SYSTEM DESIGN DOCUMENT

Team Agile Avengers – Group 1

Table of Contents

Dependencies

Front End
- Chakra UI
- Clerk
- Next
- React

Back End
- Mongoose
- Express
- Node
- Cors

Database
- MongoDB Atlas

CI/CD
- GitHub Actions
- Jest
- DockerHub
- Google Cloud
- Newmann

The assumption is that the user will be on a web browser across any device.

Activity Diagram and Exception Handling

```
                    ●

          The developer pushes
             code to GitHub

                    │
                    ▼

          Run Automated tests on
           the server using Jest

                    │
                    ▼

              ◇ Tests Pass? ◇────────────────No────┐
                    │                               │
                   Yes                              │
                    ▼                               │
          Build Client and Server                   │
             Image using GHA                        │
                    │                               │
                    ▼                               │
               ◇ Builds are ◇──────────────No───────┤
                 successful?                         │
                    │                               │
                   Yes                              │
                    ▼                               │
          Deploy the images using                   │
             Google Cloud                           │
                    │                               │
                    ▼                               │
              ◇ Deployment ◇─────────────No─────────┤
                Successful?                          │
                    │                               │
                   Yes                              │
                    ▼                               │
          Run Automated API Testing                 │
              using Newman                          │
                    │                               │
                    ▼                               │
              ◇ Tests Pass? ◇───────────No──────────┤
                    │                               │
                   Yes                              ▼
                    │                        GHA Run Fails
                    ▼                               │
            GHA Run Successful                      │
                    │                               │
                    ▼                               │
                    ●◄─────────────────────────────┘
```