SOFTWARE ENGINEERING PROJECT MAY'2025

EZCare
A Digital Solution For Senior Citizens

Project Developed by Team 6

Submitted To:

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MEET THE TEAM

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Challenges Senior citizens face difficulties in:

- **Managing health**
  - **Staying socially connected**
  - **Completing daily tasks**
  - **Ensuring personal safety**

Outcome These challenges lead to:

- **Frustration**
- **Reduced Independence**
- **Isolation.**

Opportunity We recognized & aimed to create

- **Simple**
- **Accessible**
- **Empathetic Digital Solution** designed around the real needs of senior citizens.

Solution Our solution emphasizes

- **Ease of use**
- **Essential functionality**
- **Clear accessibility features**

→ **Enhancing quality of life** and **independence**

- Defining target users is the **first and most critical step.**
- Helps identify their **specific needs** and interaction with the application.
- User profiling guides **the design and functionality.**
- Ensures the solution **is relevant and impactful** for the intended audience.

Primary Users

Secondary Users

Tertiary Users

EZCare
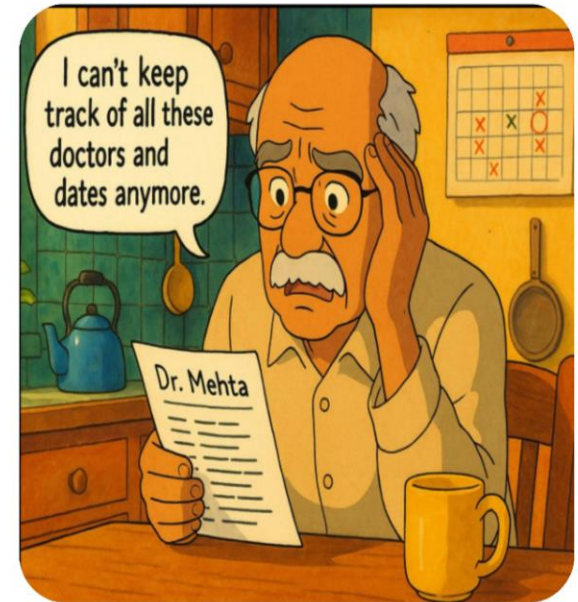A Digital Solution For Senior Citizens

EZ Care DEVELOPMENT PROCESS

1. Identifying Users & User Stories
2. Developing Wireframes
3. Component Designing & Class Diagram
4. Frontend Development
5. Developing API Endpoints
6. API Testing
7. Backend & Frontend Integration
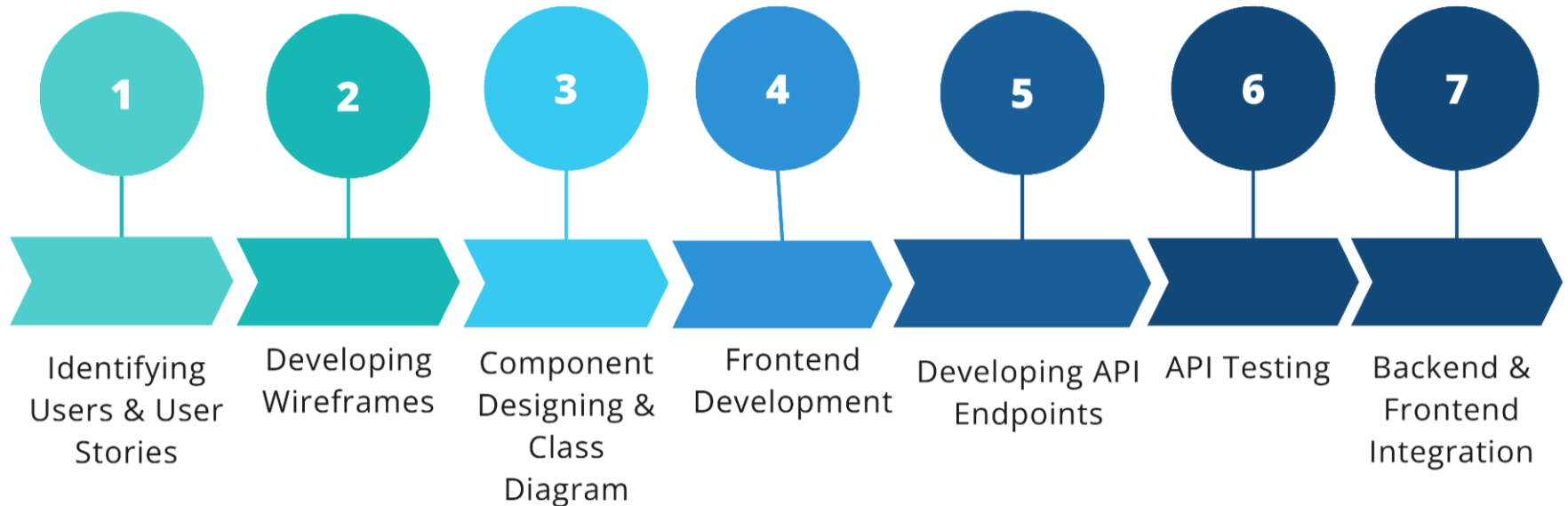
Tech Stack

Frontend

Technology	Version	Purpose
Vue.js	3.x	Progressive JavaScript framework
Vite	Latest	Fast build tool and development server
PrimeVue	Latest	UI component library
Apollo Client	3.x	GraphQL client
Tailwind CSS	Latest	Utility-first CSS framework
SCSS	Latest	CSS preprocessor

Backend

Technology	Version	Purpose
Python	3.12	Backend programming language
Flask	Latest	Lightweight web framework
GraphQL	Latest	Query language and API runtime
Graphene	Latest	GraphQL framework for Python
SQLAlchemy	Latest	ORM for database operations
PostgreSQL	15	Primary relational database
ChromaDB	Latest	Vector database for AI embeddings
InsightFace	Latest	AI face recognition library
Gunicorn	Latest	WSGI HTTP server
Flask-JWT-Extended	Latest	JWT authentication
Flask-CORS	Latest	Cross-origin resource sharing
APScheduler	Latest	Background task scheduling

Tech Stack

DevOps

Technology	Version	Purpose
Docker	Latest	Containerization platform
Docker Compose	2.x	Multi-container orchestration
Caddy	2.x	Reverse proxy and load balancer
Nginx	Alpine	Web server for frontend
GitHub	-	Version control and CI/CD

AI & ML

Technology	Version	Purpose
InsightFace	Latest	Facial recognition and analysis
ONNX Runtime	Latest	AI model inference
ChromaDB	Latest	Vector similarity search
NumPy	Latest	Numerical computing
OpenCV	Latest	Computer vision processing

General Tech

Technology	Purpose
Jira	For Project management & scheduling
Git & GitHub	Version control & team contribution
Figma	Wireframe development
PlantUML	UML Diagram
Swagger Editor	API Documentation

System Architecture
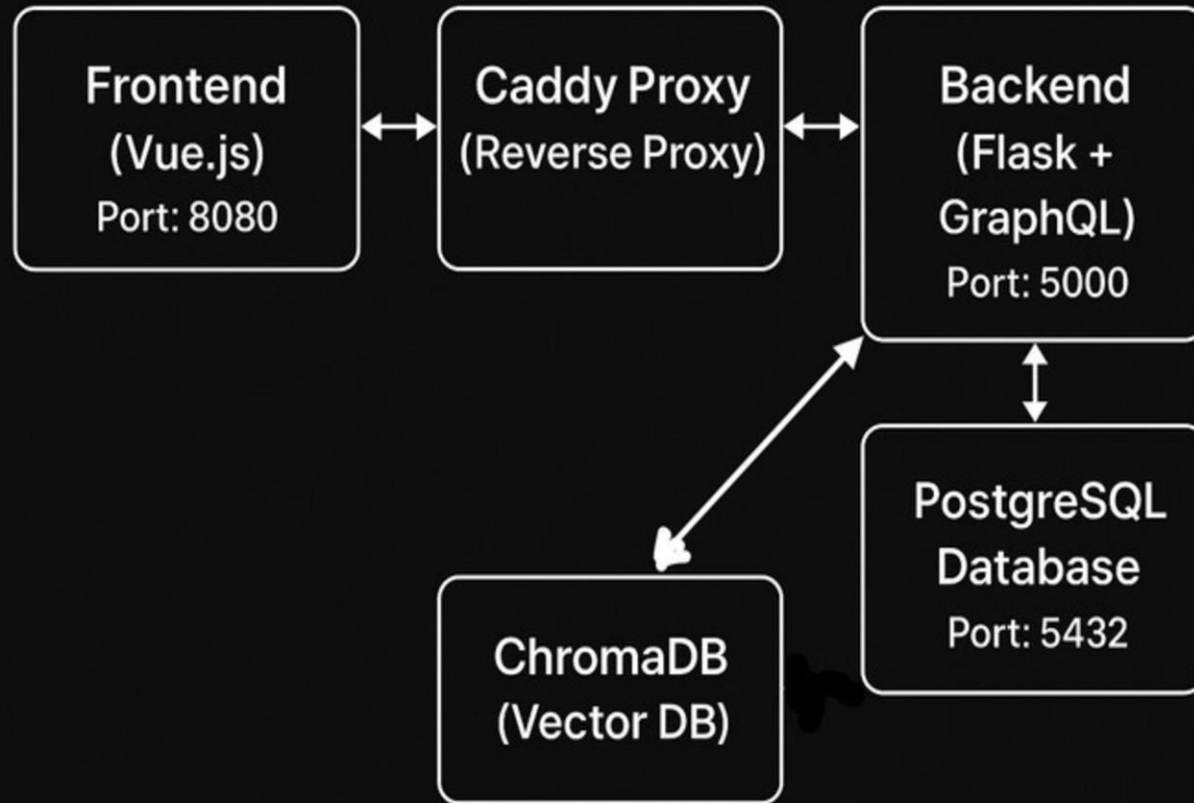
Thank You

Presented by: *Team 6*
Project: Digital Solution for Senior Citizens