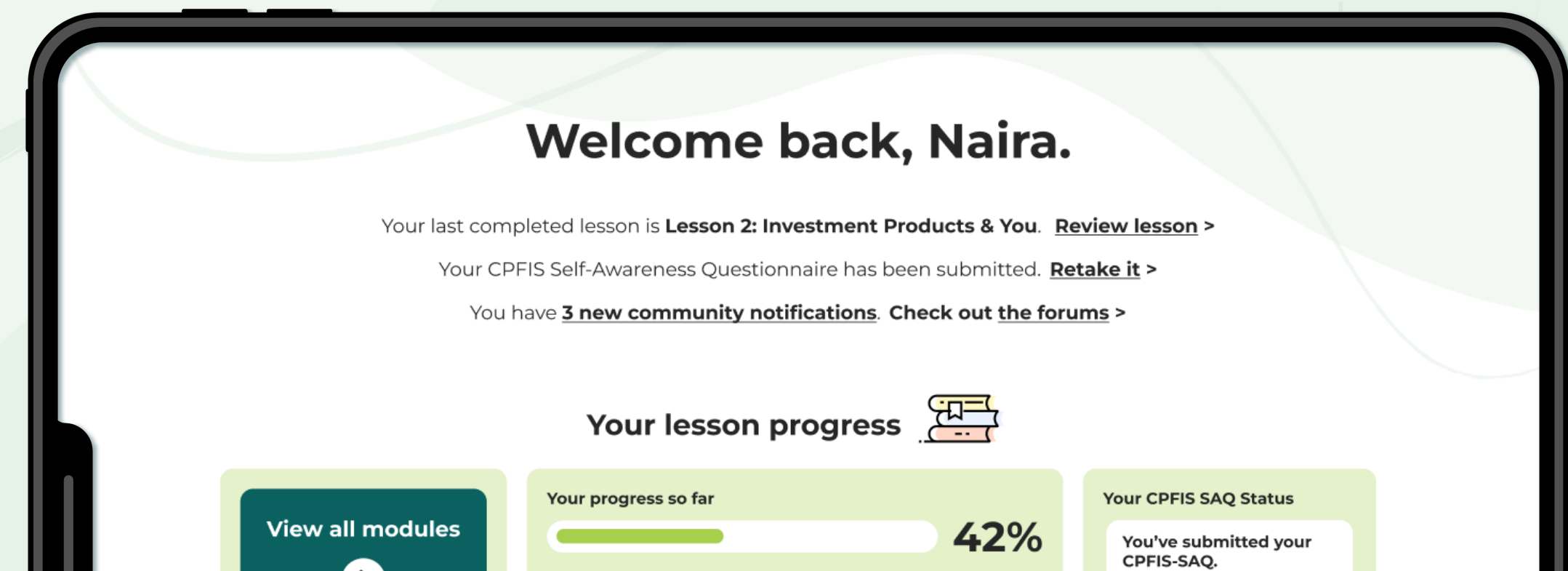
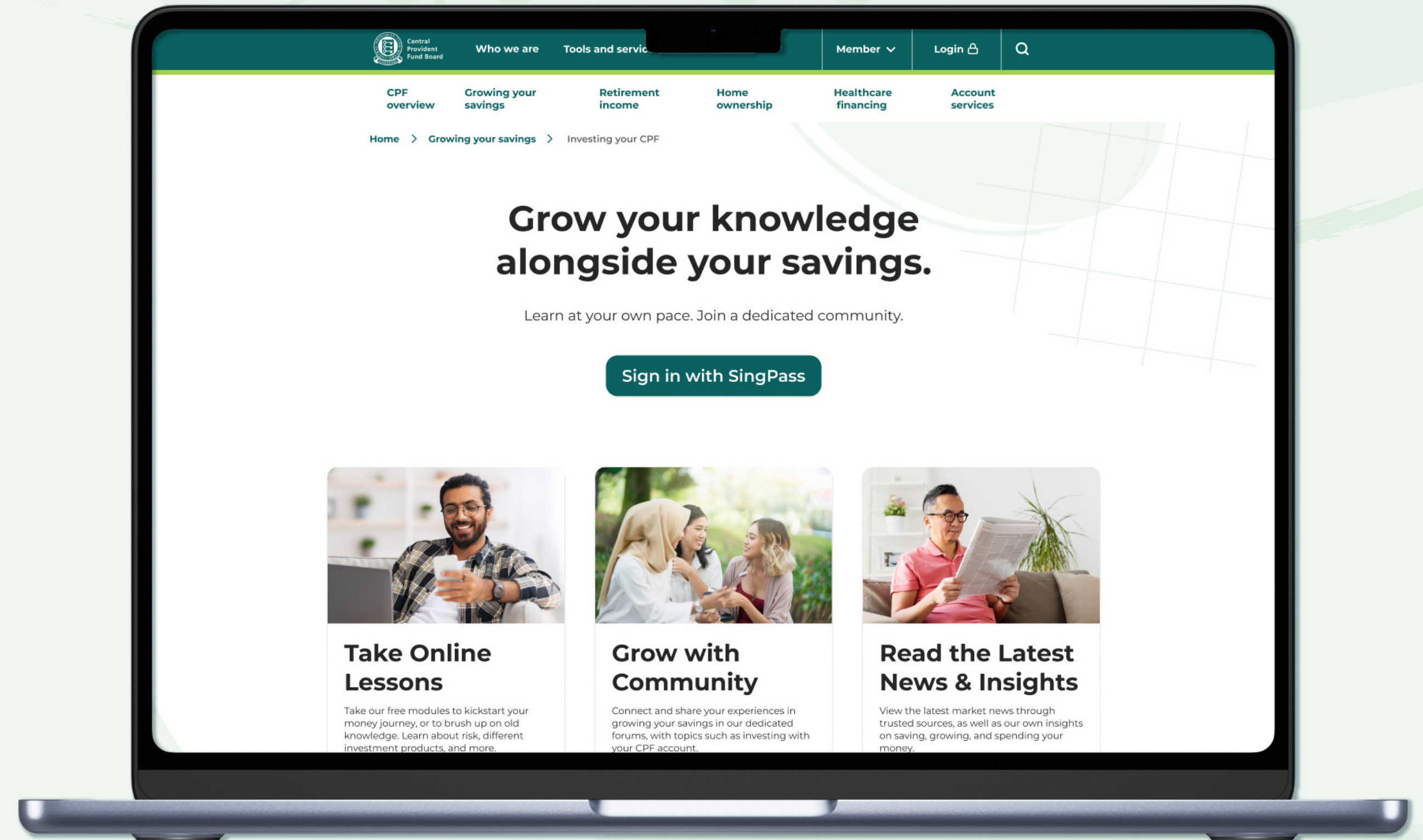


4 million people, all confident and informed.
But how?

THE CPF COMMUNITY PORTAL.

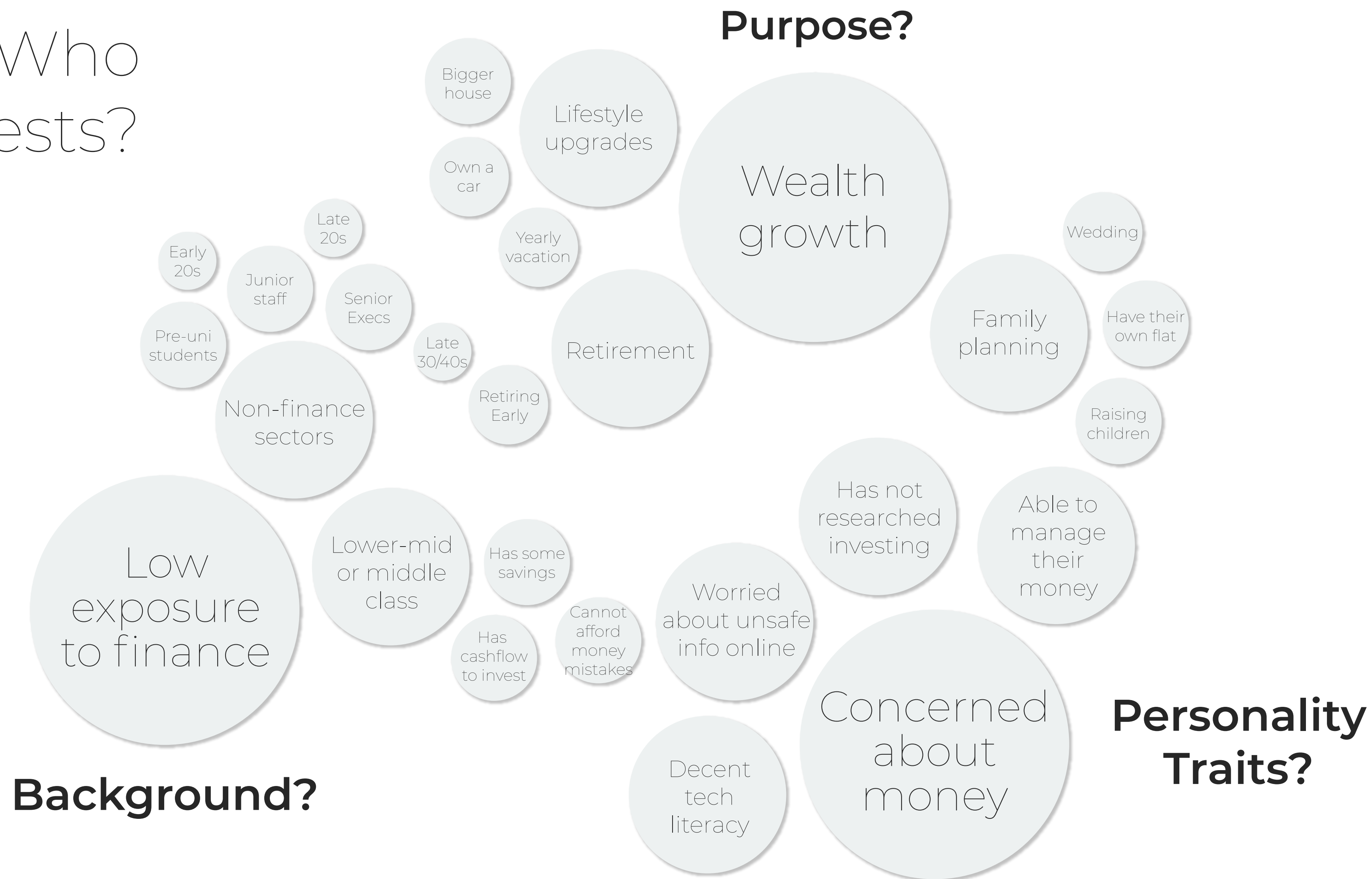
A UX / UI exploration by Phoebe Ng.
Aug - Sept 2024



1. Market Research

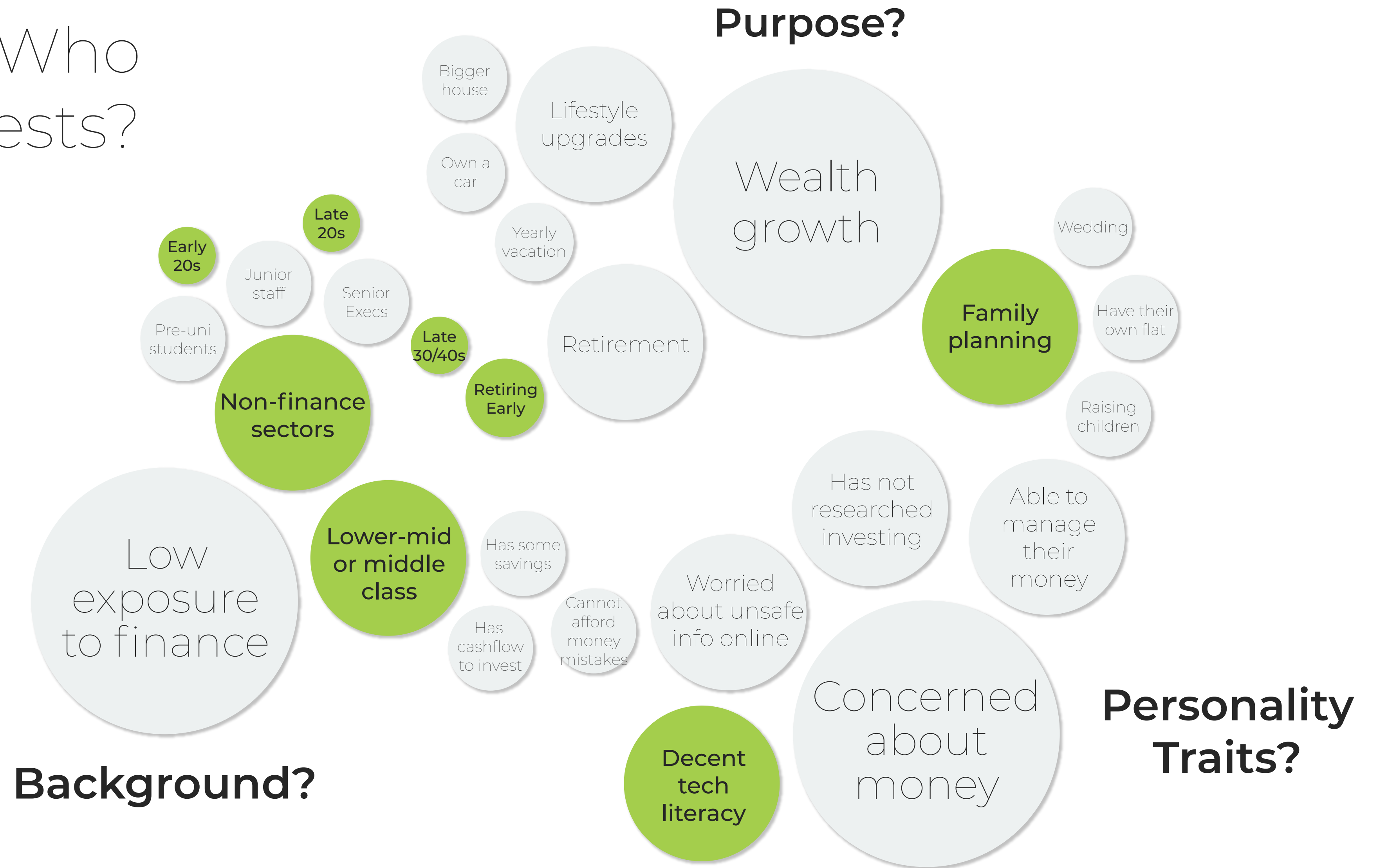
What issues do
people have with
investment?

Who
invests?



Who
invests?

05
Market Research
User Profiling
58



User Personas



Gender
Female

Age
20 years

Marital Status
Single

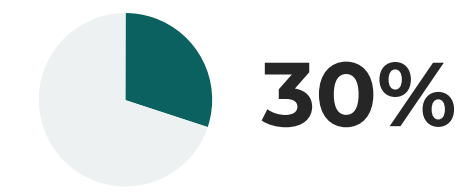
Employment
**Intern /
Junior Executive**

Salary
< \$30,000

Naira

Naira is looking forward to graduating tertiary education, and is doing her first internship. She has heard of investment, but isn't sure if it's right for her just yet. Right now, she wishes to learn a little more but isn't expecting to invest too much time.

Market Size



Life Stage

Fresh Graduate

Short-Term Goals

- Starting out a career
- Learning what investing even is
- Gathering work experience

Long-Term Goals

- Wants a fulfilling career to fund their lifestyle
- To invest properly in the future

Motivations

- Resume- and career-building
- Progressing their skillset

Frustrations

- Small budget
- Uncertain of their future wants



Gender
Male

Age
29 years

Marital Status
Partnered

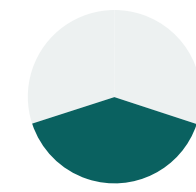
Employment
**Executive /
Senior Executive**

Salary
\$40,000 - \$60,000

Ethan

Ethan has a long-term partner and is looking forward to starting a family. He knows that the cost of future needs will always increase due to inflation, and wants to grow liquidity beyond projected inflation rates. His risk appetite is higher as his cashflow is still that of a single man.

Market Size



40%

Life Stage

Family Planner

Short-Term Goals

- Investing as soon as possible
- Saving up for weddings and other milestones
- Promotions and progress in their career

Long-Term Goals

- Work-life balance
- Providing for his family in the long-term
- Good future returns on his investments

Motivations

- Family planning and future expenses
- Has a clear vision of the future they want

Frustrations

- Hasn't had the time to properly study investment
- May already be investing, such as in ILPS, but doesn't understand them fully



Gender
Female

Age
45 years

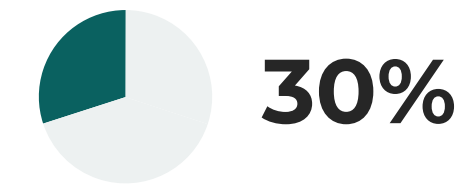
Marital Status
Married

Employment
**Manager /
Senior Manager**

Salary
\$50,000 - \$72,000

Hwee Chin

Market Size



Life Stage

Retirement Hopeful

Hwee Chin is happy where she is in her career, but is hoping to retire as soon as possible . She is aware of, but is unfamiliar with higher-risk/return ways to grow her wealth. As she has a shorter time horizon to invest, she's looking for good information to begin her journey ASAP.

Short-Term Goals

- Becoming an expert on investment as soon as possible
- Finding ways to grow her wealth that are suitable for her shorter timeframe

Motivations

- Being able to relax and enjoy life after working hard for decades
- Spending time & money on family and herself

Long-Term Goals

- Early retirement
- Maintaining or increasing her lifestyle needs after retiring

Frustrations

- Not much time left until retirement
- Can continue to work if needs be, but doesn't really want to

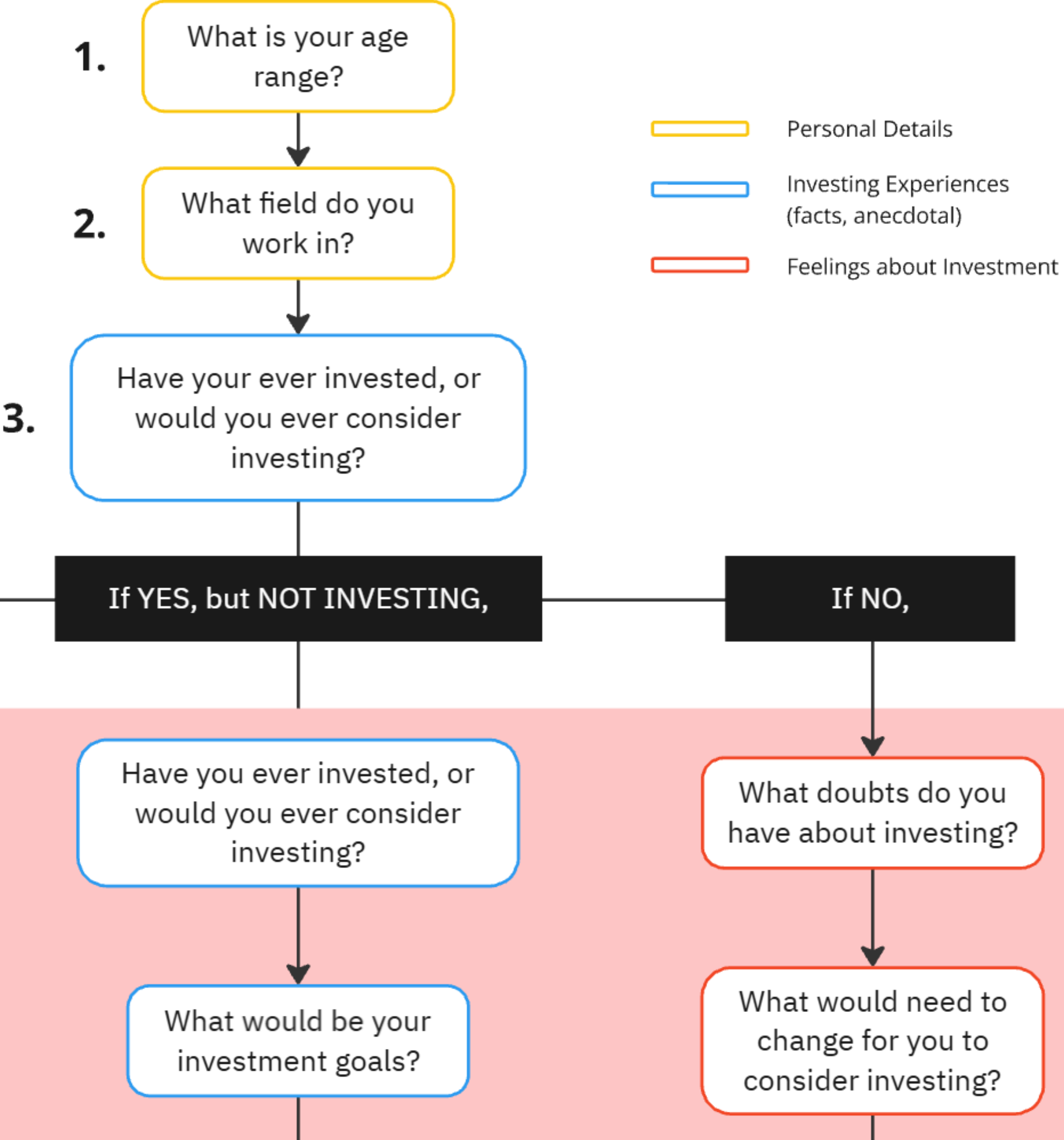


User Interviews

What's the biggest thing
stopping you from investing?

Interview Questions

(Questions branch here)



- Personal Details
- Investing Experiences (facts, anecdotal)
- Feelings about Investment

How much do you know about investment?

6.

What investment tools have you been utilizing? (Unit trusts, bonds, etc)

7.

Are there any other investment tools you are familiar with?

What's stopping you from investing?

Why, or why not, invest?

What would need to change for you to consider investing?

8.

What is your current opinion on investment?

9.

Would you tell your loved ones to invest? Why or why not?

10.

Is there anything else you would like to add?

What are your views on investment?

Survey Results

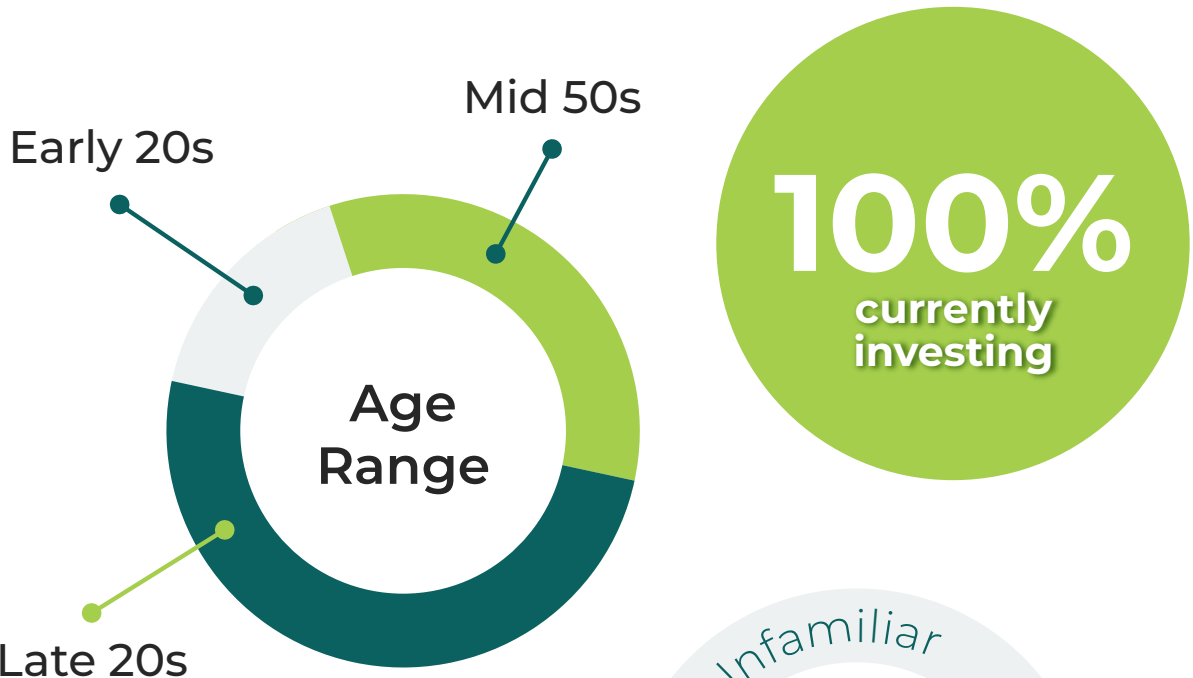
Why invest?



Feelings about investment



Demographics



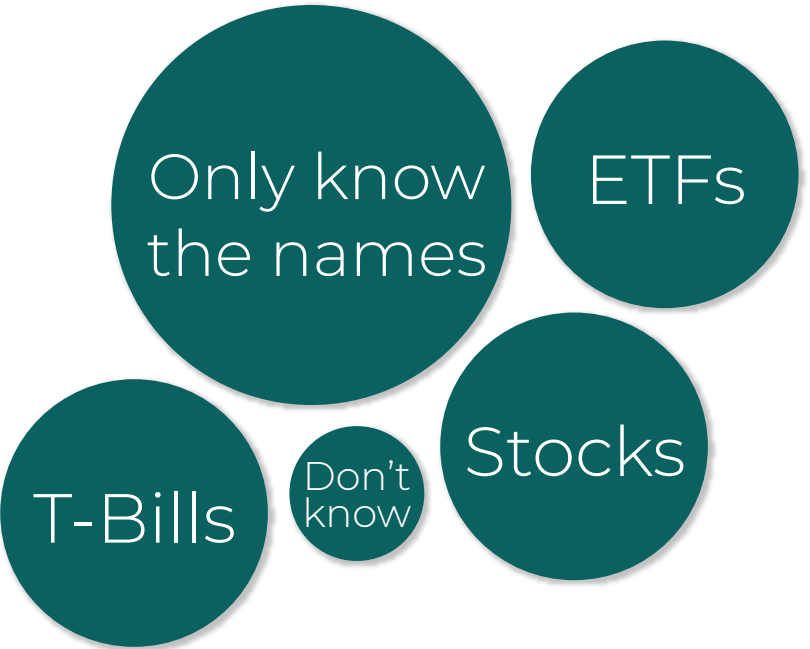
100% currently investing



Why not invest?



What tools?



Would you tell your loved ones to invest?



Market Research
Survey Results
13
58



2. Research Analysis

Affinity Mapping

What I Heard

What I Saw

Research Analysis

15

58

Affinity Mapping

Don't know where to start

I'm risk-adverse and unsure what products are suitable

There's also SO MANY resources and things to read, and you don't know where to start, and you don't know if what you're reading is correct or not.

For financial freedom and any future large milestones like buying home and family planning

Don't want to invest wrongly

Barrier to investing is high, so some articles would be helpful

Started investing for retirement, started about 15 years ago

To make sure no liabilities as you are progressing towards an older age, don't want to carry debt at old age especially when there can be retrenchment

Yes I'll tell them to invest even though I know nothing about investment.

I would tell them to invest young, even younger than late 20s, even just short-term or any 10-year savings plan from an agent

At higher ages investment is definitely a must-have, should definitely start earlier

Good way to grow money but alot of misinformation and risks if invest alot in wrong thing

If I earn and I feel is good I will tell them.

Earn money go travel! Save, save money and go travel

Need money. Need more money.

invest to have passive income and not leave money sitting around

Earn more money of course

No [to suggesting investing] because I wouldn't want to be responsible for making them lose money

I don't dare to invest one.

I think basically there's a lot of unknowns and I don't know a lot about it as well

Don't need the money [then buy]. If you need money don't buy.

Very many apps

Sometime ok sometimes not ok lor. Sometimes can earn money sometimes cannot lor.

Don't know if you should get a broker or do it by yourself

Interviewee paused for a long time when asked, "Do you feel more confident in investment after using the roboadvisory apps?", before answering No

Interviewee sighed when talking about feelings on investment; seemed emotional.

Interviewee laughed often, as though embarrassed

Overwhelmed

Very many apps

Barrier to investing is high, so some articles would be helpful

There's also SO MANY resources and things to read, and you don't know where to start, and you don't know if what you're reading is correct or not.

Uncertainty

Interviewee laughed often, as though embarrassed

Don't know where to start

Don't want to invest wrongly

Don't know if you should get a broker or do it by yourself

I think basically there's a lot of unknowns and I don't know a lot about it as well

Interviewee paused for a long time when asked, "Do you feel more confident in investment after using the roboadvisory apps?", before answering No

Conflicted Feelings

Interviewee sighed when talking about feelings on investment; seemed emotional.

Good way to grow money but alot of misinformation and risks if invest alot in wrong thing

Sometime ok sometimes not ok lor. Sometimes can earn money sometimes cannot lor.

Don't need the money [then buy]. If you need money don't buy.

Positive about investing

I would tell them to invest young, even younger than late 20s, even just short-term or any 10-year savings plan from an agent

At higher ages investment is definitely a must-have, should definitely start earlier

Yes I'll tell them to invest even though I know nothing about investment.

Wary

I don't dare to invest one.

I'm risk-adverse and unsure what products are suitable

No [to suggesting investing] because I wouldn't want to be responsible for making them lose money

If I earn and I feel is good I will tell them.

invest to have passive income and not leave money sitting around

Need money.
Need more money.

Started investing for retirement, started about 15 years ago

For financial freedom and any future large milestones like buying home and family planning

To make sure no liabilities as you are progressing towards an older age, don't want to carry debt at old age especially when there can be retrenchment

Earn more money of course

Earn money go travel! Save, save money and go travel

Always need to grow wealth

What I Conclude

Overwhelmed	Conflicted Feelings	Positive about investing	Always need to grow wealth	Uncertainty	Wary
Many users feel overwhelmed with knowledge without being able to trust in said knowledge	Some users are emotional about investment	Some users would tell loved ones to invest, as early as possible	Users are worried about milestones in their future, like retirement and family planning	Many users don't know where to start learning about investment	Users are afraid of the possible losses when investing
Users are aware of investment tools and apps currently available on the market	Users don't feel that investment is positive or negative	Users believe that investing early to have a longer time horizon is important	Users are money-minded and aware of their needs	Some users feel embarrassed from a lack of investment knowledge	Users are aware that investment comes with the risk of loss with chance of gain
				Users cannot confidently invest as they do not have the knowledge to do so	

Problem Statement

Most Singaporeans with CPF accounts are very inclined to invest but **do not know where to begin investing**, nor how to find **trustworthy** information.



3. Ideation

Ideation
20
58
HMW Statements

'How Might We' Statements

Based on the problem statement and prior insights, brainstorm on the wants and needs of our userbase.

HMW educate about investing in bonds so that online viewer can watch and benefit to achieve their financial freedom?	HMW simplify the platform so that almost retirees (50+) can start investing confidently?	HMW design or create a new app so that our users have an all-in-one app to share knowledge and start investing confidently?
HMW elaborate on investment information so that all our users can make informed decisions?	HMW simplify investments so that our users can easily understand them?	HMW improve websites so that retirees can find make informed financial decisions?
HMW implement articles so that fresh grads or uni students can learn more about investing?	HMW provide guidelines on how much money is required for early retirement?	HMW ensure convenience so that all customers can start investing confidently?

Investment Education

Platform Usage

Crazy '8's

An exercise challenging the designer not to waste time producing only 'quality' ideas, but to focus on ideating at all cost.



The Idea



Users need an education platform that's **reliable, accessible, and trustworthy.**

What about the
CPF Website?



The Current State of Things

To qualify for **using your CPF balance to invest**, you have to take the CPF Investment Scheme Self-Awareness Questionnaire (**CPFIS SAQ**) to assess if CPFIS is suitable for you.

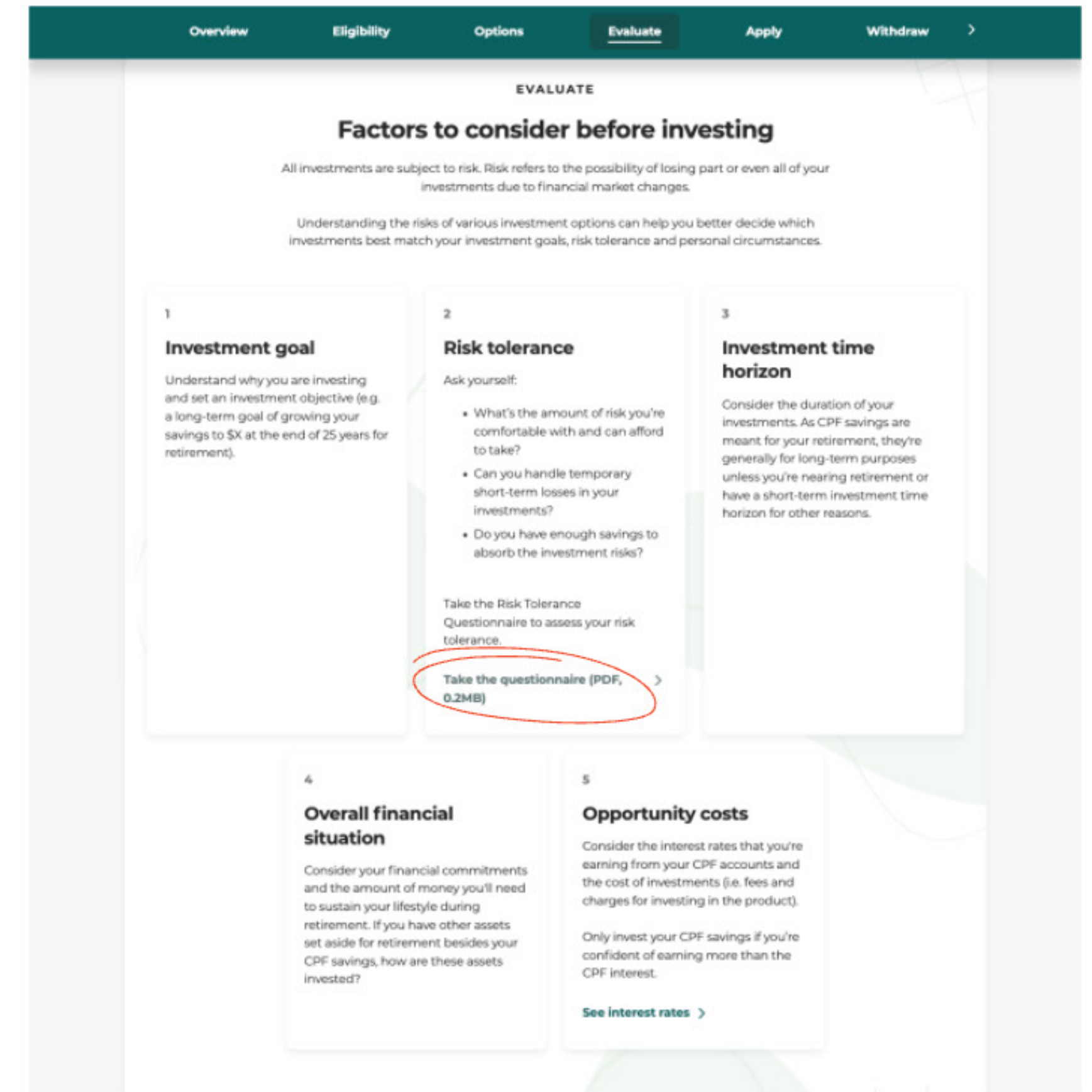
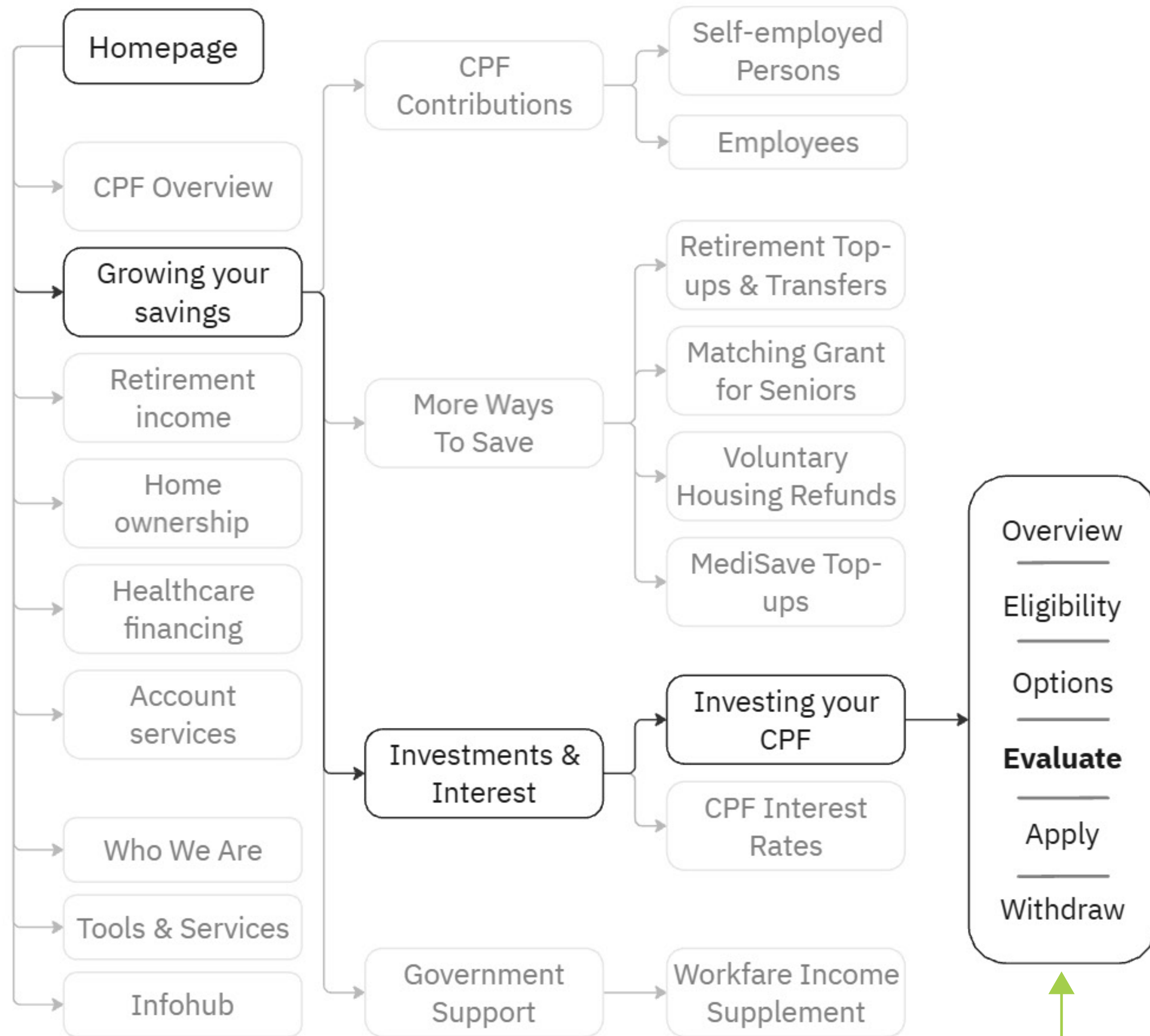
The CPF website offers a **small** amount of guidance for users to do this.

Ideation

24

Current Product

58



Before you invest, the site tells you to check your personal risk tolerance by doing a questionnaire.

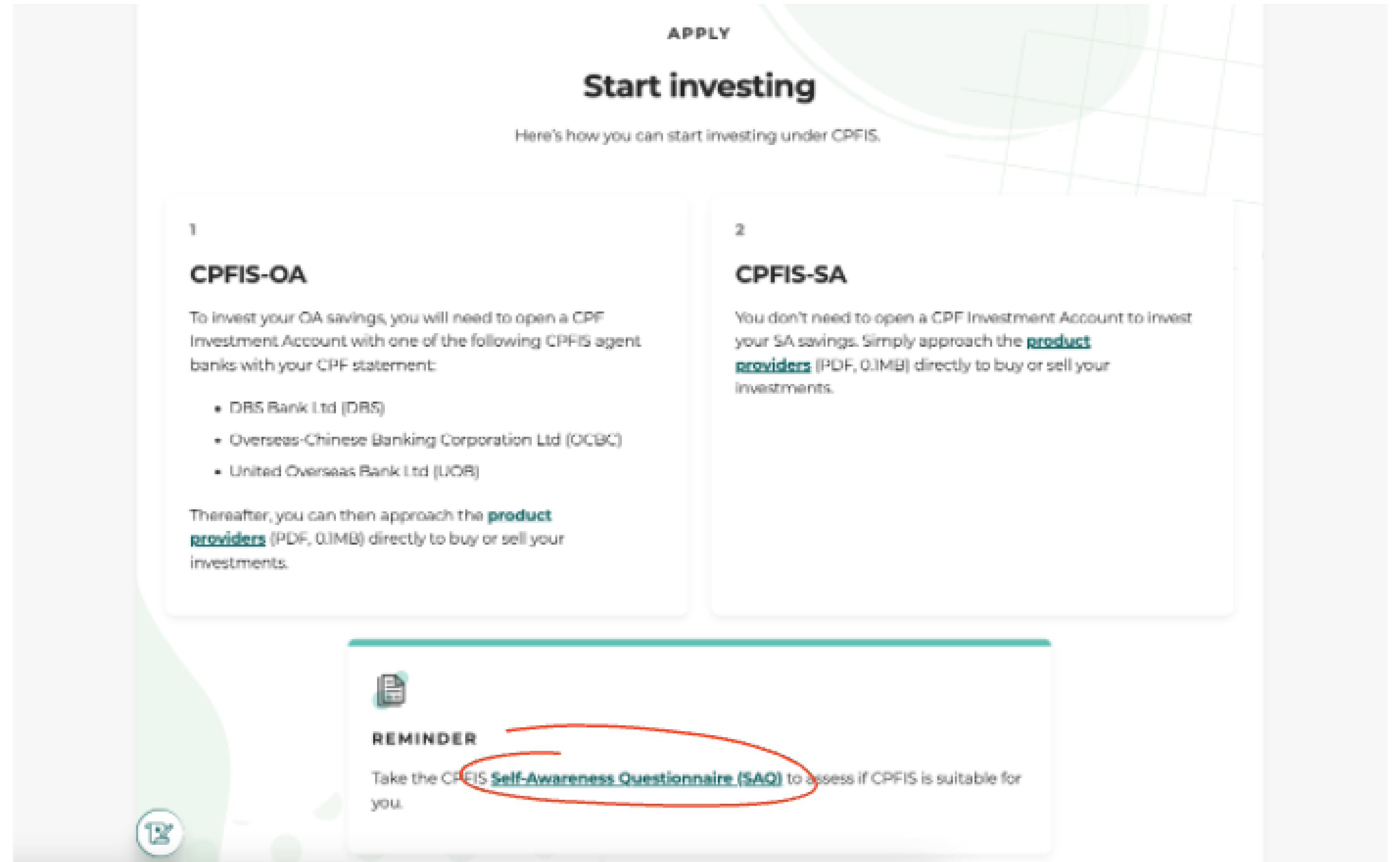
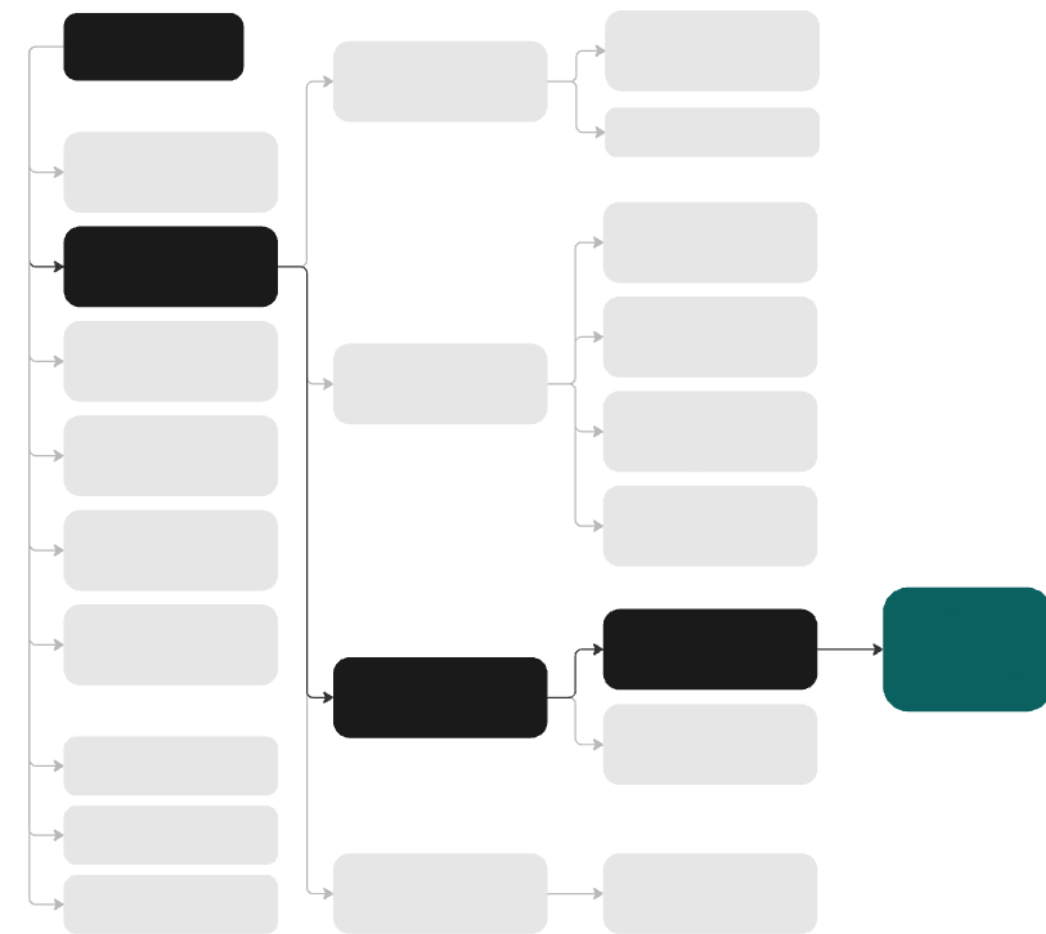
Note the user journey required to do this.

Ideation

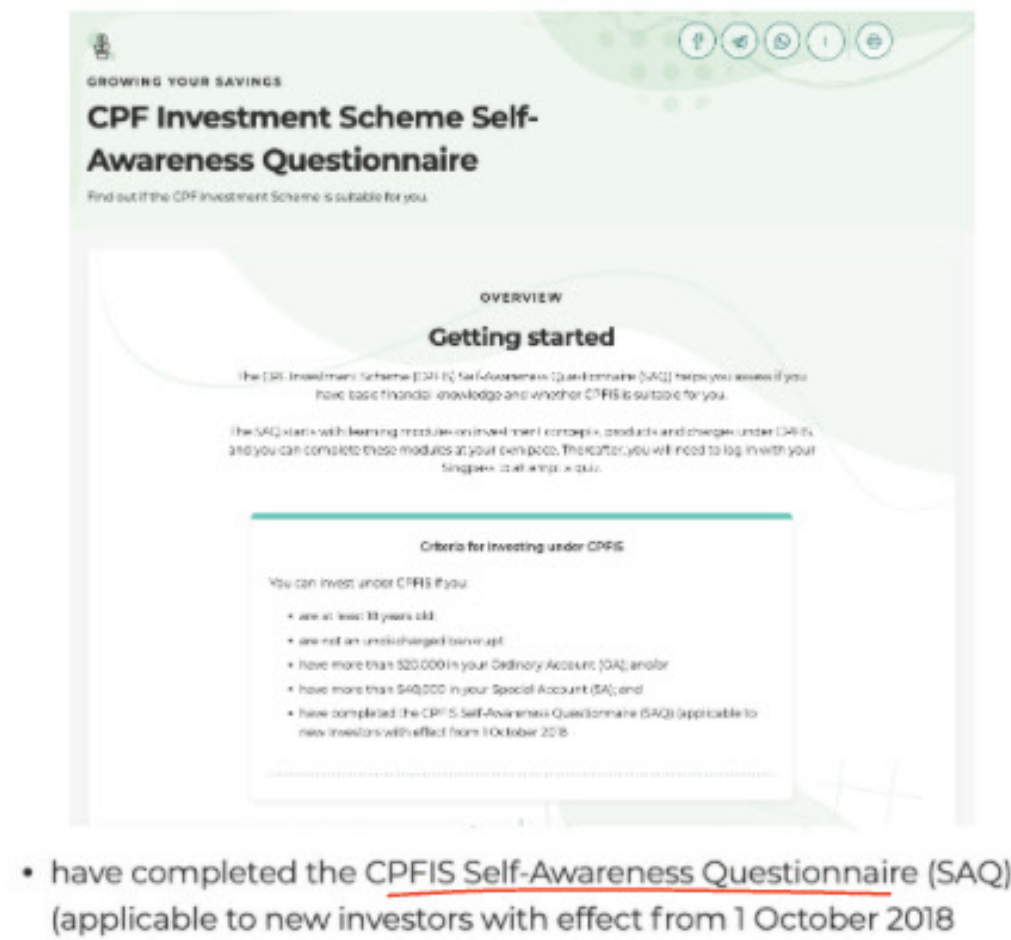
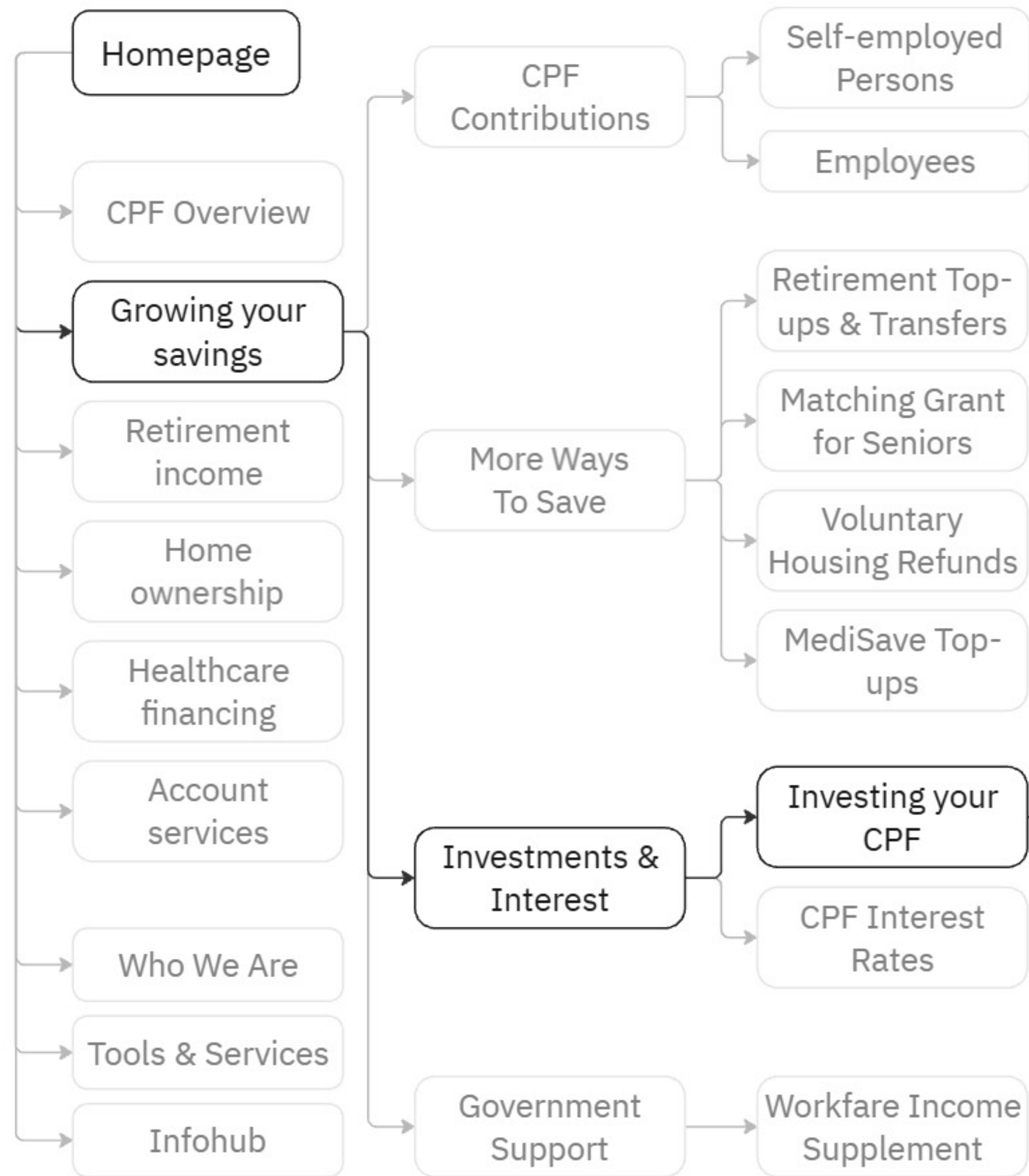
26

58

Current Product

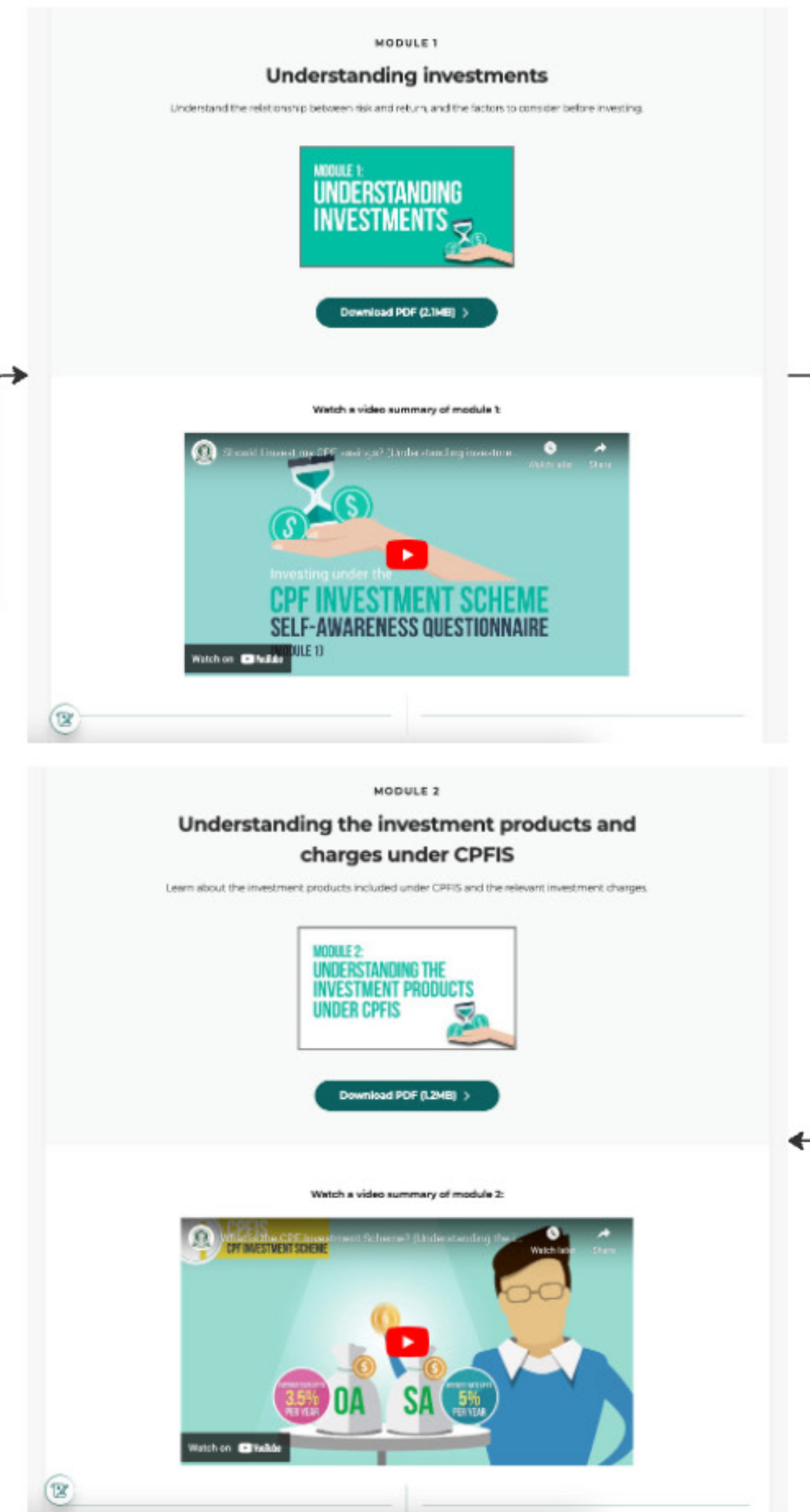


Scroll down further on the Evaluate page to find the actual SAQ, which is **required** to invest with CPFIS.



Self-Awareness Questionnaire - Modules

The ‘Take the SAQ’ link leads to further instructions and information that will come up in the SAQ.

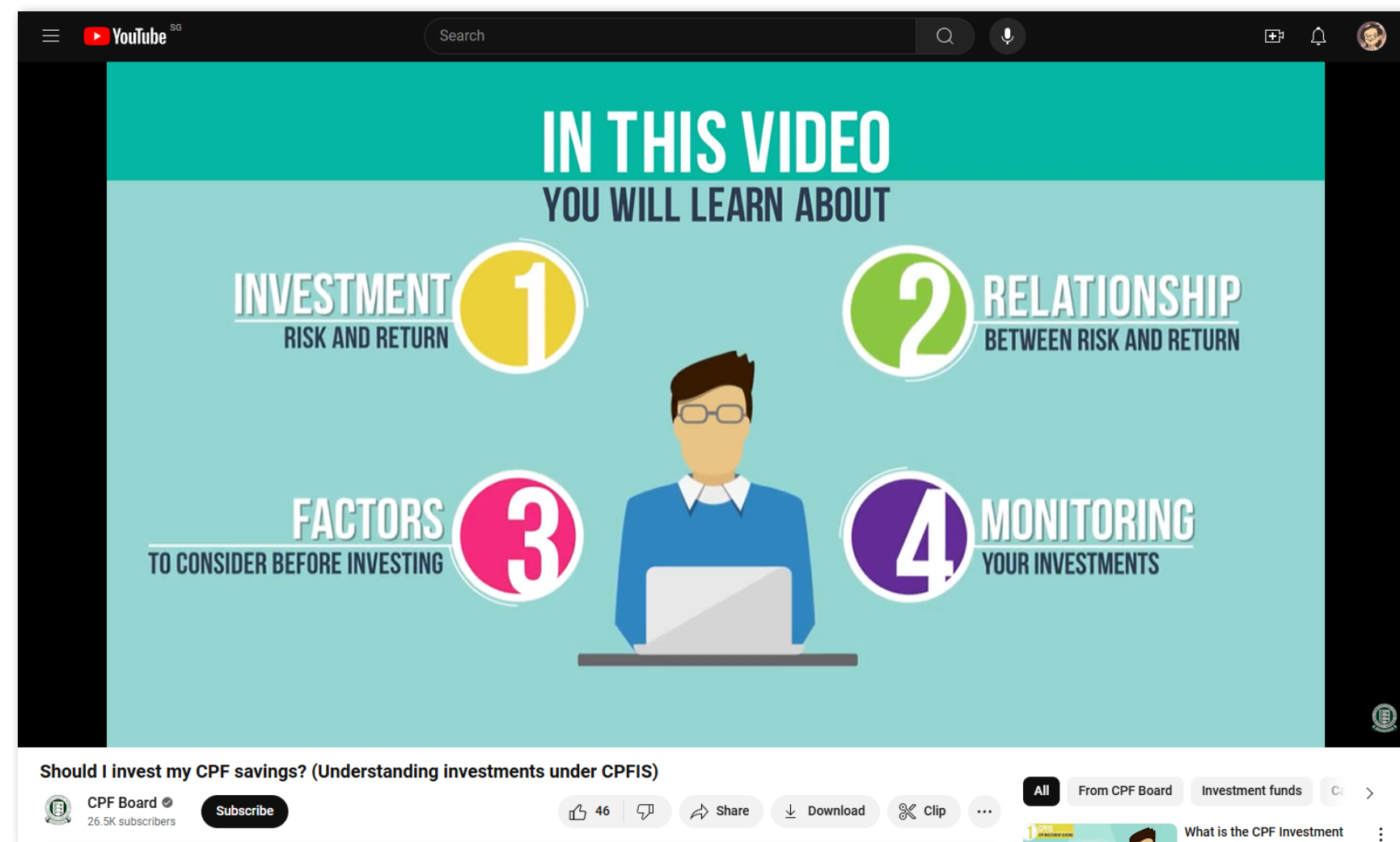


Ideation

28

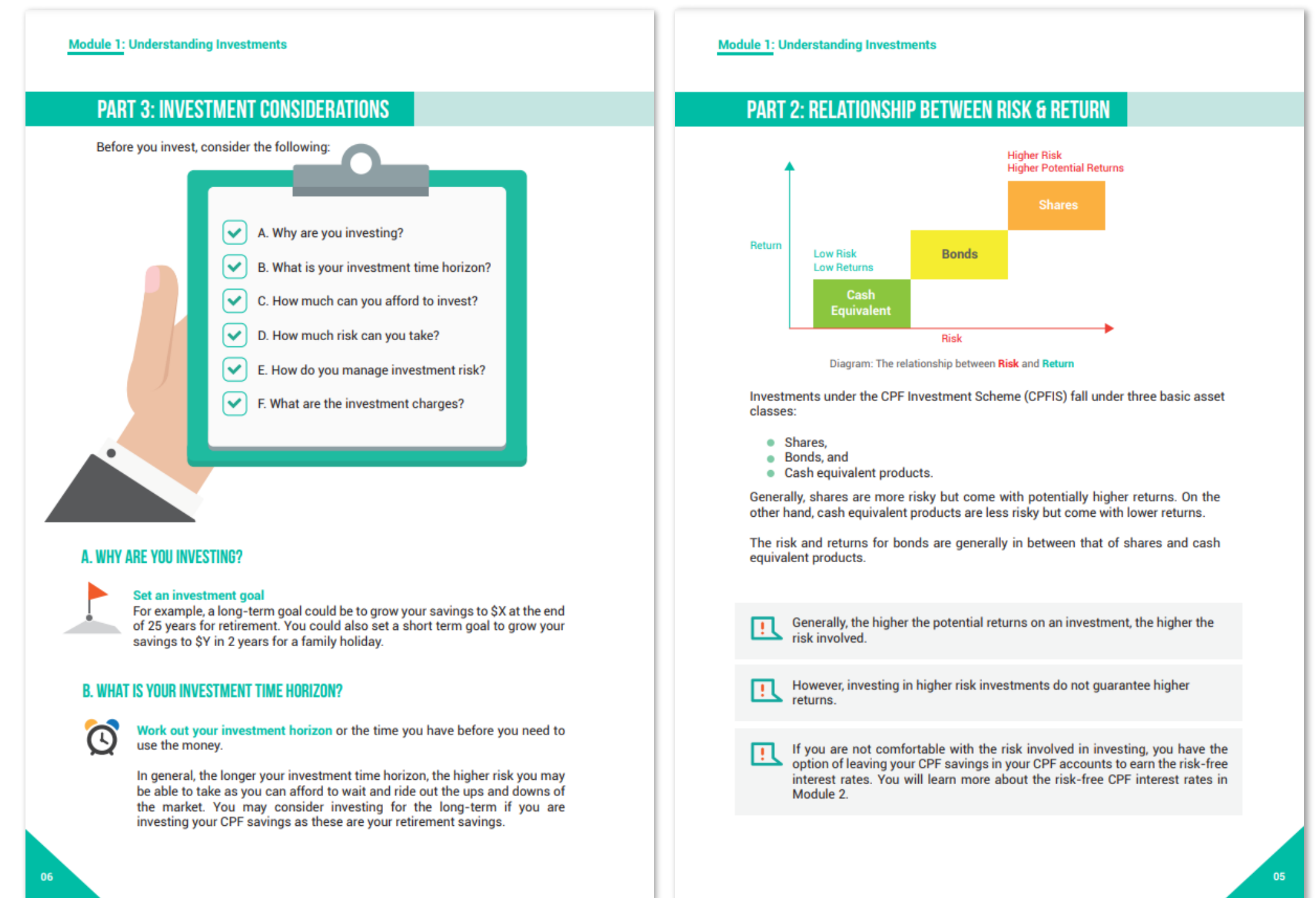
Current Product

58



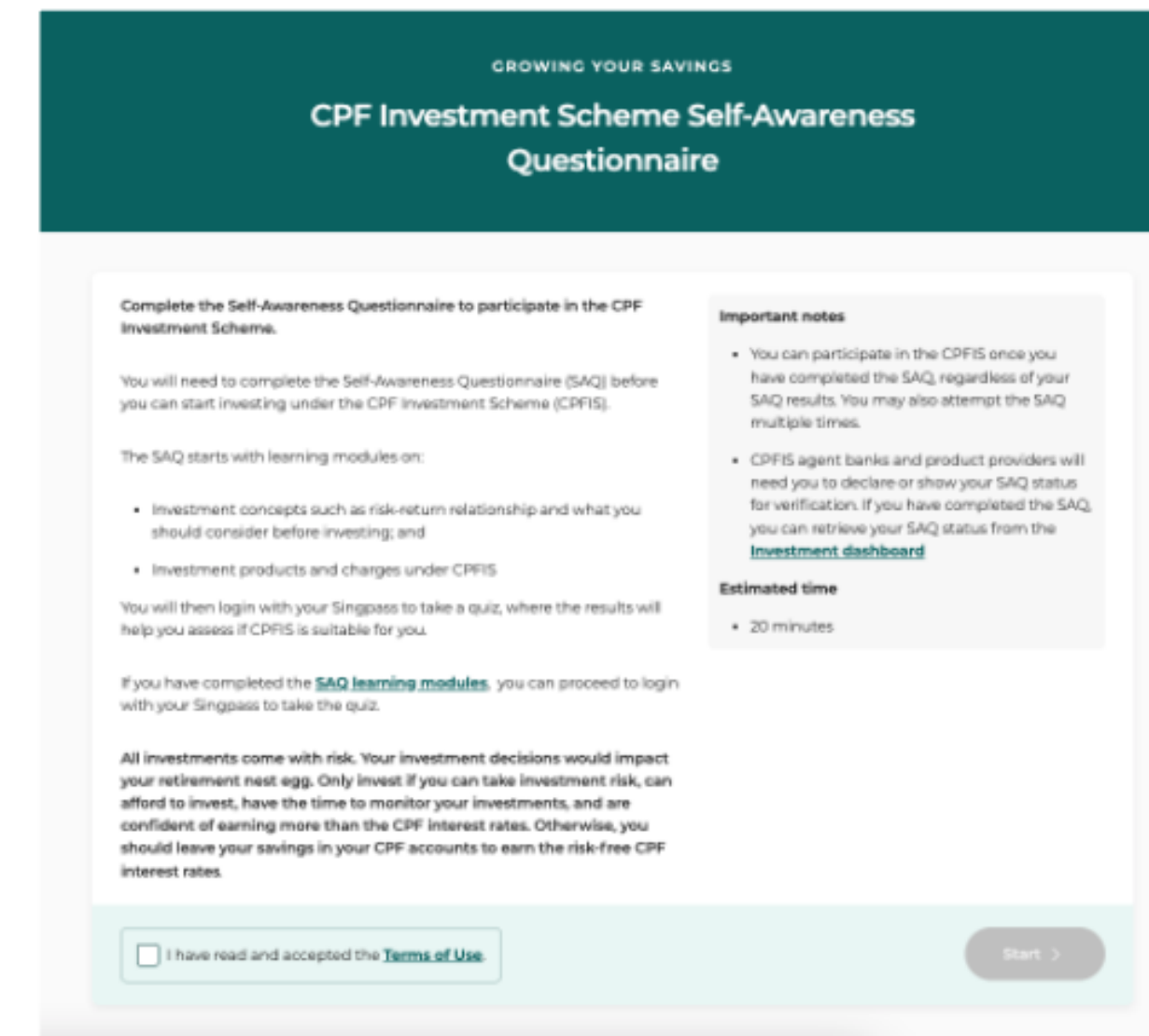
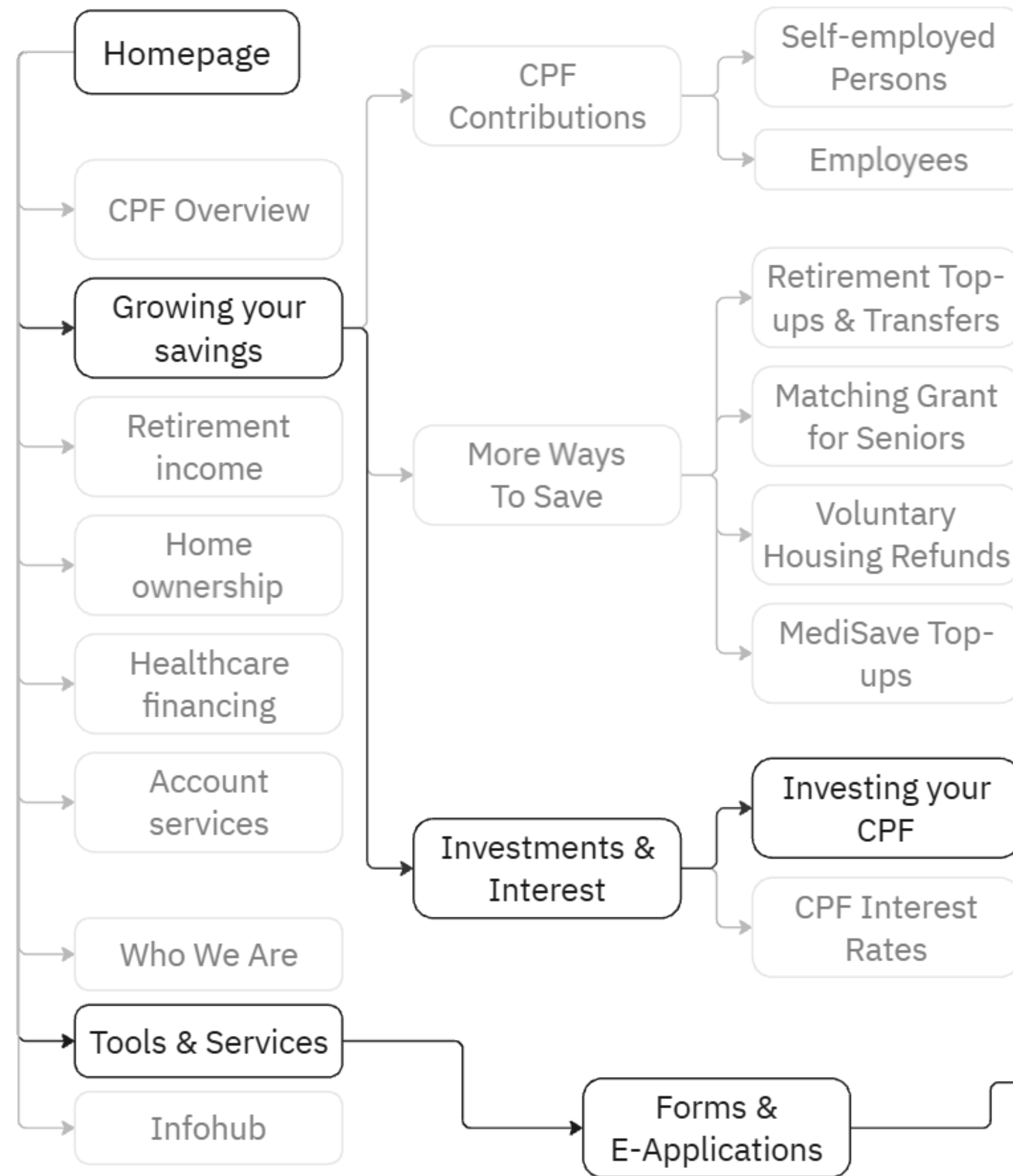
Videos

Two videos, 3 and 4 minutes respectively, about the **basic tenets of investment** and about the **CPFIS**.

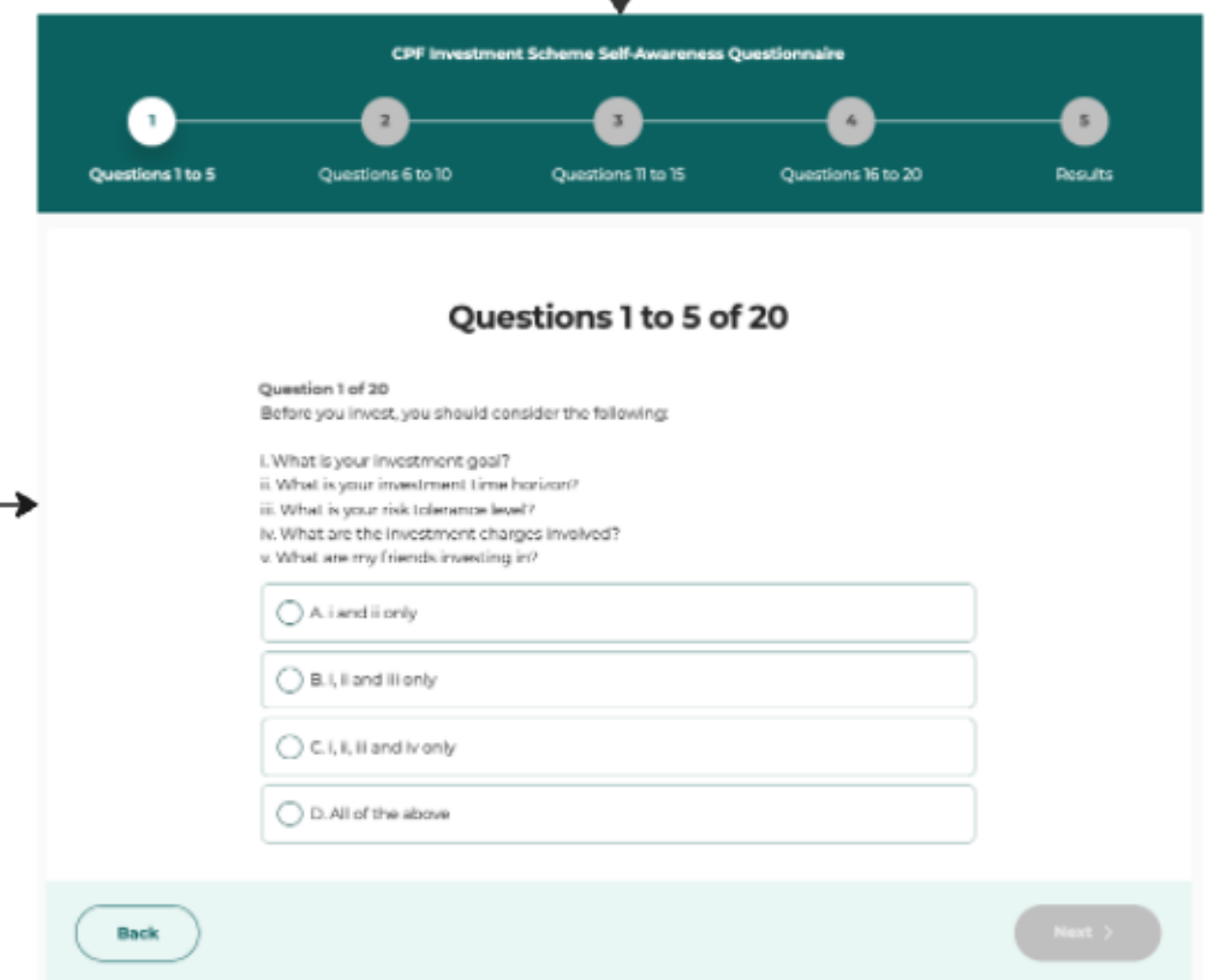


PDFs

The same information is also available in two separate PDFs. However, **specific information on different investment products** is only available in the Module 2 PDF.



The user is then directed to **the actual SAQ**, which requires a SingPass login.



What to Improve?



	Current Product	Possible Improvement
Ease of Access	Actual investment information is quite hidden	Create a dashboard so all information is in one place
Time Taken to Reach Page	Too many clicks to get to information	Try to get to learning sections in 3 clicks or less
Efficacy of E-Learning	Learning is very self-directed	Add methods for review , maybe communal?
Quality of Information	Only basic information on investment	Expand on current information and add more sections
Means of Learning	Mediums of learning are external , like PDFs and Youtube	Have a dedicated portal for investment e-learning

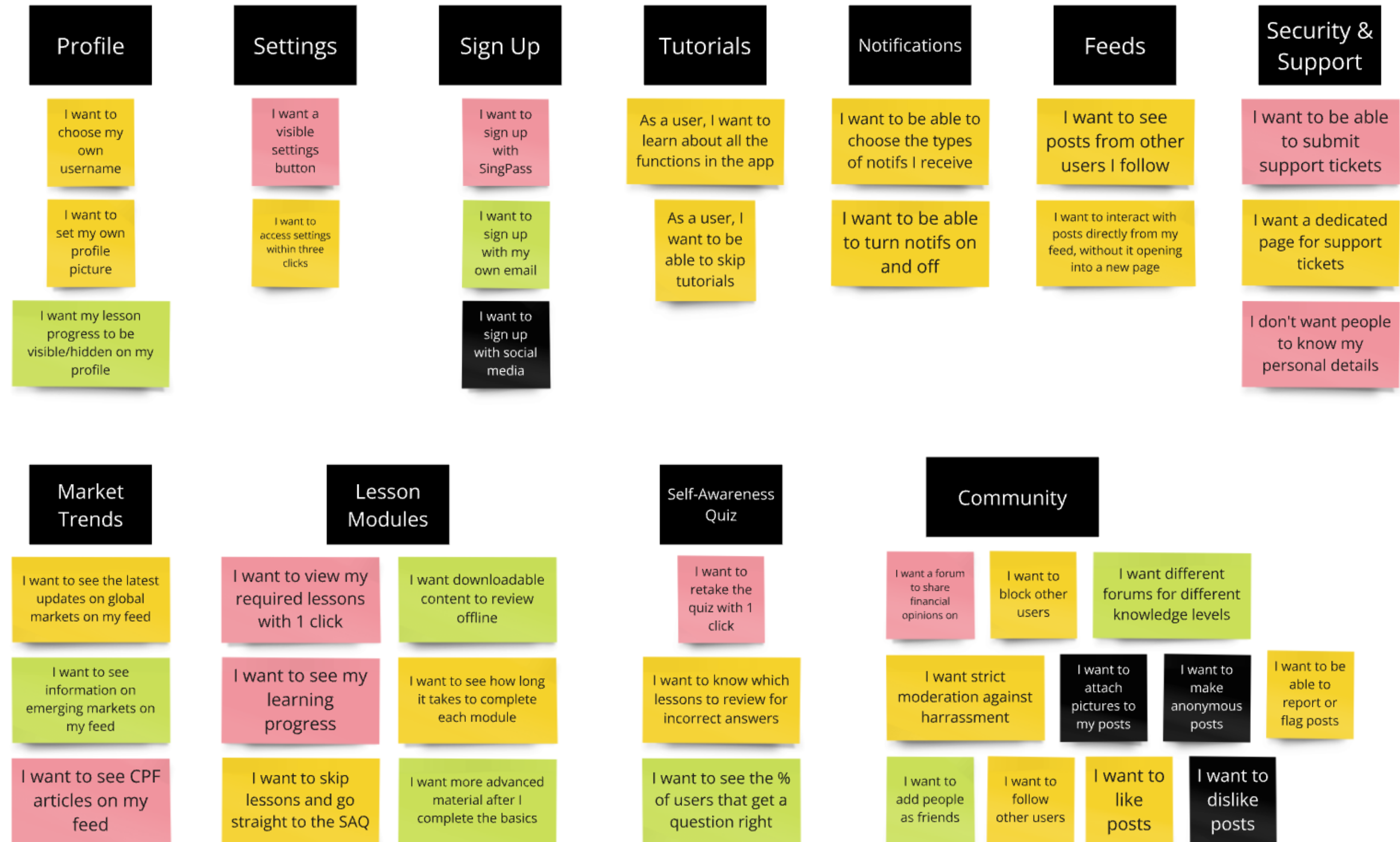
User Stories

+

MoSCoW

What do users want from a platform that provides education and community?

Colour-coded according to **Must / Should / Could / Won't**, or MoSCoW.





Jobs To
Be Done

+

MoSCoW

Proposed features according to
the needs stated in User Stories,
sorted by urgency according to
their MoSCoW colours.

Sign-up Pop-up

Click-through Tutorial

Tutorial Skip Button

Homepage

SingPass Sign-up

SingPass Log In

Email Sign-up

Email Log In

Dashboard

Feed Display

CPF Articles & Insights

1-click to E-Learning

E-Learning Progress Bar

Global Markets News

Emerging Markets News

SAQ Pages

Retake Quiz Button

Incorrect Answer Review

Percentile Accuracy per Q

Account Settings

General Settings

On/Off Email Notifications

On/Off All Notifications

On/Off Feed Notifications

Change Password

E-Learning

Modules Remaining

E-Learning Progress Bar

Estimated Time Taken

E-Learning Downloads

Higher-level Learning

Help Page

Submit Support Ticket

My Support Tickets Page

Profile Settings

Username Settings

Set Profile Picture

On/Off Lesson Progress

Misc. Features

Username Settings

Community

Co-learning Forum

Keyword Auto-mod

Report/Block Post

Follow User

Report/Block User

Post Like Button

Add User As Friend

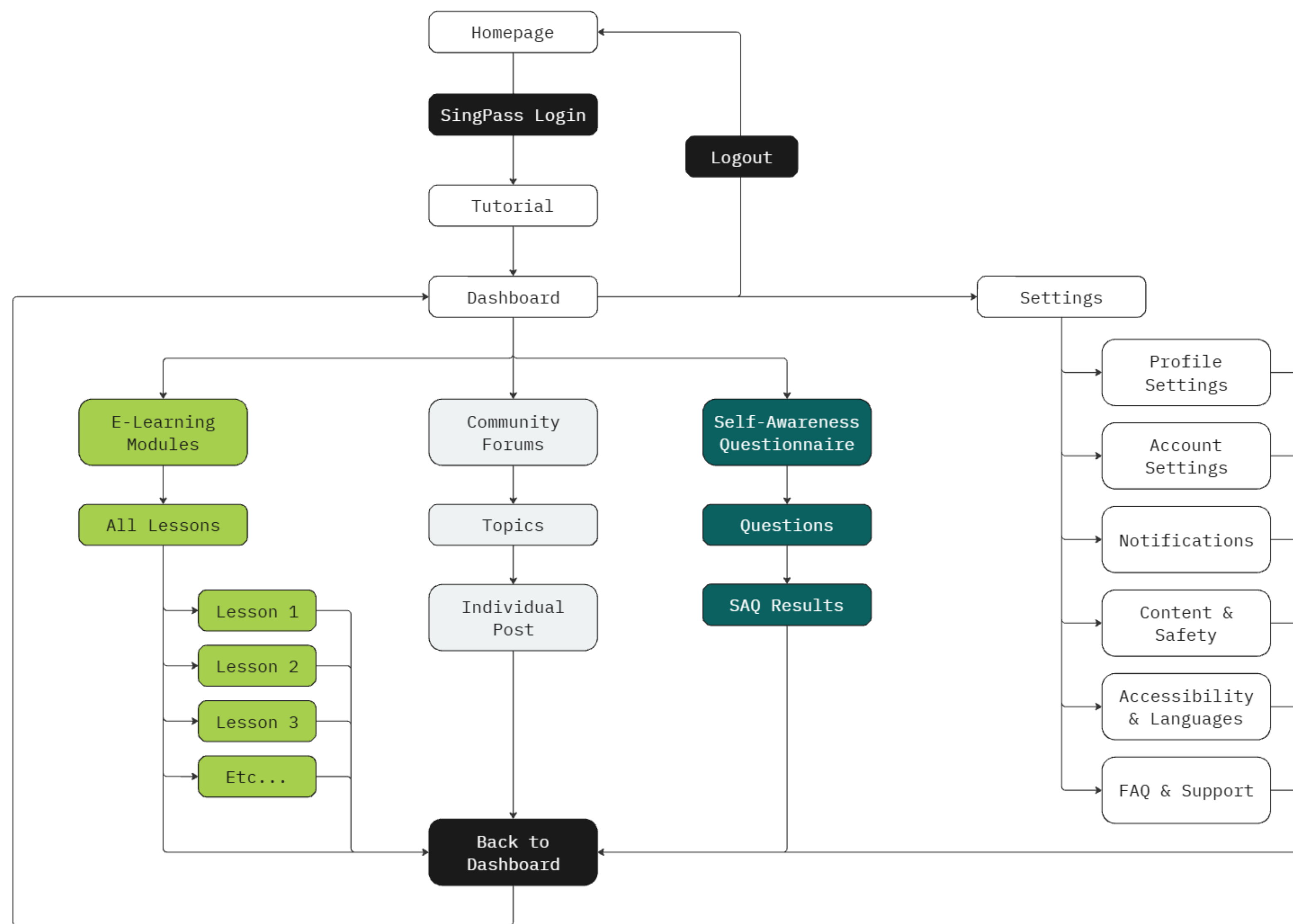
Knowledge-based Forums

dashboard integration

4. User Journeys

Proposed Architecture

Everything an e-learning portal needs to be functional.



User Journey

How can a user have a complete and satisfying experience at the Community Portal?



User Journey

User Journeys

Registration

36

58

Wants to invest
with CPFIS

Accesses CPF
Community Portal

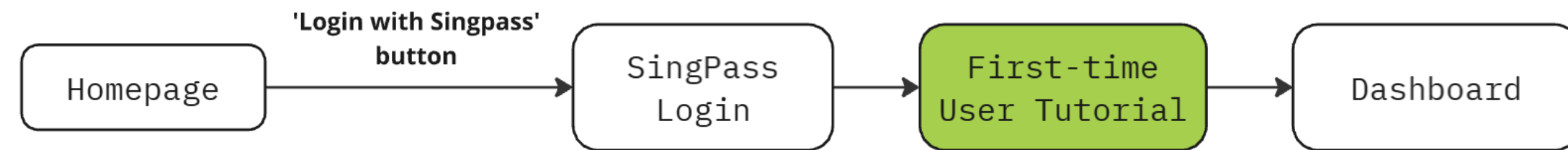
Studies online with
E-learning Modules

Takes and submits
the SAQ

Accesses Community
Forums for more info

Is informed and
ready for CPFIS

Registration



User Journey

Wants to invest with CPFIS

Accesses CPF Community Portal

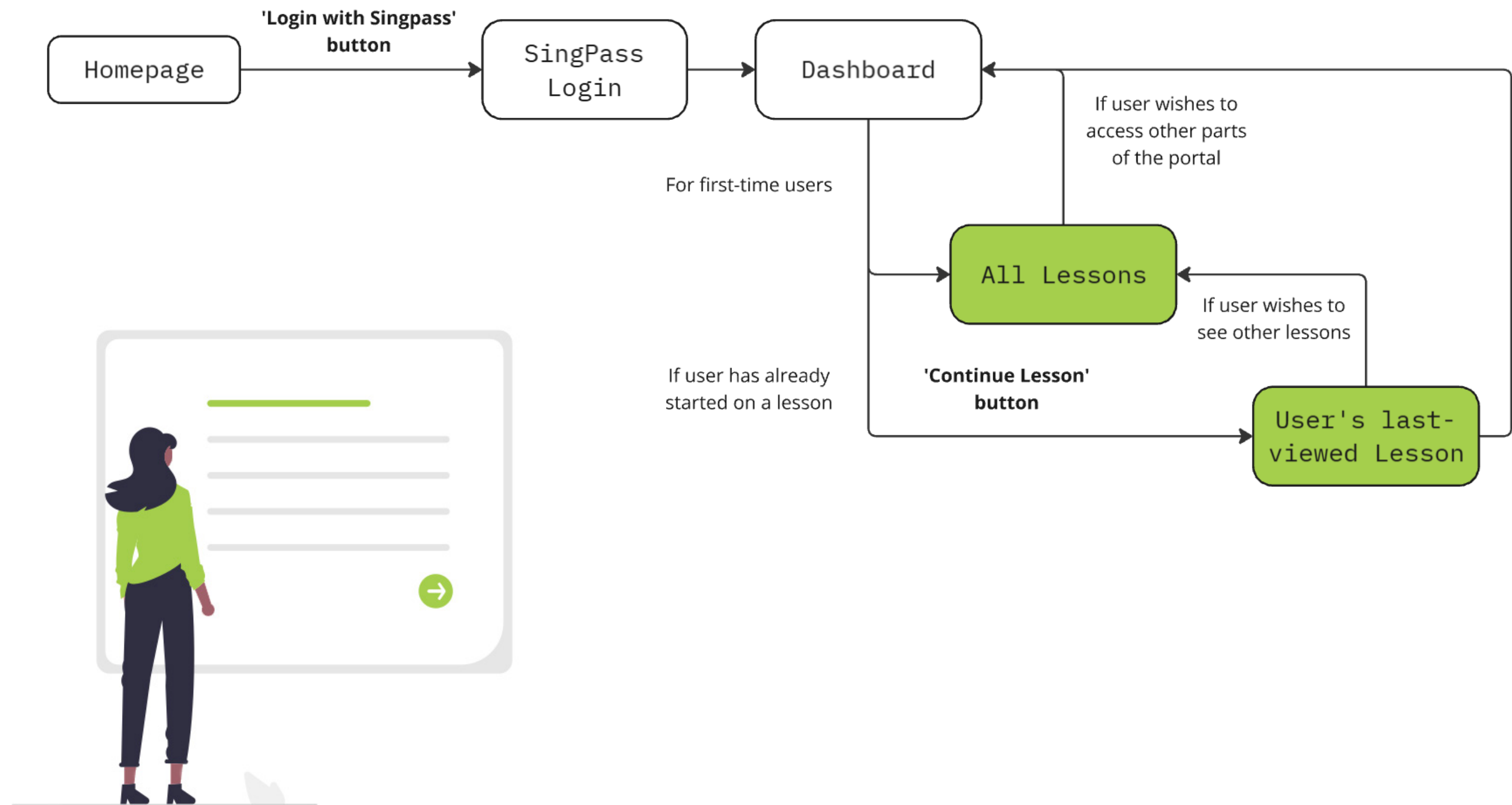
Studies online with E-learning Modules

Takes and submits the SAQ

Accesses Community Forums for more info

Is informed and ready for CPFIS

Start E-learning



User Journey

User Journeys

38

58

Take the SAQ

Wants to invest with CPFIS

Accesses CPF Community Portal

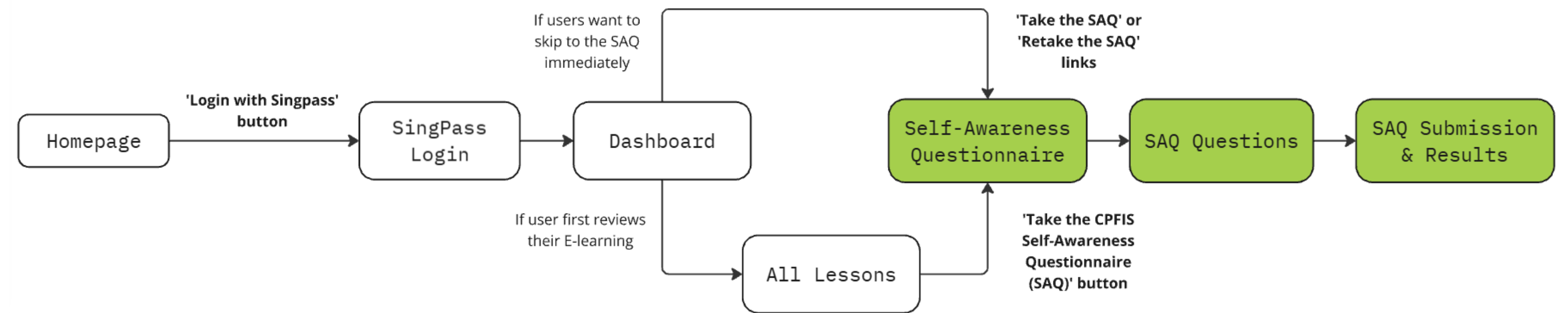
Studies online with E-learning Modules

Takes and submits the SAQ

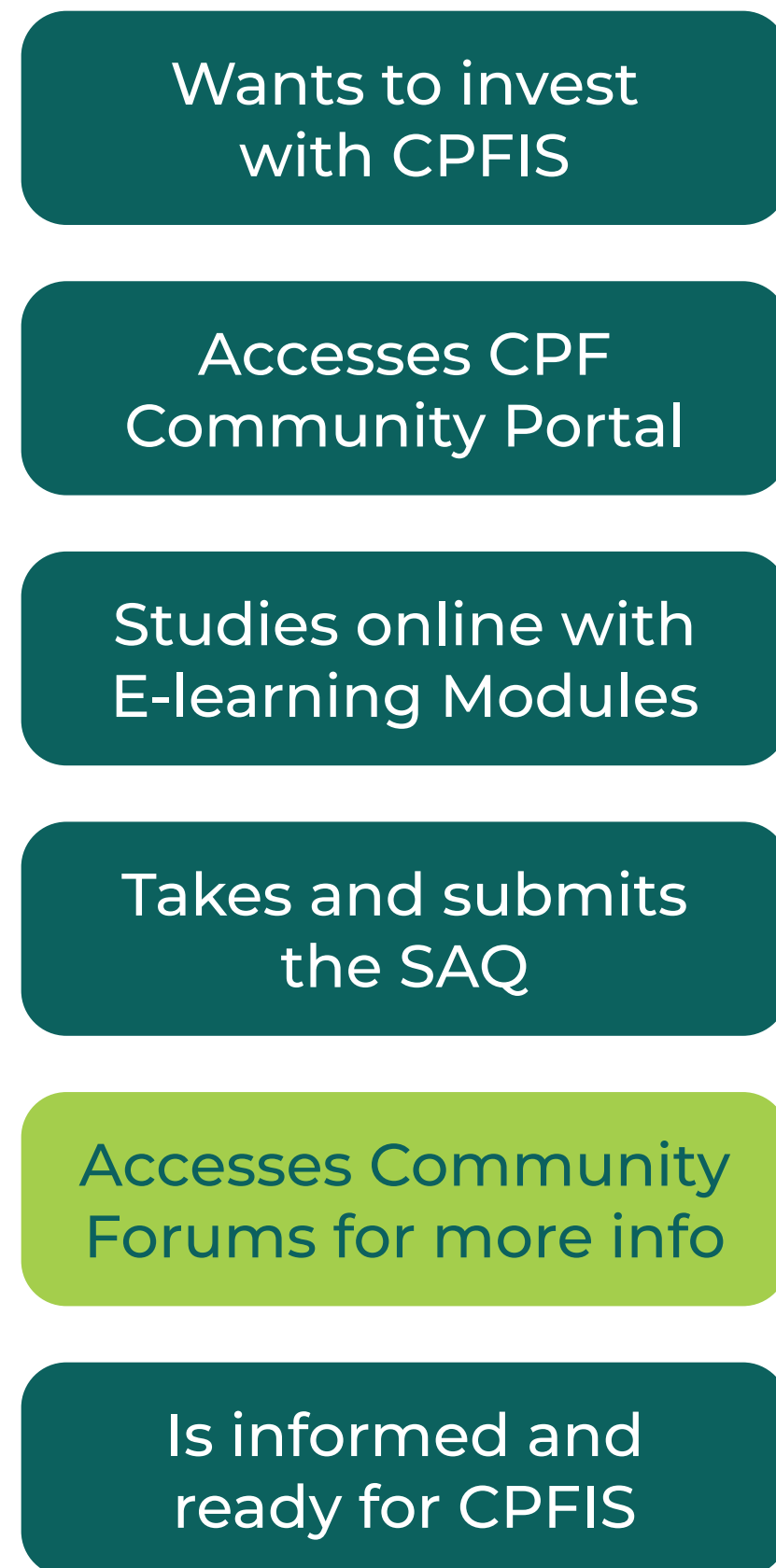
Accesses Community Forums for more info

Is informed and ready for CPFIS

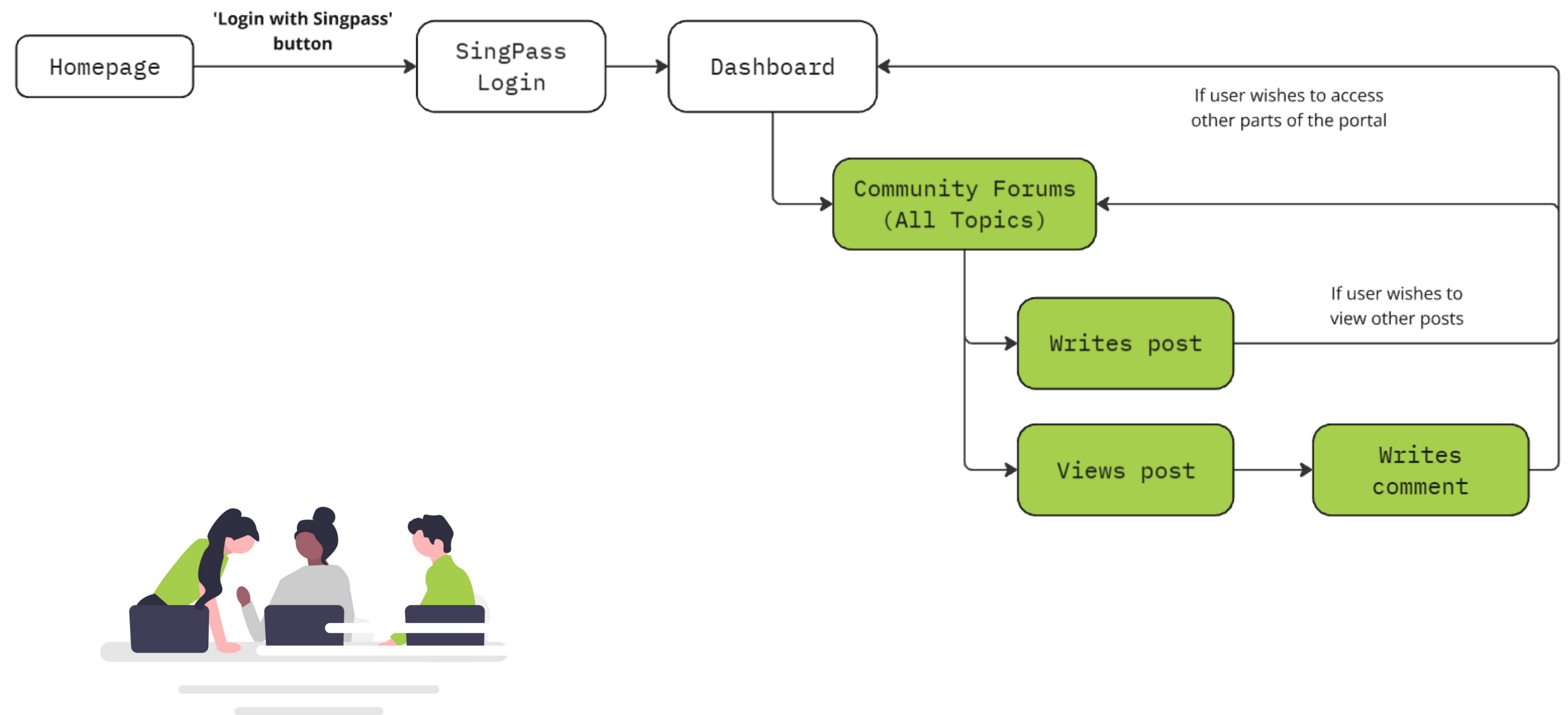
Take the SAQ



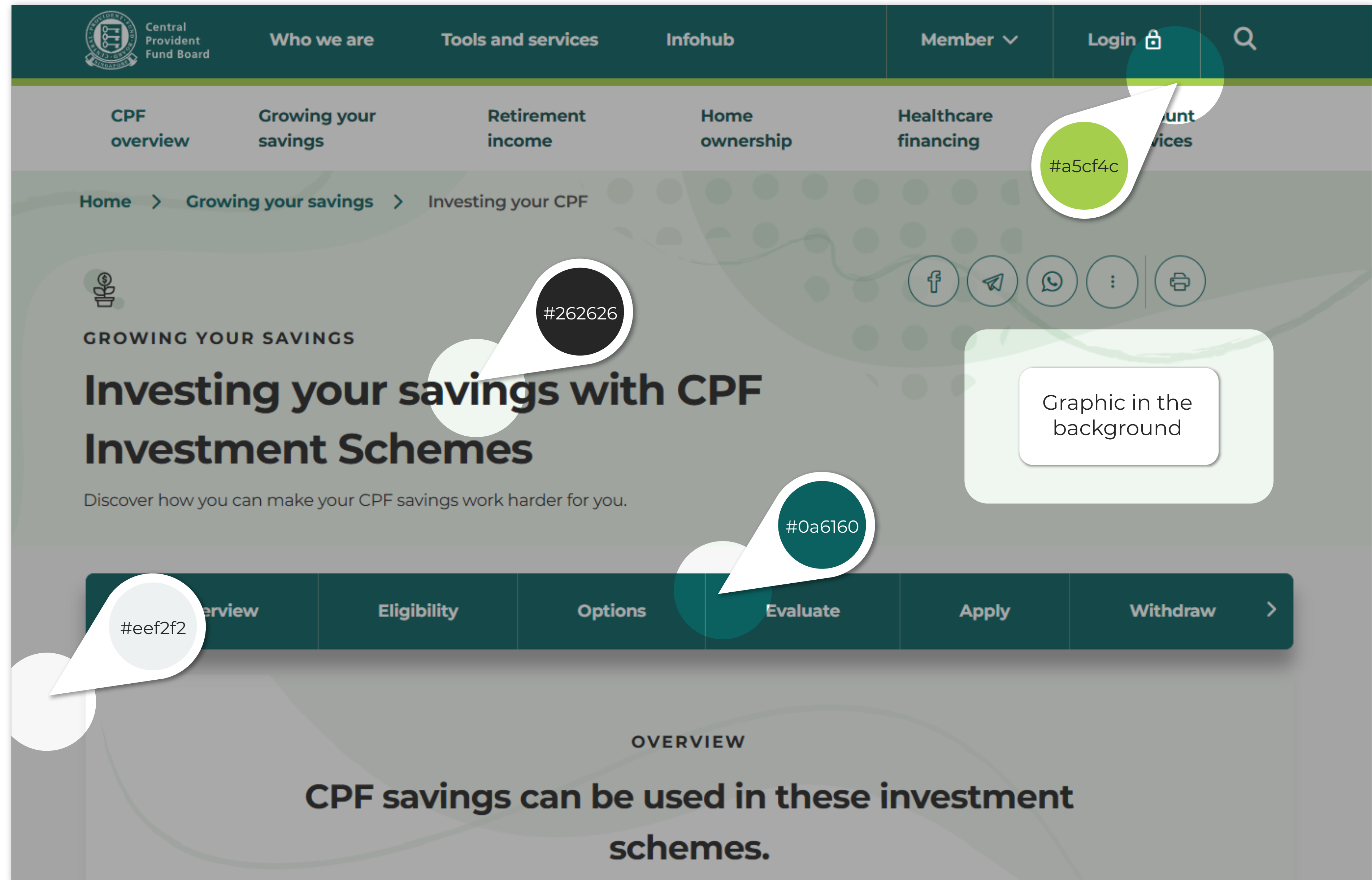
User Journey



Accessing Community Forums



5. Prototyping & Design



Brand Guide

All Fonts

Montserrat

H1

Title

H2

Page Headers

H3

Section Headers

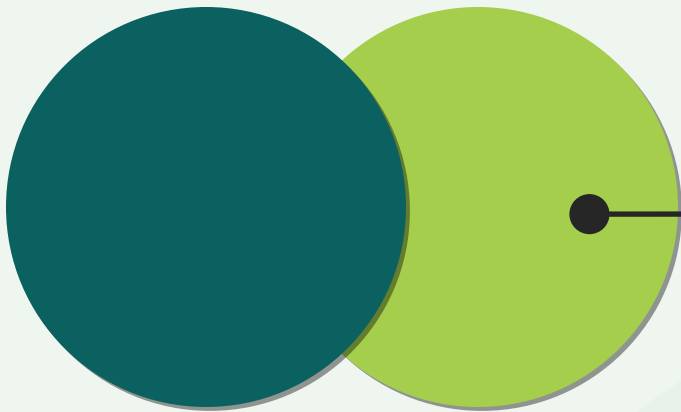
H4

Bold Text

P

Body Text

lime green
a5cf4c



0a6160
dark jade

dark grey
262626

polar white
eef2f2



ffffff
white

Moodboard

A light and airy feeling
despite the subject
matter, but also a safe
and educational space.

KEYWORDS:

Airy

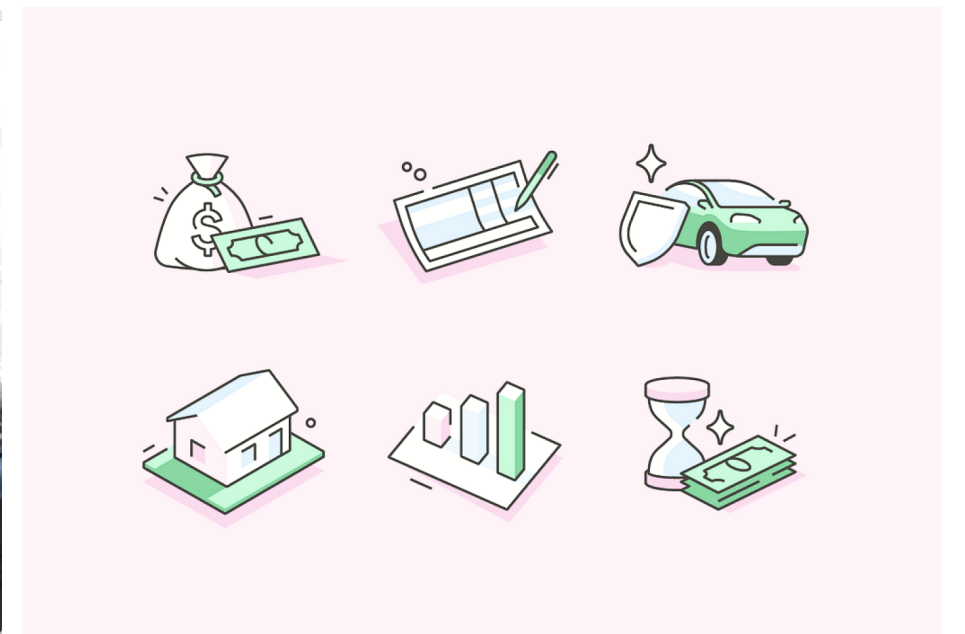
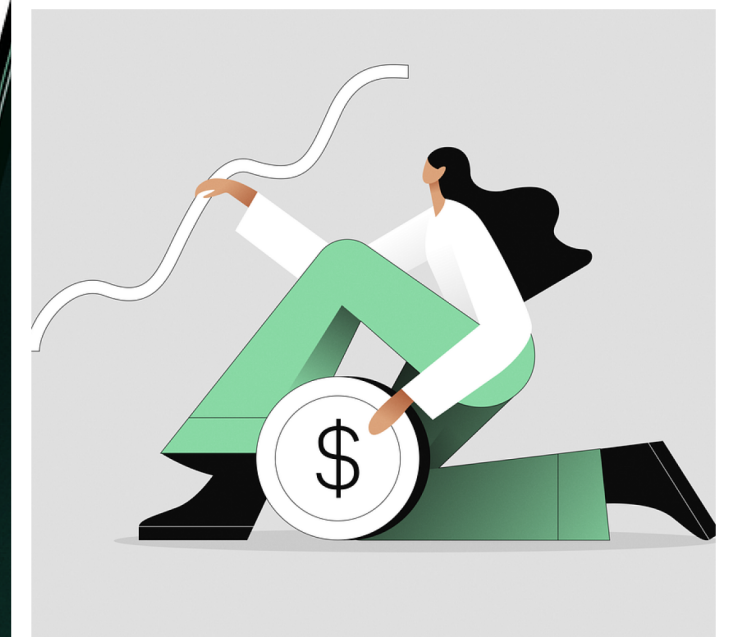
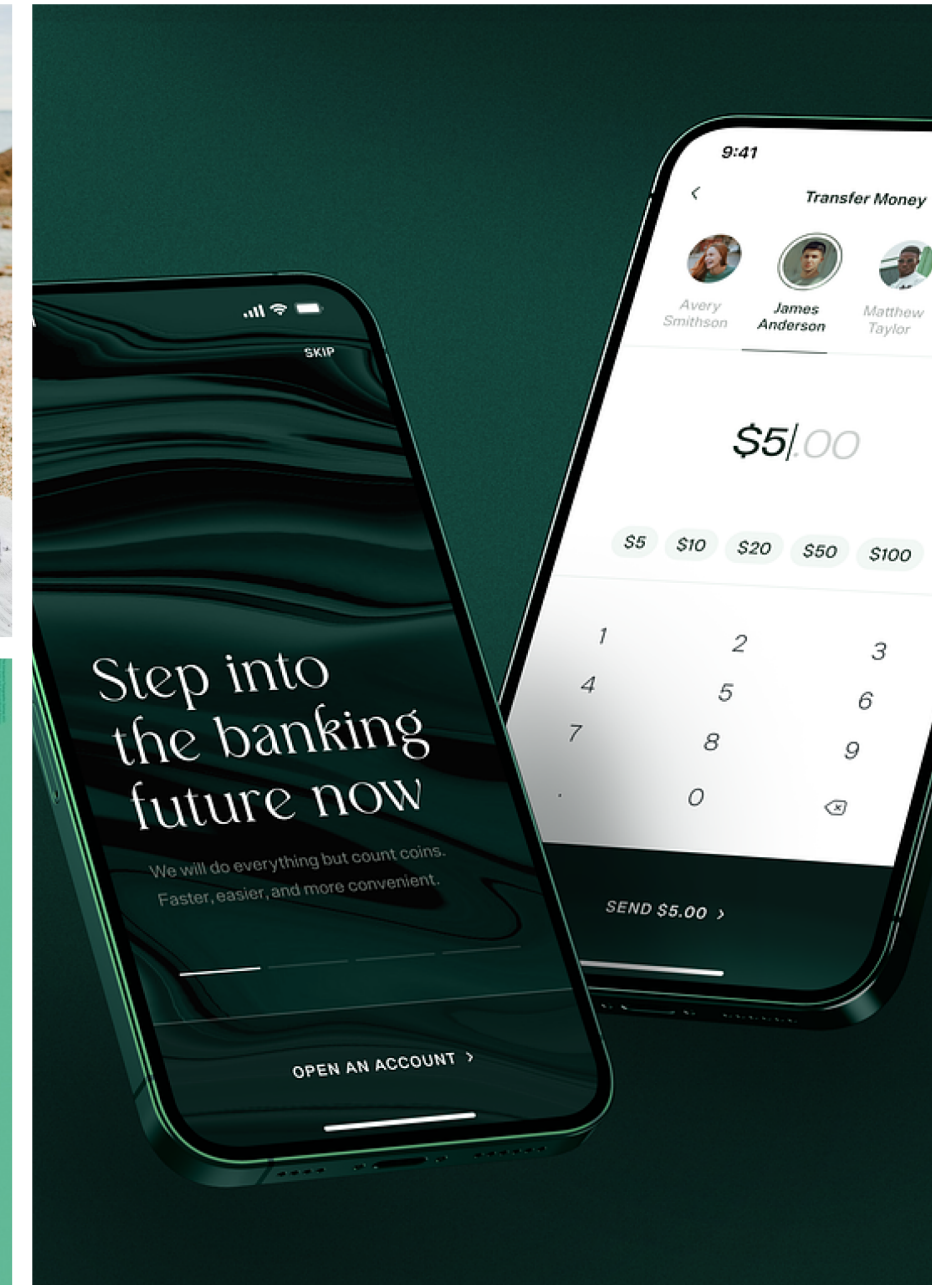
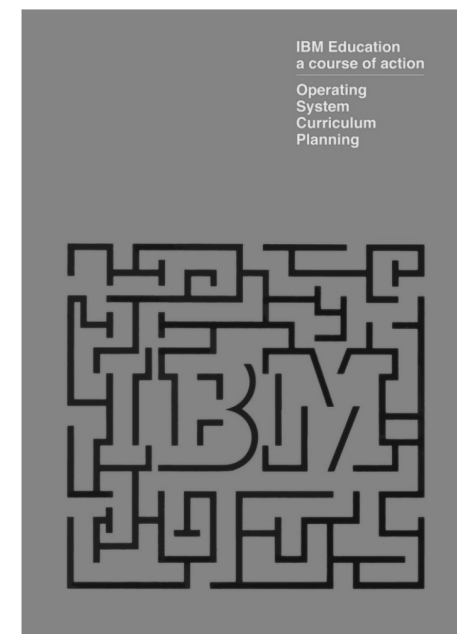
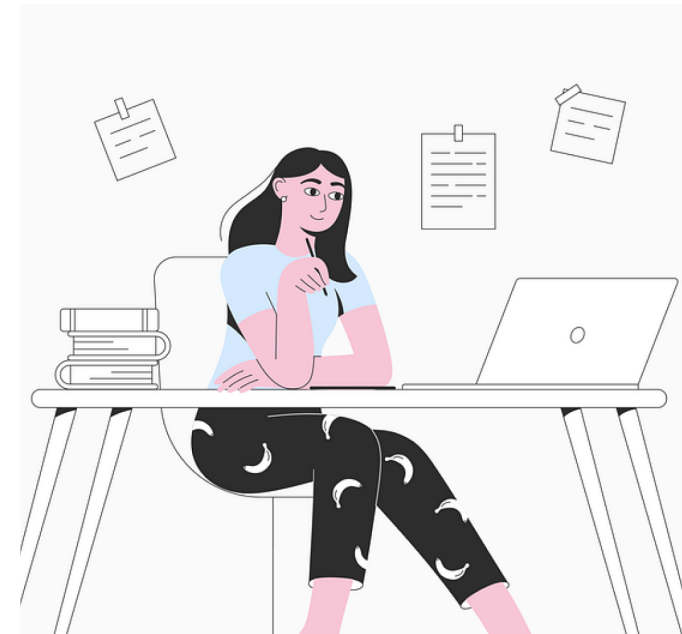
Light

Calming

Studious

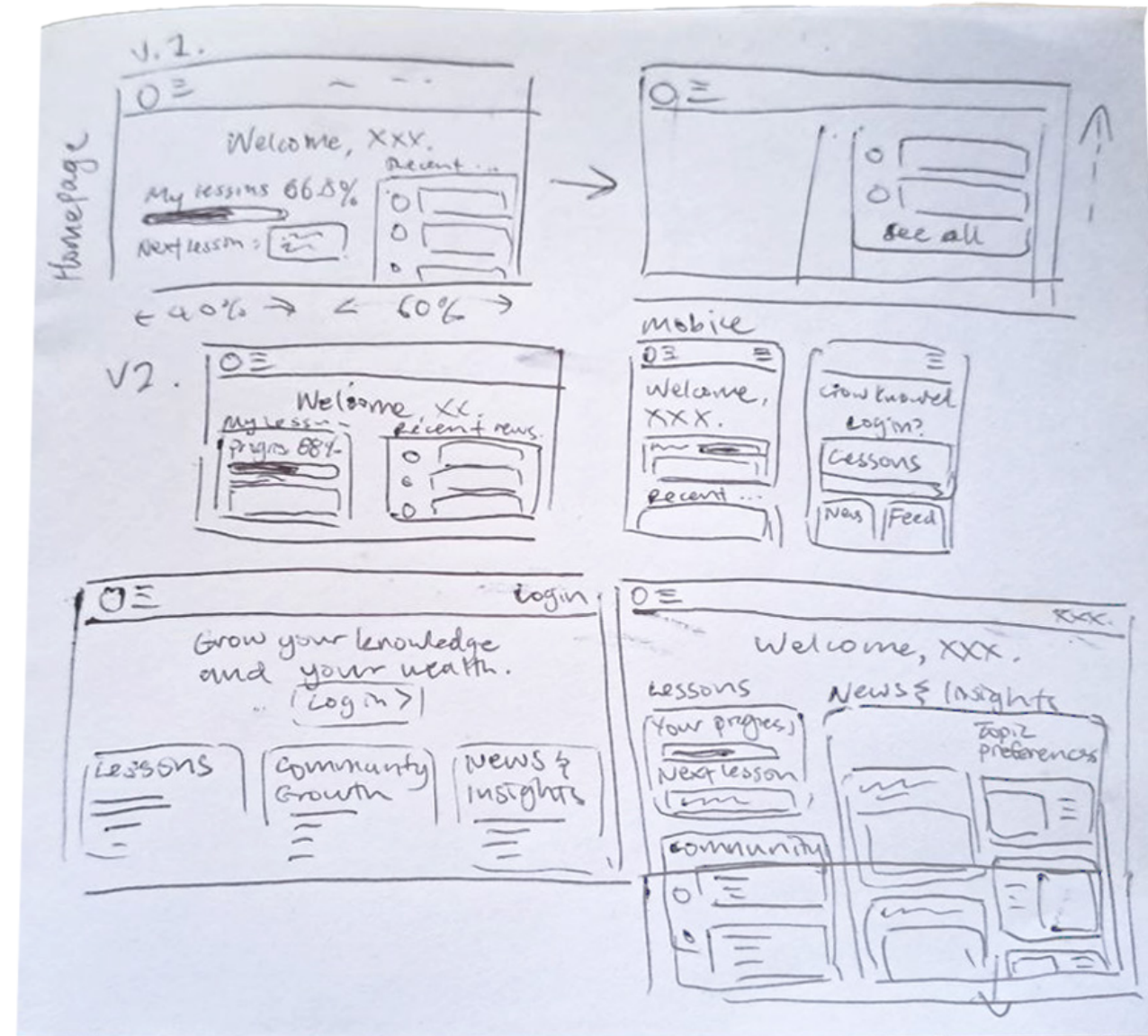
Verdant

Smart

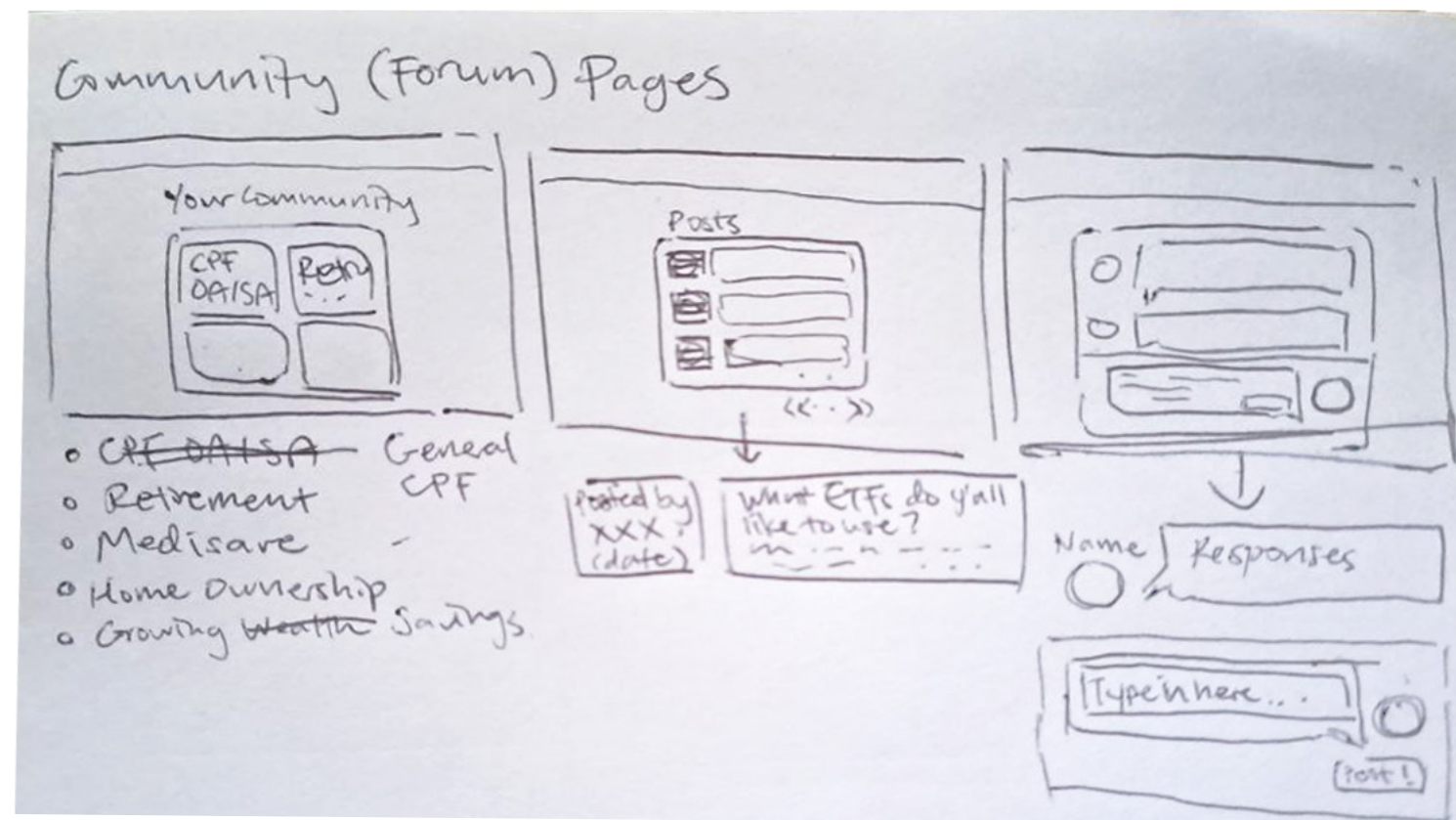
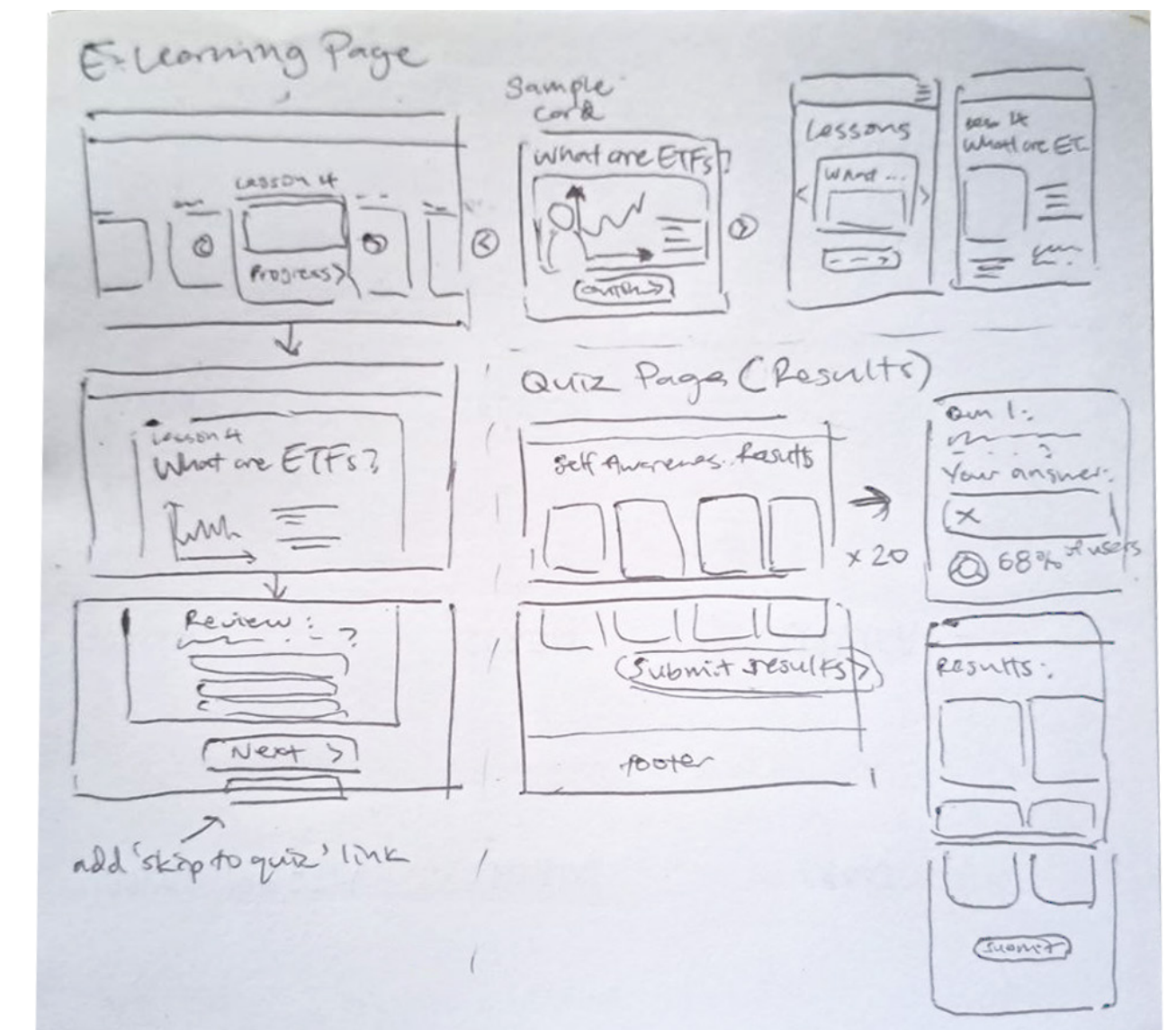


Low Fidelity

Homepage & Dashboard



Lessons & Quiz Pages



Community Forum Pages

45

Prototyping & Design

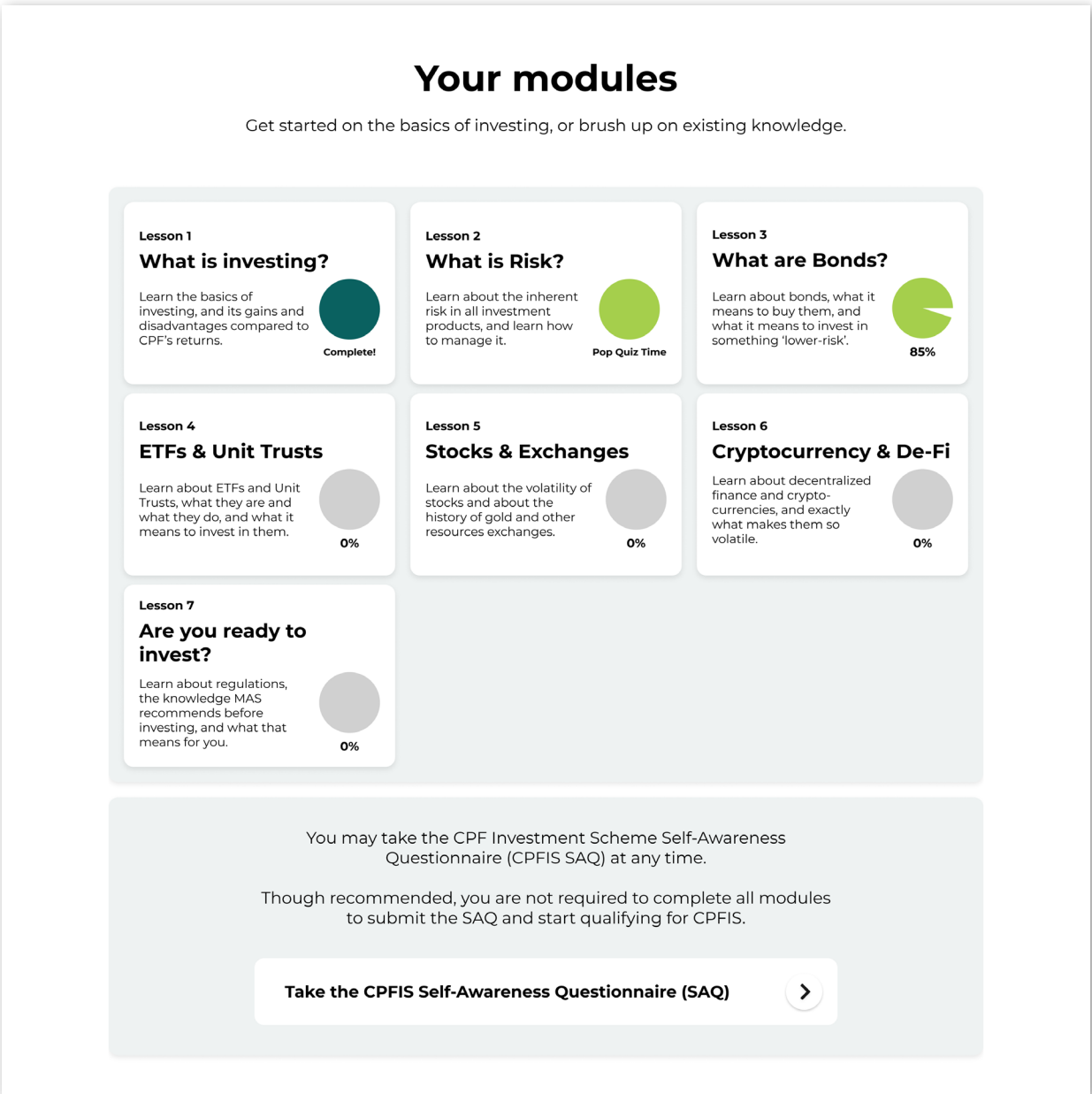
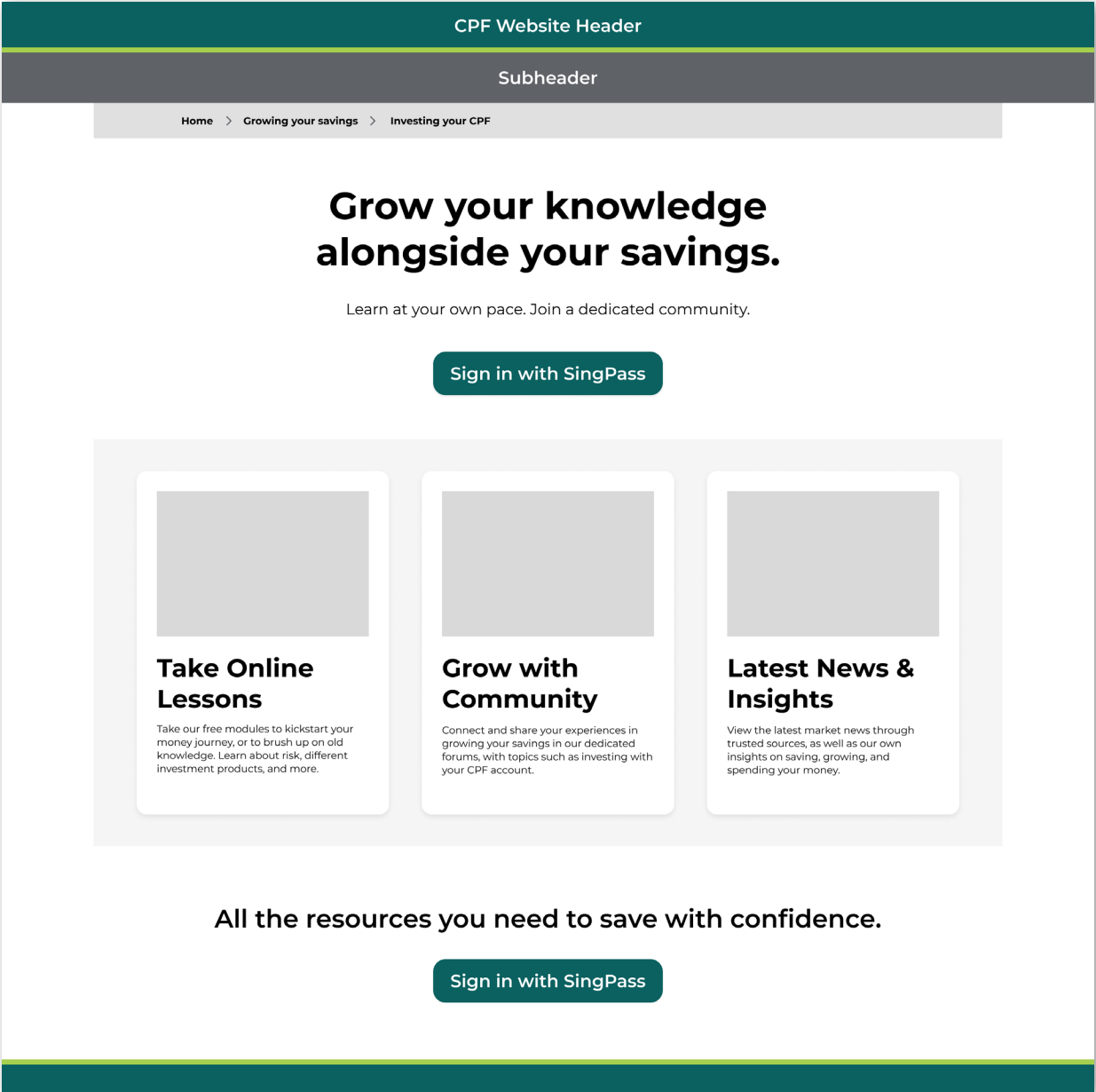
Mid-Fidelity

58

Mid-Fidelity

Interactive Prototype

https://www.figma.com/proto/0Ftcr7nAXVFMFD9qDvQkFs/CPF-Investments-Rework?node-id=1-2&t=BsUG1h2rS15ESaqq-8&scaling=scale-down-width&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=37%3A1583&hotspot-hints=0&hide-ui=1



soewetjane22 27 Aug 2024

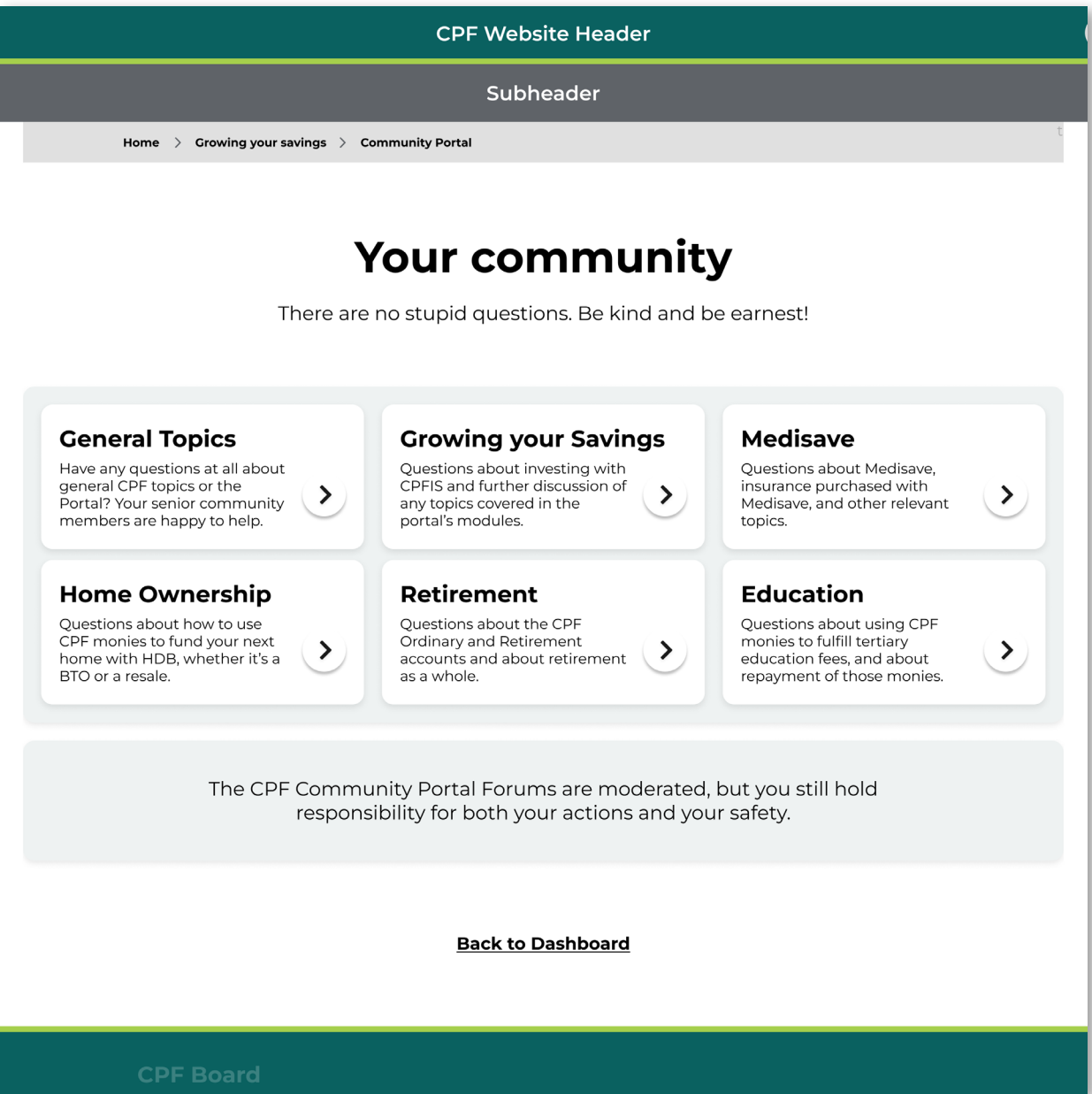
so how exactly does the RO% work

I don't really understand how CPF OA and SA can just generate and give us 2.3% and 4% respectively doesn't that money need to come from somewhere? can someone explain it to me like I'm 12 pls

OrlisaMalania 19 Aug 2024

If I don't use my Medisave for the year I just can't use it???

So if I just dont go hospital or anything I can't use my Medisave? It's just stuck in there? No way right



Mid-Fidelity Testing

Tests are done with **button hints off**, to facilitate unguided and unbiased user feedback.

Userflows to Test

- Access **Profile Settings**
- View all **lessons**
- 'Take' the **Self-Awareness Questionnaire**
- Access the **Community Forums**

Feelings & Feedback

- What do you **like and dislike**?
- Is there anything that can be more **accessible**?
- Is the way **information** is presented **easy to understand**?
- Is the design **cluttered** in any way?
- If you have used the **CPF website** before, how does this prototype feel **in comparison**?

Mid-Fidelity Feedback

Round 1

- UI design is beginning to look like actual CPF sites
- Features are clear and relatively intuitive

Round 2

- Users were all able to follow the suggested userflows
- UI is clean and straightforward
- Information is sectioned nicely
- ‘Looks good and feels good to use’

Round 3

- Readability is good
- Elements of the UI are arranged logically; not cluttered
- Tutorial and skip functions were liked, because CPF pages can be overwhelming to use
- The learning portal concept itself was well-liked

Validations

Feedback

- Users had immediate fearful reactions seeing the SingPass screen on its own
 - Some users got stuck on that page
 - Users were overwhelmed on what to click
 - UI feels cluttered and unfocused
-
- Some font is too small, especially for those with weakening eyesight
 - Red arrows on green may cause accessibility issues for colourblind people
 - Change ‘Turn off you profile visibility’ toggle to just ‘Profile Visibility’ and have it be off
 - Would be nice to expand the news blurbs
-
- Likes, Hots & Comments could be combined more cohesively
 - ‘Click on SingPass’ a bit heavyhanded
 - Inconsistent breadcrumbing
 - Multiple areas lead to the same one post

High-Fidelity User Journeys

A bird's-eye view of the
proposed final structure

> <https://www.figma.com/proto/NW7lsUtLYzllhiq46oleUa/CPF-Investments-High-Fi?node-id=1-2&node-type=FRAME&t=HL6I78OPfkoN4ZNM-1&scaling=scale-down-width&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=37%3A1583>

Warning! Links may open into **actual CPF sites** for presentation purposes.

View the internal **Sitemap** for a full list of prototype pages.

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Testing & High-Fidelity

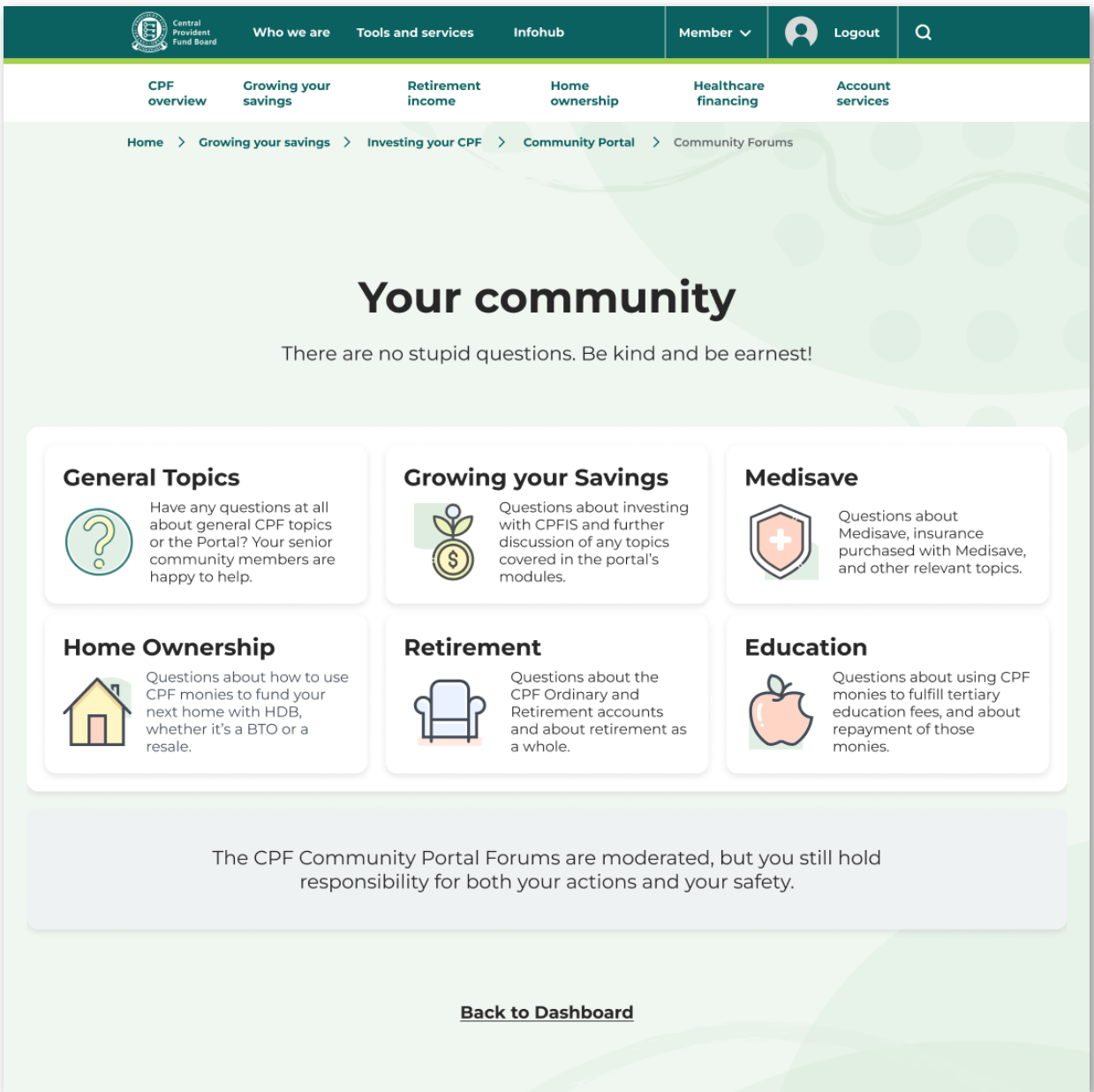
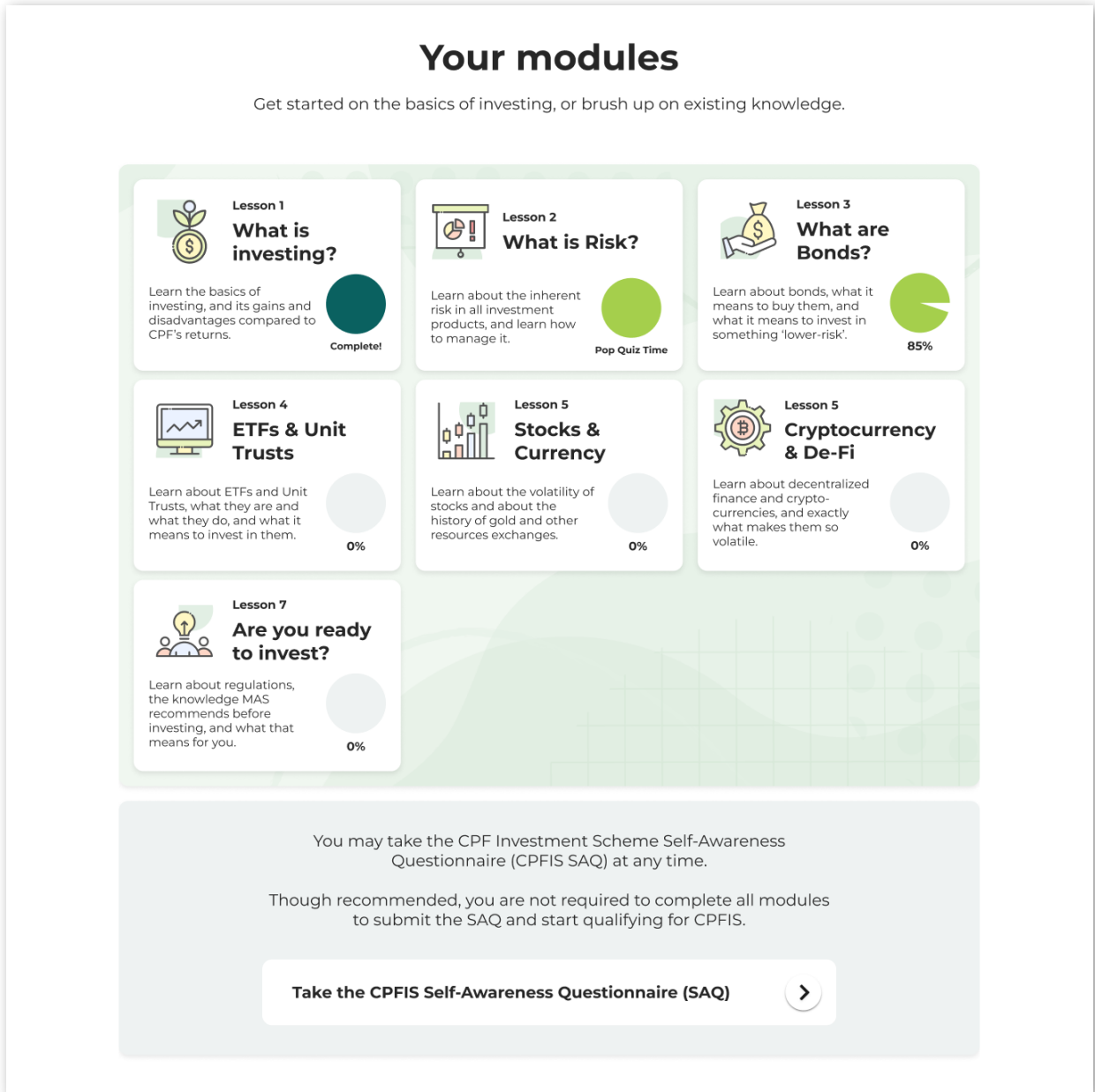
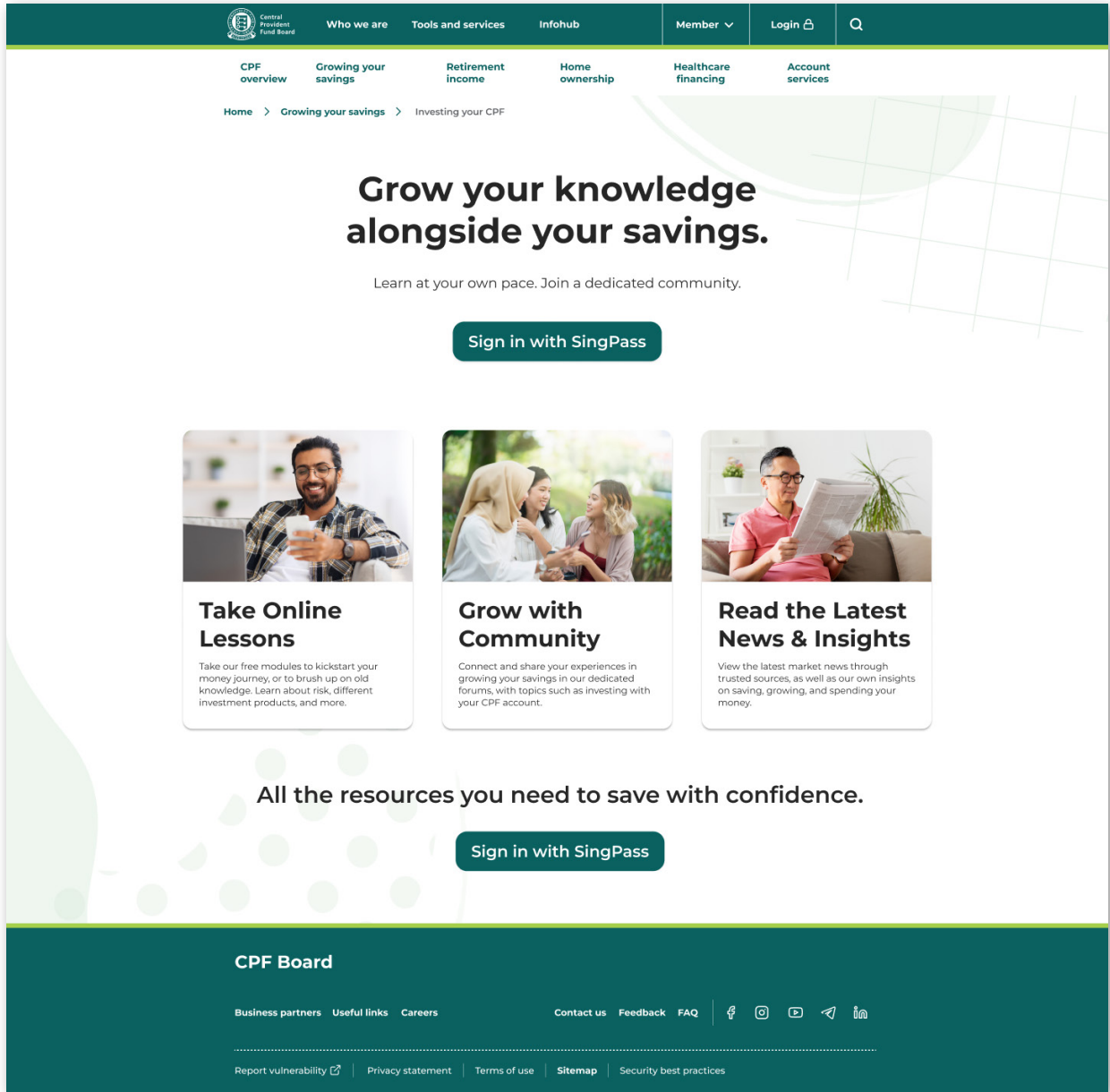
58

High Fidelity

High Fidelity

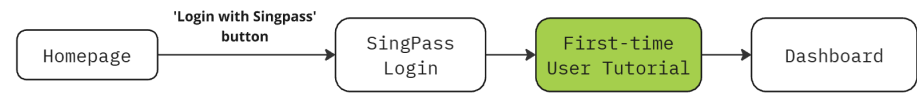
Interactive Prototype

https://www.figma.com/proto/0Ftcr7nAXVFMFD9qDvQkFs/CPF-Investments-Rework?node-id=1-2&t=BsUG1h2rS15ESaqq-8&scaling=scale-down-width&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=37%3A1583&hotspot-hints=0&hide-ui=1



Testing & High-Fidelity

Registration



Wants to invest with CPFIS

Accesses CPF Community Portal

Studies with E-learning Modules

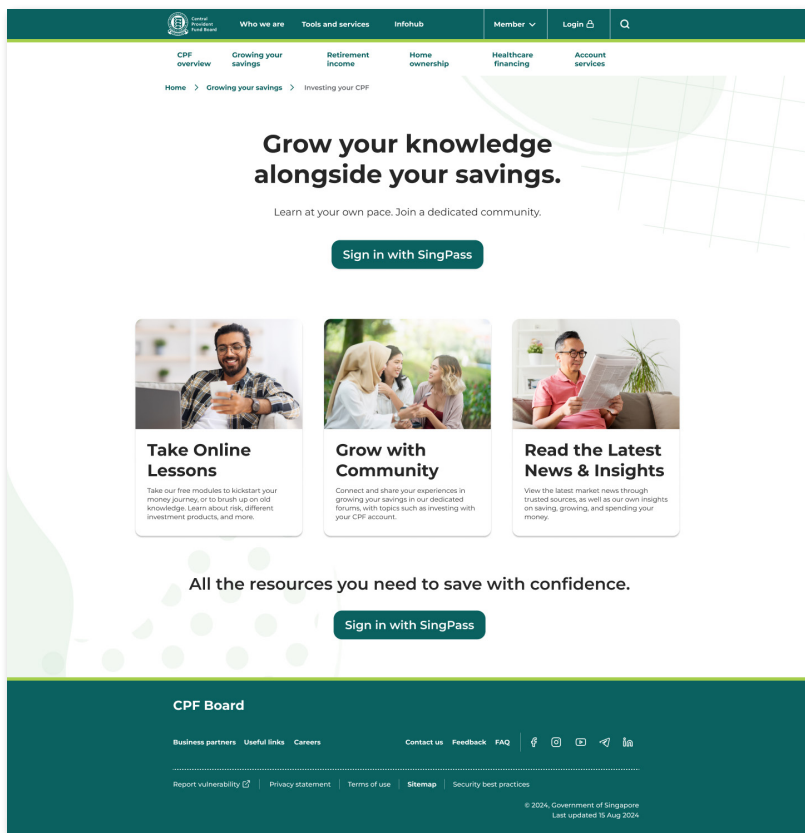
Takes and submits the SAQ

Accesses Community Forums for more info

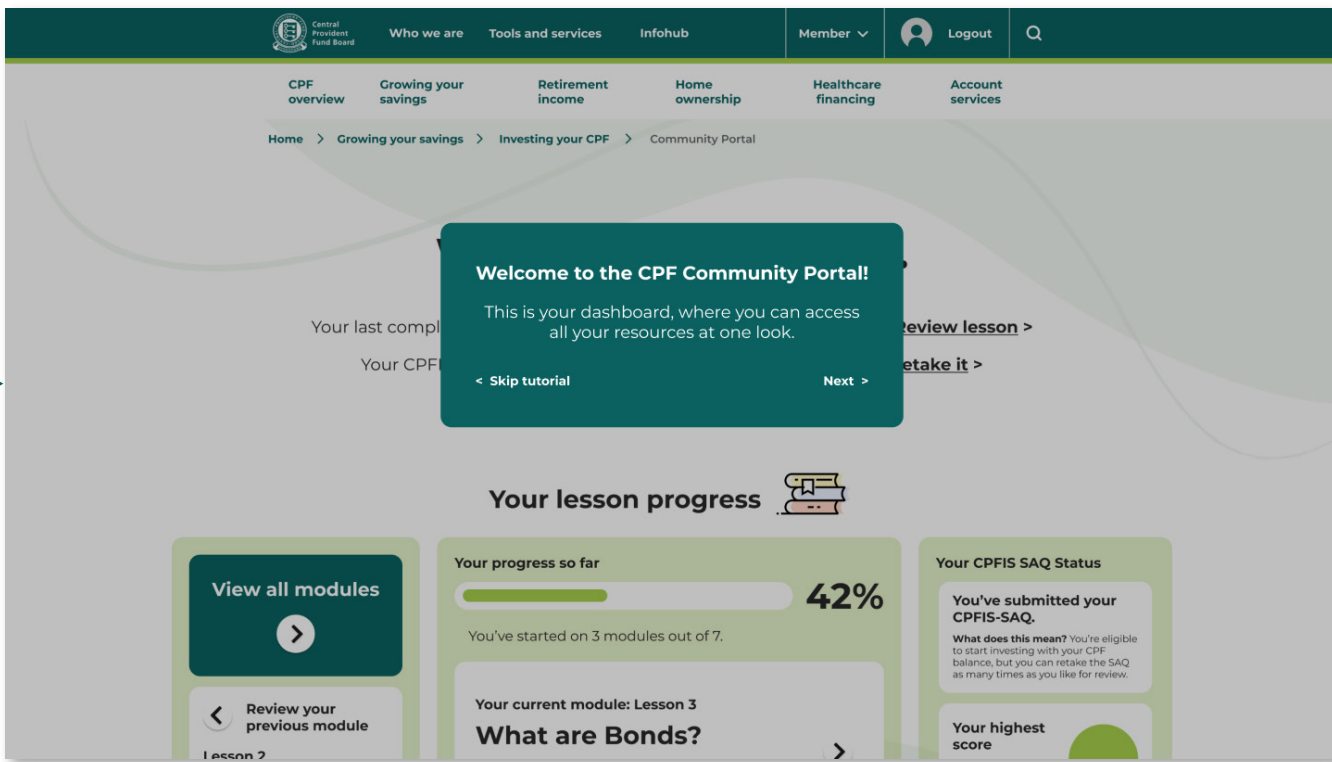
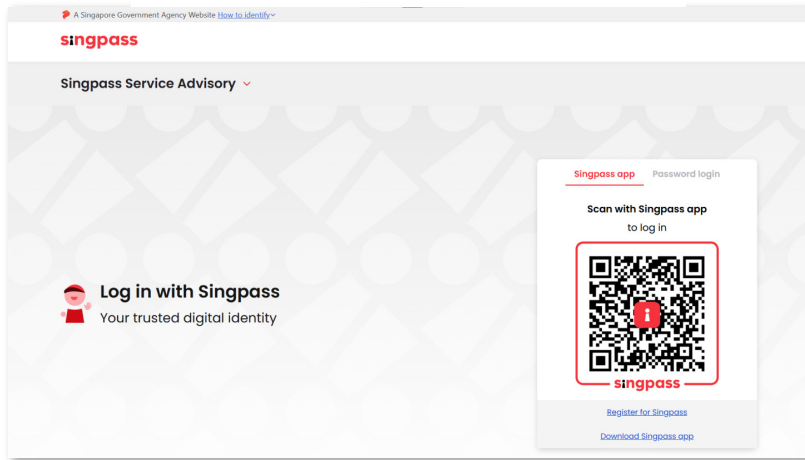
Is informed and ready for CPFIS

Registration

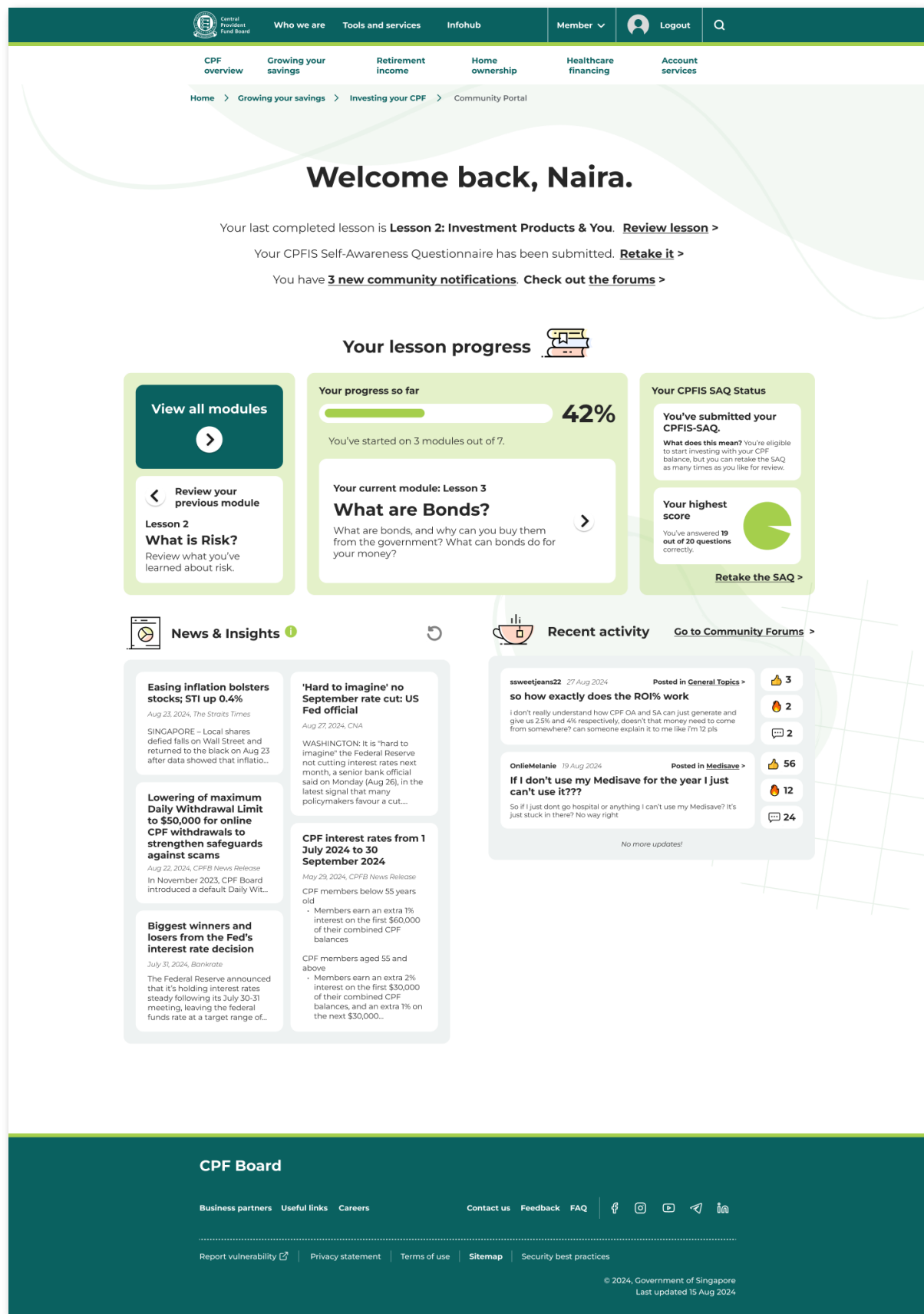
Homepage



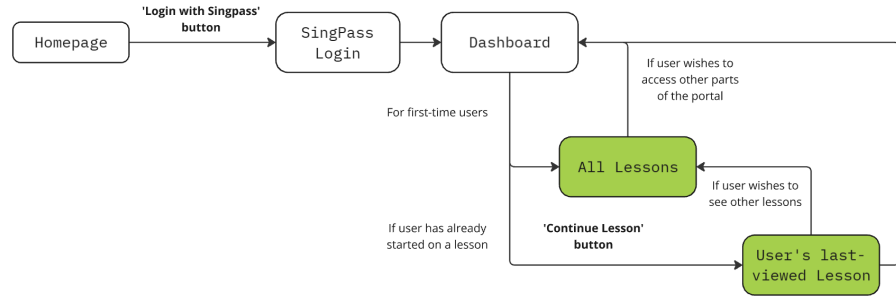
SingPass Login



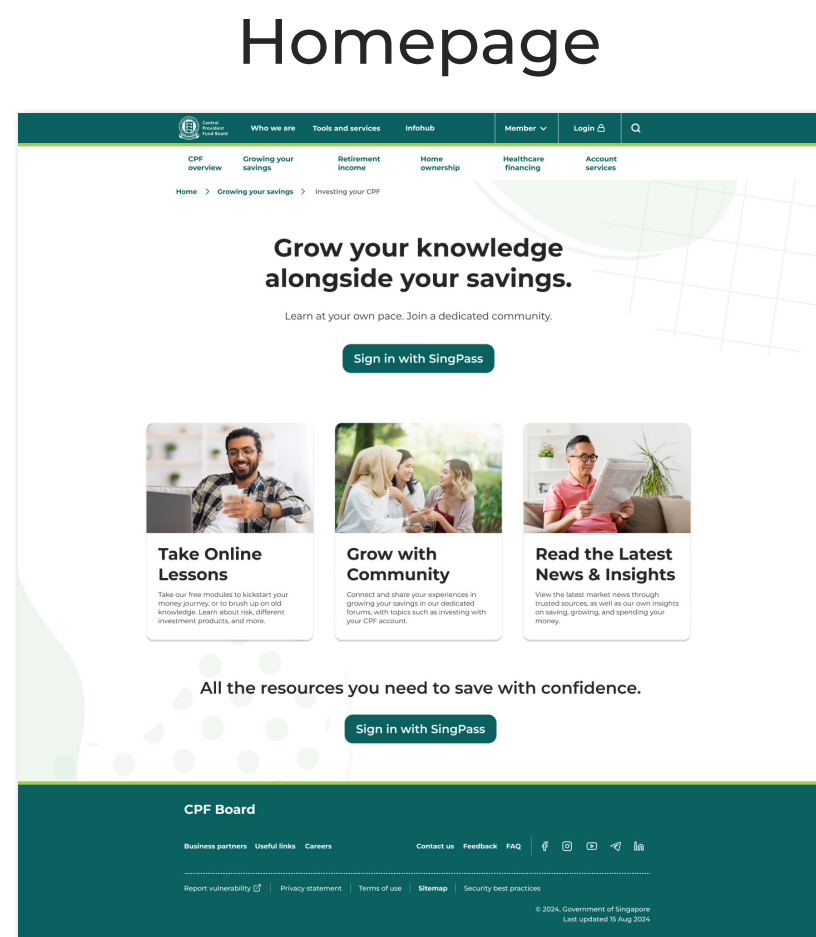
First-time User Tutorial



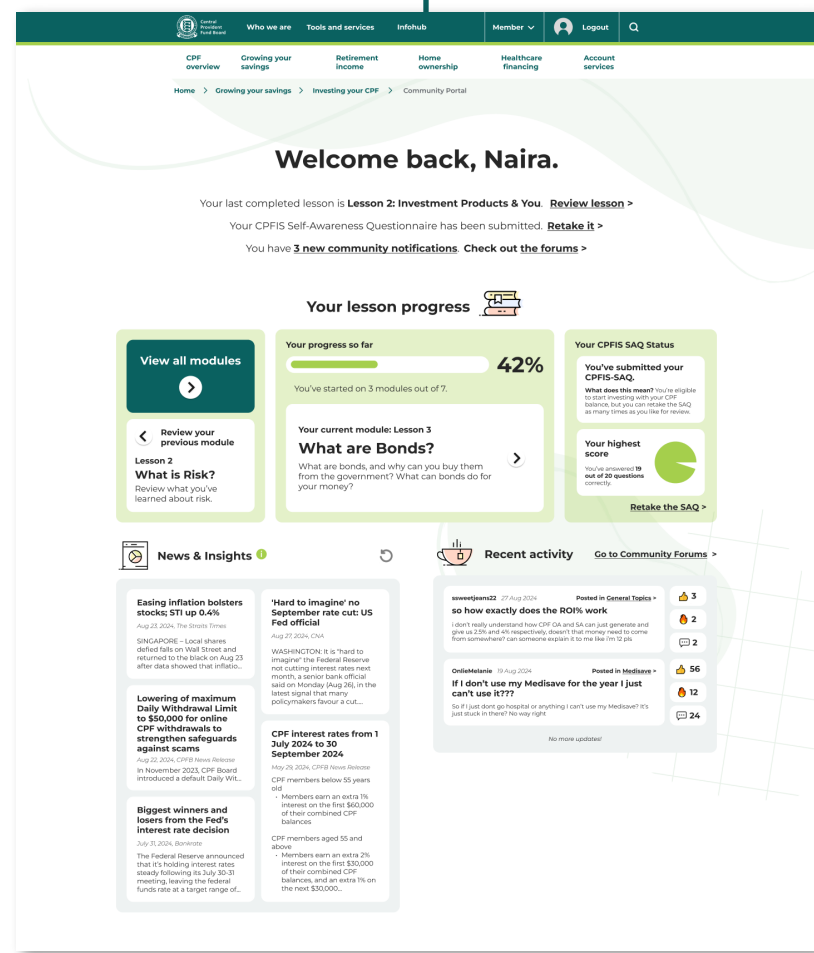
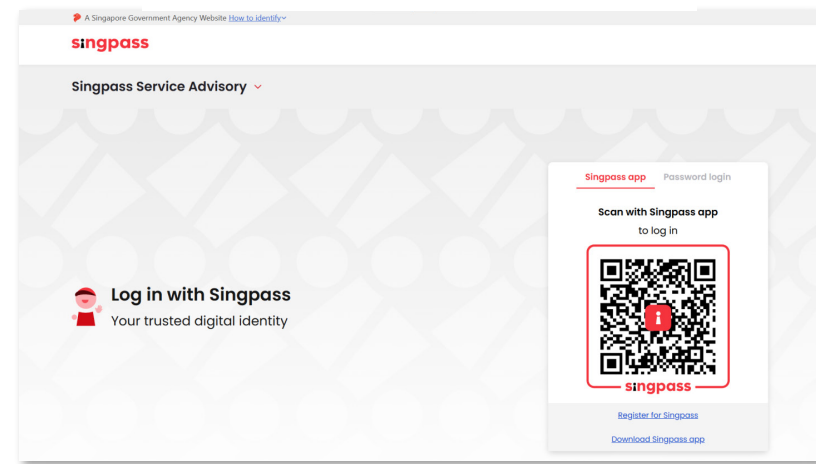
Dashboard



Start E-Learning



SingPass Login

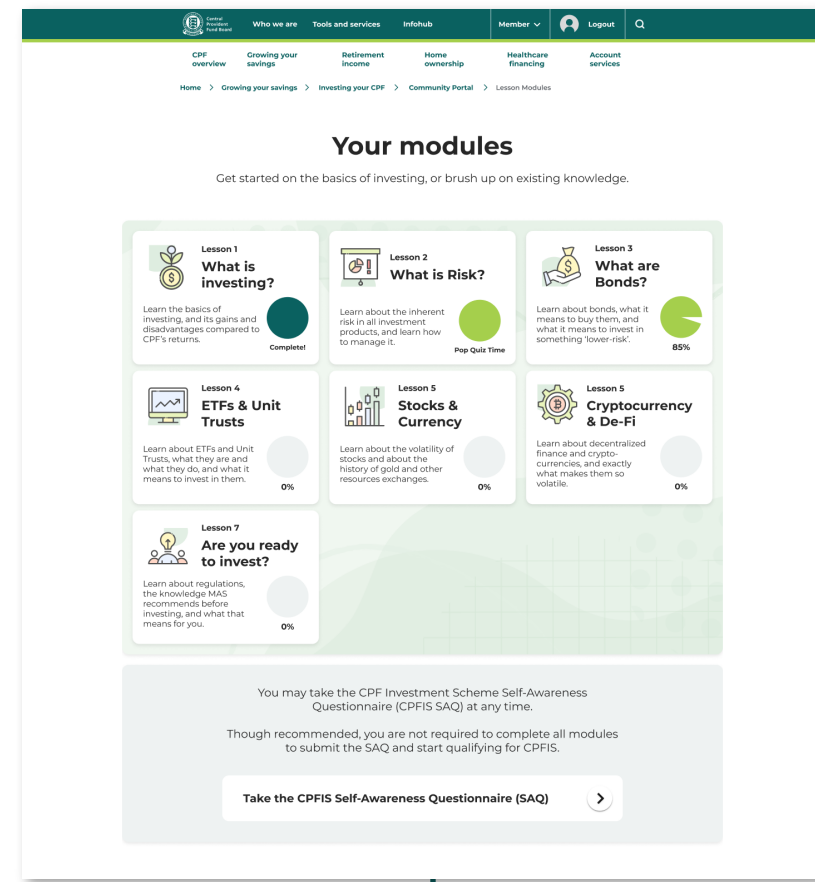


Dashboard

If user has already started on a lesson

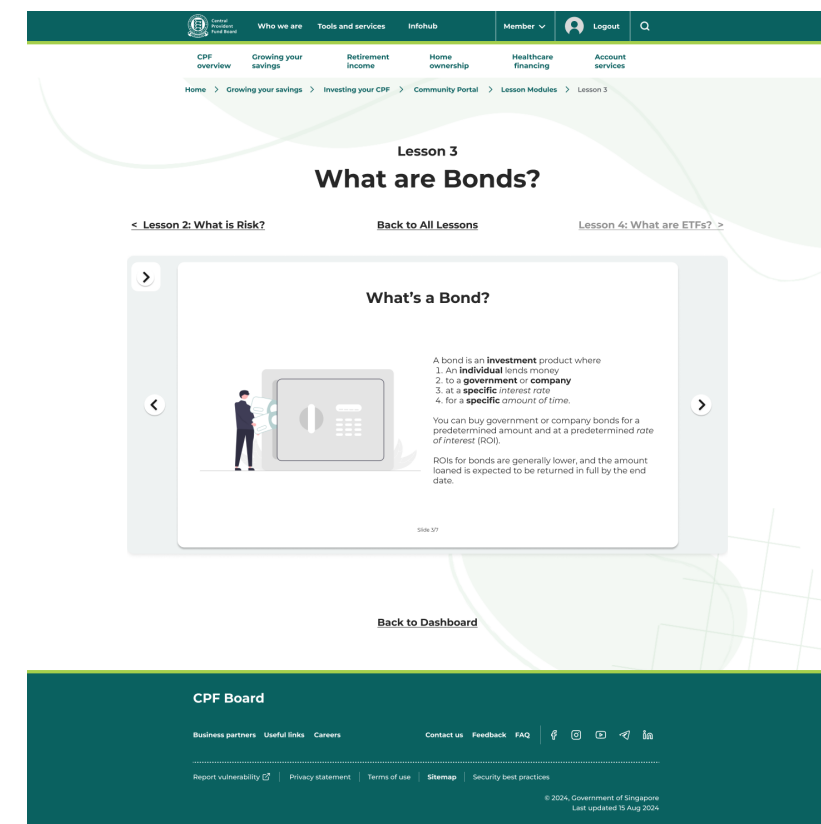
For first-time users

All Modules



If user wants to return to the dashboard

Last-saved Lesson



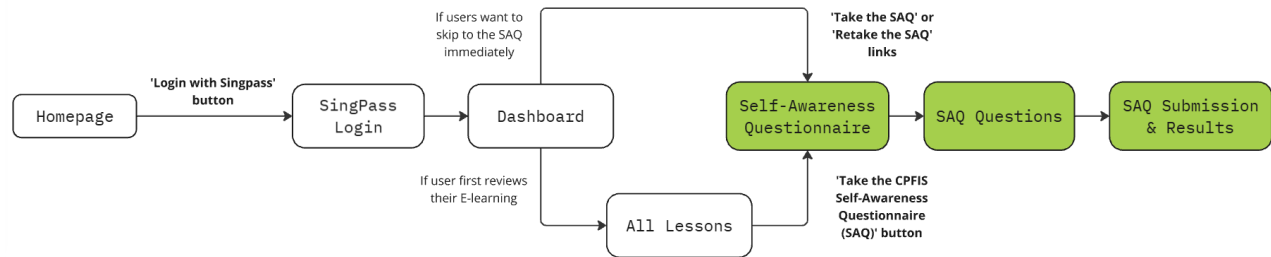
If user wishes to view other lessons

52

Testing & High-Fidelity

Take the SAQ

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Wants to invest with CPFIS

Accesses CPF Community Portal

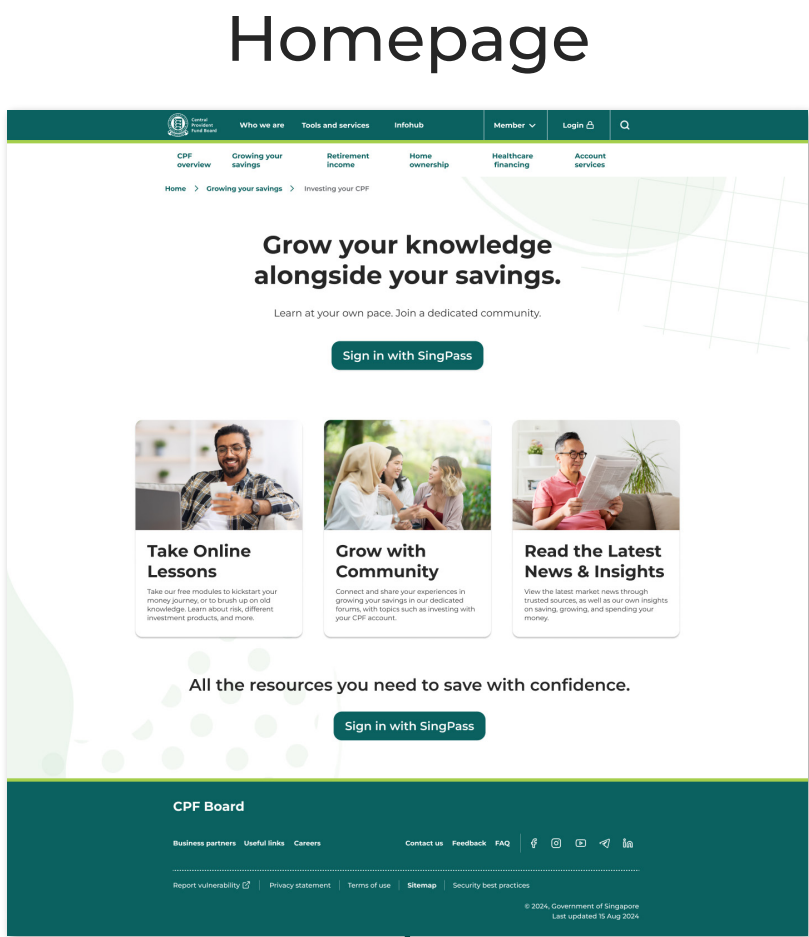
Studies with E-learning Modules

Takes and submits the SAQ

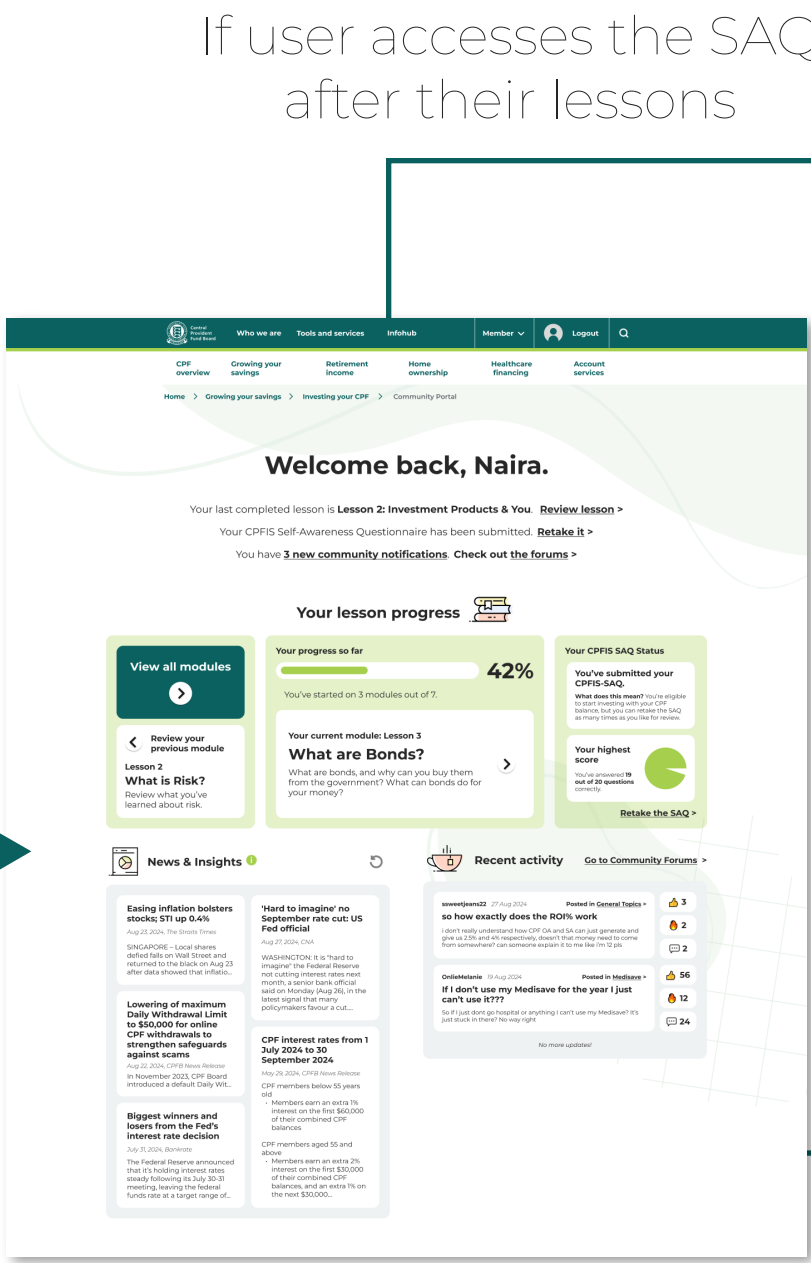
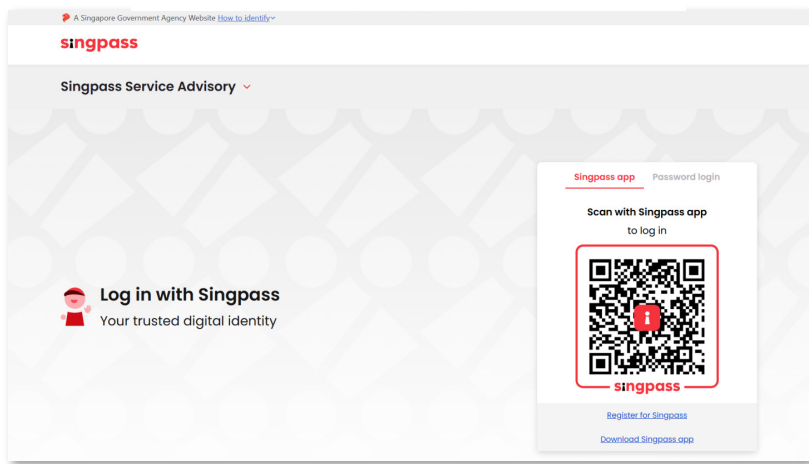
Accesses Community Forums for more info

Is informed and ready for CPFIS

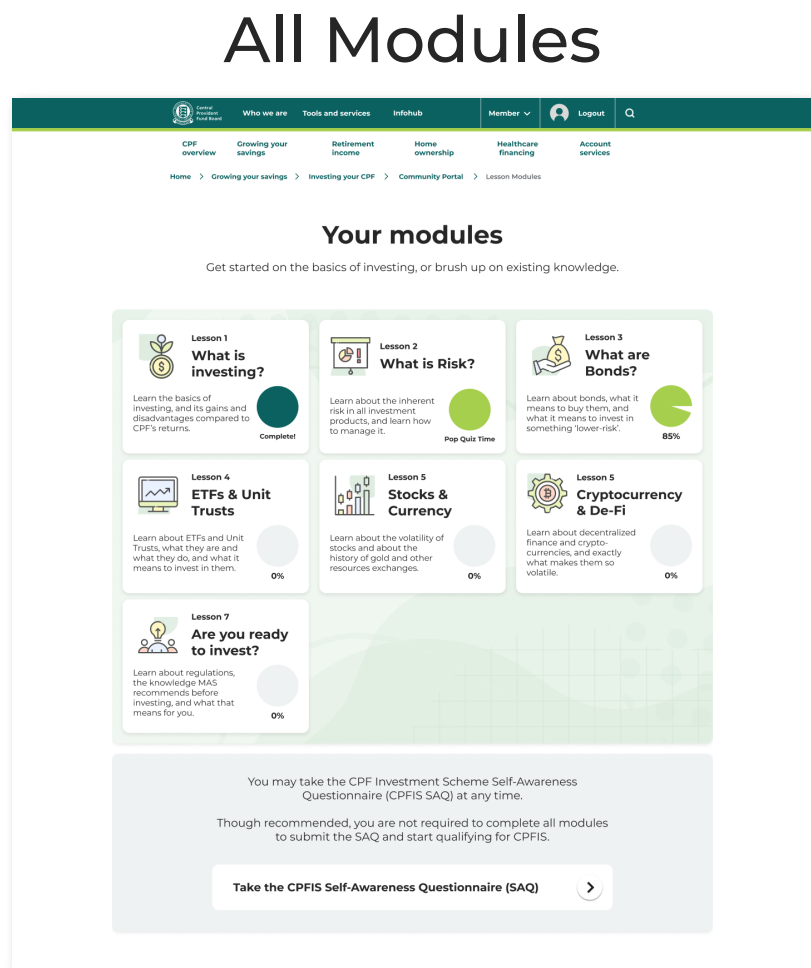
Take the SAQ



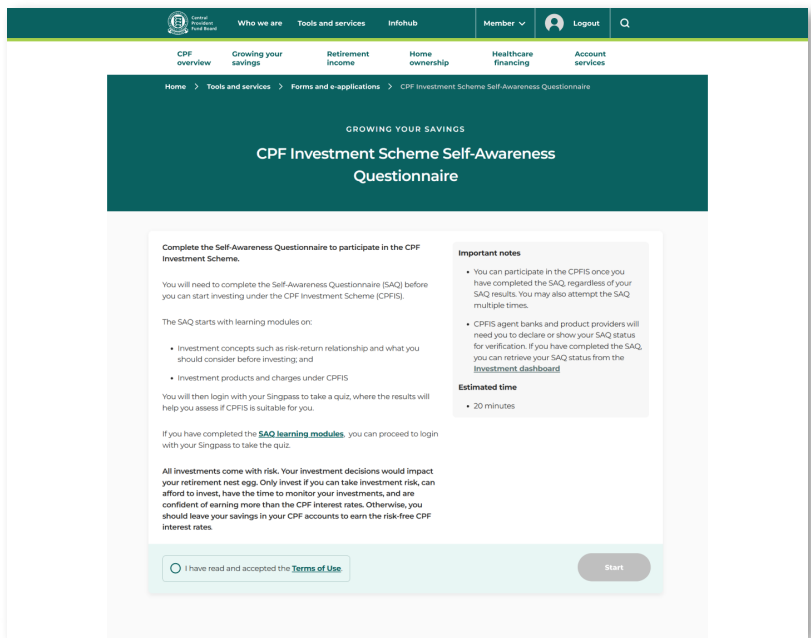
SingPass Login



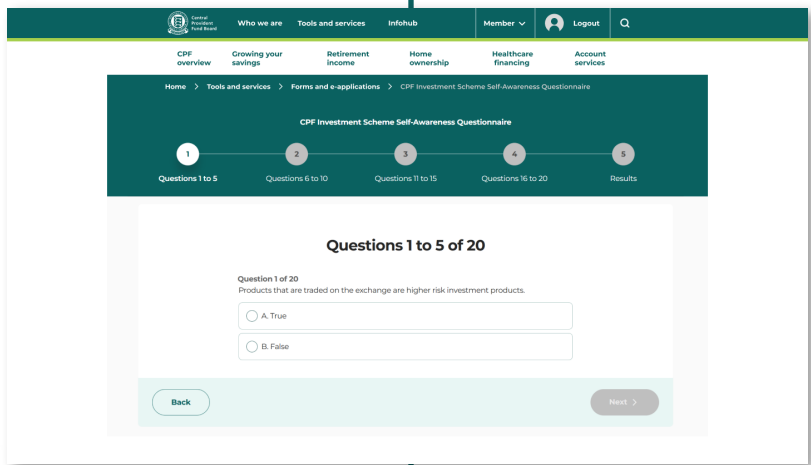
Dashboard



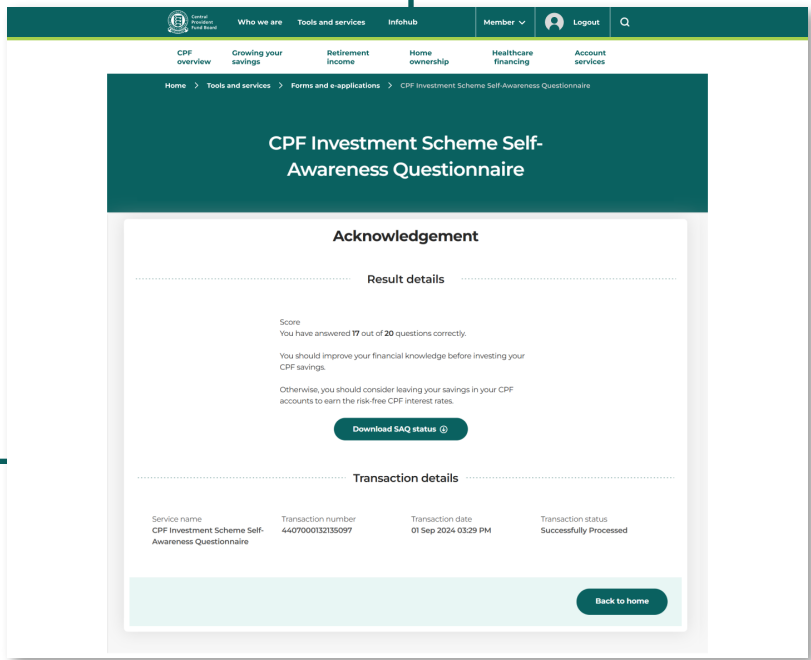
All Modules



SAQ Start



SAQ Questions



Submit SAQ Results

All Modules

If user wants to return to the dashboard

53

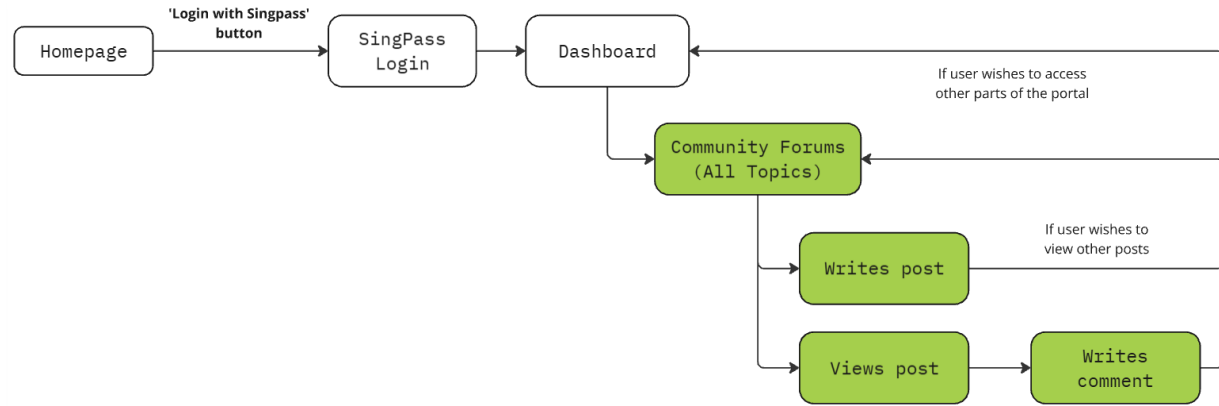
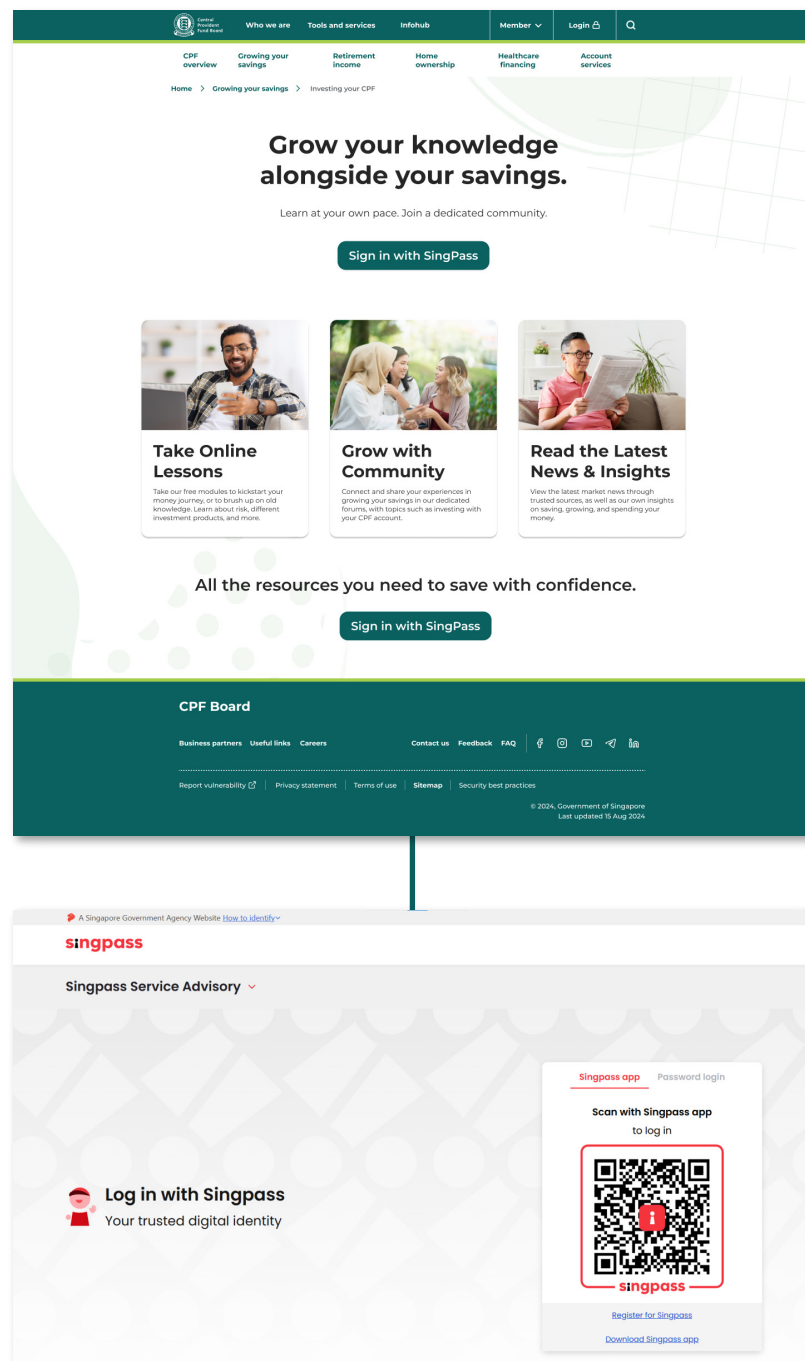
Testing & High-Fidelity

Community Forums

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Homepage

SingPass Login



Wants to invest with CPFIS

Accesses CPF Community Portal

Studies with E-learning Modules

Takes and submits the SAQ

Accesses Community Forums for more info

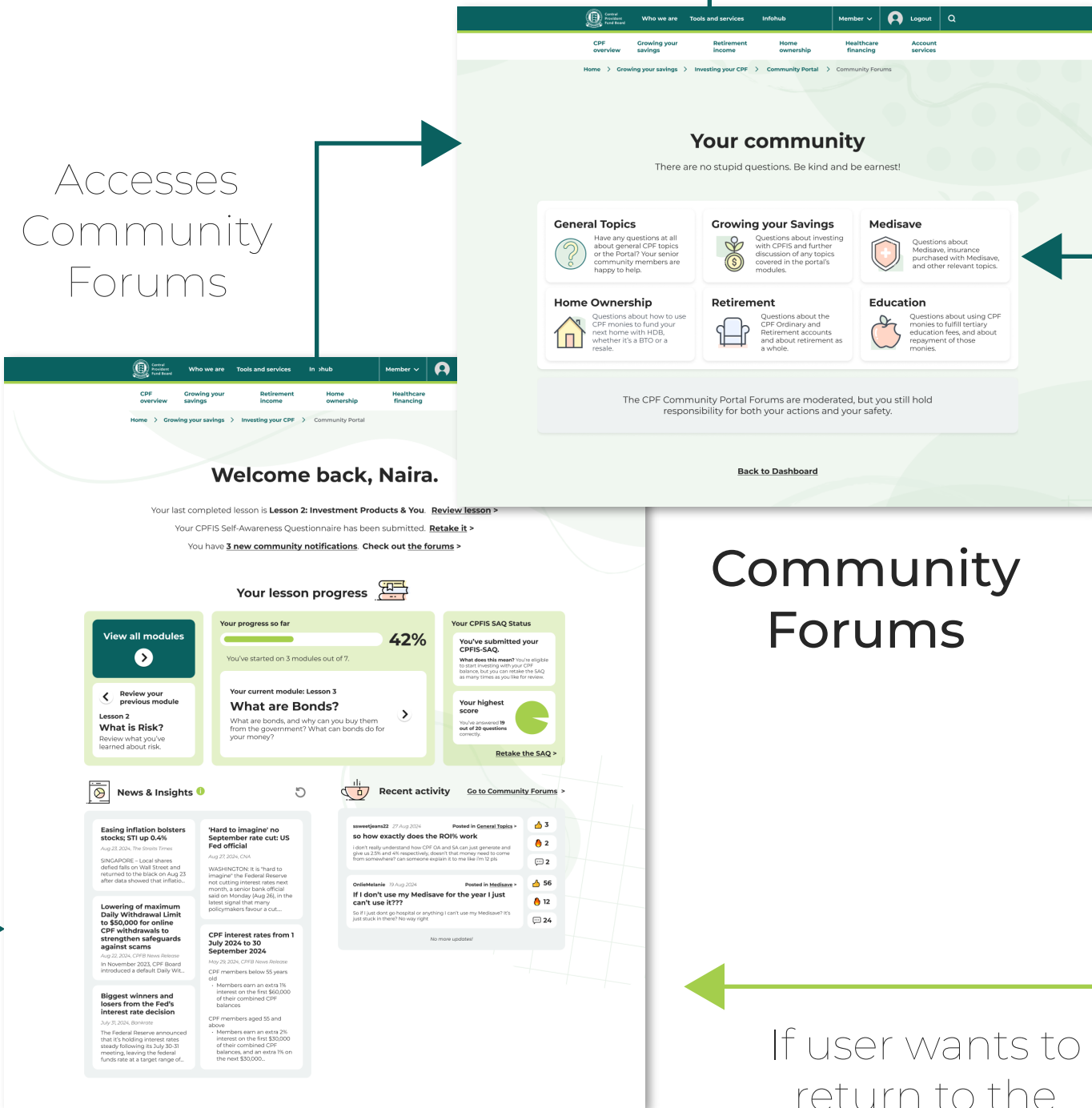
Is informed and ready for CPFIS

Accessing Community Forums

User views posts in the forums

User posts directly in the forums

Accesses Community Forums



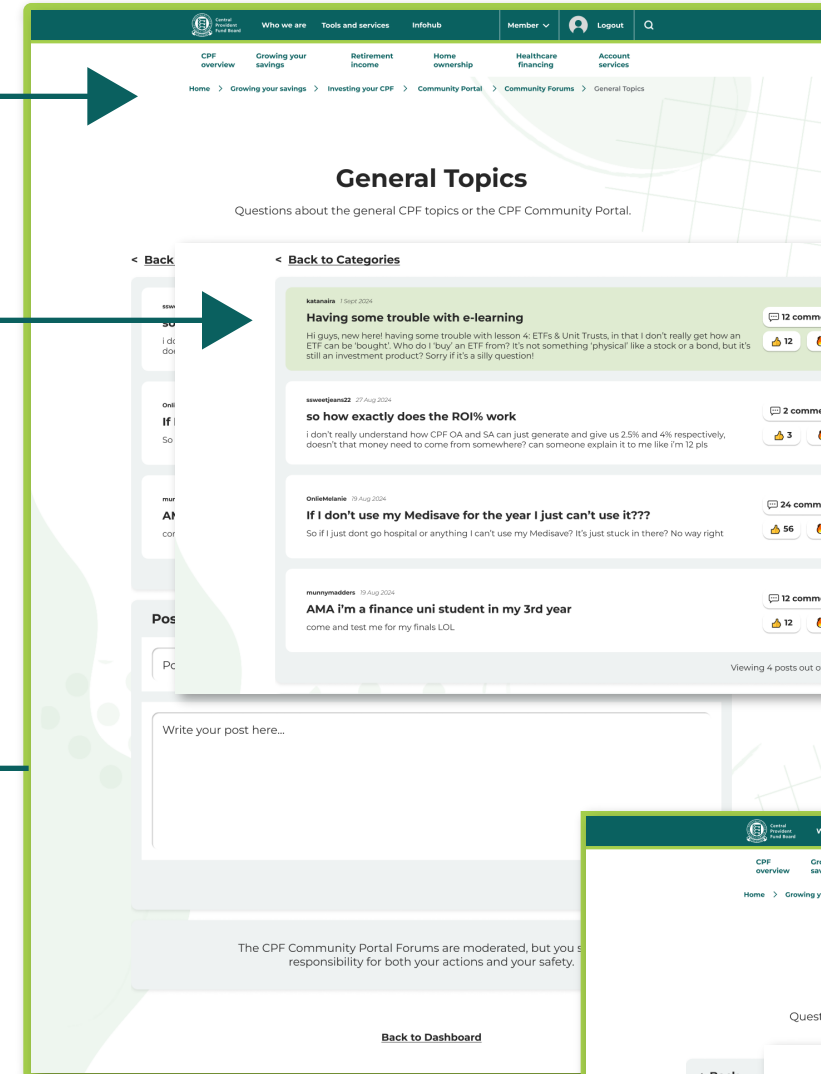
Community Forums

If user returns to Community Forums

If user wants to return to the dashboard

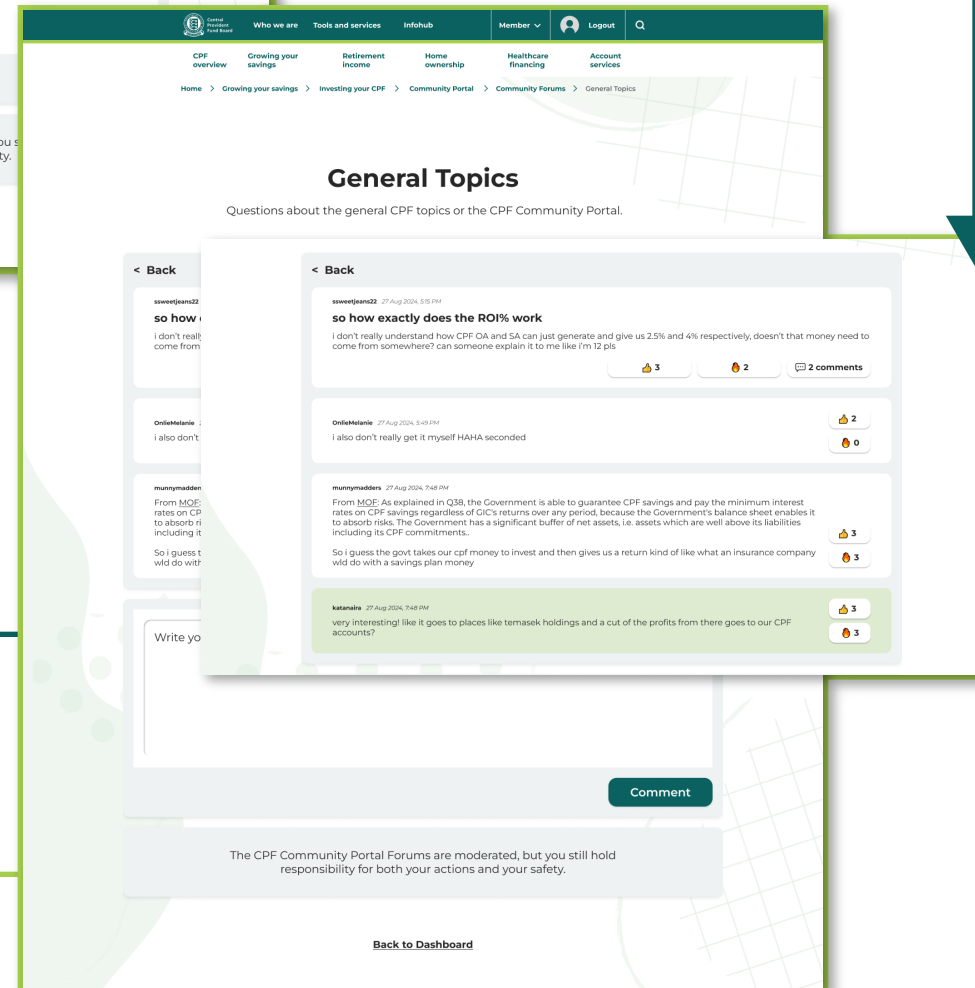
Dashboard

Individual Post



User views comments on a post

User directly comments on a post



Post Comments

6. Findings & Next Steps

Hi-Fi Feedback

UX

Validations

- Navigation is smooth and easy, users don't get lost and can return to the Dashboard easily
- Tooltips are great!
- Simulated features work well
- Good and inviting shade of green to emphasize the need for action
- Elements are clean and big, good for the older target userbase

Design

- Design is cohesive and organised in neat boxes, focus emphasized with space and proportion
- Easily made responsive to different screen sizes and to mobile versions
- Fits with the current CPF aesthetics
- Future-proof design

Feedback

- Hard to tell what to click especially without hints, as links now open into actual websites
 - Disrupts the testing experience
 - Not necessary to link to the existing CPF site, focus on the new design
 - Just 1 or 2 links is fine
- Tutorial needs a 'back' button, plus the Skip is where a Back would usually be
- Many linkback and breadcrumb errors, as well as rogue clickables
- Unsure where to look as there are no clear leading lines, especially in the Dashboard (main portal page)
 - Focus does go to the most colourful part of the page as intended
- Icons may be too cute-looking for CPF branding (lesson graphics are ok)



Suggested Next Steps

	Current Prototype	Next Steps
Real CPF site links	Disrupts the testing experience	Remove all links except for 1 or 2, or only within a section
Brand Guide Feedback	Visuals may clash with current CPF brand guidelines	Get more user and designer feedback on current aesthetic
Mobile Versions	Slideshow set-up for e-learning mostly works on a desktop	Start developing a mobile version for the CPF app
Quantity of Information	Current content and copy is functional but sparse	Have current copy be reviewed, and write more lessons
Focus on Accessibility	Accessibility options are from guesswork and experience	Gather real feedback from those with accessibility needs

Further Improvements

A quick way forward is to continue implementing more quality-of-life features that had to be passed over due to resource constraints.

Sign-up Pop-up

Click-through Tutorial

Tutorial Skip Button

Homepage

SingPass Sign-up

SingPass Log In

Email Sign-up

Email Log In

Dashboard

Feed Display

CPF Articles & Insights

1-click to E-Learning

E-Learning Progress Bar

Global Markets News

Emerging Markets News

SAQ Pages

Retake Quiz Button

Incorrect Answer Review

Percentile Accuracy per Q

Account Settings

General Settings

On/Off Email Notifications

On/Off All Notifications

On/Off Feed Notifications

Change Password

E-Learning

Modules Remaining

E-Learning Progress Bar

Estimated Time Taken

E-Learning Downloads

Higher-level Learning

Help Page

Submit Support Ticket

My Support Tickets Page

Profile Settings

Username Settings

Set Profile Picture

On/Off Lesson Progress

Community

Co-learning Forum

Keyword Auto-mod

Report/Block Post

Follow User

Report/Block User

Post Like Button

Add User As Friend

Knowledge-based Forums

dashboard integration

Reflections

Figma is not entirely new to me, as I've encountered it in my design & marketing career. However its functions run much deeper than my casual experience, and learning the breadth of its features has been a treat.

My main point of learning is in the process of problem solving and customer market research, which has provided me with invaluable tools for future endeavours—from ideation to research analysis and supplementing design choices with real evidence.

I hope I can make some users very happy someday.

Had a great time :)

THANK YOU.

