Integrations

Integration with AI

How to Integrate AI Services into Lovable Projects

Lovable makes it easy to integrate AI services into your web applications. Whether you want to build an AI-powered landing page, a text-generation tool, or a full SaaS app, Lovable's built-in integrations with services like **OpenAI****, **Groq**, **Claude**, **Deepseek**, and ****Mistral** make it possible without writing backend code. Here's how to do it:

1 Choose the AI Feature You Need

Before you start building, define what you want the AI to do:

- Generate or enhance text (e.g. email writer, tweet generator)
- Classify or summarize content
- Analyze images
- Personalize responses
- Integrate with a specific LLM API

2 Plan with Prompts First

Use Lovable's chat interface to describe your feature in simple terms. For example:

```
Build an email enhancement tool. The user should write an email, then click buttons to make it more professional, concise,
```

Lovable will scaffold the UI, suggest components, and let you preview the app quickly.

3 Connect to a Backend with Supabase

AI features often need backend logic. Supabase provides:

- Database for user data
- Auth for login/signup
- Edge Functions for calling external APIs securely

> 💡 Set up Supabase early in your project to avoid UI/backend mismatches.

4 Use Edge Functions for AI Calls

To safely call AI APIs, create an Edge Function inside Lovable:

- Add your API key to the Supabase by submitting this via the secrets form
- Let Lovable generate the edge function code
- Ensure you use function calling if your API returns structured data (e.g. calories, macros, tweet threads)

Prompt Example:

```
{
  "name": "extract_nutrition",
  "parameters": {
    "calories": "number",
    "protein": "number",
    "carbs": "number",
    "fat": "number"
  }
}
```

5   Make It Interactive

Add buttons or form actions for:

- Submitting text to the AI
- Uploading an image
- Toggling between modes (concise vs friendly tone)

Lovable lets you:

- Attach functions to buttons
- Animate interactions
- Show real-time results with minimal prompting

> 💡 Use screenshots and phrases like "make this smoother" to guide the design.

> 💡 **Advanced UX Tip:** Implement side-by-side live previews of the AI response. Use left/right layout blocks or tabs to let users compare outputs.

6   Use External Services (Optional)

Some popular integrations for AI workflows:

- **Resend** – send emails after form submission
- **Groq API** – blazing fast LLM inference
- **Stripe** – paywall access to AI tools
- **Replicate** – generate or transform images

Prompt Example:

```
When a user submits the contact form, send an email using Resend and store the message in Supabase.
```

> 💡 **Payments Tip:** Lock advanced AI features behind a Stripe subscription. Use conditional flows like:
>
> ```
> if (user.isPaid) { showAIFeature(); } else { redirectToCheckout(); }
> ```

- Share your project for feedback
- Use chat history to revert changes or refactor

8 **Publish and Promote**

When you're ready:

- Deploy with a single click
- Use **Lovable Launch** to get visibility
- Add OG tags and SEO title/description in the meta panel
- Submit your app to Product Hunt, communities, and social media

Debug and Improve Prompts

- Be specific with system messages: "You are a helpful nutritionist."
- Test function calling by mocking inputs.
- Use `console.log()` inside edge functions to trace logic.
- Use screenshots when asking Lovable to debug a layout.

Prompt Tip: If the AI fails to use your context (e.g. user's meals), say:

```
Make sure all of the user's meals are included in the prompt to GPT-4.
```

Troubleshooting

▸ Missing data in AI prompts?

▸ UI not updating?

▸ Streaming issues with Groq/OpenAI?

▸ Image uploads not working?

▸ Edge Function fails silently?

Example Projects Built with AI Integration

- **Nexus Smart Email** – Landing page with real-time Groq-enhanced email preview
- **TweetMixer Pro** – Paste blog posts, get tweet threads using GPT-4
- **AI Calorie Tracker** – Analyze meals via GPT-4 with image uploads
- **Robot Arena Shooter** – Claude-powered game with AI-enhanced logic
- **Reindeer Quiz** – Personalized result generation via Claude and custom scoring logic

Final Thoughts

Was this page helpful?   👍 Yes   👎 No

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