

**Project title :** “Todo Summary Assistant”

## **Project Overview**

**Goal:** Build a web application where users can:

- Manage a personal to-do list.
- Summarize all pending to-dos using a Large Language Model (LLM).
- Send the summary to a Slack channel with a click

## **Tech Stack Suggestion for the basic steps for project**

### ➤ **Frontend:**

- React.js (or Next.js for SSR)
- Tailwind CSS / Bootstrap for styling
- Axios for API calls

### ➤ **Backend:**

- Node.js + Express (or Flask / Django if you prefer Python)
- REST API (or GraphQL optionally)

### ➤ **Database:**

- MongoDB (NoSQL) or PostgreSQL (SQL)

### ➤ **LLM API:**

- OpenAI API (or Anthropic, Cohere, Mistral — depending on access)

### ➤ **Slack Integration:**

- Slack Webhook / Slack Bot API

## **Feature Breakdown there are 3 major steps in this**

### A. To-Do Management:

- Create, Update, Delete, View to-do items.
- Fields: title, description, status (pending/completed), createdAt, dueDate.

### B. Summarize with LLM

- On a button click, gather all pending todos.
- Send them as input to LLM (e.g., OpenAI’s gpt-4 or gpt-3.5-turbo) via API.
- Get a concise summary of tasks.

- "Summarize the following pending to-do items in a few sentences:\n\n1.  
Finish project report\n2. Buy groceries\n..."

### C. Slack Integration

- Use Slack Incoming Webhooks or Slack Bot API.
- Send summary text to a specified Slack channel.

### 4. Suggested Folder Structures

- todo-summary-assistant/
- client/ React frontend
- src/
- components/
- pages/
- App.js
- server/ Node backend
- controllers/
- routes/
- models/
- app.js
- .env
- README.m

### 5. Key Packages for the project

- express, mongoose / pg
- axios
- dotenv
- openai (or respective LLM SDK)
- @slack/webhook or Slack Bolt

### 6. Extras (Optional but Good for Bonus Points)

- Authentication (JWT or OAuth)
- Filters & sorting for to-dos
- Due date reminders (via email or Slack)
- Save LLM summaries for history

### 7. Deployment Options

- Frontend: Vercel / Netlify
- Backend + DB: Render / Railway / Fly.io / Heroku

