NextStep Navigator Report

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Acknowledgement

The creation of **NextStep Navigator** was a journey shaped by the dedication and support of many. We are deeply thankful for the professional guidance and mentorship that made this project a reality.

Our most sincere gratitude goes to our instructor, Mr. Innocent Ikart. His professional expertise, insightful feedback, and constant encouragement were the cornerstones of this project along with his commitment to excellence served as a powerful motivator, pushing us to refine every aspect of the platform.

We also want to acknowledge the staff at **Aptech Computer Education**. Their support and the resources they provided were essential. The knowledge and a welcoming environment fostered by the entire institution were instrumental in navigating the

complexities of web development and bringing this concept to fruition.

Finally, we would like to thank all our colleagues who provided valuable insights and constructive criticism throughout the development process. Their collective input helped us improve and refine this platform, ensuring it truly serves its purpose of guiding others on their career paths.

Synopsis

NextStep Navigator is a website that provides career guidance for many students, fresh graduates, and even working professionals who often struggle to align their personal interests and strengths with suitable career options.

NextStep Navigator website has the following features:

- Filterable career profiles for easy user navigation
- Interest-based self-assessment quiz
- Digital resource library consisting of e-books, and reference materials.
- Contact platform with contact information and feedback for the customer care services and our social media.
- Implementation of Google maps for easy location of our Headquarters and head branches; among many others.

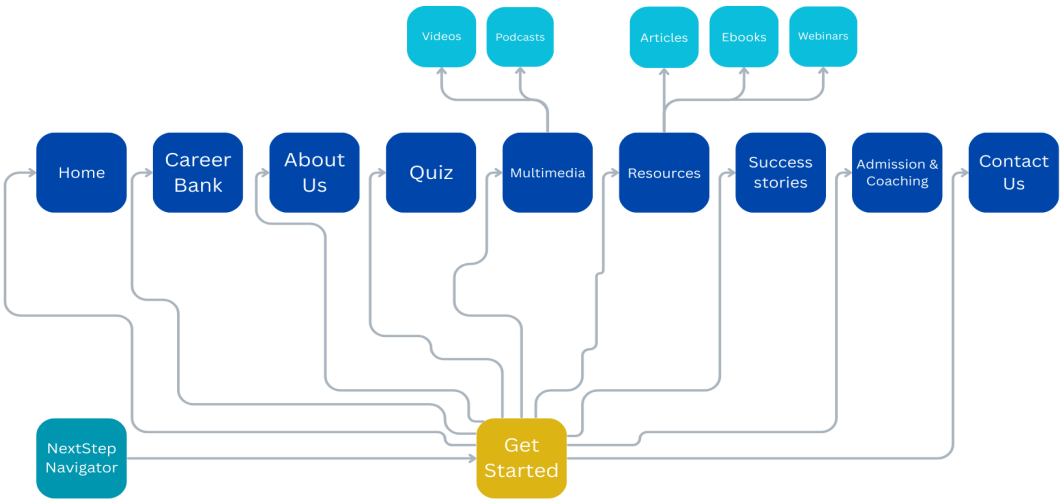
Process Diagram

Process diagrams, called “flow diagrams”, are used to model the sequence of activities within a process.

Below is a structure of the navigational flow of objects in the NextStep Navigator website.

As seen in the figure, the site’s navigation takes a kind of “full mesh” structure. This means that all pages are interlinked.

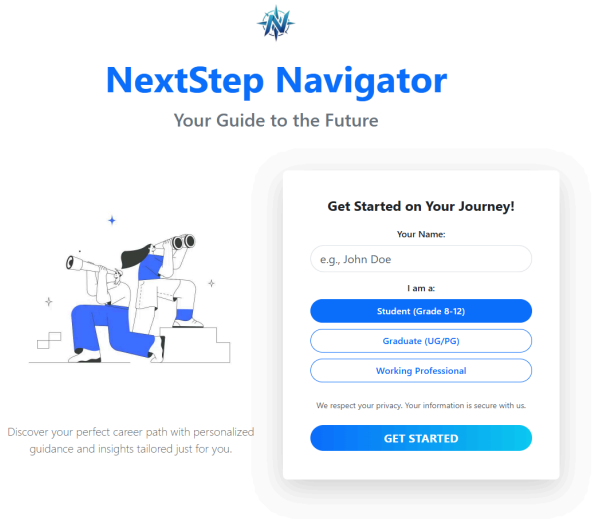
Each of the pages is linked to every other page on the website and this is achieved through the consistent navigation menu.



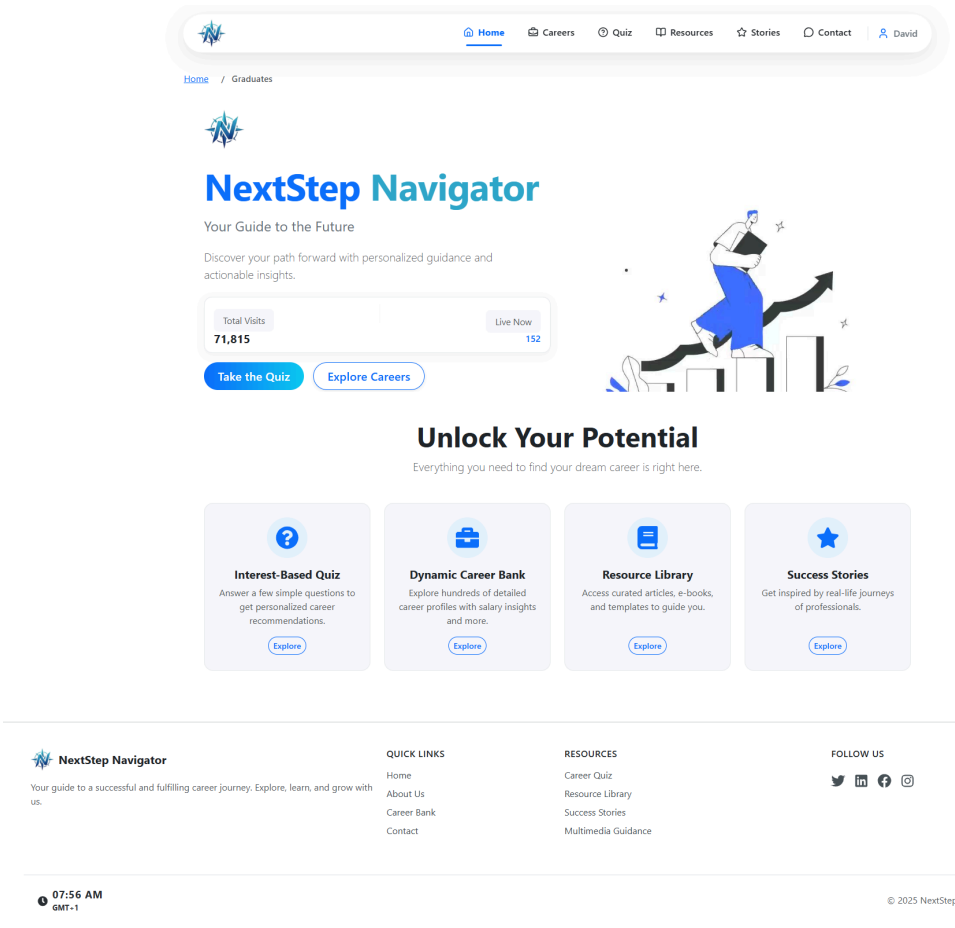
Screenshot

Sometimes, it is necessary to familiarize ourselves with certain environments. Two sites may have the same aims and objectives, but they would surely have different modes of implementation. This is why we have decided to point out some important aspects of the Amazing Bridges website using visuals.

Landing Page

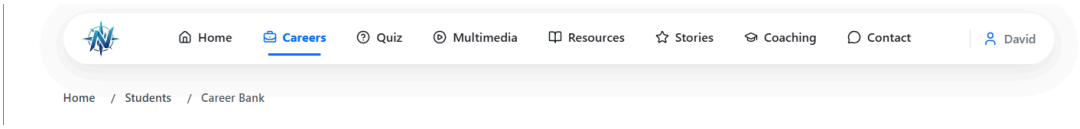


Home Page



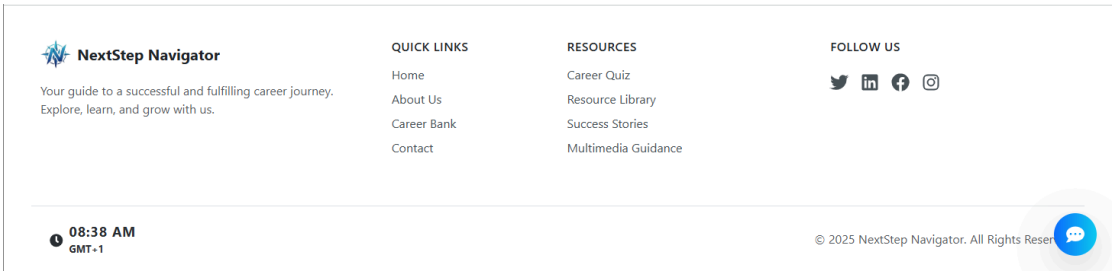
A well built home page with nice animation

Navbar



This is a card-like designed navigation located at the top of the page. We also included the breadcumbs

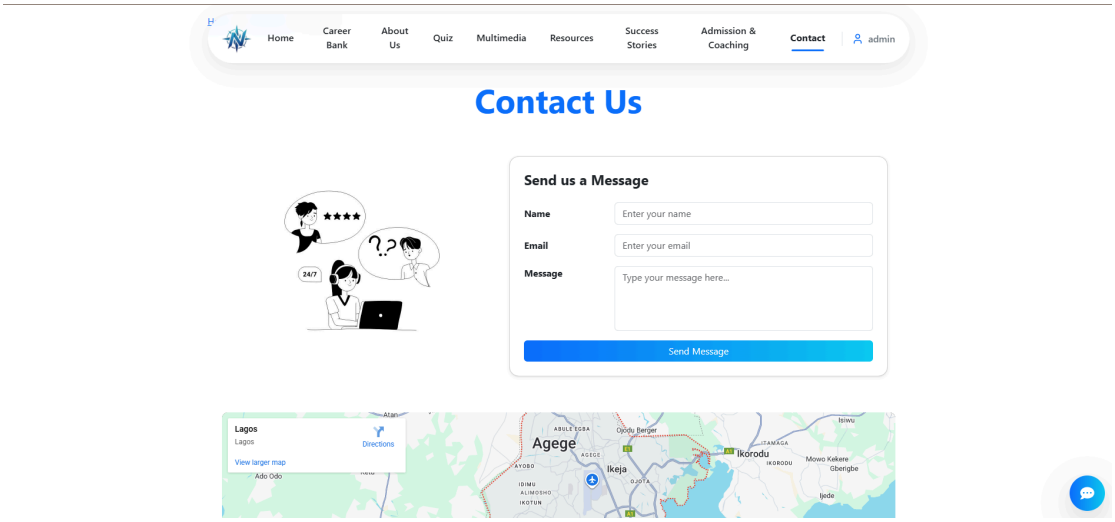
Footer



A well built footer with feedback icon

Google Map site

What if there is a need to contact or book an appointment with the NextStep Navigator Team? There is absolutely no problem with that as Google maps have been integrated into the website to ease the process of finding us easily.



Our project provides a visual journey through the **Next Step Navigator** experience. Here, you will find:

- **Success Stories:** Photos and testimonials from users who have successfully navigated their career paths with our guidance.
- **Latest Insights:** Graphics and infographics highlighting the latest trends and data in career development to keep you ahead of the curve.

This prpject is designed to inspire you and show the possibilities that await on your career journey.

USER GUIDE

SYSTEM REQUIREMENTS

This is the minimum system requirements to run the project

- Operating system: Windows 7, Windows 8 ,10, or higher OS
- Software: HTML 5 or JavaScript supporting browsers

GET THE WEBSITE RUNNING

- Host the website on a server.
- Access the website by typing in the domain name in any HTML 5 and JavaScript supporting browser.
- Navigate the website using the user-friendly navigation menu and links.
- Inside the project directory, run: `npm install`
- Run the development server with: npm run dev

Project Dependencies and Their Roles

This project leverages several key libraries and frameworks to deliver a dynamic and visually engaging user experience.

Core UI and Rendering

- **React** (`^19.1.1`): The foundational JavaScript library for building declarative and component-based user interfaces.
- **React DOM** (`^19.1.1`): The entry point for rendering React components into the DOM, enabling interaction with the web page.

Styling and Component Library

- **Bootstrap** (`^5.3.8`): A popular open-source CSS framework providing pre-designed components and a responsive grid system for consistent styling across devices.
- **React Bootstrap** (`^2.10.10`): A library that offers React-specific components built with Bootstrap's design system, allowing for seamless integration and state management.
- **React Bootstrap Icons** (`^1.11.6`): A collection of Bootstrap-themed SVG icons, easily usable within React components.

Data Visualization

- **Chart.js** (`^4.5.0`): A flexible and performant charting library for creating various types of visualizations.

- **React Chartjs 2** (`^5.3.0`): A React wrapper for Chart.js, simplifying the integration of charts into React applications.

Animation and Interactivity

- **AOS (Animate On Scroll)** (`^2.3.4`): A lightweight library that allows elements to animate as they scroll into view, enhancing user engagement.
- **Framer Motion** (`^12.23.12`): A powerful animation library for React that makes complex animations and gestures intuitive and declarative.
- **Lottie React** (`^2.4.1`): Enables the rendering of Lottie animations (exported from Adobe After Effects) within React applications, adding high-quality motion graphics. Used for the animation

Utility and Iconography

- **Lucide React** (`^0.543.0`): A robust set of open-source SVG icons, designed for scalability and ease of use.
- **React Circularprogressbar** (`^2.2.0`): A simple and customizable React component for displaying progress in a circular manner. Used for the quiz Circular Progressbar
- **React Icons** (`^5.5.0`): A popular library offering a vast collection of popular icon sets as React components.
- **Geo-TZ** (`^8.1.4`): A utility library for determining timezones based on geographical coordincates.

Custom Hooks

- SimulatedVisitors: We got a simulated visitors count hook and used it in our home page

Data Architecture Overview

The application's content and configuration are primarily driven by a set of JSON files located in the src/data/ directory. This approach allows for easy content updates without modifying the application's source code. The data is structured to support personalization based on user type (Student, Graduate, Professional).

CareerData.json

This is the central data file for the application, containing all the information related to careers, quizzes, resources, and guidance.

CareerBank

This array holds detailed information for each career profile displayed in the "Career Explorer" feature. Each object in the array represents a single career.

Structure of a careerBank object:


```
{
  "id": 1,
  "careerName": "Software Engineer",
  "description": "Develops, tests, and maintains software
applications...",
  "skillsRequired": ["JavaScript", "React", "Node.js", "Python",
"SQL"],
  "averageSalary": "$95,000",
  "educationPath": "Bachelor's in Computer Science",
  "industry": "Technology",
  "jobOutlook": "22% (Much faster than average)",
```

"relatedRoles": ["Data Scientist", "DevOps Engineer", "Product Manager"],
"dayInTheLife": "A typical day involves writing code, collaborating with team members...",
"careerVideo": "https://www.youtube.com/embed/watch?v=example1",
"audiences": ["student", "graduate", "professional"],
"audienceNotes": "Suitable for late students (taster projects), grads and pros..."
}

- id: A unique numerical identifier for the career.
- careerName: The title of the career.
- description: A brief summary of the career's responsibilities.
- skillsRequired: An array of key skills needed for the role.
- averageSalary: A string representing the average salary. The component parses this to extract the numerical value for sorting and charting.
- educationPath: The typical educational requirements.
- industry: The industry sector this career belongs to (e.g., "Technology", "Healthcare"). Used for filtering in the CareerBank and Quiz components.
- jobOutlook: A string describing the projected growth for this career.
- relatedRoles: An array of similar or related career paths.
- dayInTheLife: A narrative description of a typical workday.
- careerVideo: A URL to an embedded video related to the career.

- audiences: An array of user types (student, graduate, professional) for whom this career is most relevant. This is crucial for personalizing content.
- audienceNotes: A string providing context on why the career is relevant to the specified audiences.

QuizQuestions

This object contains the questions for the career discovery quiz, categorized by user type. This allows for a tailored quiz experience.

Structure of quizQuestions:


```
"quizQuestions": {
  "student": [
    {
      "id": 101,
      "question": "Which of these activities sounds most interesting to you?",
      "options": ["Building things", "Helping people", "Analyzing data", "Creating art"],
      "industries": ["Technology", "Engineering", "Healthcare", "Creative Arts", "Education"],
      "answersMapping": {
        "Building things": {
          "message": "Careers in Technology or Engineering may suit you.",
          "careers": ["Mechanical Engineer", "Civil Engineer"],
          "weight": 2,
```

```
        "followUpResources": [{ "type": "article", "title": "Intro to
Engineering", "url": "#" }]
       }
     }
   }
  ],
  "graduate": [ /* ... */ ],
  "professional": [ /* ... */ ]
}
```

- Top-level keys (student, graduate, professional): Each key holds an array of question objects tailored to that user group.
- id: A unique numerical identifier for the question.
- question: The question text.
- options: An array of possible answers for the user to choose from.
- industries: An array of industries this question relates to. This is used to filter which questions appear after a user selects an initial interest.
- answersMapping: An object where each key corresponds to an option from the options array. The value contains the logic for that answer:
    - message: A feedback message shown to the user.
    - careers: An array of career names suggested by this answer.
    - weight: A numerical weight, potentially for a scoring system.

    - followUpResources: An array of recommended resources (articles, courses, etc.) related to the answer.

MultimediaGuidance

This object powers the Multimedia Guidance page, providing structured data for videos, podcasts, and workshops.

Structure of multimediaGuidance:

```
"multimediaGuidance": {
  "videos": [
    {
      "id": 1,
      "title": "A Day in the Life of a Software Engineer",
      "url":
"[https://www.youtube.com/embed/watch?v=example1](https://ww
w.youtube.com/embed/watch?v=example1)",
      "category": "Technology",
      "userType": "Graduate",
      "transcript": "This video shows a typical day..."
    }
  ],
  "podcasts": [ /* ... */ ],
  "interactiveWorkshops": [ /* ... */ ]
}
```

- videos / podcasts: Each is an array of media objects with fields for id, title, url, category, userType, and a transcript.

- interactiveWorkshops: An array of workshop objects, each with an id, title, date, and registration url.

ResourceLibrary

This object contains categorized resources for the Resource Library page.

Structure of resourceLibrary:

```
"resourceLibrary": {
  "articles": [
    {
      "id": "art1",
      "type": "Article",
      "title": "How to Ace Your First Tech Interview",
      "description": "A comprehensive guide with tips...",
      "url": "#"
    }
  ],
  "ebooks": [ /* ... */ ],
  "webinars": [ /* ... */ ],
  "templates": [ /* ... */ ]
}
```

- The data is grouped by resource type (e.g., articles, ebooks).
- Each resource has a unique id, type, title, description, and a url to access it.

SuccessStories

This array contains inspirational stories from individuals in various fields, used on the Success Stories page.

Structure of a successStories object:


```
{
  "id": 1,
  "name": "Jane Doe",
  "career": "Entrepreneur",
  "domain": "Business",
  "photo": "./images/images.webp",
  "story": "Jane started her own business after years of working in tech...",
  "audiences": ["graduate", "professional"]
}
```


- audiences: Similar to careerBank, this key allows stories to be recommended to specific user types.

AdmissionAndCoaching

This object provides a list of guidance topics for the Admission & Coaching page, filtered by user type.

Structure of a guidanceTopics object:


```
{
  "id": 1,
  "title": "Stream Selection",
  "content": "Guidance on choosing the right subjects...",
  "icon": "fa-solid fa-book",
```

```
  "userType": "student"
}
```

- userType: Ensures that only relevant topics are shown to the current user (e.g., "Stream Selection" for students, "Resume Optimization" for professionals).
- icon: A class name (e.g., from Font Awesome) for a representative icon.

MenuData.json

This file defines the navigation links that appear in the application's header. The structure is keyed by user type, allowing the navigation to adapt dynamically.

Structure:

```
{
  "student": [
    { "label": "Home", "page": "home", "icon": "Home" },
    { "label": "Careers", "page": "careerBank", "icon":
"BriefcaseBusiness" }
  ],
  "graduate": [ /* ... */ ],
  "professional": [ /* ... */ ],
  "guest": [ /* ... */ ]
}
```

- Top-level keys (student, guest, etc.): Represent the different user roles.
- Each role has an array of link objects:

    - label: The text displayed for the navigation link.
    - page: The internal route/page key that the link navigates to.
    - icon: The name of an icon component (from a library like lucide-react) to display next to the label.

Timezones.json

This file provides a curated and grouped list of timezones for the GeoClock component's manual selector.

Structure:

```
[
  { "group": "Common", "zones": [
    { "name": "Africa/Lagos", "label": "Lagos (WAT)" },
    { "name": "Europe/London", "label": "London (GMT/BST)" }
  ]},
  { "group": "Africa", "zones": [ /* ... */ ]}
]
```

- The file is an array of group objects.
- group: The name of the timezone group (e.g., "Common", "America").
- zones: An array of timezone objects within that group.
    - name: The official IANA timezone name (e.g., America/New_York).
    - label: A user-friendly string for display in the UI (e.g., New York (EST/EDT)).

This structured data is fundamental to the application's functionality, enabling dynamic content, personalization, and easy maintenance.