#### **Datomize – Project Proposal**

A Modular Diary Application for Fostering a Healthy Lifestyle

#### 1. Introduction

#### 1.1. Background

Maintaining a healthy lifestyle has been consistently found in meta-analyses to improve both physical and psychological well-being across various domains (Firth et al., 2020; Loef & Walach, 2012; Pape et al., 2022; Wong et al., 2022, 2023). However, Hong Kong survey studies revealed the suboptimal lifestyles adopted by the general public (Chan & Leung, 2015; Lee & Loke, 2005; Li et al., 2022). While lifestyle medicine interventions were found to be effective in improving lifestyle choices and psychological well-being, the effects were short-lived (Wong et al., 2021, 2022, 2023). Therefore, this proposed project aims to develop an application based on lifestyle medicine that is optimized for ease of use and continued user retention.

### 1.2. Rationale

While numerous digital mental health services are available in Hong Kong, few base their services on lifestyle medicine, yet fewer incorporate comprehensive and easy-to-use tracking and feedback features regarding users' lifestyle habits. On the other hand, habit tracker apps and journaling apps usually only offer data *collection* but not *interpretation* capabilities, failing to produce meaningful insight for users. The proposed application situates itself between the low-intensity self-help landscape and the tracking/journaling marketspace, bridging the gap between qualitative intervention and quantitative outcome measurement. With the proliferation of the "quantified self" cultural phenomenon accelerated by portable and wearable technologies (Lupton, 2016), this proposed project aims to capitalize on this trend to provide a convenient habit formation and self-reflection tool while addressing the potential pitfalls associated with self-tracking.

### 1.3. Theoretical Framework

## 1.3.1. Tracking and Journaling for Lifestyle Medicine

The proposed project's central intervention is to utilize lifestyle trackers and journals to facilitate healthy lifestyle behavior. Evidence suggests that lifestyle tracking is associated with numerous beneficial physical and mental health outcomes, including better sleep, diet, and exercise habits (Achananuparp et al., 2018; Griffiths et al., 2024; Sohal et al., 2022). Additionally, qualitative means of journaling are associated with increased psychological well-being and decreased distress (Hema M, 2020; MacIsaac et al., 2023; Smyth et al., 2018). Therefore, lifestyle medicine intervention through journaling is a promising method if consistent and habitual usage is achieved.

### 1.3.2. Habit Formation and User-Friendliness

The proposed project also emphasizes a systematic and modular approach to journaling. This design philosophy is partly influenced by health psychology theories of habit formation and the real-life considerations of using journaling as a self-improvement tool. In a review by

Harvey et al. (2022), habit formation is theorized as a process involving repetition and reinforcement of automatic behavior, triggered by stable contextual cues (*figure 1*). By incorporating a systematic methodology towards journaling, the proposed project aims to structure the application's core functionalities around the model, providing an optimal environment for users to develop the habit of daily app usage.

Additionally, the proposed project also considers common issues facing users in real-life journaling practices, including -1) data input accuracy, 2) lack of data-analytic competence, 3) loss of motivation, 4) perceived uselessness, 5) lack of actionable behavior, and 6) dislike of device or aesthetics (Achananuparp et al., 2018; Feng et al., 2021; Hollis et al., 2017). The modularity of the proposed project aims to solve these problems by lowering the barrier to entry and avoid overwhelming users. Premade templates for different aspects of lifestyle diaries will be available as optional modules, so that users can start small with the most significant aspects and gradually add more modules as they build up familiarity and habit with using the application. Dedicated visualized statistics and psychoeducational inferences will also make up the core features of the application, providing lifestyle medicine intervention beyond merely logging data.

### 2. Proposed Product

### 2.1. Overview and Added Value

*Datomize* – the proposed product, is a comprehensive and modular diary application, offering easy-to-use lifestyle tracking tools in addition to traditional text journaling, empowering users to easily record and interpret their lifestyle data. Through pre-module assessment and post-diary guided reflections, *Datomize* supplements the traditional habit-tracking/journaling experience with personalization and insight generation. The initial stage of *Datomize* will include the following modules: diary, mood, sleep, exercise, diet, and gratitude.

#### 2.2. Core Features

The core features of *Datomize* will be separated into four pages: data input, data analysis, calendar, and goal overview. An example showcasing all core features can be found in the **Appendix**.

**Data input** – This is where the modularity functionality resides. Upon downloading the app, users will fill out an optional brief survey about their lifestyle habits and mental health. The survey results will be used to personalize the recommended modules and presented content<sup>1</sup>. It will also be used for optional daily mood check-ins and monthly lifestyle evaluations. After adding a module, users will be greeted with introductory tutorials touching on 1) the evidence-base for a lifestyle choice's association with improved physical/mental health outcomes\*, 2) the psychology of habit formation, and 3) goal setting (refer to **Goal overview**).

**Data analysis** – This page will show descriptive statistics of user-selected modules and inferential statistics if users opted in for daily mood check-in surveys or if they selected two or more modules that support inferential statistics features. The layout will comprise of two

<sup>&</sup>lt;sup>1</sup> Features personalized based on the survey results will be marked by an asterisk (\*)

major blocks: a) data visualization and b) text description. Data visualization involves graphic representation of data trends across various time spans, while text description focuses on explaining the meaning of the data trends and the suggested ranges of values for maintaining a good lifestyle. Additionally, inferential data will be represented as highlights to inform users of the correlation between their lifestyle choices and their mood or other lifestyle choices\*.

**Calendar** – This page focuses on gamification and data visualization. For gamification, features include a journaling streak counter, goal-achievement badges, and challenges. Users can also "bet" on the number of consecutive days they will keep their journaling or lifestyle habit, which will either allow them to earn gems if achieved or reset the "bet" from day zero if failed. The coins can be used in the in-app marketplace for aesthetic and customization features. Additionally, the calendar allows users to review how many days in a month they managed to achieve a journaling or lifestyle goal, giving them the incentive to achieve the "perfect" month.

**Goal overview** – Here, users can fill in their SMART goals for their lifestyle habits\* (Lawlor, 2012). Users could tick each day if they achieved their action plans outlined in their goals. The ticks will be reflected in the app's **Calendar**.

#### 2.3. Additional Features

Feature	Explanations or Examples	Rationale
Time-sensitive	Reminder notifications at set	Reminds users to logon at the same time/place to
notifications	time/place	build consistency in habit.
Input templates	• Default templates for modules	Premade or user-made templates saves effort
	customized to user's survey	when creating new entries, removing negative
	responses	nudges that may sway users away (Hollis et al.,
		2017).
API calls	Pull data from third-party	Allows data of high accuracy from wearable
	health trackers	devices to be pulled, addressing the known
		barrier of data inaccuracy (Hollis et al., 2017).
Theme identifier	Conducts thematic analysis	Allows qualitative data to be analyzed, providing
(pending feature)	using AI embedding models to	insight for users. E.g. Thematic analyses
	extract recurring themes in	revealing common themes that users take
	qualitative journals	gratitude from.
Multimodal	Allows uploading photos,	Multimodal recording has several identified
recording	videos, and audio to enrich	benefits, such as improving retention, response
	qualitative journals	quality, response detail, and well-being (Chen et
	• (Pending) Could expand to	al., 2025; Kelly, 2022; Silva et al., 2023). Photos
	quantitative diaries through the	also serve as a placeholder for later entry (Silva
	use of multimodal AI.	et al., 2023).

*Datomize* will include an array of features that aim to optimize habit formation and ease of use. The following table outlines the features and the rationales behind them.

#### 3. Potential Challenges and Solutions

#### 3.1. Privacy concerns

Datomize collects sensitive personal data, including health, mood, and lifestyle information. Users may be hesitant to share such data due to concerns about privacy breaches, data misuse, or unauthorized access.

Solution: Datomize will utilize on-device processing for sensitive data, ensuring that personal information never leaves the user's device unless explicitly authorized. This approach will minimize the risk of data breaches.

#### 3.2. Technical complexity

Developing a modular app with advanced AI-driven features, multimodal recording, and integration with third-party APIs introduces significant technical complexity. Ensuring seamless functionality across different devices and operating systems adds to the challenge.

Solution: To manage technical complexity, Datomize will adopt a microservices architecture, where each module (e.g., sleep tracking, mood journaling) operates independently. Datomize will also be first developed as a web application to ensure stable functioning, the codebase will then be implemented into various mobile platforms subsequently for market launch.

#### 3.3. Market appeal

The market for health and wellness apps is highly saturated, with numerous competitors offering similar features. Differentiating Datomize from existing apps is crucial to capturing and retaining users.

Solution: A landing page will be put up to showcase the unique values that Datomize could bring to the market (see **Appendix**). Examples include highlighting its evidence-based approach with infographics showing how sleep patterns correlate with mood, demonstrating modularity through customizable diary modules, and featuring personalized insights like AIdriven thematic analysis of journal entries. The page will also include testimonials, professional endorsements, and a live demo to engage visitors and communicate Datomize's distinct advantages.

### 3.4. Monetization

Money is required to sustainably host Datomize on various platforms. However, monetizing Datomize without the use of intrusive ads requires well-priced additional features that are attractive enough for some users.

Solution: Datomize will offer premium insights packs, which provide users with in-depth analyses of their data, such as correlations between sleep patterns and mood. Datomize will also provide freemium customization options, allowing users to purchase aesthetic upgrades (e.g., custom themes or journal templates) without affecting core functionality.

### 4. Practical Implementation

#### 4.1 Development Roadmap

Timeline	Activity	
Jun-Jul 2025	Frontend development and psychoeducation content finalization	
Aug-Dec 2025	Backend development and integrating Supabase for hosting	
Jan-Feb 2026	Web app alpha testing and feedback collection	
Mar-Apr 2026	Porting to mobile platforms and integrating Stripe for payment collection	
May-Jun 2026	Beta testing and mobile launch	

#### 4.2 Budget Plan

Component	Cost	
Supabase Pro plan (1 year):	\$2,200	
Stripe implementation & fees:	\$600	
Domain name (1 year)	\$100	
Developer accounts (Apple/Google)	\$1,400	
Third party API usage	\$1,700	
Infrastructure & Services Subtotal		\$5,000
UI component library	\$800	
Icon sets	\$300	
Custom illustrations	\$600	
Animations	\$300	
Design Assets Subtotal		\$2,000
User testing incentives	\$800	
Testing tools & services	\$400	
Testing Subtotal		\$1,200
Social media promotion	\$1000	
App store optimization	\$200	
Marketing & Launch Subtotal		\$1,200
<u>Total</u>		<u>\$9,400</u>

## 5. Expected Outcomes

# 5.1. Improved Lifestyle Habits and Psychological Well-being

By incorporating structured journaling, lifestyle tracking, and personalized insights, Datomize aims to facilitate positive behavior change. Users are expected to develop healthier lifestyle habits, including improved sleep, diet, and exercise routines. Additionally, the integration of mood tracking and guided reflections is anticipated to enhance psychological well-being, reducing stress and fostering greater self-awareness.

### 5.2. Effective Self-Reflection and Insight Generation

Through structured prompts, statistical analysis, and AI-assisted thematic identification, Datomize will provide users with actionable insights into their behavioral patterns. This will empower individuals to make informed decisions about their health and well-being, potentially bridging the gap between self-tracking and behavioral change.

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# II. Figures



# III. Appendix

# III.i. Core Features Demonstration

# <u>Data Input</u>



# <u>Calendar</u>

					Datomi r modular diary for a h	20 naithier lifestyle			
				Data Input	Data Analysis C	ilendar Goal Over	óww		
		Calendar						_	
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		29	30	31					
		Current Strea	k: 8 days						
		Your target: 30 days Reward: 150 gems							
		Achievement:	5						
		Weekty Streak							
				A modular o	Datomize v1 liary application for fos	0 tering a healthy lifestyle			
				Priva	icy Policy Terms of S	enice Support			
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### III.ii Landing Page Demonstration





