MySTEMGrowth Profile

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Introduction

- IINSPIRE provides individuals of underrepresented minorities with preparation for career opportunities in STEM.
- Researchers issued pre and post program surveys, manually analyzing results with charts.
- Our team developed a web app for survey administration and data aggregation.

Technical Details

Frameworks & Languages:
- JavaScript, React JS, HTML/CSS, SQL, Node.js, Express.js, Jest

Libraries:
- AnyChart - graphics generation
- bcrypt - password hashing

AWS Tools:
- Beanstalk, S3, ACM, Secrets Manager, Route53, EC2

Testing

- Jest - unit testing to ensure component functionality
- Postman - integration testing
- CI/CD pipeline - regression testing & running the tests every time code was merged

Design Approach

Design Requirements

Functional Requirements:
- Login and register
- Storing user information
- Storing and viewing previous survey attempts
- Downloading survey graphics
- An admin can:
  - View student results
  - Create a new program
  - Edit a survey
  - Make someone else an admin
  - Reset someone's password
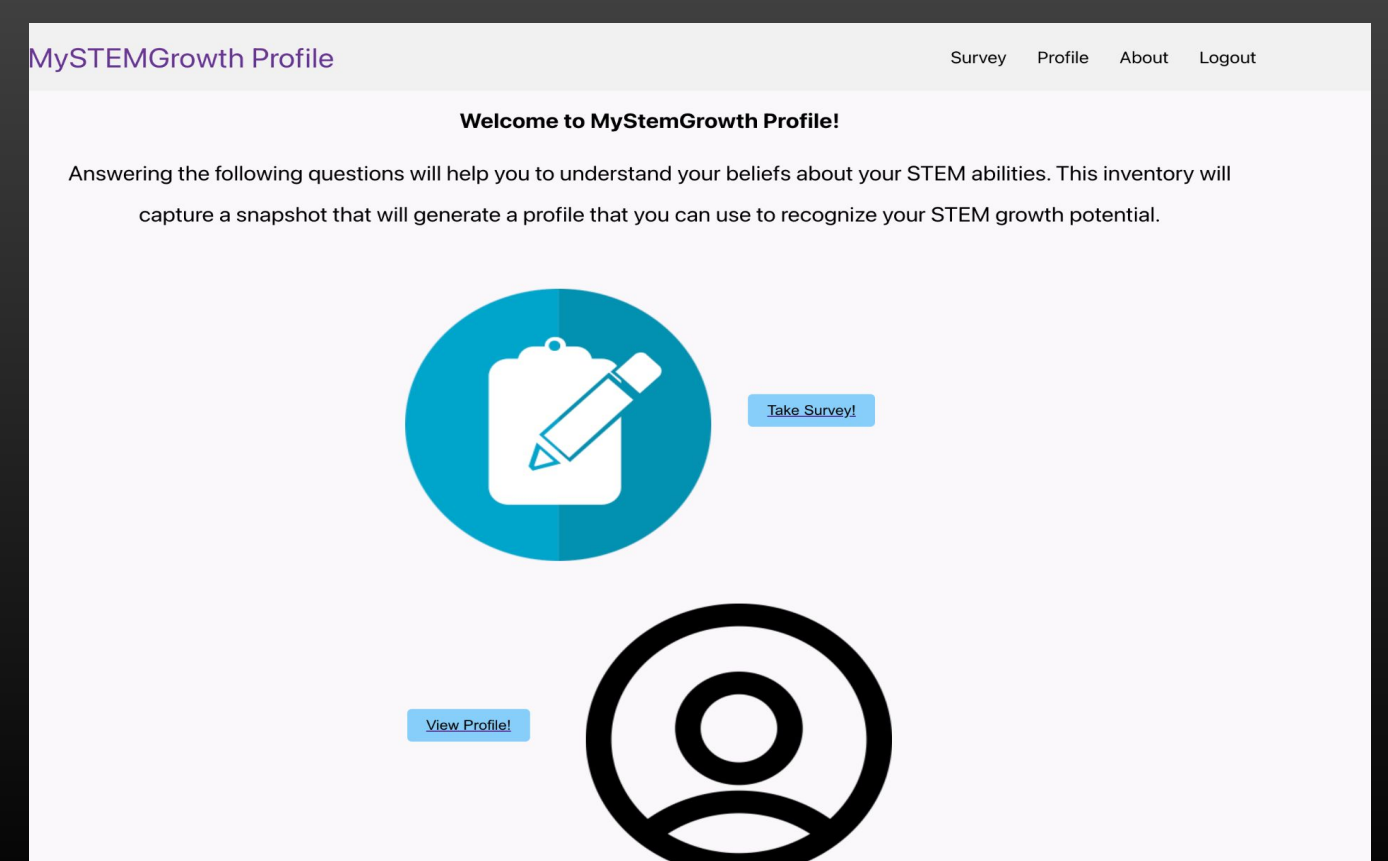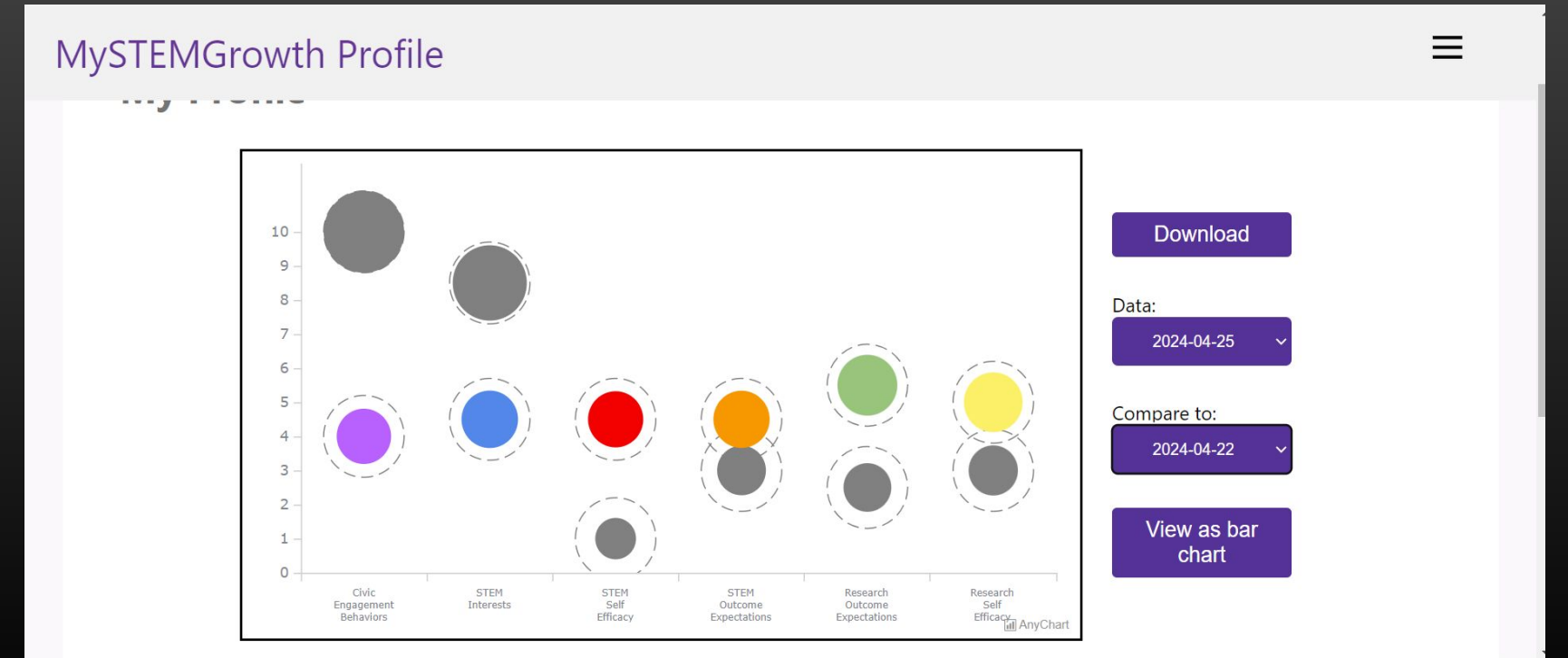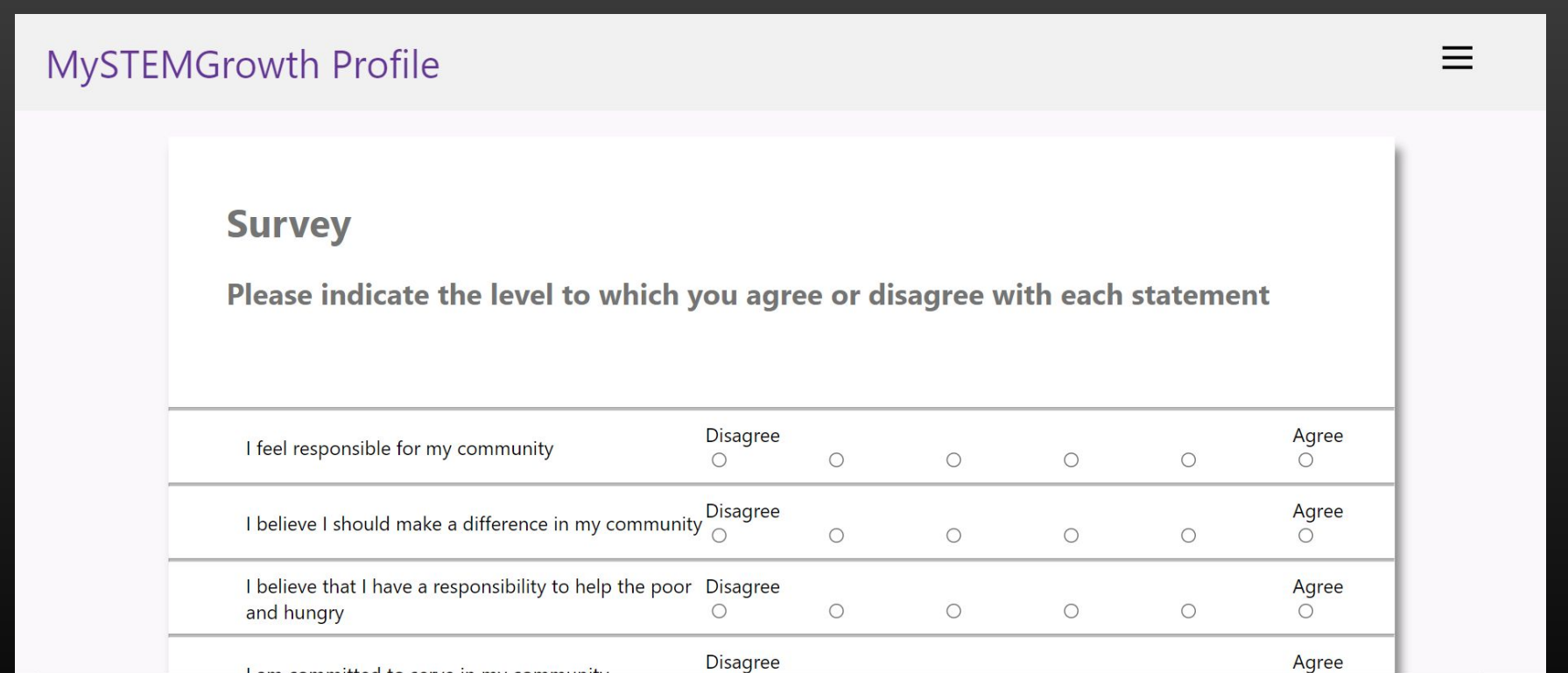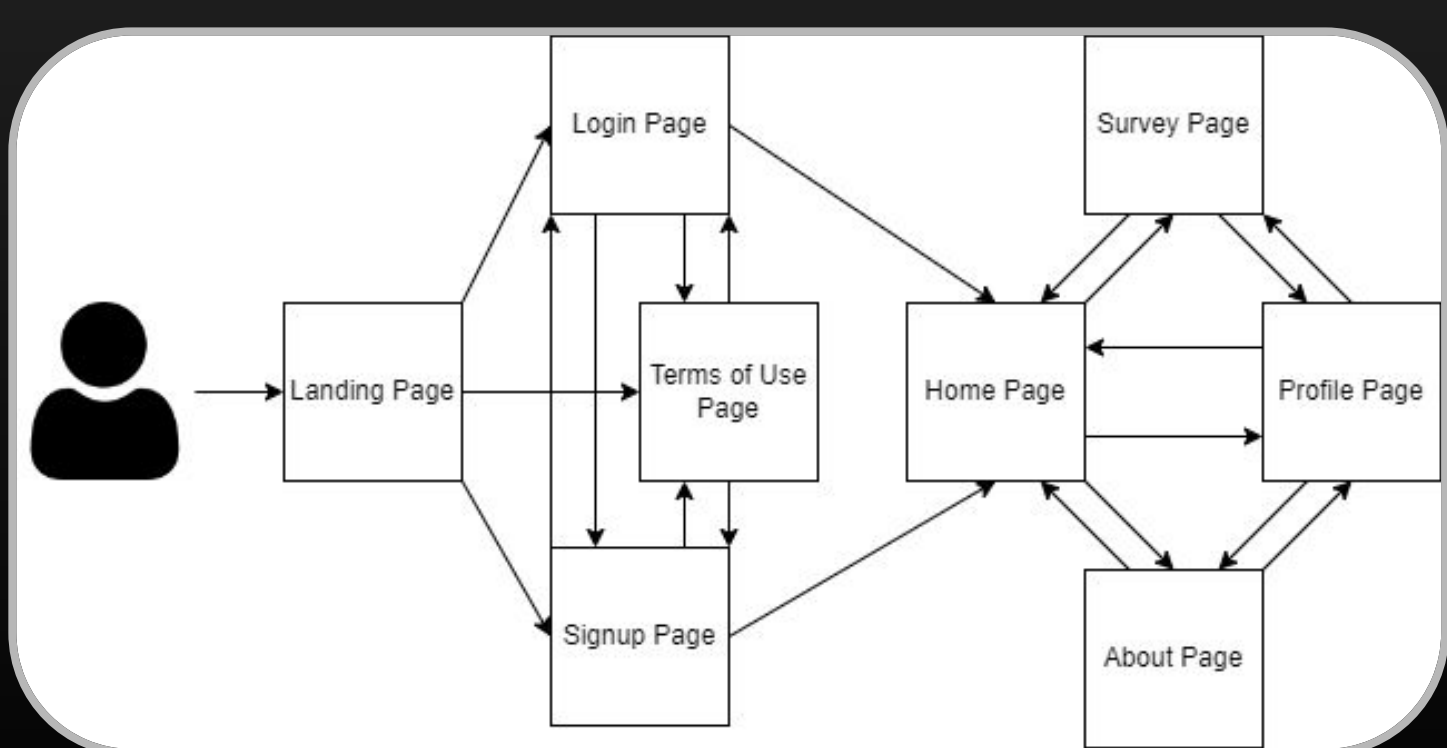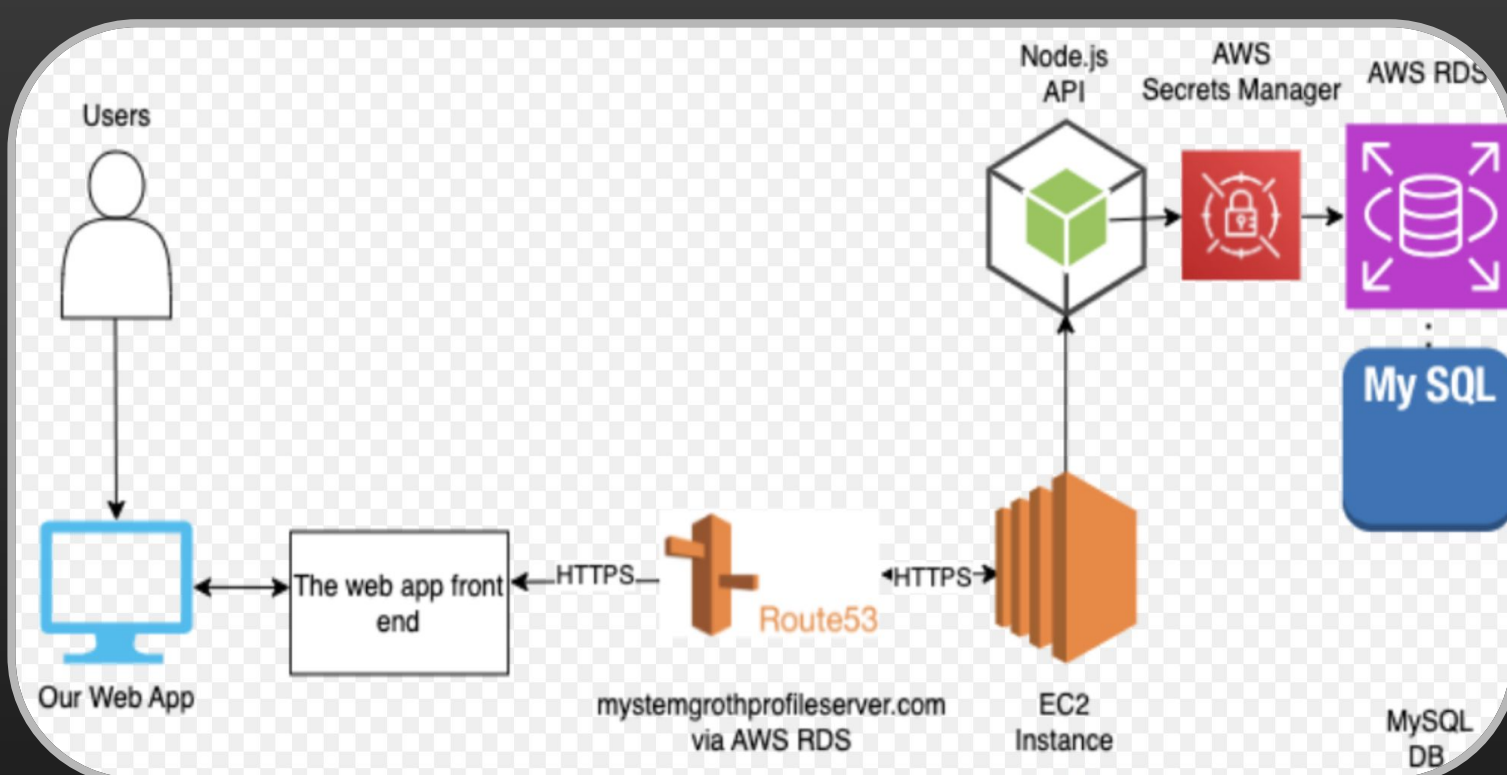- It functions with any browser or operating system

Non-Functional Requirements:
- The webtool is easily accessible
- The webtool responds to actions quickly
- The webtool's design makes for an intuitive user experience

Broader Context

- Tracking and demonstrating student progress to themselves and their instructors
- Aid in introducing underserved students to STEM and retaining them
- Tool supports STEM programs providing resources to further advance students in academia and thus equip them with skills for industry

LSAMP IINSPIRE PROGRAM