Financial Tools For Retirement Plan

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Acknowledgement

In the pursuit of developing this thesis project, I extend my heartfelt appreciation to the Thai Financial Planners Association (TFPA) for their invaluable support and collaborative efforts. Established under the Trade Association Act of 1966, TFPA has been pivotal in fostering excellence and professionalism within the financial planning sector. Their commitment to global standards, evidenced by their membership in the Financial Planning Standards Board Ltd. since 2007, highlights their dedication to upholding ethical conduct and expertise among certified financial planners (CFP) and financial consultants.

TFPA's initiative in spearheading the development of an innovative website aimed at streamlining Certified Financial Planners' (CFPs) operations is particularly commendable. This groundbreaking endeavor, addressing prevalent challenges in financial planning such as data collection and consultation standardization, underscores TFPA's commitment to advancing the industry. Furthermore, their meticulous attention to accessibility and inclusivity in website design, adhering to Universal Design and Web Accessibility principles, exemplifies their dedication to serving the diverse needs of stakeholders.

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Abstract

The Thai Financial Planners Association (TFPA) is aiming to revolutionize financial planning practices by developing a comprehensive retirement planning website. Established under the Trade Association Act of 1966, TFPA is committed to promoting excellence and ethical conduct among certified financial planners (CFP) globally. By becoming a member of the Financial Planning Standards Board Ltd. (FPSB) in 2007, TFPA solidified its dedication to raising industry standards and fostering professionalism within the financial planning community.

The Retirement with TFPA Website aims to address common challenges faced by financial planners, such as time-consuming data collection and lack of standardized consultation processes. It integrates innovative technologies and industry expertise to enhance the efficiency of CFPs' operations while providing invaluable resources on financial planning, retirement strategies, and the essential roles of financial planners.

The project comprises three main elements: the Retirement with TFPA Website, the CFP Member Website, and their respective features. The Retirement with TFPA Website serves as a user-friendly platform for clients to access financial planning tools and resources, offering features like Easy Planning and Direct Planning with CFPs. The website also offers functionalities such as searching for CFP members, accessing news and blogs, and providing user guides.

TFPA uses Figma and the Website Development Blueprint to coordinate between project makers and developers, ensuring seamless communication and alignment between project goals and development processes. The Retirement with TFPA Website aims to provide an intuitive and enriching experience for clients, fostering engagement, providing valuable resources, and offering flexible communication options, enabling informed decision-making and enhancing users' financial well-being.

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Chapter 1
Introduction

1.1 Motivation

The project aims to address inefficiencies and enhance collaboration within the financial planning sector by developing a comprehensive financial retirement planning website under the Thai Financial Planners Association (TFPA). Recognizing the need for standardized tools and streamlined processes, the initiative seeks to transform conventional financial planning workflows into executable processes, leveraging innovative technologies and TFPA's expertise. By providing an intuitive platform, the project endeavors to elevate industry standards, empower financial planners, and facilitate informed decision-making, ultimately contributing to the advancement of the financial planning profession globally.

1.2 Objectives

1. To Develop a Comprehensive Financial Retirement Planning Website
2. To Establish a Centralized Work Platform for CFPs
3. To Focus on Customer-Centric Experience
4. To Implement a centralized work system or platform for CFPs and clients.
5. To Empower Clients in Financial Planning Journey.

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1.3 Scope of Work

The scope of this project can be listed as follows:

1. To analyze the challenges faced by the traditional retirement planning services, and also customer preferences.
2. To gather data and insights on various retirement planning websites such as input, output and visualization.
3. To design retirement planning website for CFPs and clients.
4. To Implement a centralized work system or platform for CFPs and clients.
5. To evaluate seamless retirement planning website that user-friendly and easy-to-use for both CFPs and clients.
6. To provide tools for CFPs and clients and guidelines for developers.

1.4 Thesis Structure

This thesis consists of five chapters which are arranged as follows:

- Chapter 1 Introduction - refers to the motivation, objectives, scope of work, and thesis structure of this thesis.
- Chapter 2 Literature Review – proposes the Literature survey that are relevant to this project, and comparison.
- Chapter 3 Research Methodology – clarify the methodology adopted to carry out the research and develop the necessary platform.
- Chapter 4 Results and Discussion – shows the results obtained from your research and also discusses those results.
- Chapter 5 Conclusion and Recommendations – summarizes the research work done, restates the conclusions derived from the study, and suggests possible recommendations for future work in this field.

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Chapter 2
Literature Review

Retirement planning has become a top priority in today's society due to factors like rising inflation rate, changing economic environments, and changing work paradigms. The demand for efficient retirement planning tools has increased as people work to secure their future financial security and guarantee a comfortable retirement. This tool provides computations, methods, and insights to help clients navigate the challenges of retirement planning.

The objective of our group is to offer retirement planning solutions that can address issues with the traditional retirement planning tools. By doing this, we aim to provide personal insights that will be useful to customers and CFPs alike. Finally, the integration of current research will provide the basis for the project's next phases concerning retirement planning tools, guiding the creation of solutions that respond to the changing requirements and goals of CFPs and their clients.

2.1 Importance of Retirement Planning Tools

Retirement planning is a crucial thread that connects stability with financial security in old age in the personal finance embroidery. However, the path to retirement is filled with difficulties, from managing unpredictable markets to understanding complex retirement savings plans. The recent development of retirement planning tools provides individuals with a compass to navigate the uncertain landscape of financial preparation.

Amit Raje (2024) said that as the price of products and services is rising daily, and while the impact of inflation may not appear significant at first, it can have a significant influence over a period of years. This implies that future costs will be higher for every individual. Moreover, everybody has a certain lifestyle that, as we become older, becomes more deeply embedded in our daily routines. Our current way of living is made possible by the monthly cash we receive. To maintain the same quality of life after retirement, one must invest in a retirement plan. That will support you with a monthly income that is consistent even after you retire.

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Yada Thaithaworn (2019) conducted a survey focusing on Financial Planning for Retirement among personnel within the Budget Office. The primary objectives were to assess the financial well-being and comprehension of financial planning concepts among employees and to analyze how these factors influence retirement planning. Additionally, the study aimed to compare financial planning strategies adopted by individuals based on personal characteristics and to examine the correlation between financial health, financial literacy, and retirement planning. The findings revealed that individuals with varying demographics and job roles demonstrated divergent approaches to retirement planning, which were influenced by factors such as financial health status and comprehension of financial planning principles.

In summary, the study of retirement planning tools illustrates their critical function in overcoming the challenges associated with retirement financial readiness. We have examined the importance and impact of these tools by a thorough analysis of the literature, revealing a variety of advantages. It is clear that retirement planning tools are essential allies on the path to becoming prepared for retirement. These tools enable people to make well-informed decisions, maximize savings plans, and reduce risks by utilizing technology and innovation. Retirement planning tools include a range of resources that are suited to satisfy the various needs and preferences of users, from interactive calculators to user-friendly investment platforms.

2.2 Challenges and Limitations of Retirement Planning Tools

2.2.1 Complexity of variables

People face many challenges that may affect their financial conditions when they set out on their retirement path. Retirement planning tools are crucial in this complex world of financial planning, providing direction through the confusing decisions involved in retirement preparation. Nevertheless, these tools' efficacy depends on their ability to handle the complex interactions between variables that characterize the retirement planning process.

The awareness that retirement planning is a highly personalized process impacted by a variety of dynamic factors is fundamental to the issue. The quest of financial stability is fraught with chances and challenges as a result of the various variables that are introduced, ranging from market dynamics and economic trends to individual risk preferences and lifespan expectations.

Consumer bloggers and members of the financial planning press who have more closely examined and compared retirement planning tools are generally critical of the available tools. Tresidder (2011) argues that the available tools appear easy to use but suggests that the primary problem they suffer is important variables such as inflation, longevity, investment returns, and

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retirement spending. Kirkpatrick (2014a) adds that assumption problems exist for social security timing, marital status, tax rates, and other retirement income sources. Additionally, Tresidder argues that user input flexibility impacts tool results, with many tools relying on rules-of-thumb or assuming an average value for user inputs. But real retirees are unique with few of them actually retiring at exactly age 65 and living exactly to the average life expectancy.

In summary, it is critical to address the complexity of factors in retirement planning tools in order to ensure their efficacy in assisting people in achieving financial stability in their later years. By taking into account the wide range of variables that affect retirement planning—such as inflation, market turbulence, risk associated with living longer, and individual lifestyle choices—CFPs should carefully explain those factors to their clientele. Furthermore, before including those variables in the formula, they must be informed about them.

2.2.2 Inadequate data input

Retirement planning tools are essential resources for anyone trying to figure out how to deal with the intricacies of saving money for their years after work. Nevertheless in spite of their complexity, these technologies frequently face insufficient data input. The quality and thoroughness of user-provided information has a significant impact on the accuracy and dependability of retirement estimates. The resulting forecasts may be inaccurate or insufficient for useful planning when important data points are absent or entered incorrectly.

However, when publicly accessible retirement planning tools offer confusing recommendations, it can be challenging to acquire fair advice. According to Consumer Reports (2011), investment companies' tools are biased because they emphasize their own goods or make assumptions that render retirement planning ineffectively demonstrative of what it is. Here are several key strategies to consider:

1. Enhanced User Guidance: Users' lack of knowledge or awareness of the significance of giving accurate information is one of the main causes of inadequate input. Retirement planning software can include improved user guiding elements to solve this. Interactive lessons, tooltips, and clear descriptions highlighting the importance of each data input area are a few examples of these features.

2. Personalized Feedback and Recommendations: Personalized recommendations and feedback for users based on the data they have entered might encourage increased accountability and engagement. Retirement planning software can provide customized insights, including recommended savings targets, investment strategies, or adjustments to the retirement age, by analyzing the user's financial data and aspirations. Users can have a deeper understanding of their retirement prospects and become more willing to guarantee accuracy in their submissions by placing the implications of their data inputs into context.

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In summary, Retirement planning tools can enable users to make well-informed decisions and attain increased financial stability in retirement by putting these ideas into practice. Ultimately, improving the efficacy of retirement planning tools and assisting people in confidently navigating their retirement journeys depend on cultivating greater awareness, accountability, and accuracy in data entry.

2.2.3 Privacy and security concerns

Retirement planning tools have become essential resources for people looking to protect their financial futures as technology continues to revolutionize the way we approach financial planning. Since financial data is sensitive and cyber threats are becoming more sophisticated, retirement planning tools must have strict security measures in place. Ensuring the integrity and security of users' financial information is not simply a concern for retirement planning tool developers and providers, but also an ethical duty in a world where data privacy is significance.

FM Contributors (2023) stated that financial information may be used improperly for a number of reasons, including discrimination against certain people or marketing. Privacy and civil rights might be violated as a result of the improper use of financial data.

Thailand’s Personal Data Protection Act BE 2562 (PDPA) will come into full effect on 1 June 2021 and will bring significant changes to the current data protection regulatory environment in Thailand. This creates challenges for organizations doing business in Thailand both before and after the deadline.

The safety of personal data is a major concern for authorities in Thailand and is currently a hot topic worldwide. They are aware that modifications to the procedures used by their organizations must be carefully planned and implemented. There is no other method for managing and safeguarding personal data in order to guarantee adherence to regulations and exhibit responsibility. Additionally, Data collectors and users must make sure their systems comply with the PDPA's criteria now that it is fully enforced.

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2.3 Retirement Personal Retirement Planning

The average life expectancy of Thai people has increased recently. This is a result of advancements in medicine that let people live longer after retirement. However, the working life Financial preparation for retirement is crucial in order to ensure that individuals worldwide can retire comfortably when the time comes, as it is necessary to keep a steady income. Determining a person's future financial needs is the process of retirement planning. To prevent it from declining over time, there must be sufficient funds to pay living expenses, travel expenses, and health maintenance.

Preparing for retirement is a crucial long-term financial objective. To live a happy retirement, everyone should create and adhere to a long-term financial plan, which shouldn't be ignored because throughout that period, money is not received anymore. In addition to needing medical care and treatment as they are getting older, some elderly people also have to care for their children or other family members—who are incapable of taking care of themselves. Therefore, a nice retirement will come from making wise long-term financial goals.

Retirement planning is not, however, a universally accessible plan. as every individual leads a unique lifestyle. Consequently, gathering information and giving each person particular attention are necessary for retirement financial planning.

To determine retirement planning, the preparation process can be divided as follows.

1.Data collection for planning retirement as follows:

1.1 Personal information such as age, marital status.

1.2 Hypothesized data includes qualitative data and quantitative data.

- Qualitative data including financial goals when you retire and life goals after retirement, etc.

-Quantitative data will be used to calculate money to evaluate retirement, such as the rate of return before and after retirement, inflation rate before and after retirement, expected retirement age, life expectancy, savings, expenses, and income.

2. Estimating money for retirement by calculating retirement funds, money expected to be available when you retire. Then calculating the amount of the shortfall or surplus of capital and the available money.

To determine the amount of money needed for post-retirement living, information regarding assets and income must be gathered as part of retirement financial planning. The money comes from the following sources:

2.1 Available funds, such as savings and investment funds.

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2.2 Retirement funds, such as pension funds and social security fund.

-Pension Fund: The objective is to guarantee the payment of pensions to civil servants who have savings. All members must pay 3 percent of their salary to the fund every month and receive contributions from the government as a reward for saving money at the same rate of 3 percent of salary every month. However, government officials who retire and have service of more than or equal to 10 years have the right to choose to receive an one time lump sum pension payment or a monthly pension payment. The one time lump sum pension payment is equal to the last month's salary multiplied by the service time. While the monthly pension payment is equal to the average salary of the last 60 months multiplied by the service time and divided by 50. However, this amount must not exceed 70 percent of the average salary for the last 60 months.

-Social security fund: Social Security Payment is the retirement payment of private employees who are insured in the Social Security Fund. The money will be accumulated from working. All members must pay 5 percent of their salary to the fund every month. However, this amount must not exceed 15,000 baht. This 5% will be divided into 3 parts.

Part 1: 1.5% or 225 baht is contributed to the fund to take care of Illness or accident or disability /or childbirth and death. Even if the rights are not exercised, this amount will not receive a refund.

Part 2: 3% or 450 baht is kept as savings in the case of child support or elderly. It will be returned when you are 55 years old.

Part 3: 0.5% or 75 baht is used for unemployment insurance at any time. You can use your rights to earn income while you're unemployed or looking for a new job. If you do not use your rights, you will not receive a refund.

2.3 Investments for retirement that are invested annually or on a monthly basis from now until retirement in order to be the money needed to maintain one's lifestyle after retirement.

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2.4 Financial planning for retirement

An essential aspect of financial management that people need to do in order to guarantee a safe and comfortable future is retirement planning. Being well-prepared for retirement becomes more and more important as people advance in their jobs and get closer to the end of their lives. Setting objectives, evaluating available resources, and putting plans into action are all part of the retirement financial planning process, which aims to provide financial security for the years after employment.

The field of retirement planning has seen significant shifts in recent years due to a variety of variables, including rising life expectancy, shifting pension plans, and shifting economic situations. The significance of taking a proactive and comprehensive approach to retirement planning has been emphasized by these dynamics.

GPF-E-learning/ Financial Planning. (2011). concluded that most workers expect to stop working, and use their life after retirement to relax, or do activities that they want to do. From the study it was found that the average age of men rose from 56 to 74, while women increased from 62 to 81. This means that the period of time that we have to live without income from work is longer and we spend more money than previously. However, most people are not aware of the importance of financial planning because there are often various financial needs before retirement planning, such as planning to buy a house or buy a car.

Factors that evaluate the money you have after retirement

1. Income from present until retirement. Estimated from savings, investments, and pensions.

2. Length of time from present until retirement.

3. Length of time to live after retirement.

4. Inflation rate which has an impact on the value of the currency in the future.

5. Rate of return on investment.

To sum up, good financial preparation for retirement is essential to guaranteeing an enjoyable and worry-free future. To create a substantial retirement fund, people must evaluate their current financial situation, establish reasonable retirement goals, and use a variety of investing techniques during the course of this trip. The key to ensuring long-term financial stability is to monitor investments consistently, minimize risk, and diversify your investments.

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2.5 Time Value of Money

The Capital Market Knowledge Development Institute of the Stock Exchange of Thailand (2009) mentioned the concept of time value of money that the same amount of money at different times will not have the same value, which is a concept used to convert the value of money received or paid at different times. Moreover, it helps you calculate savings to reach the goals, which will make you know how much more you need to save or whether you have enough money for your retirement. The opportunity cost of capital received prior to its ability to be invested or yield a return gives rise to this idea. Because of this, it is worth more than the same sum of money that will be received later. Knowledge of pricing, time lines, discounting, compounding, future value, and present value are necessary to comprehend the idea of time value of money in decision-making. Here are some formulas for calculating this, such as

Future Value (FV)

FV = Future Value

PV = Present Value

N = Number of period in year

r = Annual interest rate

Periodic payments (PMT) owed on a loan, assuming a fixed interest rate.

rate = The fixed interest rate on the loan as stated in the lending agreement.

nper = The total number of periods in which payments must be issued over the borrowing term of the loan.

pv = The present value (PV) is the value of a series of payments based on the current date, i.e. the original principal of the loan on the date of issuance.

fv = The future value (FV) is the ending loan balance on the date of maturity.

type = The timing of when the payments are assumed to be received.

"0" = End of Period (EoP)

"1" = Beginning of Period (BoP)

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2.6 Financial Ratio

Financial ratios are effective instruments that analysts, investors, and stakeholders use to evaluate an individual's performance and well-being. These ratios offer insightful information about a number of financial characteristics, such as wealth, liquidity, and efficiency. Clients can decide on financial management tactics with knowledge by examining these ratios. The purpose of this essay is to give a thorough introduction to financial ratios, their importance, and the computation and interpretation of these ratios in financial analysis.

Financial ratios can be categorized into several broad categories, each serving a specific purpose in financial analysis:

1. Ratio of savings + investment compared to income: You should save more than 10% of your income.

$$\frac{Savings + Investments}{Income}$$

2. Ratio of Debt compared to total income: Add up all your debt payments each month and divide by your total monthly income.

$$\frac{Debt}{Total\ Income}$$

3. Required Reserve ratio: In general, financial planning experts recommend having an emergency fund of at least three to six times your monthly expenses or enough to last another 3-6 months, for example, if you have an income of 15,000 baht per month and expenses of 12,000 baht per month, you should have an emergency fund at 36,000-72,000 baht

4. Net Wealth = Nat asset - Net liabilities

5. Survival Ratio:

$$\frac{Income\ from\ assets + Income\ from\ work}{Expense}$$

“Income from assets” means income or interest that comes from various investment assets.

If this ratio is greater than 1, it means you can survive on your own.

6. Wealth Ratio: If you have a wealth ratio greater than 1, it means that even though you are not working You have enough income from your assets to cover your expenses and lifestyle. This will be called "Financial Freedom”

$$\frac{Income\ from\ assets}{Expense}$$

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Chapter 3
Methodology

In this chapter, explains the concepts, tools, and techniques that are used in developing the project

Our research methodology will utilize the design thinking process, a problem-solving approach emphasizing empathy, collaboration, and iterative prototyping. The process involves empathizing with relevant securities industries, defining the research problem, ideating creative solutions, prototyping and testing ideas, analyzing data, and drawing conclusions. Collaboration and a user-centric approach will be prioritized throughout the methodology. By applying design thinking, the research aims to ensure relevance, innovation, and effectiveness in addressing the research objectives.

Design thinking is a problem-solving methodology that focuses on providing solutions. It is highly effective when dealing with complex and undefined problems, as it emphasizes understanding the human needs involved in the issue at hand. By learning about its four stages below, we are able to apply this approach to solve challenging issues faced by securities companies in this current date and economic situation.

1) Empathize: During the empathy stage of the design thinking process, companies need to focus on understanding their client's needs and concerns. Therefore, we use various research methods such as in-depth discussions with advisors from the company,

2) Define: After collecting data in the empathize stage, we analyze and synthesize it to define the core problem. This involves creating a problem statement that reflects the true pain points of the clients and their needs. From our survey, we identified that a major concern for clients was the commission rate, variety of products, benefit programs, reliable platform, and cash back after

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purchasing assets. These core problems provide a clear direction for the next stages of the process.

3) Ideate: The ideate stage involves generating ideas and brainstorming solutions that can address the core problem identified in the define stage. During ideation, we encourage creativity and open-mindedness to generate multiple potential solutions. Thus, during the ideation phase, several key deliverables were identified:

3.1 A prototype or prototype simulator for the website was conceptualized to provide a tangible representation of the website's functionalities and design elements.

3.2 A comprehensive Website Development Blueprint or development plan chapter was outlined to establish the roadmap for creating and implementing the website, including technical specifications, timelines, and resource allocation.

3.3 A User Manual was proposed to guide users through the website's features and functionalities. This manual would include detailed documentation in PDF format and an instructional video to enhance user understanding and facilitate ease of use.

3.4 A Website Workflow or working diagram was conceptualized to visualize the flow of activities and interactions within the website, aiding in the understanding of its structure and functionality.

3.5 All written documents on the website, such as articles, guides, and resources, were identified as essential components to provide users with valuable information and support their financial planning journey.

Additionally, an Excel spreadsheet for calculating retirement planning in both EASY PLANNING and RETIREMENT PLANNING formats was proposed to offer users a practical tool for financial analysis and decision-making.

4) Prototype: In this stage, we create a prototype of the proposed solution to visualize and test it. This involves creating a digital platform on Figma that mimics the proposed solution, which can then briefly understand how the prototype will work in practice and fix any issues before moving forward with implementation.

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While applying design thinking in our research methodology for financial industries, we aim to address the research objectives effectively and ensure relevance and innovation. Through the stages of empathy, definition, ideation, prototyping, and testing, we gather insights, define the core problem, generate creative solutions, and visualize and refine prototypes. Although we were unable to complete the final stage of testing and implementation within the project timeframe, the design thinking process remains a valuable tool for organizations to tackle complex challenges and deliver meaningful outcomes for their clients.

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Chapter 4
Result

1. Product Overview

1.1 Product Scope

1.)Retirement with TFPA Website

1. HomePage :

Figure 1. HomePage

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The homepage of the website, serving as the main entrance, includes:

1.1. A Header navigation menu with links to About TFPA, Planning & Advice, consisting of 1) Planning & Advice, 2) Easy Planning, 3) Direct planning with CFPs, 4) Search CFPs Page, 5) User Guide, News & Blogs, FAQ, Login to CFP Member website.

1.2. Display of the main services on the website, including 1) Plan 1: Easy Planning service and 2) Plan 2: Direct Planning with CFPs service. And 3 Highlight of Direct Planning with CFPs as the reason to support users in choosing to use Plan 2.

2. About Page :

Figure 2. About Page

Provide a detailed overview of the Thai Financial Planners Association, including its mission, history, Founder and Structure.

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3. Planning & Advice Homepage :

Figure 3. Planning & Advice Homepage

Show options for clients to choose between easy planning or direct planning with CFPs.

4. Easy Planning Page :

Figure 4. Easy Planning Page

Users can perform basic retirement planning on their own through the service Plan 1: Easy Planning by completing the required information. This allows the website to process the data and generate visualization graphs.

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5. Direct planning with CFPs Page:

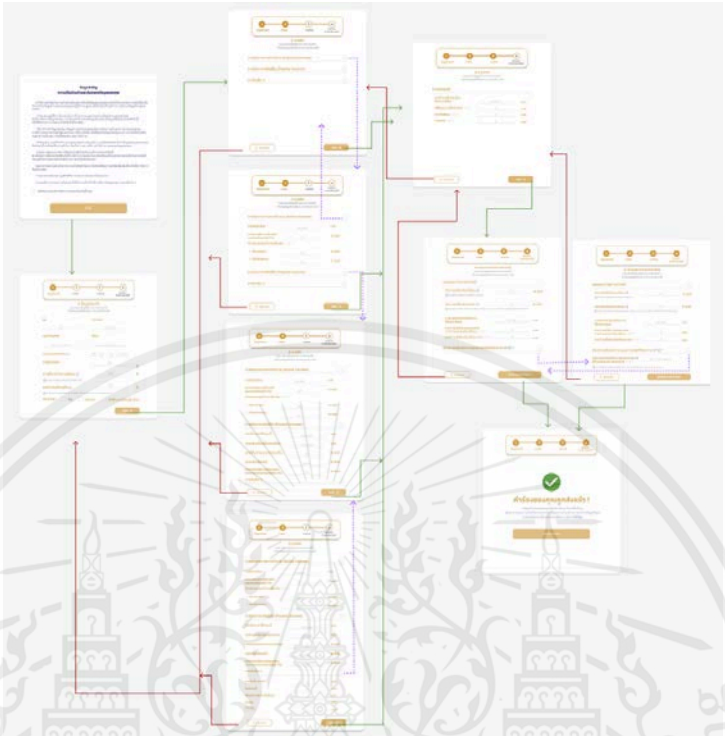

Figure 5. Direct planning with CFPs Page

Users who wish to engage in Direct Planning with CFPs can submit a request by consenting to disclose personal information and providing complete details. This allows the system to forward the information to Certified Financial Planners (CFPs), who will then formulate a retirement plan based on the received user data.

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6. Search CFPs Page :

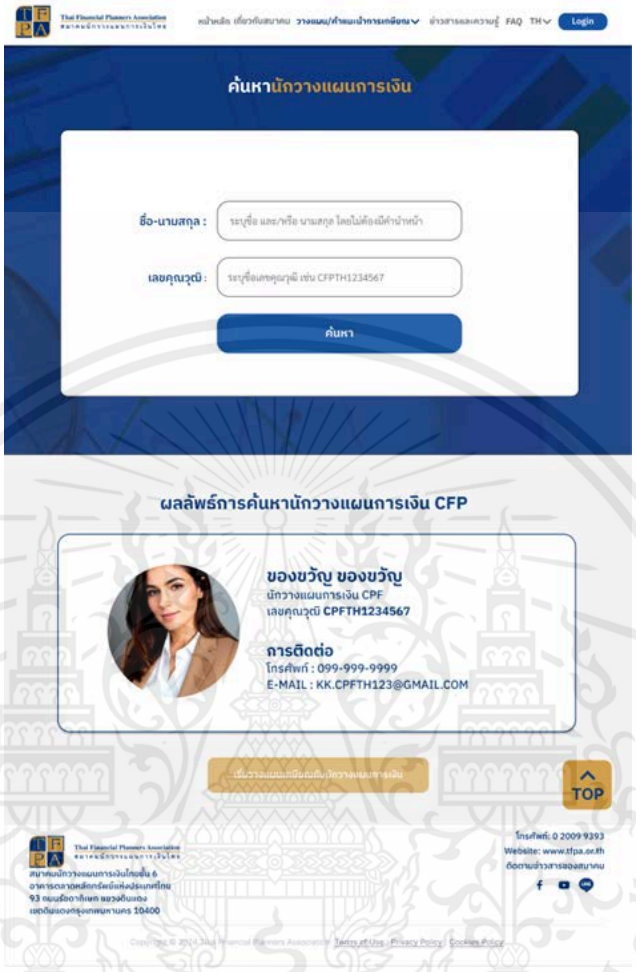

Figure 6. Search CFPs Page

Used to search for a CFP Member that the user desires by specifying the first name and/or last name, without name titles, or the ID CFP Member, such as CFPTH1234567 or AFPT123456."

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7. User Guide Page :

Figure 7. User Guide Page

Introduce users how to use the services available on the website, including 1) How to use the Easy Planning service and 2) How to use the Direct Planning with CFPs service.

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8. News & Blogs Page :

Figure 8. News & Blogs Page

Update on TFPA (Thailand Financial Planners Association) news and serve as a channel for knowledge about retirement planning.

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9. FAQ Page :

Figure 9. FAQ Page

Frequently Asked Questions (FAQs), Address common questions users may have about TFPA, financial planning, and the website.

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10. Login Button to CFP Member or Clients Website:

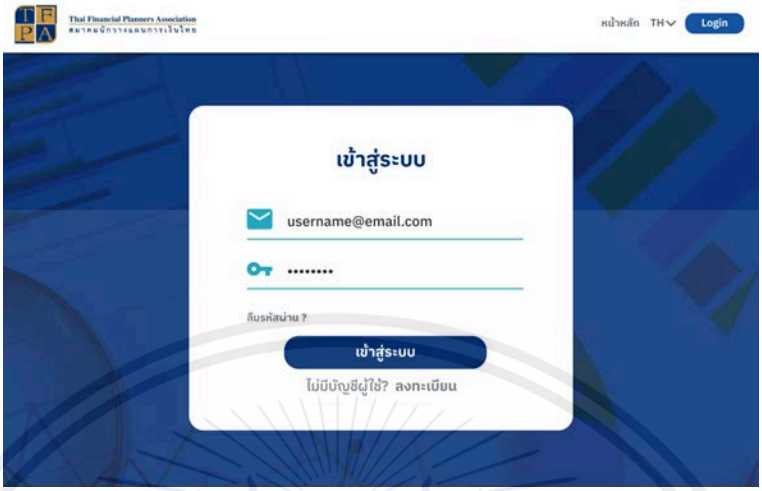

Figure 10. Login Button to CFP Member or Clients Website

Navigate to Login Page of CFP Member or Clients Website

11. Track My Request Page

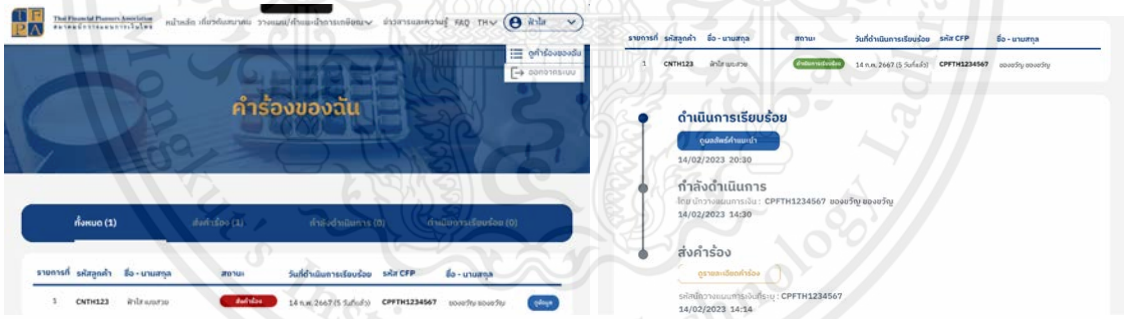

Figure 11. Track My Request Page

To track thee progress of request that clients have sent to system of CFP

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2.) CFP Member Website

1. Login Page :

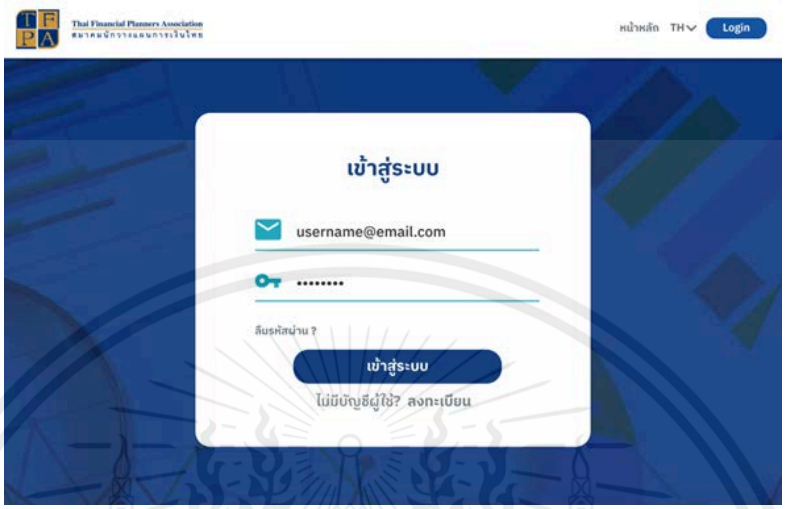

Figure 12. Login Page

The login page is accessible only for CFP Members with confirmed accounts for accessing the CFP Member website.

2. Forgot Password Page :

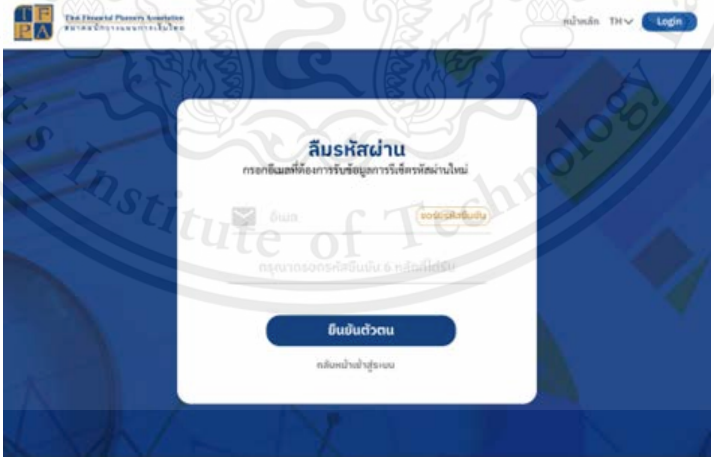

Figure 13. Forgot Password Page

When a user forgets their password, they can enter the email address used for registration and input the OTP received via email to verify their identity. Upon confirmation, the system will send password reset instructions to the user's email.

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3. Reset Password Page :

   Reset Password for users who have successfully verified their identity as the requester for a forgotten password.

4. Sign Up to CFP Member Page:

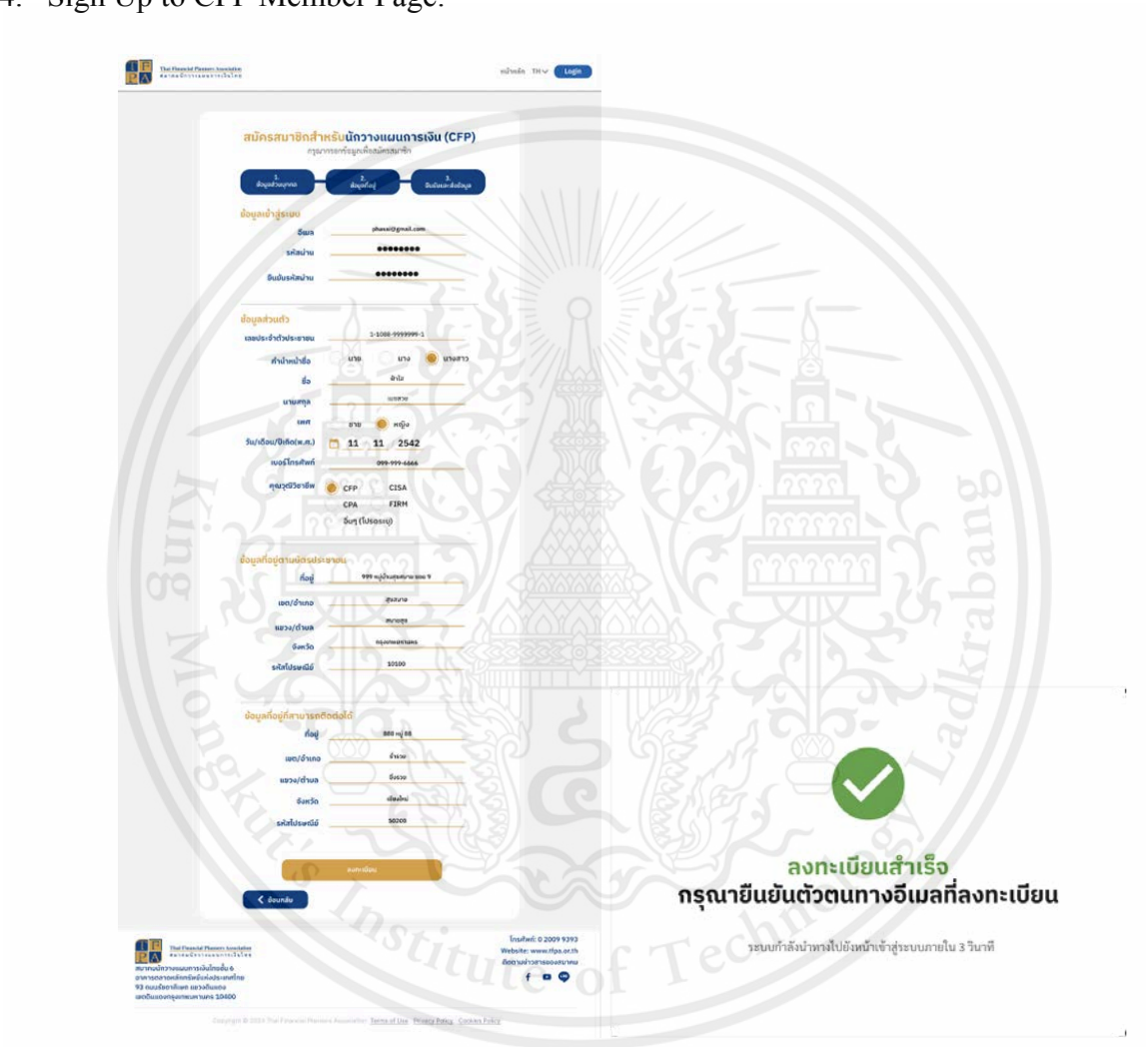

Figure 14. Sign Up to CFP Member Page

For those who wish to apply for membership as a Certified Financial Planner (CFP) to access the CFP Member website.

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5. CFP Member Homepage or List All client Page:

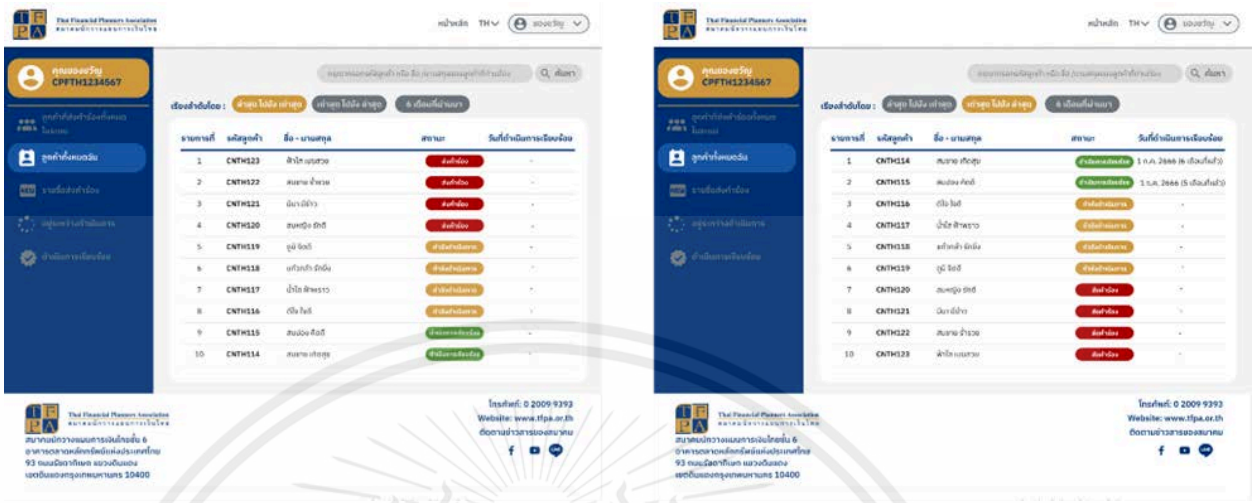

Figure 15. CFP Member Homepage or List All client Page

Serving as the main entrance, includes: Display a Table with list of all clients with their respective statuses for the CFP Member, Side navigation menu with links to List of Client in Request, List of Client in Process, List of Client in Completed, And Search tool.

6. List of Client in Request Page:

   Display a Table with a list of all clients with their Request the specific CFP Member.

7. List of all Client in Request in system Page :

   Display a Table with a list of all clients with their Request for all CFP Members.

List of Client in Process Page :

Display a Table with list of all clients with their Process statuses for the CFP Member

9. List of Client in Completed Page :

   Display a Table with list of all clients with their Completed statuses for the CFP Member

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10. Client Detail Page

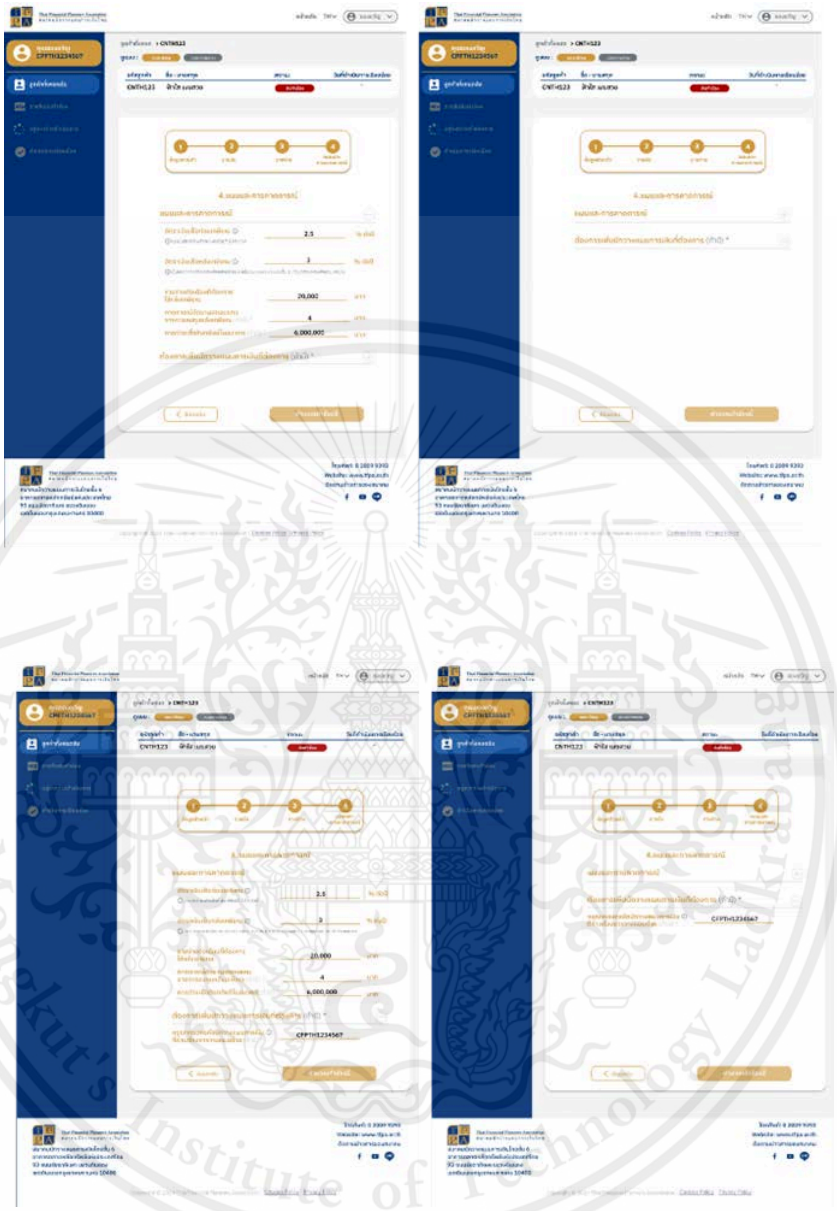

Figure 16. Client Detail Page

Display client details, and the CFP Member can use the received information to calculate retirement plan for the client, taking individual considerations into account. Additionally, the CFP Member can send the calculation results to the client.

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11. **Client Detail - Visualization**

Figure 17. Client Detail-Visualization Page

To Display of results Calculating retirement planning and giving advice For further advice or suggestions

1. In this the planner will be able to see and display the results to the trader. Consultation in various forms as follows

1.1 The bar graph shows the difference in expected funds using the website analytics, the required funds based on Customer's needs and the total difference between the money to be had and the money needed. This part can show the amount of money is more or less than expected.

1.2 Table showing financial ratios consisting of saving and investment ratio to income, ratio Debt to income, reserve ratio, net security, survival ratio, wealth ratio fixed income and debt to assets Including showing financial standard ratios.

1.3 Graph showing retirement ability, divided into insufficient, fair, good, and very good, with criteria

Insufficient means the money the customer expects to have is less than 65 of the amount the customer needs.

Fair means the money the customer expects to have is between 65%-80% of the amount the customer needs.

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Good means that the money that the customer is expected to have is between 81% - 95% of the amount that the customer needs.

Very good means the money the customer expects to have is greater than 95% of the amount the customer wants.

*This criteria can be adjusted by the association as appropriate.

1.4 Graph showing remaining balance at various ages.

2. Financial planners should and can provide additional advice to private customers by pressing the “Add Recommendation” button.

3. Add advice from financial planning By typing text into the box, then the planner can press

“PREVIEW” to view all standard forms Before you can export a report via email to a customer.

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2. Product Feature

1.) Retirement with TFPA Website

1.Easy Planning

2. Direct Planning with CFP

3.Search CFP Members

4.News & Blogs

2.) CFP Member Website

1. List all client request in system

2. list all client direct request

3. Filter customers by each status.

4. Calculator and result client information to Data Visualize.

5. Add Comment and export report to send email

6. Search Client in all system

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3. Website Workflow

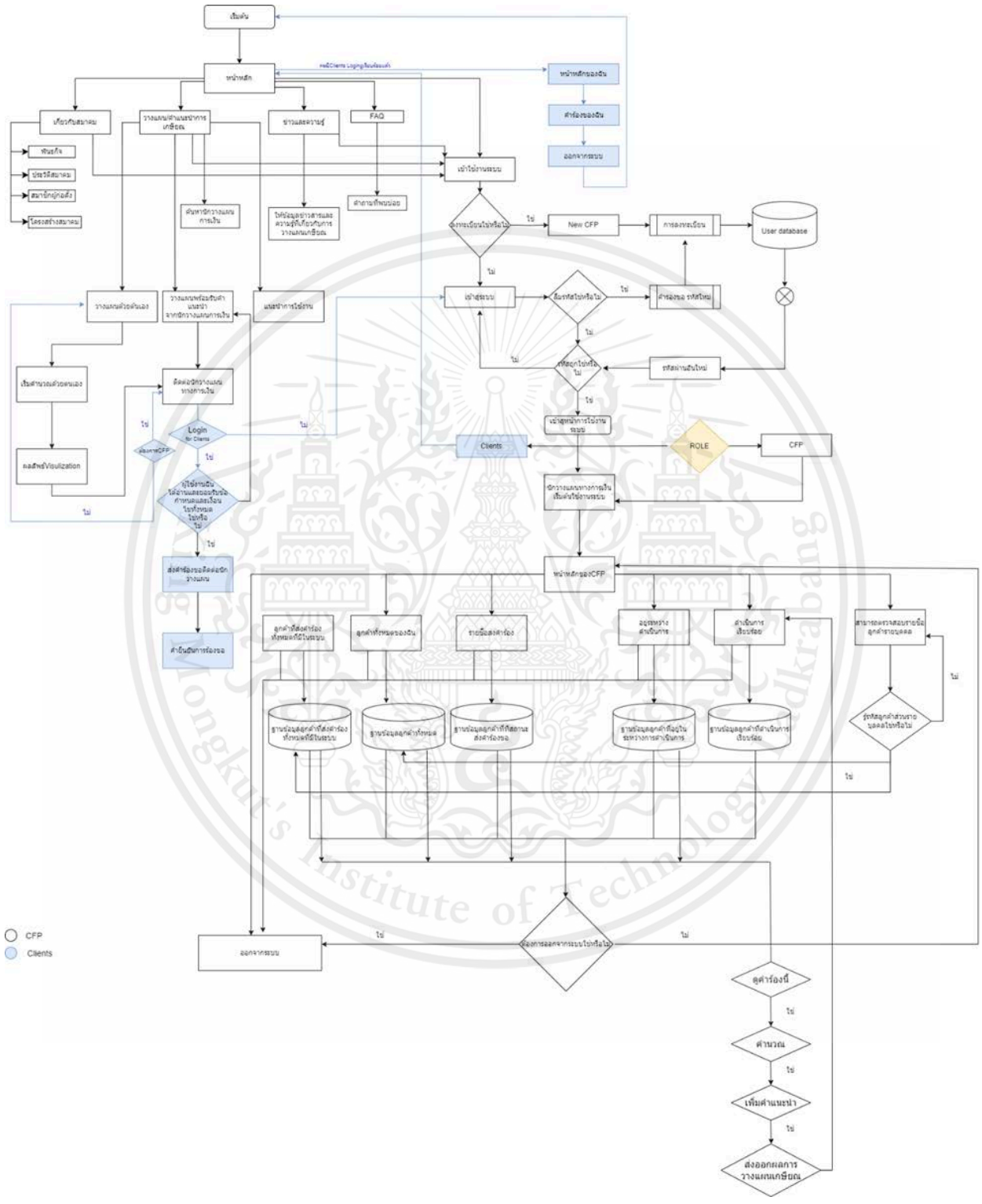

Figure 18. Website Workflow

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Chapter 5
Conclusion and Recommendations

5.1 Conclusion

Retirement planning tools, which offer customized financial estimates, advice, and enhanced financial literacy, are essential in assisting people in getting ready for their post-employment years. With the help of these tools, people can finally attain financial security and peace of mind in retirement by making well-informed decisions about investments, savings, and retirement objectives.

Our financial planning website consists of two sections: Client Side and CFP Side. Beginning with the perspective of the clients. Although it would only be a fundamental plan, customers will be able to plan their own retirement. On the other hand, the customer can get individualized advice from CFP if they wish to plan in greater detail. Consulting and an individual assessment will be provided to the client. Furthermore, the client is allowed to select a CFP if they are familiar with one or want to do so. And finally, the CFP side. CFPs will be able to receive only 5 customers from the central system at a time. However, if they want to get more customers, the CFP is required to complete an assessment and provide advice to the client first. At the same time, if the client wishes to specify that CFP to plan their retirement. CFP will be able to accept unlimited customers who have specified needs.

Tools for facilitating CFP have been developed on our website. CFP will be working faster and more effectively as a result. Additionally, our website offers tools to help CFPs, including retirement calculation financial formulas, user-friendly documentation, and an easily comprehensible visualization.

For the reason that our group chose to make a prototype website or a mockup of a website. Therefore, we have prepared documents that must be delivered to website developers, including prototypes, Website Development Blueprint, user manuals, Website Workflow, Website Documentation, and Excel, which will be a guide to calculating retirement planning in both Easy Planning and Retirement Planning formats. With those documents that mentioned previously, the website developers will be able to make a realistic website that is ready to use.

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5.2 Recommendations

For the reason that financial formula for retirement is a formula that requires someone with financial knowledge. Various financial variables must be entered into the correct formula on excel. Otherwise, the results may affect the output and may cause the missing results. Additionally, there are many documents which create a complete website that are delivered to web developers. Before beginning, web developers should thoroughly study the documentation.

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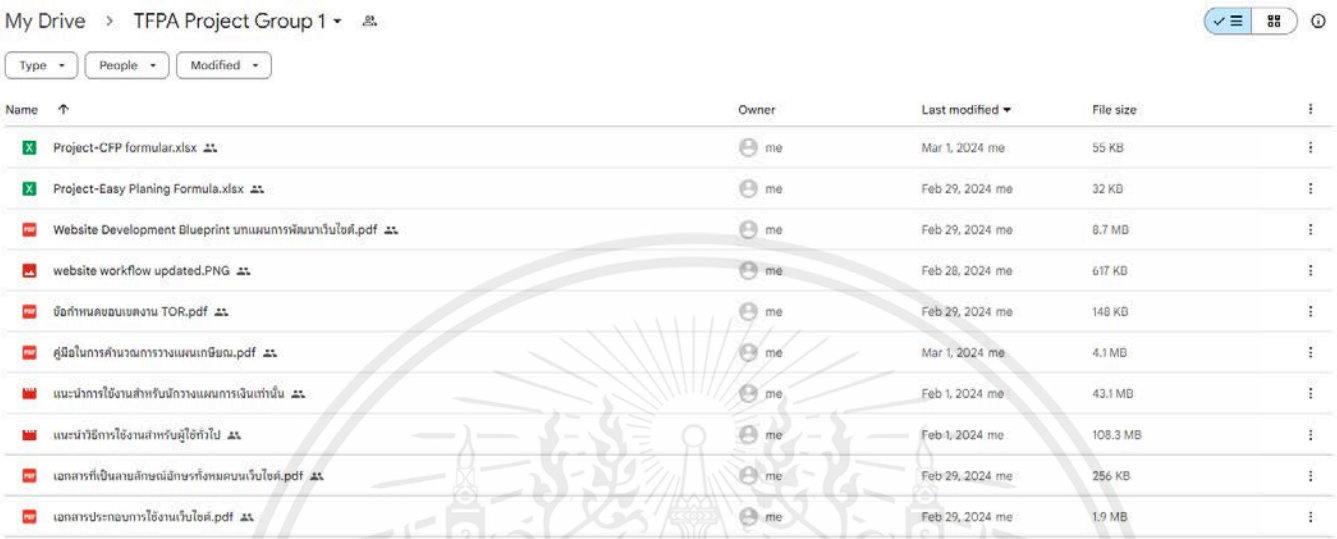
Appendix A



To grant access to both the TFPA and developers for the documents listed (3.1 through 3.5), you can state:

"Access to all documents, including:

1. A prototype or prototype simulator for the website
2. A comprehensive Website Development Blueprint or development plan chapter
3. A User Manual with detailed documentation and instructional video
4. A Website Workflow or working diagram
5. All written documents on the website, such as articles, guides, and resources
6. Additionally, an Excel spreadsheet for calculating retirement planning in both EASY PLANNING and RETIREMENT PLANNING formats

is available through the provided Google Drive link or by scanning the QR code."

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https://drive.google.com/drive/folders/1mHHH-yrJYe0OIuplO5t5dOJ8GR02r4qF?usp=drive_link

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