Job Application Processing Pipeline

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# Tech Stack and Service Choices

**Frontend – HTML, CSS and Javascript**

**Backend – Node.js, Express.js**

**Storage – Superbase(free tier)**

**Database – Google Sheets**

**Reasoning –** I chose these tools because they have free tiers, beginner friendly and provide a full stack solution without overwhelming complexity

# Architecture

Frontend – (Job application form) collects user details and CV file

Backend – Handles form submissions, saves CVs to Superbase and logs application data

Google sheets – stores extracted applicant details and public CV links.

Future improvements – Add CV parsing and email notification services.

# Cost breakdown

|  |  |  |
| --- | --- | --- |
| Component | 100 Applications/Month | 1 million applications/Mont |
| Superbase Storage (file uploads) | $0 up-to 1GB | $25 - $100 for more storage |
| Google sheets | $0 | $0 |
| Email Service (sendGrid) | $0 for 100 emails | $1000 bulk email for reminders |

# Challenges and Scalability considerations

Superbase free tier may run out of space quickly for large CV file. Solution for that can use AWS S3 or paying for the extra storage in Superbase

Automating CV data extraction is hard for that solution can use libraries like pdf-parse

# Future Improvements

Use Nodemailer or SendGrid to automatically send applicants a confirmation email.

Add CV content extraction to capture education, qualification and projects.

Send processed data to the provided endpoint to complete the assignment requirements.