# Short Report – AutoPoster AI (MERN + Basic AI)

## Project Overview

AutoPoster AI is a full-stack MERN application that helps users create, schedule, and auto-post content on multiple social media platforms. The app also leverages AI to generate captions, hashtags, and analyze post sentiment, making social media management smarter and faster.

## API Research Summary

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| API | Purpose | Notes |
| /api/user/register | Register a new user | Accepts username, email, password |
| /api/user/login | Login user | Accepts email, password |
| /api/posts/createpost | Create a new post | Accepts title, content, hashtags, image, scheduleTime, aiCaption |
| /api/posts/getallposts | Get all posts | None |
| /api/posts/deletepost/:postId | Delete a post | Requires postId |
| /api/posts/updatestatus/:postId | Update post status | Requires postId and status |
| /api/posts/generate-caption | Generate AI caption | Accepts post content |
| /api/posts/generate-hashtags | Generate AI hashtags | Accepts post content |
| /api/posts/analyze-sentiment | Analyze sentiment | Returns tone of post: positive, negative, neutral |
| /mock/api/\* | Mock social media posting | Simulates posting to Twitter, LinkedIn, Facebook |
| /api/log/create | Logs post activity | Stores status of scheduled or posted content |

Key Takeaways:  
- RESTful design ensures structured CRUD operations.  
- Mock APIs allow safe testing of auto-posting flows without publishing live.  
- Scheduler + log tracking enables automation and monitoring.

## AI Integration Summary

AutoPoster AI uses AI to enhance content creation:  
  
1. Caption Generation  
- Accepts post content and generates engaging captions.  
- Improves post readability and engagement.  
  
2. Hashtag Generation  
- Suggests relevant hashtags based on content.  
- Increases reach and discoverability on social media.  
  
3. Sentiment Analysis  
- Determines tone of the post: positive, neutral, or negative.  
- Helps users refine content to suit the audience.

Integration Flow:  
- User writes or uploads content → AI generates captions/hashtags → User schedules post → scheduler call Mock APIs simulate posting →Logs stored after completion.  
  
Benefits:  
- Reduces manual effort for content analyzing.  
- Enhances engagement and post quality.  
- Adds intelligence to a simple scheduling system.

## Conclusion

AutoPoster AI combines MERN stack architecture, AI-powered content enhancements, and automated scheduling to provide a smart social media management solution.

Ref: <https://ai.google.dev/gemini-api/docs/quickstart#javascript>