

AUXILIARE: Connecting Philippine Founders and Investors for a Thriving Digital Startup Ecosystem

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Abstract—The Philippine startup ecosystem includes founders seeking financial support and investors searching for potential ventures, yet discovery, communication, and identity-related concerns can complicate connections between these groups. AUXILIARE was developed as a progressive web application intended to support founder–investor discovery through structured profiles, short-form video pitches, preference-based recommendations, and direct messaging. This paper presents a condensed account of the system described in the original undergraduate capstone, including its requirements, architecture, role-based functionality, and preliminary usability evaluation. The implementation used React and Tailwind CSS for the user interface, a Laravel application programming interface for application logic, PostgreSQL for structured information, and object storage for uploaded media. During unmoderated user acceptance testing conducted in November 2025, five founders and five investors completed role-specific questionnaires covering understandability, learnability, operability, and attractiveness. Reported composite means were 3.76 out of 4.00 for founders and 3.55 for investors. These ratings provide preliminary evidence of favorable perceptions among the participating users, but the evaluation did not establish real-world matching effectiveness, investment outcomes, or scalability. The study documents a functioning project prototype and identifies directions for more rigorous evaluation.

Index Terms—founder–investor matching, startup ecosystem, progressive web application, video pitching, user acceptance testing

I. INTRODUCTION

Early-stage ventures frequently depend on relationships with investors, mentors, and supporting organizations. Finding relevant contacts is not simply a matter of presenting an idea: founders need an opportunity to communicate its purpose and maturity, while prospective investors need enough structured information to determine whether a venture aligns with their interests. Previous work has examined the broader development of digital platform economies [1], the successes and failures of startups in the Philippines [2], and the role of video pitches in crowdfunding contexts [3].

The original AUXILIARE capstone responded to this setting by proposing a dedicated Philippine platform for two primary participant groups: founders and investors. Its design combined short-form pitches with profiles, preference-based discovery, and direct communication. The platform was intended to facilitate the discovery of relevant ventures and contacts, not to execute investment transactions or replace investors’ due diligence.

This paper provides a concise technical account of the project and its documented evaluation. Its contribution is

descriptive: it reports the development of the prototype and the participant feedback collected during the capstone. It does *not* claim to establish a new matching algorithm or demonstrate improved funding results. The source material is the team’s 2026 undergraduate capstone manuscript [4].

II. RELATED WORK AND MOTIVATION

A. Digital platforms and venture discovery

Digital platforms can facilitate exchanges among participants whose interests, information, and resources differ. Acs *et al.* [1] situate such platforms within a larger economic and technological shift. In the Philippine context, startup experiences and constraints have also been examined through exploratory research [2]. These studies provide motivation for a dedicated discovery platform, though they do not establish that any particular implementation will improve investment outcomes.

B. Video-based presentation and trust

Video pitches provide a means of introducing a venture beyond a static listing. Kolbe *et al.* [3] studied why video pitches matter in crowdfunding, supporting the relevance of video as an object of inquiry. AUXILIARE incorporates video into a different workflow: investors can review a pitch and supporting venture information before seeking direct contact with its founder. The capstone also treated identity verification, moderation, and controlled role permissions as important design considerations. These were documented as application features rather than independently tested guarantees of security or trustworthiness.

III. RESEARCH OBJECTIVES AND SCOPE

The original study specified four objectives: (1) analyze the concept of a Philippine founder–investor web platform; (2) design its processes and data structures; (3) develop a progressive application supporting registration, pitches, matching, profile and user management, and communication; and (4) evaluate its usability with target users [4].

AUXILIARE was conceived for Filipino adults aged 18 years and above. Its core workflow did not include monetary transfers, investment execution, or formal verification of commercial viability. The initial recommendation mechanism used attributes such as categories, funding stages, keywords, and tags rather than a trained artificial intelligence model. The system was therefore intended to serve as a discovery and networking prototype, with the more ambitious question of whether it improves investment matching left for later study.

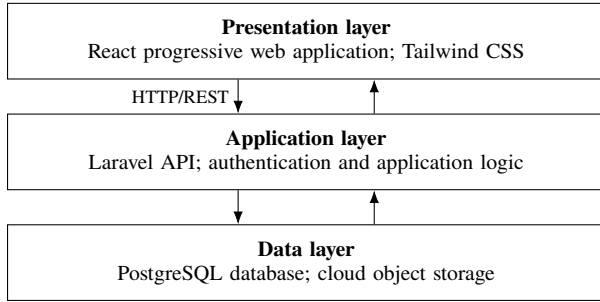


Fig. 1. Simplified architecture, redrawn from the three-layer description in the original capstone (not an independently verified deployment diagram).

IV. SYSTEM DESIGN AND IMPLEMENTATION

A. Architecture and technologies

The implementation followed an iterative Agile software development life cycle covering requirements, design, development, testing, deployment, and review. The architecture presented in the capstone distinguished a presentation layer, an application layer, and a data layer. As summarized in Fig. 1, the browser-based client was built using React, with Tailwind CSS for interface styling. The Laravel backend exposed an API for application logic; the manuscript described RESTful communication and token-based authentication. PostgreSQL stored relational records, while cloud object storage handled media and file uploads. These elements are reported from the capstone documentation; this abridgment did not independently audit the codebase.

B. Development and testing sequence

The requirements phase assembled technical and contextual material on startups, investor needs, existing web systems, and the intended user roles. The design phase then organized the interactions among users, pitches, recommendations, messages, and administrative processes in diagrams and relational entities. Implementation proceeded through successive interface and backend work, followed by functional testing of registration, login, pitch uploading, profile management, and messaging. The capstone described iterative debugging in response to identified issues, and an end-user assessment before the project’s final review.

The architecture was selected for separation of concerns rather than to demonstrate a unique computing technique. The client rendered user-facing features, the Laravel backend accepted authenticated requests and applied platform rules, and the data layer persisted user, pitch, and interaction records. The source describes JSON Web Tokens as part of its authentication approach. Its object-storage layer handled uploaded pitch videos and other files; the capstone also noted storage and streaming costs as reasons to restrict media sizes and durations. These are design descriptions, not independently measured throughput, latency, or availability results.

TABLE I
CORE FUNCTIONS BY ROLE, CONDENSED FROM THE CAPSTONE

Role	Documented functions
Founder	Profile and startup information; pitch uploads; documents; discover and contact investors.
Investor	Review and filter pitches; view venture information; save or engage with content; contact founders.
Administrator	Account oversight; identity-verification workflow; pitch moderation and reports.

TABLE II
SELECTED ENTITIES IN THE DOCUMENTED DATA MODEL

Entity	Purpose in the system design
Pitch; pitch_document	Ventures, short-form pitches, and attachments
Connection; message	Role-to-role connections and conversations
User_preference	Declared investor or founder interests
User_interactions	Recorded views or other engagement signals
User_similarities	Stored similarity scores between users
Recommendations	Targeted user or pitch suggestions

C. Roles and principal workflows

Three roles structured system interaction: *founder*, *investor*, and *administrator*. Founders could register, maintain professional and venture information, create video pitches, attach supporting documents, review interactions, and communicate with interested investors. Investors could discover pitches, review information, express interest, and initiate contact. Administrators were responsible for user oversight, identity-verification workflows, and content moderation. The source manuscript provided process diagrams, a role-permission matrix, database tables, and entity relationships to document these functions.

D. Information model

The original manuscript documented database relations for user accounts, role profiles, pitch records, tags, documents, connections, messaging, notifications, and moderation. It also described separate relations associated with recommendation delivery and preference storage. Table II summarizes selected data entities to clarify how the platform’s functions relate to recorded information. No source code was examined for this public-facing adaptation, so table names and fields are characterized as part of the documented schema rather than audited production structures.

The manuscript described preferences such as industry, funding stage, sector, expected funding range, geographical interest, and excluded categories. It also represented interactions and similarity scores as separate records rather than treating preferences as a single static text field. In principle, these structures allow recommendations to reflect both a person’s declared interests and prior platform activities. The present paper does not infer an implemented hybrid recommendation algorithm solely from the existence of fields named “hybrid” or “collaborative” in the database schema.

E. Preference-based discovery

The documented discovery mechanism drew on users' declared interests and structured platform data. Preference records could include industries, stages, funding ranges, geographical choices, and exclusions. The data model also included similarity-score records for user recommendations, with scores represented on a 0–1 scale. This documentation is sufficient to describe the intended matching workflow, but not to reconstruct and verify a specific scoring formula, ranking threshold, or optimization procedure. Consequently, no algorithmic accuracy, precision, or recall statistic is reported in this paper.

F. Trust, access control, and technical boundaries

The capstone documented role-based create, read, update, and delete permissions. In particular, pitch creation belonged to founders, consumption to investors, and moderation functions to administrators. Identity verification and reporting were intended to mitigate misuse. However, security performance was not established through independently documented penetration testing, and verification mechanisms should not be equated with a guarantee of authenticity. The project's own limitations also acknowledged constrained content moderation, media upload restrictions, and the absence of more advanced personalized recommendation methods.

V. EVALUATION METHOD

A. Participants and procedure

The capstone reported unmoderated user acceptance testing from 6 to 8 November 2025 involving five Filipino founders and five Filipino investors. Participants interacted with the application and completed role-specific questionnaires using Google Forms. The four assessed dimensions were *understandability*, *learnability*, *operability*, and *attractiveness*, following the usability categories adopted from ISO/IEC 9126 in the original manuscript [5]. This historical choice is described rather than recast as a test under a newer software-quality standard.

Each questionnaire used a four-point agreement scale, ranging from 1 (strongly disagree) to 4 (strongly agree). The capstone interpreted average scores of 3.50–4.00 as *Strongly Agree*, 2.50–3.49 as *Agree*, 1.50–2.49 as *Disagree*, and 1.00–1.49 as *Strongly Disagree*. Dimension means and overall means were presented separately for founders and investors.

B. Measured variables and reporting

The published questionnaire tables provide per-item means and dimension summaries for each role. The present adaptation uses the original composite means without recalculating participant-level statistics from a separate dataset. Although the appendices contain individual numerical responses, the manuscript alone does not resolve every mismatch between the displayed question text and the published evaluation tables. Item wording has therefore not been harmonized or silently replaced.

Responses were collected for usability dimensions rather than for performance metrics such as average time to find an

TABLE III
REPORTED USABILITY DIMENSION MEANS (FOUR-POINT SCALE)

Dimension	Founders	Investors
Understandability	3.80	3.56
Learnability	3.64	3.60
Operability	3.84	3.52
Attractiveness	3.76	3.52
Reported grand mean	3.76	3.55

Source: Capstone Tables 41 and 46. Five founders and five investors ($n = 5$ each). Descriptive questionnaire means, not observed task measures.

investor, unsuccessful contact attempts, pitch ranking precision, or user retention. The reported interpretation labels follow the authors' original four-point scale. In particular, an arithmetic mean described as "Strongly Agree" denotes that the sample's average falls within a defined reporting interval; it does not mean that every participant selected the highest response option or that a software-quality standard was independently certified.

C. Interpretive boundaries

This was a small formative evaluation of participant perceptions, not a controlled experiment of matching performance. The usability-study heuristic associated with small participant groups [6] does not itself demonstrate that five responses per group can support broad conclusions about user satisfaction. The study did not report a comparative baseline against conventional investor discovery, verified funding outcomes, or longitudinal adoption results. Reported means are therefore used descriptively rather than as population estimates.

VI. RESULTS

A. Ratings by respondent group

Table III reproduces the composite dimension means published in the capstone. All four founder dimension means fell within the manuscript's *Strongly Agree* range; operability was highest (3.84), followed by understandability (3.80), attractiveness (3.76), and learnability (3.64). The reported overall founder mean was 3.76. Among investors, learnability was highest at 3.60; understandability was 3.56, while operability and attractiveness were each 3.52. The reported overall investor mean was 3.55. These are ratings from five individuals in each role and must not be treated as evidence of population-wide acceptance.

B. Feature-specific observations

Individual questionnaire items identify areas needing closer examination. Founder participants rated video-pitch upload reliability and efficiency at 3.40, below their other operability items. Among investor participants, the item concerning the relevance of matching recommendations received 3.40, as did functionality for saving, tracking, or categorizing pitches. A rating of 3.40 corresponds to *Agree* under the original scoring rules, not *Strongly Agree*. These differences do not establish specific defects, but they suggest appropriate priorities for subsequent task-based testing.

C. Documented evaluation inconsistencies

The capstone's published investor results table described the platform's purpose as sourcing opportunities from Philippine founders, whereas the corresponding appended response table referred to *securing investment for my startup*. Another appended investor item referred to *my pitch video*, although the published evaluation table described the presentation of pitch information. These discrepancies cannot be resolved from the manuscript alone. For that reason, the present paper retains the original numerical summaries but does not claim that all instrument wording has been independently verified. The original form and response records would be required to settle these differences.

VII. DISCUSSION AND LIMITATIONS

The design demonstrates how multiple ordinary web-application mechanisms can be brought together for a focused networking use case. A role-specific experience, media-based pitch presentation, profile metadata, preference criteria, and messaging are plausible components of a founder-investor discovery workflow. The completed capstone documents their integration within a prototype.

The evaluation, however, supports a narrower conclusion than proof of matchmaking success. Participant agreement scores are subjective appraisals of the experience; they do not show how many suitable investors were identified, how often recommendations were relevant under an independent standard, or whether users established sustained commercial relationships. No randomized control group, independent relevance judgments, or match-ranking benchmark was reported. The current manuscript also does not establish production-scale reliability or current deployment availability.

Additional limitations include small and unrepresentative participant groups, questionnaire-wording discrepancies, self-report measures without independently documented task metrics, and a historical software-quality framework. The recommendation mechanism was described at the data-model and feature level rather than through a reproducible scoring specification. The compiled results should accordingly be described as *preliminary usability feedback* rather than proof of market readiness or investment performance.

A subsequent study could verify the code implementation, inspect the original response forms, perform observed task-based usability sessions, and compare ranked matches against a basic search baseline. Independent relevance assessments and metrics such as precision at a fixed rank would address the central effectiveness question more directly. None of these experiments is represented as having been completed in the capstone.

A. Implications for a future evaluation

A stronger follow-up could separate evaluation of usability from evaluation of matching accuracy. For usability, participants could be asked to complete realistic tasks: create a pitch, retrieve a supporting file, review a venture, or initiate a connection. Researchers could then record observed completion,

errors, elapsed time, and post-task perceptions. For discovery, an independently assessed set of founder and investor profiles could be ranked by the existing system and compared against basic filters. Such a study could show whether the particular recommendation approach adds value beyond the features already available in ordinary directory or search interfaces.

The capstone's reported feature-specific differences offer practical starting points: pitch uploading should be assessed for reliability, while investor-side pitch relevance and saved-pitch workflows should be inspected under realistic task conditions. Because the platform deals with identities, business plans, and financial interests, a future study should also consider confidentiality and the safe handling of participant and venture data. These are recommendations for further work, not results of the original testing.

VIII. CONCLUSION

AUXILIARE was developed as a web-based prototype for connecting Philippine startup founders and prospective investors through video pitching, structured profiles, preference-based discovery, and communication tools. The original capstone reported favorable preliminary feedback from five founders (overall mean 3.76/4.00) and five investors (3.55/4.00). Those observations support continued iteration and more rigorous study of the prototype, but they cannot demonstrate better investor matching, successful financing, or population-level usability. A reproducible assessment of recommendation quality and a verified usability instrument would be necessary before making stronger effectiveness claims.

MANUSCRIPT PROVENANCE

This public-facing abridgment was prepared from the three authors' 2026 University of Batangas capstone. Editorial condensation and wording were AI-assisted; the study design, functions, and reported numerical results were taken from the original manuscript. The document has not been peer reviewed and is not presented as an IEEE conference or journal publication.

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