

SelfMemo 2.0

Information Architecture and Web Usability 2024

Group 4

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Project Summary

- Created Reminder Service inspired by MemoToMe^[1] and SelfMemo^[2]
- Resolved backend issues by using cron-job.org^[3]
- Demo-URL: <https://self-memo2.vercel.app>
- Repository of project: <https://github.com/selfmemo2/SelfMemo2>

[1] MemoToMe: <http://www.memotome.com/>

[2] SelfMemo: <https://selfmemo.netlify.app/>

MemoToMe

Memo to Me The Largest Reference Directory. **TopReference.com** a comprehensive reference directory

Add Yearly Reminder

Save Cancel

Description Please enter a brief description of this event:

(E.g., Luke's Birthday, Dentist Appointment)

Event Schedule This event occurs every on the day of the month.
 on the of the month
at :

Temporarily disable sending reminders for this event

Final Reminder Send the final reminder before the event occurs.
[Send the warning reminders to other email addresses, mobile phones, or pagers.](#)

Warning Reminders In addition, before sending the final reminder, send me warning reminder(s) apart.

Additional Notes Please enter any more details you want to be reminded of when this event occurs:

MemoToMe

Memo to Me
m

Keith Andrews's Reminders (If you're not Keith Andrews, [click here to login](#)).

	Subject (click to edit)	Type	Next Event (click to view schedule)
What to View	<input type="checkbox"/> [blurred]	Yearly	Tue, 4 Jul, 2023 12:00 AM
Create a New Reminder	<input type="checkbox"/> [blurred]	Yearly	Fri, 4 Aug, 2023 12:00 AM
NAME YOUR PRICE for the Platinum Edition! Click here to learn more.	<input type="checkbox"/> [blurred]	Yearly	Tue, 15 Aug, 2023 12:00 AM
My Settings	<input type="checkbox"/> [blurred]	Yearly	Fri, 22 Sep, 2023 12:00 AM
What's New?	<input type="checkbox"/> [blurred]	Yearly	Tue, 26 Sep, 2023 12:00 AM
About Memo To Me	<input type="checkbox"/> [blurred]	One-Time	Thu, 5 Oct, 2023 1:00 PM
Delete Checked Reminders	<input type="checkbox"/> [blurred]	Yearly	Thu, 12 Oct, 2023 12:00 AM
	<input type="checkbox"/> [blurred]	Yearly	Fri, 1 Dec, 2023 12:00 AM
	<input type="checkbox"/> [blurred]	One-Time	Fri, 1 Dec, 2023 9:00 PM
	<input type="checkbox"/> [blurred]	Yearly	Fri, 26 Jan, 2024 12:00 AM
	<input type="checkbox"/> [blurred]	Yearly	Tue, 6 Feb, 2024 8:00 AM
	<input type="checkbox"/> [blurred]	Yearly	Wed, 1 May, 2024 8:00 AM
	<input type="checkbox"/> [blurred]	One-Time	Tue, 31 Dec, 2024 6:00 AM
	<input type="checkbox"/> [blurred]	One-Time	Sat, 1 Mar, 2025 2:00 AM
	<input type="checkbox"/> [blurred]	One-Time	Sun, 15 Jun, 2025 9:00 AM
	<input type="checkbox"/> [blurred]	One-Time	Fri, 1 Aug, 2025 11:00 AM
	<input type="checkbox"/> [blurred]	(Disabled) One-Time	Wed, 1 Dec, 2021 12:00 PM
	<input type="checkbox"/> [blurred]	(Disabled) One-Time	Sun, 3 Jul, 2022 7:00 AM
	<input type="checkbox"/> [blurred]	(Disabled) One-Time	Fri, 15 Jul, 2022 1:00 PM
	<input type="checkbox"/> [blurred]	(Disabled) One-Time	Wed, 1 Feb, 2023 8:00 AM

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Create new reminder

Name

Description

Type

Daily



This event occurs daily at

00:00



and should be repeated on:

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

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Type

Daily

This event occurs daily at

09:05

and should be repeated on:

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Enable Warning Reminders

Additionally, before sending the final reminder, send me reminder(s) apart.

Is active

Create Reminder

SelfMemo 2.0



Reminders

Manage all of your reminders.

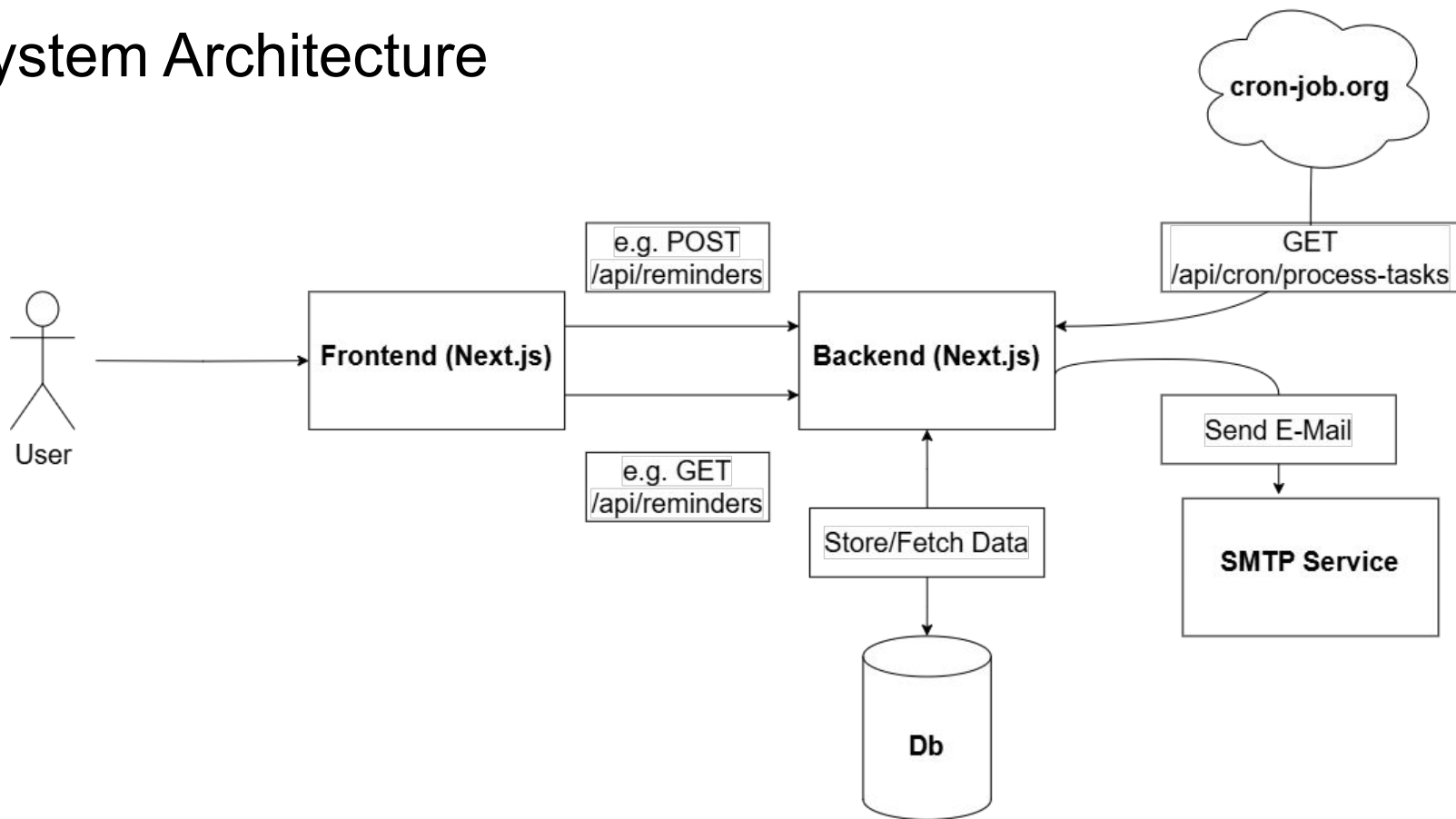
Create Reminder

<input type="checkbox"/> Name	Type	Status	
<input type="checkbox"/> IAWEB Progress Presentation	Daily	Active	Edit
<input type="checkbox"/> IAWEB Final Presentation	One-time	Active	Edit
<input type="checkbox"/> Test My Applications	N-weekly	Active	Edit
<input type="checkbox"/> Somebodys Birthday	Yearly	Active	Edit
<input type="checkbox"/> Renew Subscriptions For Server	N-yearly	Active	Edit

Page 1 of 1 out of a total of 5 results



System Architecture



Full Tech Stack 1

- Frontend + Backend with Next.js^[1]:
 - Simple and modern framework.
 - Based on React.js.
 - Uses TailwindCSS for styling.
- Cronjob Scheduling: cron-job.org^[2]
 - Easy, reliable and free-to-use scheduling of API calls for reminders

[1] Next.js: <https://nextjs.org/>

[2] cron-job.org: <https://cron-job.org/>

Full Tech Stack 2

- Deployment with Vercel^[1]
 - Free hosting provider
 - Serverless API routes
 - Automatic integration of database
- Database Hosting with Neon (Postgres)^[2]
 - 190 computation hours
 - 10 Projects
 - 500 MB of Storage

[1] Vercel: <https://vercel.com/>

[2] Neon: <https://neon.tech/>

Features of SelfMemo2

- Admins can create and manage users.
- User can create and manage reminder.
- Available Reminder-Types:
 - One-Time
 - Daily
 - Weekly
 - Every Few Weeks
 - Monthly
 - Yearly

Live Demo

<https://self-memo2.vercel.app>

https://youtu.be/_f-c79lkzfo

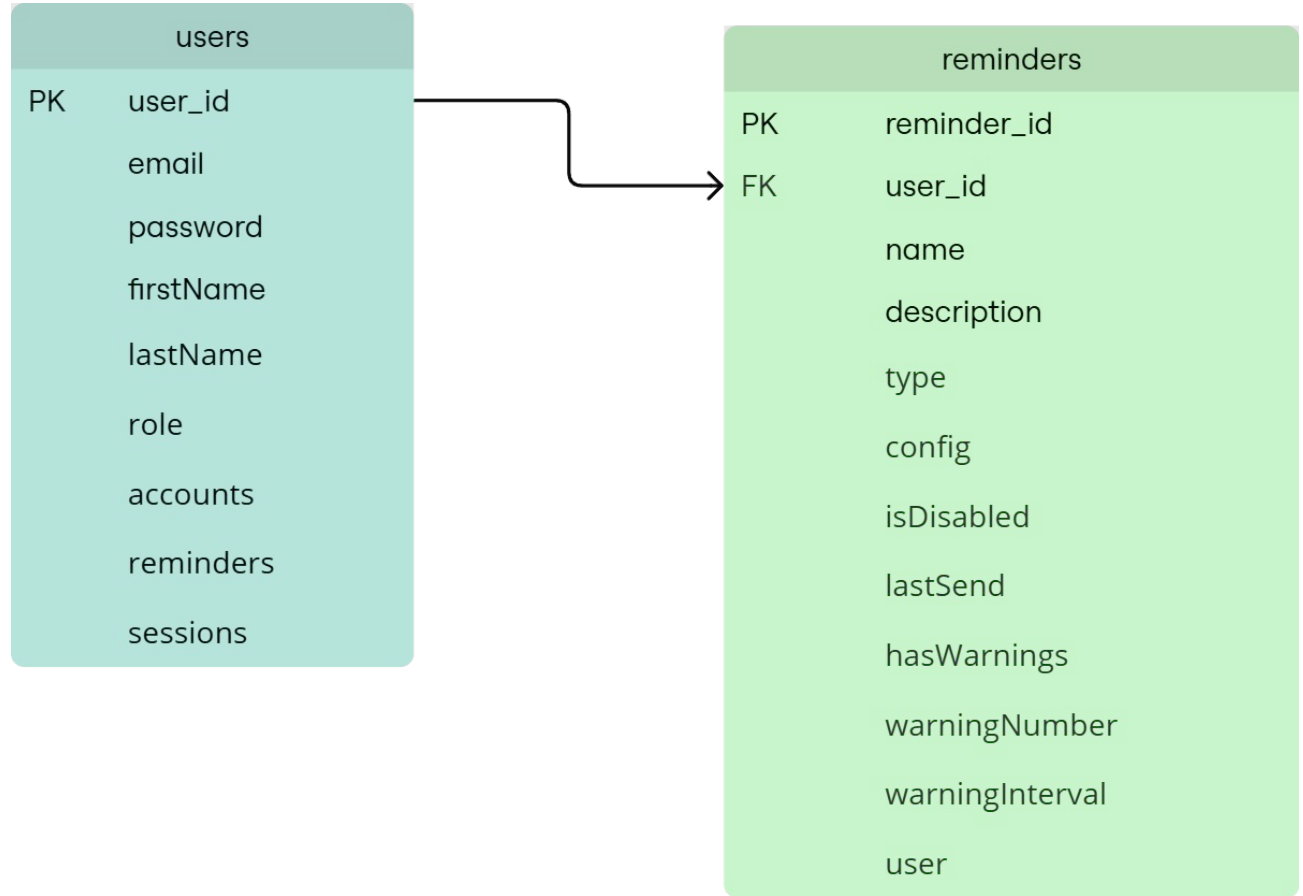
New Features since SelfMemo v1

- Backend issue solved with cron-job.org.
- Multiple admins can be created.
- Warning Reminders are enabled
- Editable template for email notifications.
- Page for reminder statistics.
- Disabling reminders.

Prerequisites for Vercel-Deployment

- GitHub Account for accessing source code.
- Vercel Account for deploying globally.
- SMTP Account to send emails.
- cronjob.org Account to wake-up backend.
- Neon Account to host database and link to Vercel deployment.

Database Schema



Required Environment Variables

- NEXTAUTH_URL= use domain or <http://localhost:3000>
- DATABASE_URL= connection string from neon or database connection url
- AUTH_SECRET= generate on <https://generate-secret.vercel.app/32>
- SMTP_USER= yoursmtouser
- SMTP_PASS= yoursmtppassword
- SMTP_MAIL= yoursmtmail
- SMTP_HOST: mail.smtp2go.com or preferred smtp provider
- ADMIN_EMAIL= youradmin@mail.ad
- ADMIN_NAME= youradminname
- ADMIN_PASSWORD= youradminpassword

Setup Guide for SelfMemo2 with Vercel

- Fork the repository: <https://github.com/selfmemo2/SelfMemo2>
- Import git repository into Vercel
- Setup Database on Neon: <https://neon.tech/docs/guides/nextjs>
- Set required environment variables and deploy
- Send a request to create admin user: GET <https://your-vercel-url.com/api/seed>
- Setup cronjob pointing to: <https://your-vercel-url.com/api/reminders/trigger>

Limitations

- No Sqlite databases with hosting on Vercel.^[1]
- Extensive setup required.

[1] Compatibility of Vercel and Sqlite: <https://vercel.com/guides/is-sqlite-supported-in-vercel>

Future Work

- Import and export for reminders (JSON, CSV etc).
- Visualize reminders in calendar.
- Make template for email notifications customizable by each user.

Thank you for your attention!
Questions?