Restructure Techechelons Website

Final Year Project

Team

Team Members:

- Ankush Patil
- Manasi Purkar
- Nishant Ulhare
- Sejal Jagnade

Guided By:

- Prof. Nilesh Sabale

Sponsor Industry:

- Techechelons

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Abstract

Techechelons is a software solutions providing company. The project consists of restructuring the website from scratch. The restructuring is required to organize the website by deleting, updating, and moving the content to increase its effectiveness. Also using open-source libraries provides technical supremacy by providing stability, adaptability and most importantly customization.

The outcome of the project is desired to be a fully functional website. Restructuring will affect the company by driving traffic to the website and exposing the services to larger audiences efficiently. Clients will be benefited by having easy access to the required services. Applicants can easily apply and contribute to the company's growth and also learn through hands-on experience. Tools and technologies used will be Visual Studio Code, Strapi, Gatsby, Postgresql, Amazon web services, etc.

Problem statement

Restructure the website to improve experience in terms of speed, security and interface.

Need

- Improve look and feel of the website
- Restructure code to increase efficiency in terms of speed
- Use open source platforms to custom as per needs
- Implement selective CMS to ensure security
- Reasonable development cost

Tools and Technologies: Gatsby

- Gatsby which is open-source and react based framework
- For responsiveness of ui, we have used react-bootstrap
- Reference: Welcome to the Gatsby Way of Building | Gatsby (gatsbyjs.com)
- Implementation of static pages

Backend using Strapi and GraphQL

- Strapi, content management system is used to create content types and arrange the content to retrieve it when needed.
- The queries were executed using the GraphQL API.
- Connecting Strapi and GraphQL was a easy task to do while connecting gatsby to strapi was challenging.
- Strapi V4 was actively used when we started the project and was incompatible with most of the plugins from Gatsby.
- Reference: API Documentation - Strapi Developer Docs

Database using Postgresql

- Research phase concluded the use of MongoDB as the database but the support was discarded by strapi version4 which made us search the methods to store the data efficiently that matched our needs.
- Storing the data in relational DBMS was challenging but the way was found using AWS.
- Postgres database was most suitable and robust to our project needs from all the database options provided by strapi.

Amazon Web Services

- To connect aws to strapi we need to run a command npm install @strapi/provider-upload-aws-s3 --save
- Then add the security credentials, secret key, access key to the specified path path: ./config/plugins.js and also mention the region and the bucket name in this plugin.js file
- Created the career form on which one field of type file for resume uploading is there. Once we upload the resume and press the submit button, resume file goes to aws bucket.
- Reference:https://docs.strapi.io/developer-docs/latest/plugins/upload.html#using-a-provider

Interface details

https://www.figma.com/file/BGU6vNbQfyILRVupKlLNDj/Techechelons?node-id=0%3A1

Result

1. All static pages frontend is **according to design** expected.
2. Pages are **linked** properly according to requirements.
3. Blog pages are getting **created dynamically**.
4. Form data is being **correctly passed in database**.
5. Images and Documents are being **passed in AWS S3 bucket** to avoid load on database.

Thankyou!!