

# **WEALTHWISE FINANCIAL ADVISING PLATFORM**

## **Project Proposal**

Draix Wyatt, John Akujobi, Norman Nguyen, Sawyer Theis

SE 306 - Software Project Management and Testing

Dr. Zainab Albujaasim

Feb 10<sup>th</sup>, 2025

# I. Request of Proposal

WealthWise Financial Advising is a digital platform designed to help individuals make informed financial decisions through personalized services. The platform provides access to certified financial advisors, a range of financial tools, and the latest market news, allowing users to manage personal wealth and investments efficiently.

The core of our platform revolves around offering personalized financial advice through one-on-one consultations with certified advisors, covering areas such as retirement planning, budgeting, and investment strategies, etc. Users can easily schedule appointments through an integrated booking system that ensures hassle-free experience. In addition to personalized advisory services, WealthWise offers exclusive financial events where users can register and attend seminars, workshops, and webinars led by financial educators.

The platform also features a financial education resource, offering access to market news, stock analysis, and insights into current financial trends. This allows users to stay informed on the latest developments that might affect their investments and financial decisions.

Furthermore, we provide a variety of financial calculators, including those for loan interest, Mortgage calculator, budgeting, and retirement planning insurance coverage, etc. all designed to give users a hands-on approach to their financial management. Clients can input their financial data and receive tailored insights, helping them make smarter financial decisions.

The platform offers a range of subscription plans that give users access to premium features, including personalized financial advice from certified advisors, advanced tools for

detailed portfolio analysis, and exclusive content designed to help users achieve their specific financial goals.

We are looking for a software company willing to build this system for us and your company highly recommended. We look forward to working with you on this system that will allow our financial Advising platform to run much more smoothly and efficiently in the future.

## Table of Contents

I.	Request of Proposal .....	2
II.	Scope.....	5
A.	Background of system.....	5
B.	Existing Software.....	5
C.	Solution.....	7
D.	About the company and organization chart .....	7
III.	Plan .....	9
A.	Functional Work Breakdown Structure (FWBS) .....	9
B.	Milestones .....	9
C.	Critical Path Analysis.....	11
D.	Project Schedule (Gantt chart) .....	12
IV.	Estimation .....	13
A.	Estimation size and cost.....	13
B.	Model and Calculation.....	13
C.	Financial Advantage.....	15
V.	Term, Condition and Warranty.....	16
VI.	Terminology .....	22
VII.	Log Meeting and Review Process.....	25

## II. Scope

### A. Background of system

Managing personal finances can be challenging without the right tools and guidance. The WealthWise financial advising platform is designed to help users take control of their financial health by providing a secure and efficient system. It allows users to log in, make transactions, schedule appointments with professional financial advisors, and access financial tools to manage their budget and savings effectively. By enabling clients to use WealthWise services from anywhere, this system reduces management costs while ensuring a smooth and convenient experience.

### B. Existing Software

#### 1. Envestnet MoneyGuide

- About: MoneyGuide had about a third of the market share for financial advisors in 2023, making them one of the most popular app platforms in the industry. Their goal is to make it easier for advisors to collect client information, analyze finances, and create strategies to help clients achieve their financial goals.
- Software was first designed and launched year: 2000.
- Providing services: Online Fact Finder, Health Care Cost Smart Goal, Test Variables in PlayZone, Allocation Comparison, Time Saving Integrations, What If Worksheet, Plan Summary, Custom Report Templates, Estate Planning, Auto Goals, Risk Tolerance, Holistic Stress Testing, Client Planning Portal, Social Security Optimization, Detail

Plan Analytics, Net Worth, Risk Management, Custom CMA's, Total Income Modeling, Advanced Lifetime Protection, Secure Income Modeling, Tax Planning.

- Resources: virtual Bootcamps, in-person lab, videos, user guides, searchable knowledge base, coaching, webinars.

## 2. RightCapital

- About: “RightCapital’s software is built to make the financial planning process a breeze for advisors and clients. Our tools and support will help you advance your practice and grow your business. Together, we can build a clear game plan to help your clients achieve their financial goals.
- Software was first released: 2015
- Providing services: Interactive Retirement Planning, Tax-Efficient Strategies, Social Security Optimization, Cash Flow Map, Budgeting, Student Loan Management, Insurance Needs Evaluation, Demystified Estate Planning, Risk Tolerance Assessment, Account Aggregation
- Resources: CFP CE-credit webinars, flyers, videos, and more.

## 3. eMoney Pro

- About: “For over 20 years, we’ve worked with thousands of financial professionals to create products and services that make a difference. We listen, research, and test to ensure we deliver continuous enhancements to our core products while exploring new features and services to keep pace with the evolving planning landscape.”

- Providing services: Monte Carlo Analysis, Account Aggregation, Client Portal, Decision Center, Plan summary. Education and practice management, onboarding and training, client support, data migration services.
- Resources: case studies, news, webinars, blog, summit.

## C. Solution

From the existing software, we suggest building a web application that lets users access the system online through their web browser. This will help us manage connection flow and control access remotely. We also include some features already available on the market, like basic financial tools, and add custom features based on client requests. The project will not include these features: virtual Bootcamps, social security optimization, risk management, ... those didn't list in the proposal. The project will have a user interface (UI) and user experience (UX) design that are considered clear and intuitive.

To handle client requests, we suggest setting up a local server for the application. This will allow it to process multiple requests within the building without relying on third-party services, reducing security risks and the chance of a data breach while also increasing control, reliability, and availability.

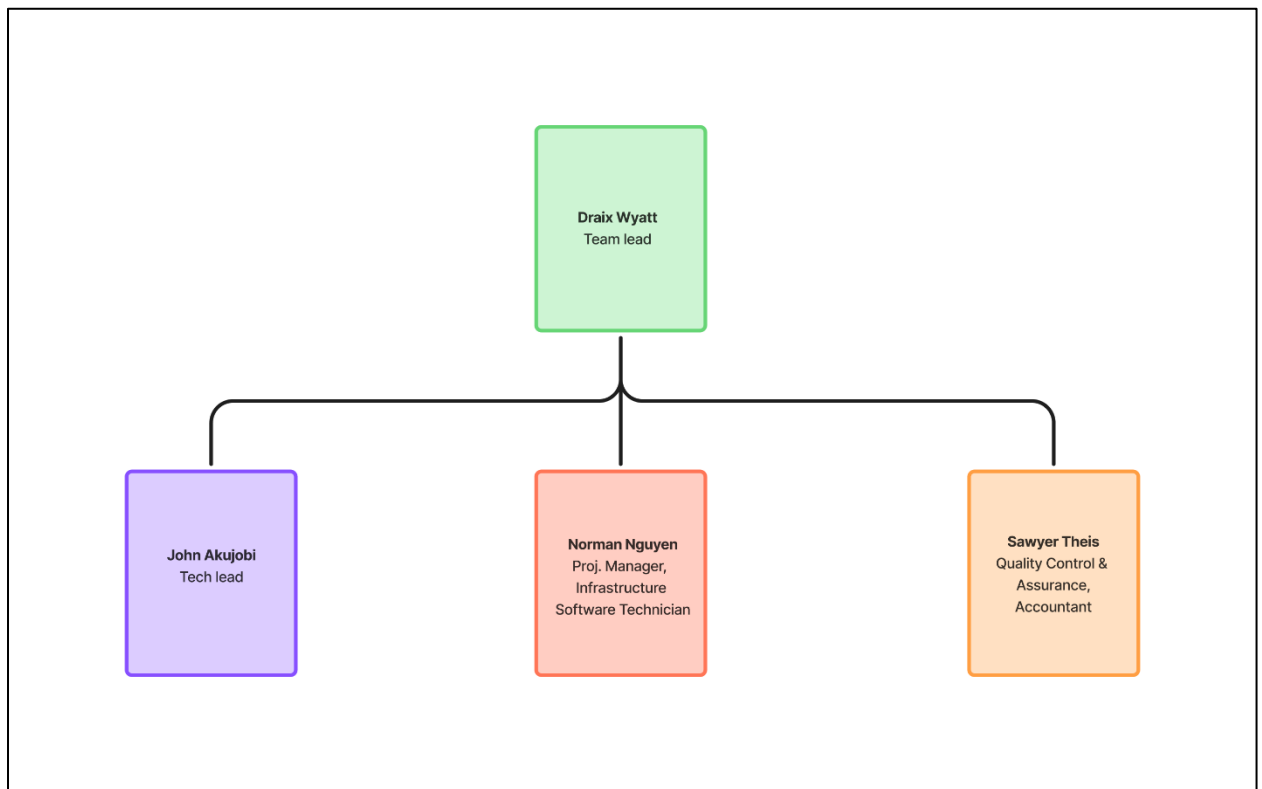
## D. About the company and organization chart

### 1. About the company

Arqer is a small solution provider that helps businesses the way they need. We offer services like business technology solutions, software development, and custom digital tools to make things easier. Whether you need a specific app, system integration, or IT advice, we work

with you to find the right solution. Our goal is to keep things simple, effective, and useful for your business.

## 2. Organization chart



*Figure 1. Arqer's organization chart*



### III. Plan

#### A. Functional Work Breakdown Structure (FWBS)

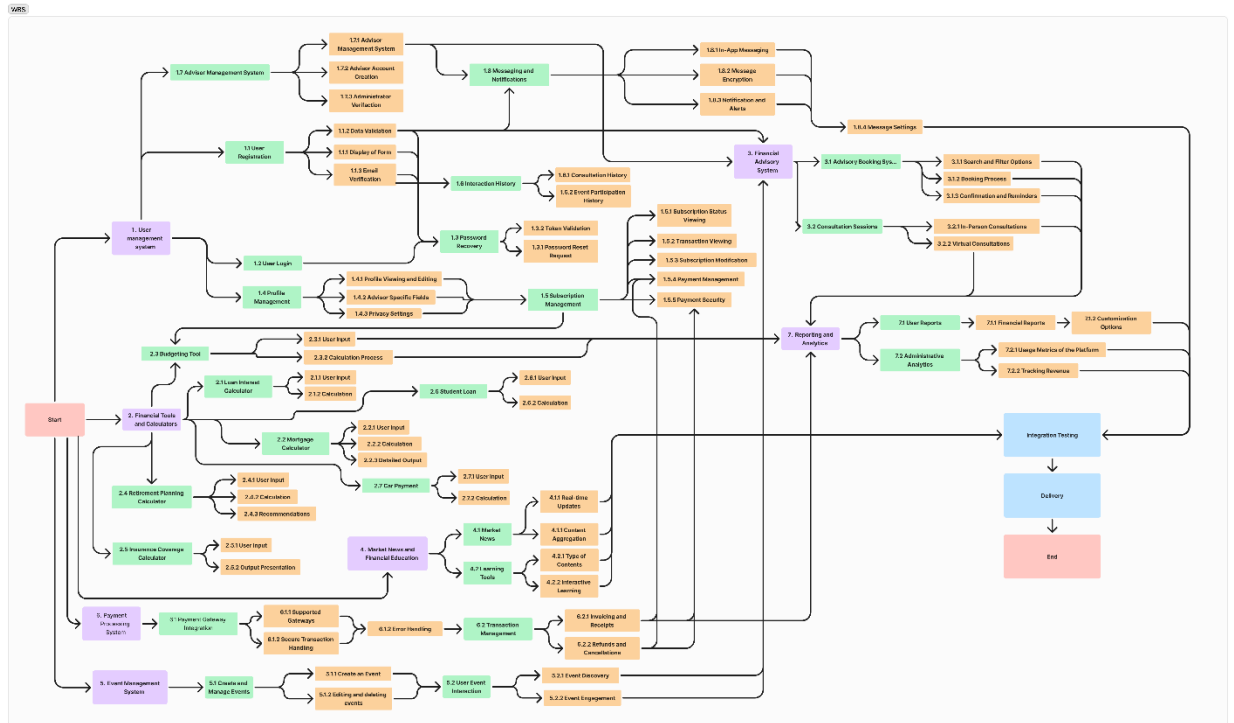


Figure 2. Functional Work Breakdown Structure (FWBS)

Above is the functional work breakdown structure. It shows the progression of work as the development progresses. Purple represents top-level systems, green represents sub-level systems, and orange is the lowest-level subsystems. The development will begin at “Start” and progress to “Integration Testing,” “Delivery,” and finally to “End.”

#### B. Milestones

- Development begins: Occurs at the start of the development process which signifies that work has started. Expected completion date: January 27<sup>th</sup>, 2025.

- System accepts transactions: Occurs upon the completion of the 6.1 Payment Gateway integration which signifies that payment capabilities are implemented. Expected completion date: February 12<sup>th</sup>, 2025.
- On-system communication: Occurs upon the completion of 1.8 Messaging of Notification which signifies that users can now communicate with each other and notifications can be sent. Expected completion date: March 5<sup>th</sup>, 2025.
- Website Well past 60%: Occurs upon the completion of 1.6 subscription management. At this point in development, it cannot be argued the website is less than 60% complete. Expected Date: March 23<sup>rd</sup>, 2025.
- Website completion: Occurs upon the completion of 4.2 learning tools. At this point, the Website is complete. Expected Date: April 16<sup>th</sup>, 2025.

## C. Critical Path Analysis

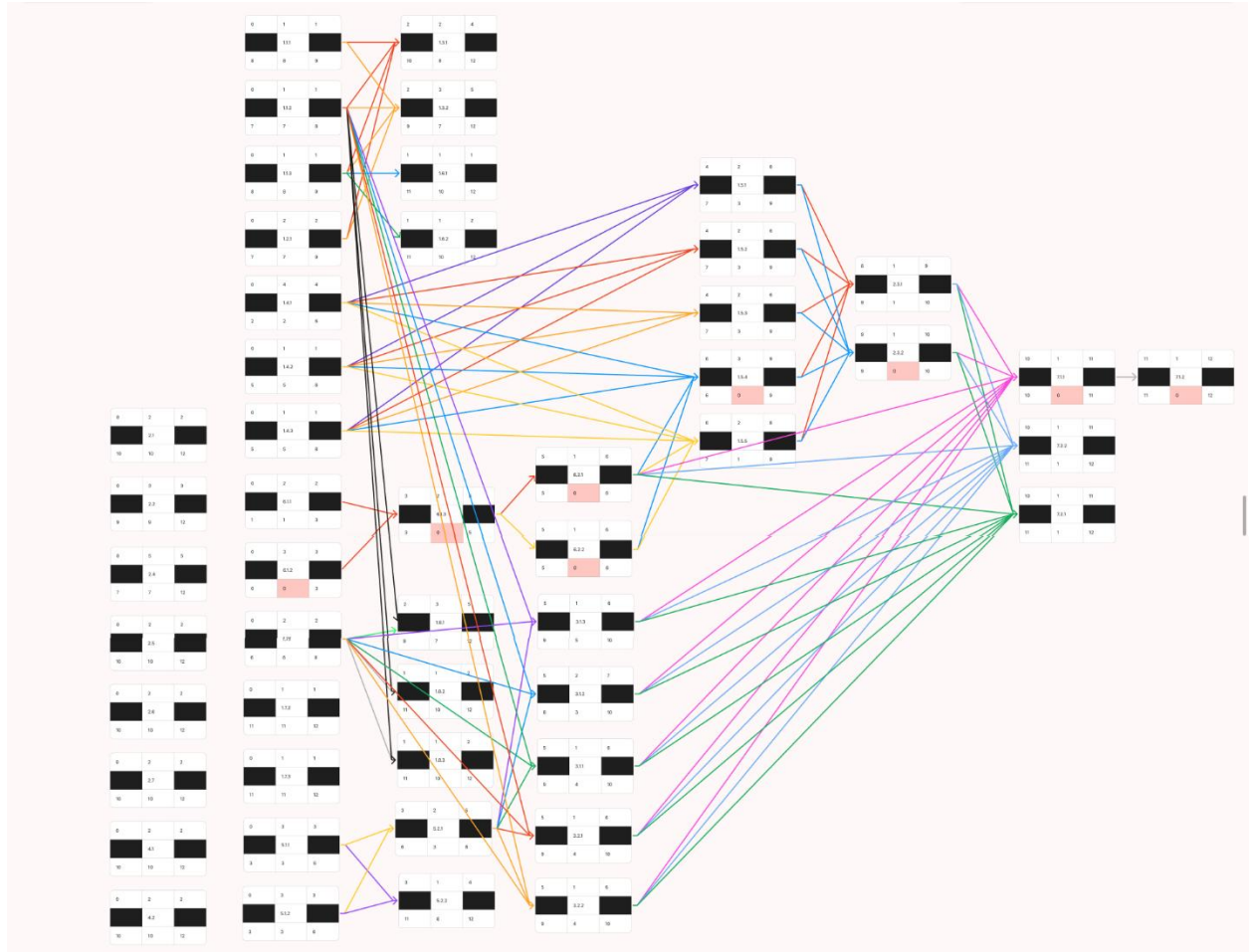


Figure 3. Network diagram with slack hour.

Above is the critical path analysis. The 2 leftmost columns are the starting columns, which were broken down into 2 columns to fit in as few screenshots as possible. Lines of any color represent dependencies where the box on the right side of the arrow with the arrowhead pointing to it is dependent on the left box with the tail end of the arrow attached to it. Lines are colored to more easily determine where the arrows originate and point. The box fields are as follows from left to right and top to bottom as read: early start, duration, early finish, item number, late start, slack time, and late finish. Any box with the slack time box colored red is part of the critical path.

## D. Project Schedule (Gantt chart)

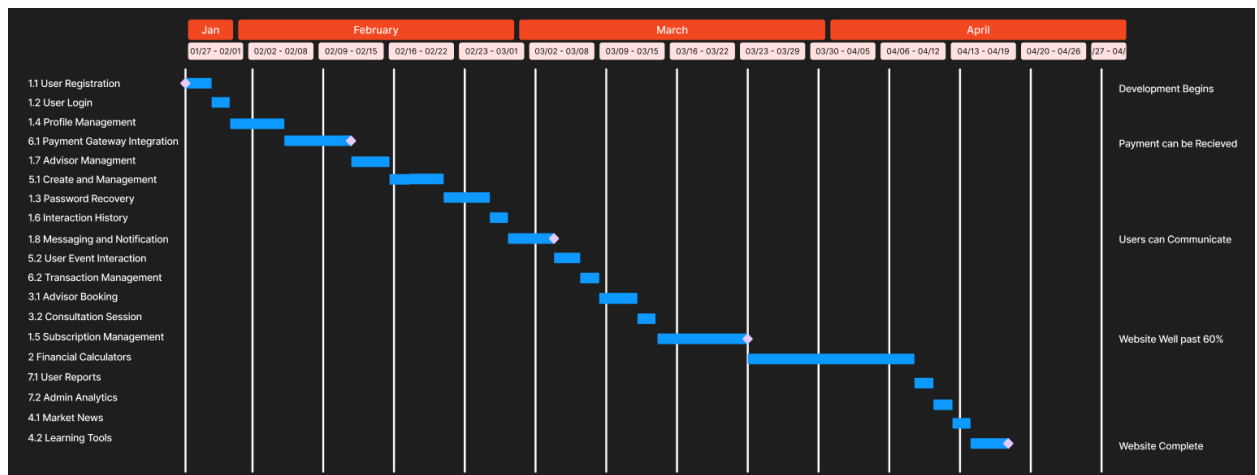


Figure 4. Project Schedule with Gantt chart view

Above is the Gantt chart. To the left side is each item number with the name of said item number. Each item number corresponds to the blue box directly horizontal to it. Along the top is a timeline that displays the date at a given vertical. Each line represents approximately a week. The Purple diamonds are milestones that correspond to the text on the right side directly horizontal to it.

## IV. Estimation

### A. Estimation size and cost

The estimated time for completion of the WealthWise website is 9.3 months. Assuming it costs us \$5,000 per staff month, the project cost is Shestimated at \$214,500. Fortunately, our innovative business model allows us to pay our staff nothing, bringing costs down to \$0. Although total completion may take 9 months, the Arqer team is confident we can reach 60% completion in 3 months.

### B. Model and Calculation

To determine our estimates, we used the Intermediate COCOMO I model. The COCOMO model uses project type and thousands of lines of code (KLOC) to estimate effort, delivery time, average staffing, and cost.

To start, the effort estimation was calculated. The project type was determined to be semi-detached, giving us a value of 3.0 for a and 1.12 for b. To determine the KLOC that was needed, the project was broken into sections, and each section was given an estimation of KLOC.

Sections	KLOC
User management system	3
Financial tool and calculator	0.75
Financial Advisory System	0.5
Market news and financial education	0.5

Event management system	0.5
Payment processing system	1.5
Reporting and analytics	0.5
Total	7.25

The total estimation for the lines of code needed is 7,250. The next step was to determine the effort multipliers. In general, we chose effort multipliers that reflected our limited experience as developers and with website software.

Factor	Rate	Multiplier
Application experience	Low	1.13
Software engineer capability	Low	1.17
Virtual Machine Experience	Low	1.07
Use of software tools	Low	1.10
Product		1.556

The effort multiples are all multiplied together for a total effort adjustment factor or C of 1.556. Using equation 1, the effort estimation was 42.9 months.

$$E = a (KLOC)^b * C \quad (1)$$

The cost estimate is calculated by multiplying the effort estimation by the cost of a staff month (s), as shown in equation 2. Assuming the cost of a staff month is \$5,000, the project would cost \$214,500. However, our enthusiastic employees are willing to work for free, bringing the cost of a staff month down and the total cost to \$0.

$$cost = E * s \quad (2)$$

Using the effort estimation, the delivery time is simple enough to calculate. Using the project type we determined before as semi-detached, the COCOMO model gives us two more variables:  $c = 2.5$  and  $d = 0.35$ . Using equation 3, the delivery time is calculated as 9.3 months.

$$TDEV = c (E)^d \quad (3)$$

The average staffing is the average number of staff needed during development. To find it, effort estimation is divided by delivery time. Using equation 4, the average staff was calculated as 4.6 staff. Our team comprises four people, so we may consider hiring an outside contractor to help with some tasks.

$$S = \frac{E}{TDEV} \quad (4)$$

### C. Financial Advantage

This website can offer numerous financial advantages to Wealthwise, significantly enhancing its business growth and customer engagement. The primary benefit is its ability to reach a broader audience, allowing potential clients from various locations to discover and access Wealthwise's financial consulting services easily. By consolidating all essential information and services in one accessible online hub, the website simplifies customer experience and strengthens the company's online presence and credibility.

Beyond its marketing and informational value, the website also provides an opportunity for direct revenue generation. Offering a budget calculator through paid subscriptions adds an income stream while delivering valuable tools to help users manage their finances more effectively.

## V. Term, Condition and Warranty

These Terms and Conditions (“Agreement”) constitute a binding contract between the client and Arqer (“Service Provider”) for the use of our services to develop software as outlined in this Requirements Document.

Party A (Client):

Legal entity’s name: \_\_\_\_\_

Party B (Service Provider):

Legal entity’s name: Arqer Software Development Agency

### 1. Scope of Work

#### 1.1. Services Provided

- a. The developer team agrees to design, develop, assess, and deploy the software system as specified in the requirements document (RD)
- b. All work should be performed according to the specifications and timeliness mutually agreed upon by both parties.

#### 1.2. Change Requests

- a. Any modification or additions to the project scope shall be documented and approved in writing by both parties.
- b. Additional work arising from change requests should result in adjustments to the project timeline and costs.



## **2. Project Timeline**

### **2.1. Milestones**

- a. The project shall follow a schedule of milestones, each with specific deliverables and deadlines.
- b. Both parties agree to adhere to the project timeline unless modifications are mutually agreed upon.

### **2.2. Delays**

- a. The Developer shall promptly inform the Client of any circumstances that may delay the project.
- b. Delays caused by the Client, including late approvals or feedback, should result in timeline adjustments.

## **3. Payment Terms**

### **3.1. Fees and Invoicing**

- a. The total project cost is \$0, payable in installments as follows:
  - (1) 20% upon signing this Agreement.
  - (2) 30% upon completion of the initial prototype.
  - (3) 50% upon final delivery and acceptance.

### **3.2. Payment Schedule**

- a. Invoices shall be issued according to the milestone completions.

- b. Payments shall be paid within 7 days of invoice receipt.

### 3.3. Additional Costs

- a. Any additional expenses incurred due to scope changes or Client requests shall be billed separately with prior approval.

## 4. Intellectual Property Rights

### 4.1. Ownership

- a. Upon full payment, all intellectual property rights for the developed software, including source code and documentation, shall transfer to the Client.

### 4.2. Developer's Tools

- a. The Developer shall retain ownership of any pre-existing materials or generic modules used in the project, provided they do not contain the Client's proprietary information.

## 5. Confidentiality

### 5.1. Non-Disclosure

- a. Both parties agree to keep all confidential information strictly confidential and not disclose it to any third parties without prior written consent.

### 5.2. Data Protection

- a. The Developer must implement industry-standard security measures to protect the Client's data.

## 6. Warranties and Liabilities

### 6.1. Warranty and Maintenance Period

- a. The Developer offers a warranty period of 1 month from the date of final acceptance, or until the end of the course, whichever comes first, during which any defects will be corrected at no additional charge.

### 6.2. Limitation of Liability

- a. The Developer's total liability under this Agreement shall not exceed the total fees paid by the Client.

## 7. Maintenance and Support

### 7.1. Post-Deployment Support

- a. Maintenance and support services beyond the warranty period should be provided under a separate agreement.

### 7.2. Updates and Upgrades

- a. Any updates or upgrades requested by the Client shall be subject to additional fees and timelines.

## 8. Termination

### 8.1. Termination by Client

- a. The Client may terminate this Agreement with a 30-day written notice. Fees for services rendered up to the termination date shall be paid immediately.

### 8.2. Termination by developers

- a. The Developer may terminate this Agreement if the Client fails to make payments or breaches any terms, with a 30-day written notice.

## **9. Dispute Resolution**

### **9.1. Negotiation**

- a. Both parties agree to attempt to resolve disputes through mutual negotiation.

### **9.2. Arbitration**

- a. If negotiation fails, disputes will be settled by arbitration in accordance with the rules of the state of South Dakota.

## **10. Governing Law**

This Agreement shall be governed by and construed in accordance with the laws of the state of South Dakota.

## **11. Force Majeure**

Neither party shall be liable for delays or failures due to causes beyond their reasonable control, such as natural disasters, war, or government actions.

## **12. Entire Agreement**

This Agreement constitutes the entire understanding between both parties and supersedes all prior agreements, whether written or oral.

## **13. Amendments**

Any amendments to this Agreement shall be made in writing and signed by both parties.

## **14. Severability**

If any provision of this Agreement is found to be unenforceable, the remaining provisions shall remain in effect.

## **15. Notices**

All notices shall be in writing and delivered to the addresses provided by both parties.

---

By signing below, both parties acknowledge that they have read, understood, and agree the terms and conditions outlined in this Agreement.

### **Party A's Representative**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### **Party B's Representative**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## VI. Terminology

### 1. Software & Project Management Terms

- Software Project Management – Planning, organizing, and overseeing software projects.
- Functional Work Breakdown Structure (FWBS) – A hierarchical breakdown of work into smaller tasks.
- Critical Path Analysis – Method to determine the longest sequence of dependent tasks.
- Gantt Chart – Project timeline showing tasks, dependencies, and deadlines.
- Milestones – Key events or checkpoints in a project's timeline.
- Change Requests – Formal proposals to modify the project scope or requirements.
- Scope of Work – Detailed outline of work to be performed.
- Integration Testing – A phase in software development where different modules are tested together.

### 2. Financial & Business Terms

- Financial Advisors – Professionals who provide financial planning and investment guidance.
- Retirement Planning – Preparing financially for life after employment.
- Portfolio Analysis – Evaluating the performance and composition of an investment portfolio.

- Market News & Stock Analysis – Insights into financial markets and stock.
- Budgeting – Creating a plan to manage income and expenses.
- Subscription Plans – Payments that grant users access to premium services.
- Revenue Generation – The process of making money from a business.

### 3. Software Development & Estimation Models

- COCOMO Model (Constructive Cost Model) – A model for estimating software development effort, cost, and schedule.
- KLOC (Thousand Lines of Code) – A unit of measure for software size based on lines of code.
- Effort Multipliers – Factors that adjust effort estimates based on project characteristics.
- Effort Estimation – Predicting the amount of work required for a project.
- Delivery Time – The time required to complete a software project.
- Semi-Detached Project – A classification in the COCOMO model for projects with a mix of experienced and inexperienced developers.
- Staff Month – A unit representing the amount of work one person can complete in a month.

### 4. Legal & Contract Terms

- Intellectual Property Rights – Legal rights governing ownership and usage of creative works.
- Confidentiality & Non-Disclosure – Agreements to protect sensitive business information.

- Force Majeure – A clause that removes liability for unforeseeable events like natural disasters.
- Arbitration – A method of resolving disputes outside of court.
- Governing Law – The legal framework that applies to the contract.
- Termination Clause – Conditions under which a contract can be ended.
- Warranty Period – Time when a developer is responsible for fixing issues.
- Severability – A legal concept ensuring that if one part of an agreement is invalid, the rest remains in effect.

## 5. Technical & Payment Processing Terms

- Payment Gateway Integration – service that processes credit/debit card transactions.
- Messaging & Notification System – Features that enable user communication and alerts.
- Post-Deployment Support – Maintenance and updates provided after the software is released.



## VII. Log Meeting and Review Process

- January 23<sup>rd</sup>, 2025 – Team meeting
- January 24<sup>th</sup>, 2025 – Client meeting
- January 27<sup>th</sup>, 2025 – Reviewing and organizing team central repository
- January 29<sup>th</sup>, 2025 – Team meeting
- February 8<sup>th</sup>, 2025 – Team meeting