Collaborative Notes

A note-taking and sharing app for students and coworkers

Including a simple user interface and focusing on note-taking

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Motivation

- Support collaboration in note taking

- Create accessible solution for notes

- Facilitate remote learning and remote work
  - Stay at home
  - 45% of U.S. employees working from home [1]
    - 25% working from home exclusively
  - Reduces workspace costs [2]
  - No commute time
  - Gives students and workers flexibility
  - Allows people to live where they want [3]

Solution

- Web application for sharing notes
- Desktop and mobile browser
- AI speech-to-text

Collaboration

- Collaborative note taking

- Users can share link to notepad

- Real-time update of collaborative notepad

- Supports collaboration for students taking notes and employees working remotely

- Like Google Workspace collaboration [4]

Speech-to-text

- Users can speak into microphone and dictate text
- From context menus or speech-to-text button

- Dictation available in Microsoft OneNote [5]
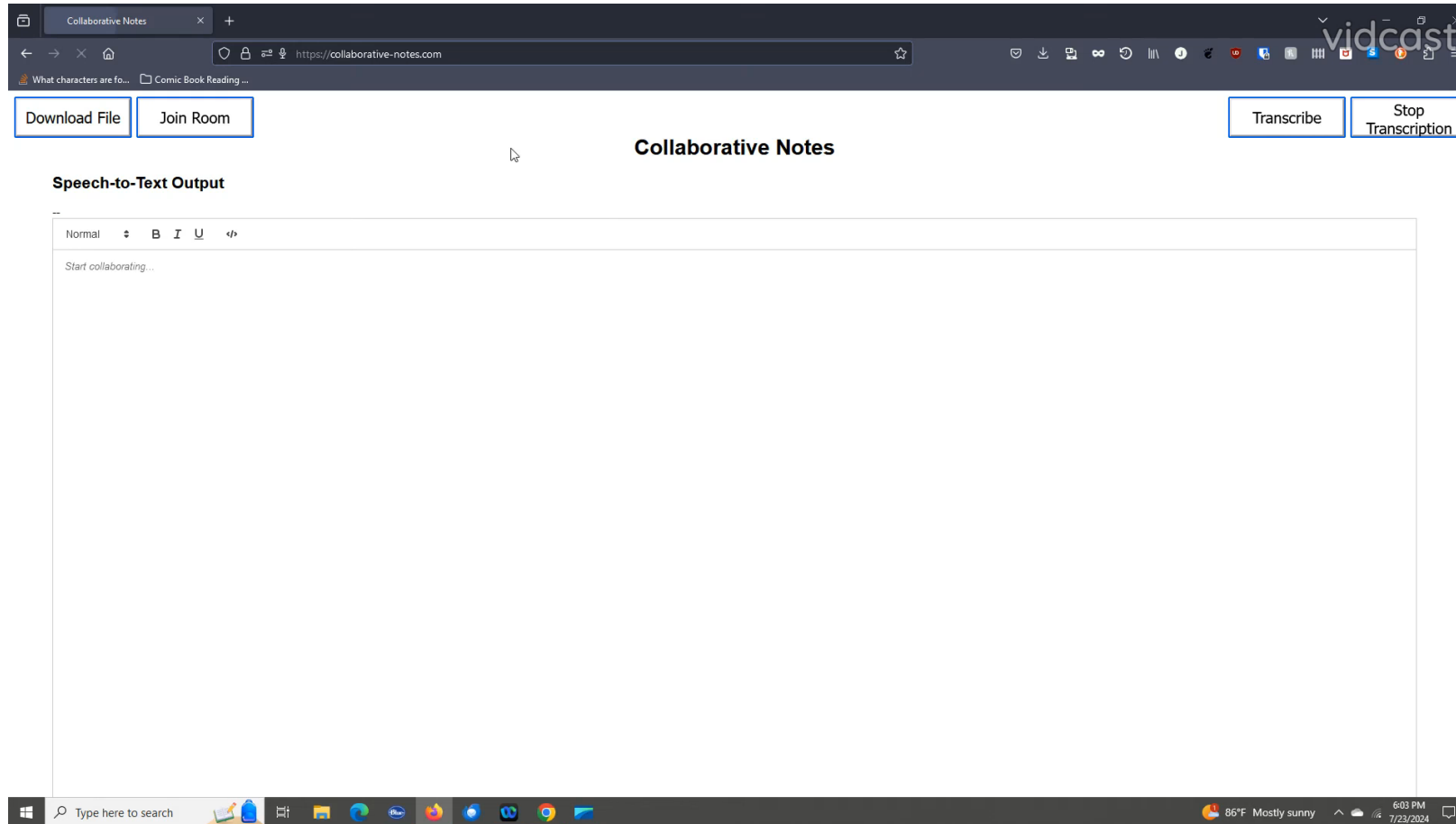- Speech-to-text for other note-taking apps only from third-party plugins [6]

AI Text Summary

- Using AI, creates a summary of selected text
- From context menus or summarize button
- Writes summary text below users' text with summary header

- Microsoft OneNote with Windows 11 Copilot has this feature [7]
- Google Workspace for Business includes Gemini AI features including summarization [8] – [10]
- Editpad has AI summarizer [11]
- Other note-taking apps require third-party plugins. Popularity of these depends on the app [12] – [14]

Current Status of Prototype

- Collaboration Implemented
  - Every user in same room on main page, no separate rooms

- Speech-to-Text Implemented
  - Output above editor, not connected to collaborative editor

- AI Text Summary Not Implemented

Demo Video

Business Model

- Subscription-based service
  - Payment of monthly fee
  - Yearly subscription also available
  - Convenient for customer
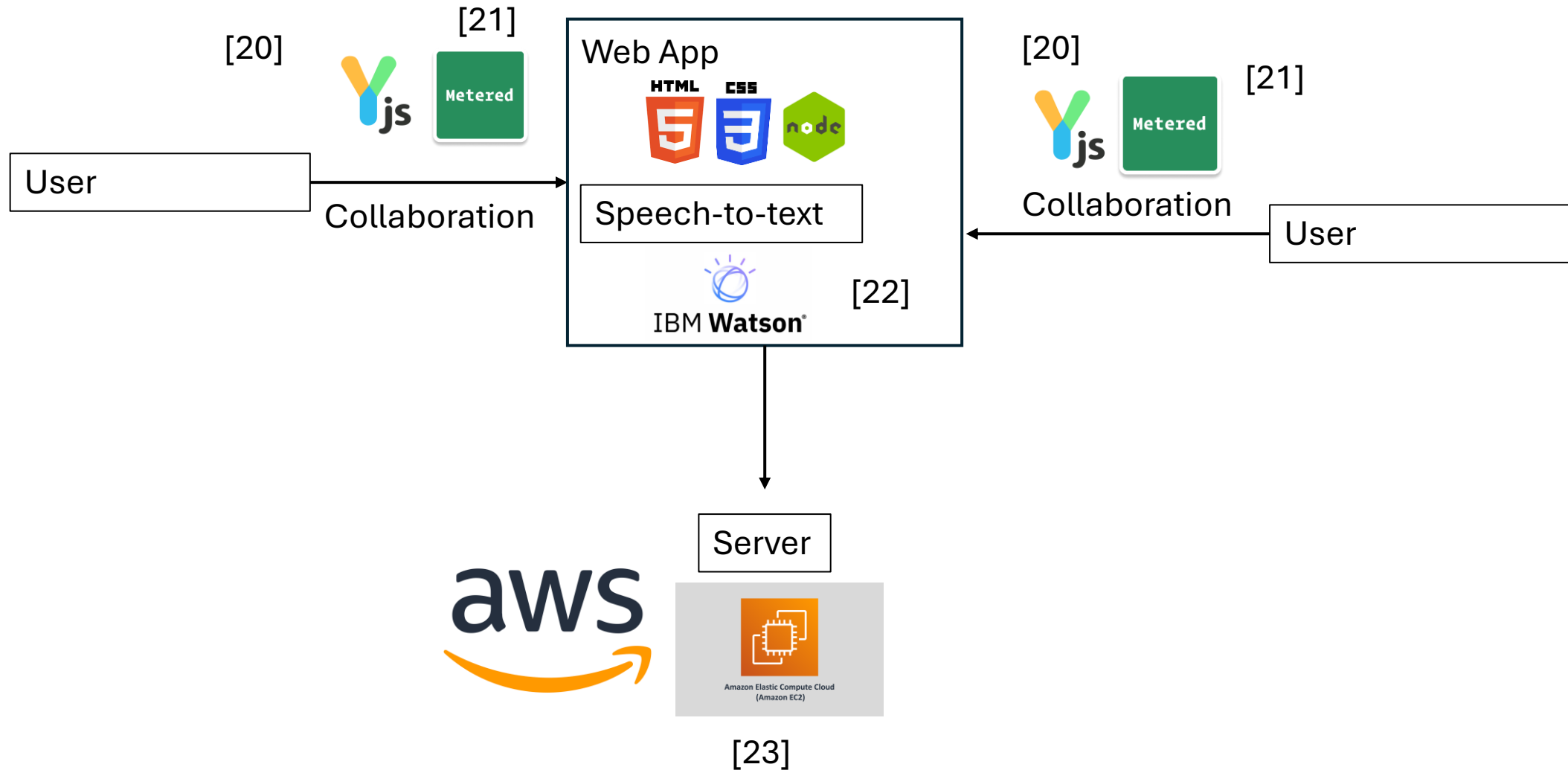 - Encourages improvement
  - Brand loyalty [19]

Team Contributions

- Jacob MacLeod: Developed server and browser frontend, set up connection server

Plan for Implementation

- Implement AI Text Summary

- Implement creation of separate rooms for collaboration

- Test collaboration feature on different networks

System Diagram

[20] [21] Web App [20] [21]

HTML CSS node

User — Collaboration → Speech-to-text ← Collaboration — User

IBM Watson [22]

Server

aws

Amazon Elastic Compute Cloud (Amazon EC2)

[23]

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