



MassageMatcher

From Booking to Bliss

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Motivation💡

The massage therapy service market is estimated to be valued at **US\$ 65.23 billion** in 2024. In particular, there is a significant increase in demand for in-home massage services. The surge in demand can be attributed to various factors, including the **stressful work environments**, the **growing emphasis on relaxation and self-care** in contemporary society, and the **increasing popularity of an active lifestyle and sports culture** among individuals in the modern era.

Approach👉

Instead of a traditional MVC architecture, we have adopted microservices architecture to develop and deploy high-end, cloud-ready software applications, driven by the need for scalability, security, and efficient resource management. Microservices offer a modular approach, allowing small, independent services to connect through well-defined APIs, enabling applications to be easily scaled, modified, and deployed. MassageMatcher is a SaaS application hosted on Amazon Web Service (AWS), chosen for its cost-effectiveness, scalability, easy maintenance, and security.

Frontend Tech Stack🔗💧🛡️🏡

The frontend of the MassageMatcher platform, hosted on AWS Amplify, leverages React for its component-based architecture, Material Tailwind CSS for pre-designed UI components, and Heroicons for consistent iconography.

Backend Tech Stack🟢🟡🟠

The backend is hosted on AWS Lambda with DynamoDB as the data store. The Lambda function, using NodeJS and Express, combines data from multiple DynamoDB Tables and provide a simpler and cohesive API for the frontend to use. We also have a S3 bucket complementing the backend to store media that our customers use. We have a S3 function that handles uploads and S3 contents are served via Cloudfront CDN. All of our backend services are serverless and easily scalable for a cloud native approach.

Objective🎯

MassageMatcher aims to tap into the surging demand for spa therapy and massage services by offering a convenient solution: connecting freelance masseurs who provide **at-home services** with the general public through a **marketplace platform**. By facilitating home-based services, MassageMatcher **eliminates the need for customers to travel** to a spa or massage centre, allowing them to relax in the comfort of their own homes, all at a lower price point and with more personalised service.

Target User👥

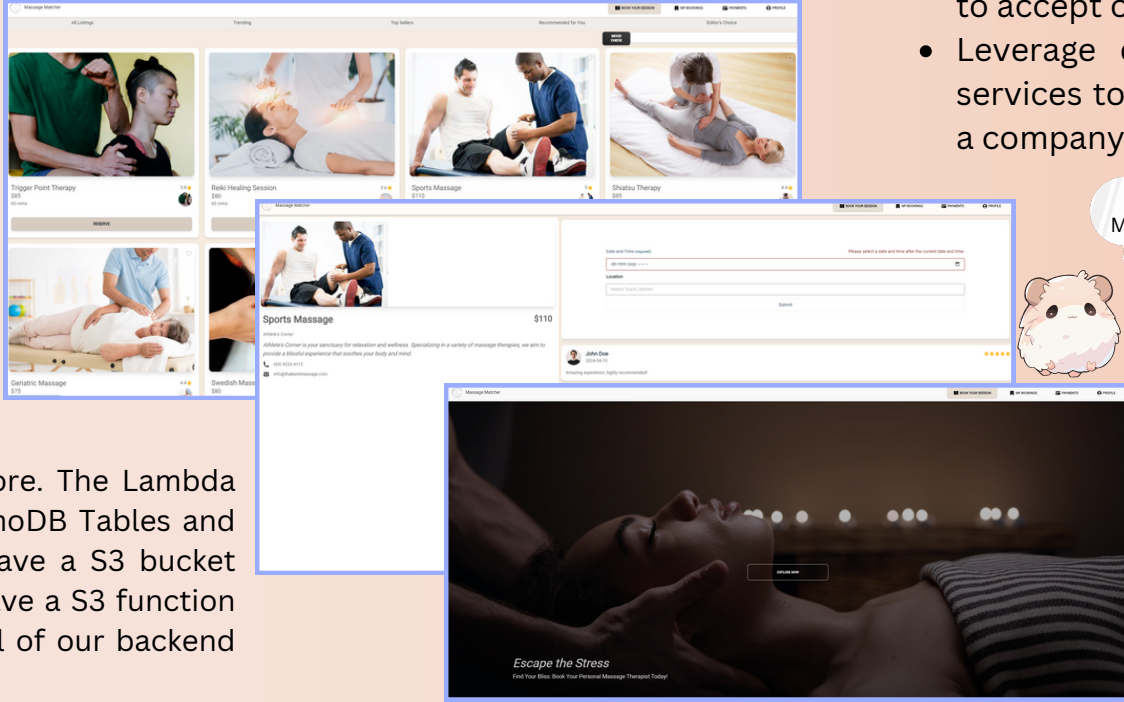
For individuals who prioritize their well-being and mental health, MassageMatcher is dedicated to serving you by providing an easy and convenient platform for relaxation and comfort. Our services can assist in relieving muscle tension, stimulating circulation, and enhancing skin suppleness. Now, with the added benefits of convenience and cost-effectiveness, MassageMatcher is more accessible to a wider audience, making wellness an achievable goal for many.

Wellness Enthusiasts
B2C model

For freelance masseuses, MassageMatcher offers a lucrative opportunity to tap into the increasing demand for wellness services. By registering on the platform, freelance masseuses can expand their clientele and manage their bookings more effectively, thus growing their business in a market that is not only thriving but also promises a robust future.

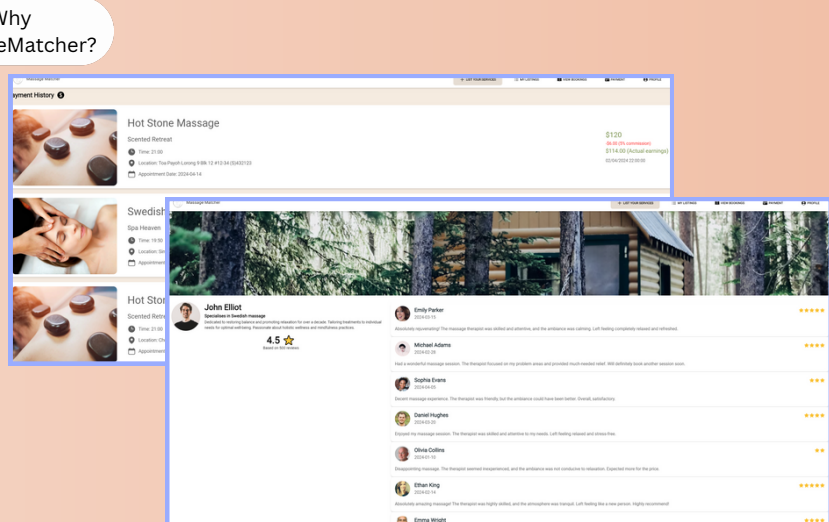
For Clients🔥

- Book a massage service at your convenience, with as little as 45 minutes' notice
- Receive daily recommendations tailored to your current feelings and needs

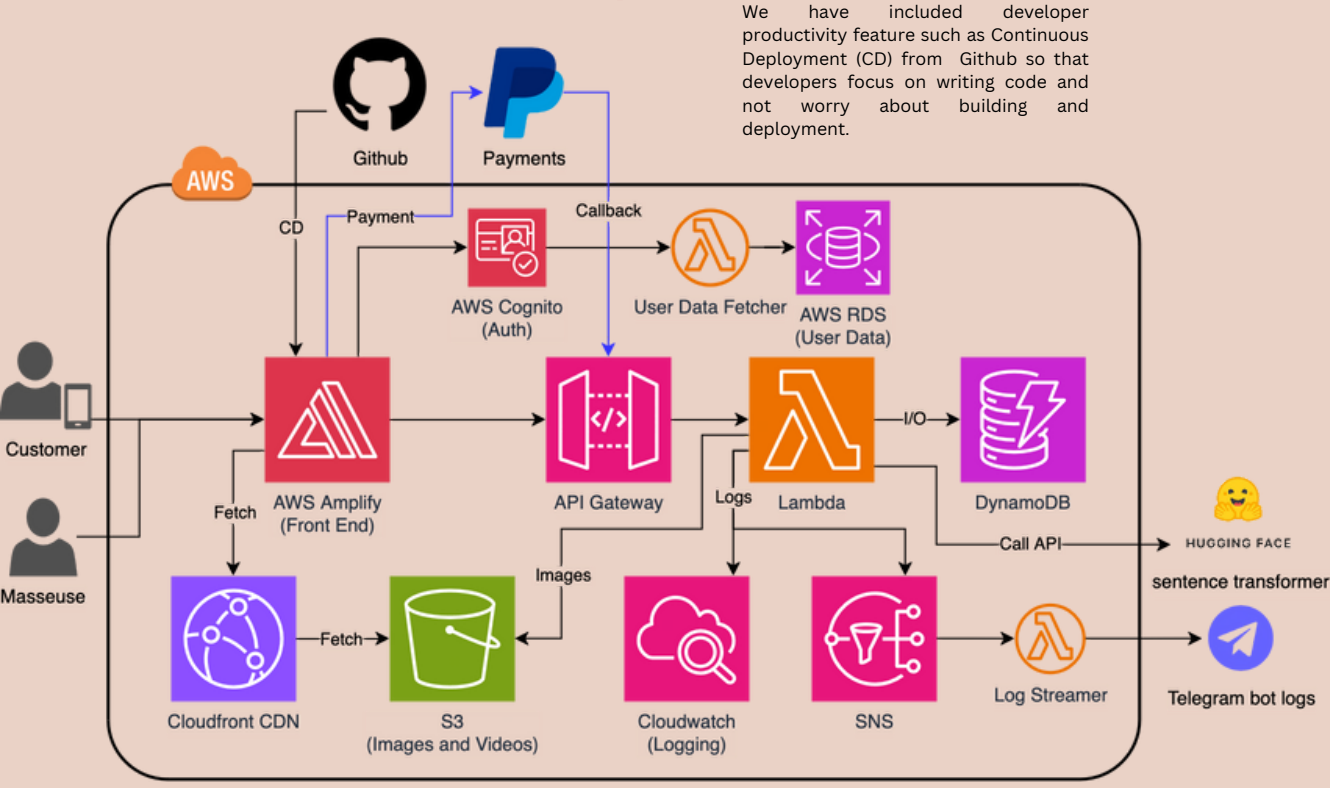


For Masseuses:👍

- Enjoy the flexibility of setting your own schedule, with the freedom to accept or decline bookings as it suits you
- Leverage our platform to expand your reach, promoting your services to a wider client base without the need for employment by a company.

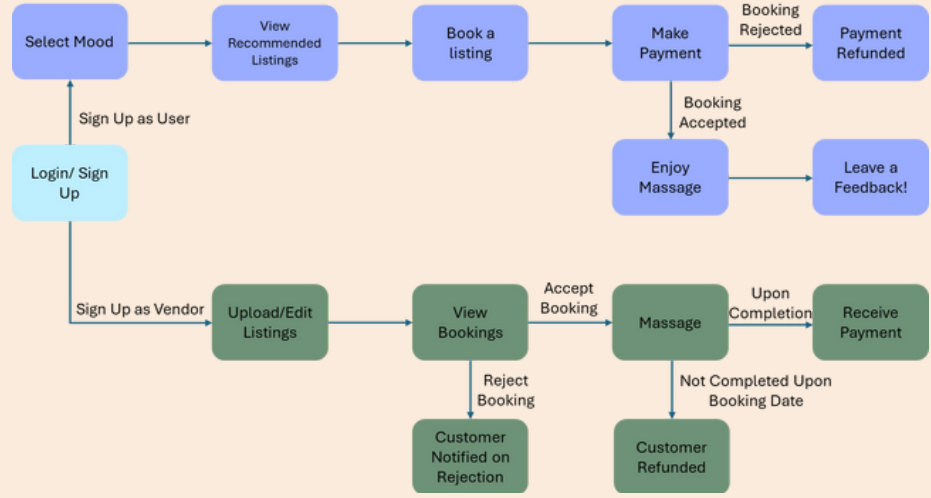


Implementation⚙️



Core Features

- Flexible Booking:** Listings uploaded by masseuses can be browsed and selected by customers. Customers make booking by selecting a date and time, providing their location, and paying the listed price. Masseuses will then be able to view incoming bookings and choose to accept or reject.
- User Authentication:** Cognito's user pools is used to manage identities of customers/vendors, and its role-based access control ensures that registered customers/vendors have the correct permissions in the app.
- Personalised Listing:** Upon launching the app, customers are prompted to select words that best describe their mood out of 20 random word choices, which will be used by Huggingface's sentence transformer to assign a similarity score with all available listings. Listings will be ranked in the order of similarity scores.



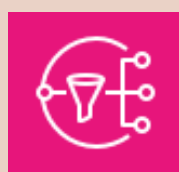
- Immediate Feedback:** Customers are encouraged to leave a feedback after the completion of a booking, which will be displayed on the respective listing pages.
- Seamless and Secure Payment:** With the integration of Paypal services, customers are able to make payment directly on MassageMatcher, which will be released to masseuses once service is completed.
- Error Monitoring:** Error logs will be automatically sent to CloudWatch for logging purposes and to SNS to be piped to Telegram Bot Logs for instant notification and incident response.



AWS Amplify is the PaaS service our Frontend depends on. It simplifies hosting as they abstract the complexity of deployment and provides high availability.



AWS Lambda backend achieves scalability with lower costs. Easily deployable, we have separate lambda functions as micro services.



SNS is the service used to pipe messages and logs from our Lambda service to our Telegram notifier service which forwards important logs to devs!



AWS Cognito is the PaaS auth service our app uses. It saves developer & deployment time from implementing our own auth & account management.



DynamoDB is the PaaS we use for our backend data store. It is serverless and integrates well with AWS Lambda FaaS service for our backend services.



Telegram Bot Logs streaming is helpful to notify a group of DevOps personnels if our application have any issues that needs to be taken care of immediately.



AWS RDS is a PaaS used to store user data extracted from Cognito, to be used for future data analytics and machine learning-driven recommendation.



S3 is the IaaS used to store objects such as images and videos needed for our Frontend Application.



Cloudfront is the CDN network that we use to serve our media to our customers with lower latency.

Revenue Model📊

Our three-pronged revenue model generates an estimated monthly revenue of **\$85,000**.

Transactional Commissions	5% of booking price	\$30,000
Masseuse Platform Subscription	\$50 cost for masseuse to list services on MassageMatcher	\$25,000
Customer Subscription Tiers	Premium subscription of \$10 allows customers to access premium features (flexible cancellations, priority booking)	\$10,000

Assumption: 500 masseuse accounts, 1,000 premium customers, 10,000 transactions per month with an average price of \$60.

Cost Structure💰

Assuming a use case of 10,000 customer bookings per month, 500 masseuse accounts, and 2,000 service listings, our operational expenses totals up to **\$29,188.25 per month**, with the cost breakdown being:

Frontend Services	Backend Services	Non-AWS Expenses
<ul style="list-style-type: none">AWS Amplify: \$31.37Amazon CloudFront: \$638.40Amazon API Gateway: \$17.50Amazon Cognito: \$0	<ul style="list-style-type: none">Amazon S3: \$2.06 (+\$0.02 upfront)Amazon DynamoDB: \$0.88Amazon RDS: \$93.95AWS Lambda: \$3.08Amazon CloudWatch: \$1.01Amazon SNS: \$0	Assumption: average transaction of \$60 <ul style="list-style-type: none">Paypal: \$28,400 (3.9% of transaction amount + \$0.50)
Total: \$687.27	Total: \$100.98	Total: \$28,400

With only an upfront cost of **\$0.02**, MassageMatcher has a highly sustainable and profitable revenue-cost structure.