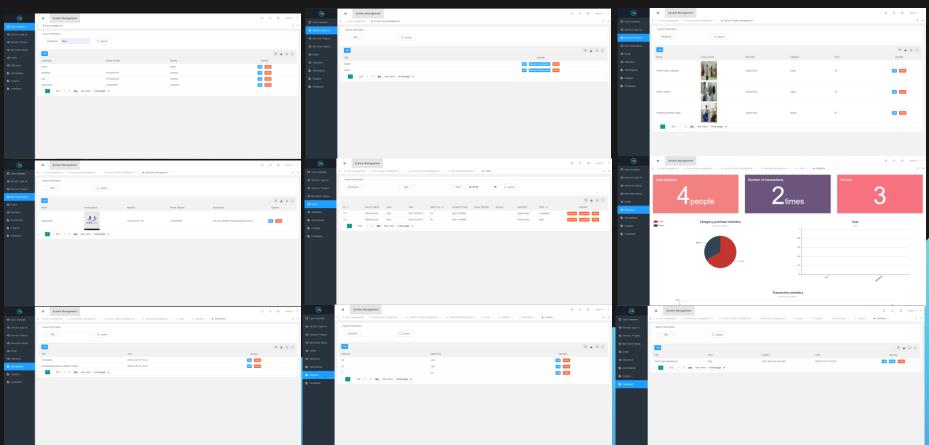




# App screenshots



## API screenshots



## Link

Github: https://github.com/htmw/2023S-bzhang/wiki

Final Demo video: https://youtu.be/9dv85Yx7eYc

