

Knight Foundation of Computing and Information Sciences

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Material Atlas for Coastal Construction

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PROBLEM

Coastal construction lacks significant cross-disciplinary integration, indicating a limited collaboration between materials scientists and the professionals utilizing these materials. Therefore, individuals responsible for coastal construction must invest considerable time and effort to determine the appropriate materials for the task.

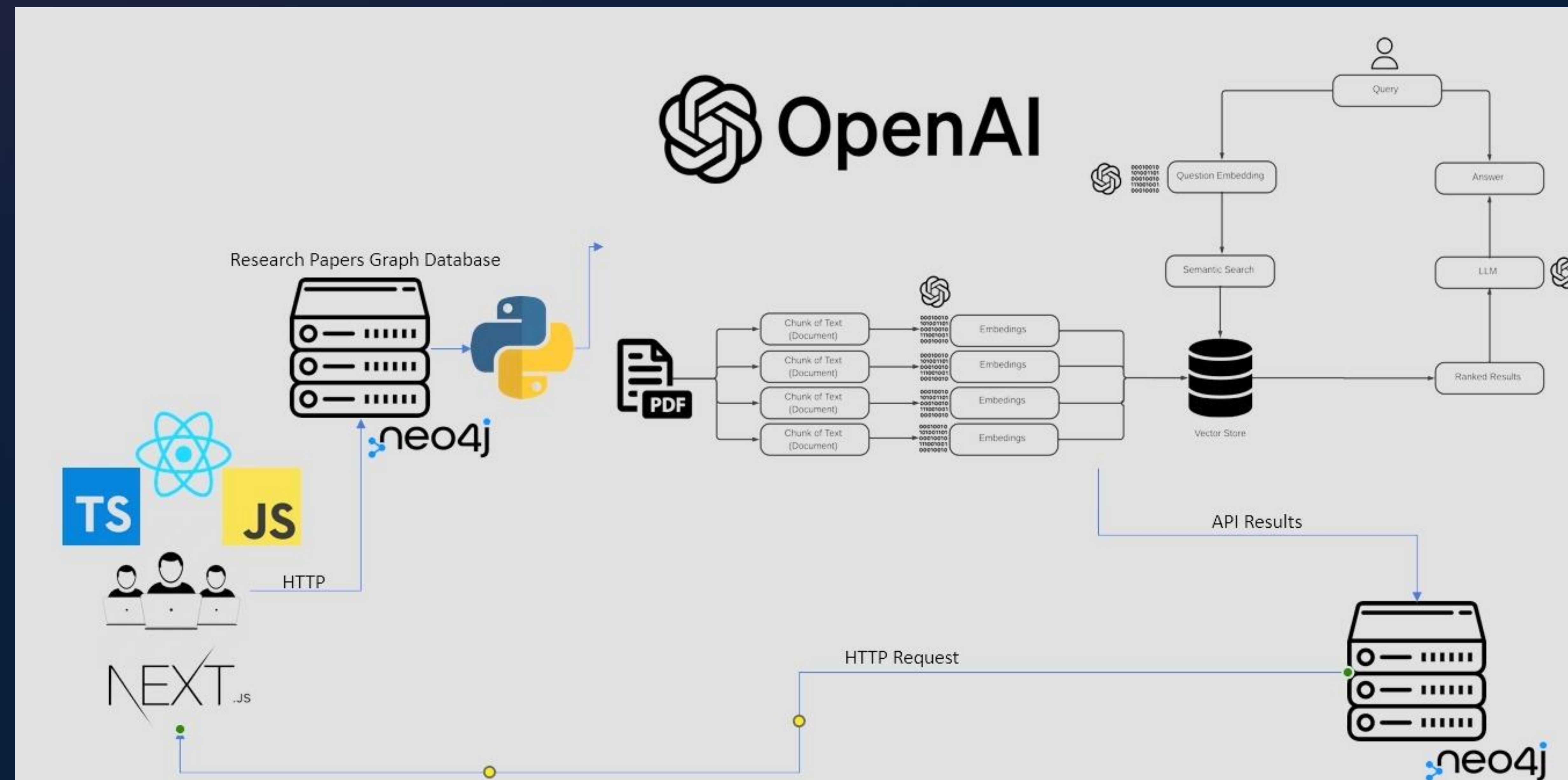
CURRENT SYSTEM

The project had an existing foundation, and our focus was on specific enhancements such as database expansion, user interface refinement, and algorithm optimization. The goal is to streamline research and expedite the application of collected information in coastal construction projects.

REQUIREMENTS

- Retrieve material characteristics and stipulations from academic articles and research papers using, AI.
- Create robust registration and login features to safeguard user data and support platform security.
- Enhance the existing Material Atlas website's user interface, prioritizing intuitive navigation and accessibility for all users.

SYSTEM DESIGN



SUMMARY

Leveraging artificial intelligence, we aim to efficiently extract material data from research papers. These enhancements aim to narrow the division between material science and practical application, fostering a culture of knowledge exchange essential for the sustainable growth of academic and coastal communities.

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