

Register App

Demo

<https://register-app-vert.vercel.app/>

Technologies

Framework and languages

- Next.js
 - React
 - Node.js
- TypeScript

Static code analysis

- ESLint
- Prettier

Main libraries/services

- Material UI
- MongoDB
- Twilio Verify API
- GitHub
- Vercel

Security aspects

- User authentication and access control
 - One time password (OTP) via SMS
 - User level authorization
- Session management
 - Tokens are stored to cookies on the client side
 - Sessions are saved to database allowing secure session validation
- User input and data validation
 - UI data sanitization through TSX (TypeScript + JSX) components
 - Client and server-side data validation
- Production instances
 - Vercel – Application deployment
 - Twilio – OTP authentication
 - MongoDB – Database

Testing

- Manual user testing by me and my non-technical girlfriend.
- Manual API testing with Postman.
- Static testing with ESLint, Prettier and TypeScript.

Findings

- Some UI bugs were found but were fixed immediately.
- The application works as intended for basic usage.
- No critical security risks were found.
- More detailed unit testing is recommended in the future for the API routes.

AI usage

- Cursor (AI Code Editor): Used at the start of development to generate the initial UI, which was later mostly modified.
- GitHub Copilot: Used to review existing documentation, suggest improvements, and identify security risks that I missed.
- AI Used: Claude 3.5 Sonnet in both cases.