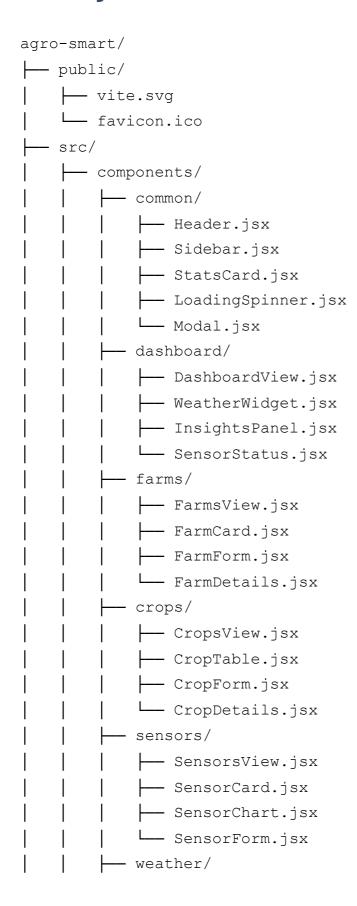
# AgroSmart - React + Vite Project Structure

### **Project Structure**



```
--- WeatherView.jsx
    - WeatherCard.jsx
  - schedule/
    - ScheduleView.jsx
    - ScheduleCalendar.jsx
    L— ScheduleForm.jsx
    - insights/
    - InsightsView.jsx
  InsightCard.jsx
    └─ InsightFilters.jsx
 L_ users/
     - UsersView.jsx
     - UserCard.jsx
     L UserForm.jsx
- hooks/
  - useFarms.js
 - useCrops.js
  - useSensors.js
 - useWeather.js
 useAuth.js
 - services/
 - api.js
 — farmService.js
 - cropService.js
  ├─ sensorService.js
 weatherService.js
— utils/
  - constants.js
 - helpers.js
  — formatters.js
 └─ validators.js
- contexts/
  - AuthContext.jsx
 └─ AppContext.jsx
styles/
  — globals.css
 └─ components.css
 - assets/
  - icons/
  images/
```

# **Configuration Files**

#### package.json

```
"name": "agro-smart",
"private": true,
"version": "0.0.0",
"type": "module",
"scripts": {
  "dev": "vite",
  "build": "vite build",
  "lint": "eslint . --ext js,jsx --report-unused-disable-directives --m
  "preview": "vite preview"
},
"dependencies": {
  "react": "^18.2.0",
  "react-dom": "^18.2.0",
  "lucide-react": "^0.263.1",
  "recharts": "^2.8.0",
  "react-router-dom": "^6.15.0",
  "axios": "^1.5.0",
  "date-fns": "^2.30.0"
} ,
"devDependencies": {
  "@types/react": "^18.2.15",
  "@types/react-dom": "^18.2.7",
  "@vitejs/plugin-react": "^4.0.3",
  "autoprefixer": "^10.4.14",
```

```
"eslint": "^8.45.0",
    "eslint-plugin-react": "^7.32.2",
    "eslint-plugin-react-hooks": "^4.6.0",
    "eslint-plugin-react-refresh": "^0.4.3",
    "postcss": "^8.4.27",
    "tailwindcss": "^3.3.3",
    "vite": "^4.4.5"
}
```

# vite.config.js

```
import { defineConfig } from 'vite'
import react from '@vitejs/plugin-react'

export default defineConfig({
  plugins: [react()],
  resolve: {
    alias: {
       '@': '/src',
    },
  },
  server: {
    port: 3000,
    host: true,
  },
})
```

# tailwind.config.js

```
/** @type {import('tailwindcss').Config} */
export default {
  content: [
    "./index.html",
    "./src/**/*.{js,ts,jsx,tsx}",
    ],
  theme: {
    extend: {
      colors: {
        primary: {
          50: '#f0fdf4',
```

```
100: '#dcfce7',
        200: '#bbf7d0',
        300: '#86efac',
        400: '#4ade80',
        500: '#22c55e',
        600: '#16a34a',
        700: '#15803d',
        800: '#166534',
        900: '#14532d',
      },
    } ,
    fontFamily: {
      sans: ['Inter', 'sans-serif'],
    } ,
  } ,
} ,
plugins: [],
```

#### postcss.config.js

```
export default {
  plugins: {
    tailwindcss: {},
    autoprefixer: {},
  },
}
```

#### **Installation Commands**

```
# Create Vite project
npm create vite@latest agro-smart -- --template react
cd agro-smart

# Install dependencies
npm install

# Install additional packages
npm install lucide-react recharts react-router-dom axios date-fns
```

```
# Install Tailwind CSS
npm install -D tailwindcss postcss autoprefixer
npx tailwindcss init -p
# Start development server
npm run dev
```

# **Key Files to Create**

- 1. Main App Component src/App.jsx
- 2. Common Components Sidebar, Header, etc.
- 3. View Components Dashboard, Farms, Crops, etc.
- 4. Custom Hooks For API calls and state management
- 5. Service Layer API communication
- 6. Utility Functions Helpers and formatters
- 7. Context Providers Global state management

# **Development Workflow**

- 1. Start with src/App.jsx as the main component
- 2. Create common components first (Sidebar, Header)
- 3. **Build view components** one by one
- 4. Add API services for backend integration
- 5. **Implement custom hooks** for data fetching
- 6. Add routing with React Router
- 7. Style with Tailwind for responsive design

#### **Responsive Design**

- Mobile-first approach
- Breakpoints: sm(640px), md(768px), lg(1024px), xl(1280px)
- · Collapsible sidebar for mobile
- Touch-friendly buttons and controls

# **Security Considerations**

- Input validation
- · Authentication tokens

- API request sanitization
- Environment variables for sensitive data