

PI Full stack JS

4TWIN :

Projects Book

2023-2024

Contact : piweb@esprit.tn

SUSTAINABLE
DEVELOPMENT



Project : Collaborative Document Management Application (Notes)

Description :

Our goal is to create an innovative and user-friendly application that revolutionizes collaborative document management and organization. With the power of Editor.js for rich text editing, React for the frontend, NestJS for the backend, and MongoDB for the database, our application will provide an exceptional user experience. The focus of our application is on document creation, efficient management, real-time collaboration, and seamless organizational features. Users will be able to effortlessly create, edit, and delete documents, while also having the ability to organize them into folders or categories. Our powerful search functionality will enable users to quickly find documents based on their titles or content.

Collaboration is at the heart of our application, allowing users to collaborate with others in real-time on the same document. Users will have visibility into who else is editing the document, fostering effective teamwork and productivity. To enhance the creative expression in documents, users will have access to various types of blocks including text, images, lists, tables, and more. Additionally, users can easily embed external content such as videos or links, making their documents dynamic and engaging.

Our application also prioritizes user and access management, empowering users to control document access. Users can easily manage sharing settings, granting specific users or groups varying levels of access to their documents. With our attractive and appealing Notion-like application, we aim to transform the way users collaborate, create, and organize documents. Join us on this exciting journey to revolutionize document management and unleash the full potential of collaboration.

Technologies :

- FrontEnd : ReactJS
- BackEnd: NestJS
- DataBase : MongoDB

Project : Project Management Application

Description :

Our cutting-edge project management application, powered by NestJS and React, is designed to revolutionize how teams manage their projects. With an intuitive and seamless platform, our JIRA-like application brings efficiency and effectiveness to project management, enabling teams to collaborate seamlessly and achieve their goals effortlessly. With features like project creation, task management, and a customizable Scrum board, our application empowers teams to track progress, prioritize tasks, and achieve success. Whether you're a small startup or a large enterprise, our innovative solution streamlines your workflow, enhances productivity, and drives success.

Say goodbye to the complexities of project management and embrace a new era of efficiency and collaboration. Elevate your project management experience with our powerful NestJS/React application.

Technologies :

- FrontEnd : ReactJS
- BackEnd : NestJS
- DataBase : MongoDB

Project : El Kindy Project - Streamlining Education Management

Description :

The El Kindy project, conceived by founder Lotfi Errais, is a holistic solution for educational institutions. It unifies teachers, administrative staff, leadership, and students on a single platform. Teachers can conduct assessments, plan lessons, and track students, while administrative staff handle processes and payments. Leadership manages students, generates reports, and controls data. Students actively participate in their learning journey. Key features include teacher and student management, activity planning, schedule coordination, event management, personalized assessments, course planning, and online lessons. The project also covers financial management, collection control, bulletin management, news updates, and notifications. In essence, El Kindy optimizes educational administration, ensuring efficient management, transparent communication, and precise activity monitoring.

Technologies :

- FrontEnd : ReactJS
- BackEnd : ExpressJS
- DataBase : MongoDB

Project : LinkUptournament



Description :

Innovating football tournament management, our project caters to the specific needs of football academies, simplifying every aspect from tournament planning and team registration to player management, match coordination, and result tracking. The application is designed to be highly configurable, allowing tournament creators to tailor every aspect according to their preferences. With a commitment to ease and efficiency, we have chosen ReactJS for the frontend, ExpressJS for the backend, and MongoDB for the database, ensuring a robust and seamless user experience. Our application aims to be user-friendly and responsive, providing football academies with a hassle-free solution that allows them to focus on the game itself while effortlessly managing the intricacies of tournaments.

Technologies :

- FrontEnd : ReactJS
- BackEnd : ExpressJS
- DataBase : MongoDB

References : [Tournify](#)

Project : Platform for the coordination of integrated projects

Description :

Platform for coordinating integration projects offers comprehensive management covering a wide range of project types. At the heart of this platform is a robust project management system, integrating features such as theme planning, subject and group allocation, and teacher assignment to projects. The tool's flexibility allows it to be adapted to the specificities of each integration project, while the centralization of information simplifies access to key information.

Evaluation management is also integrated, with the possibility of creating personalized evaluation grids for each project. Teachers can assign grades according to defined criteria, facilitating analysis of individual and collective student performance.

To ensure smooth organization, the platform provides reminders to notify stakeholders of important deadlines and tasks to be completed, helping to keep the project on track and avoid delays. Regarding reporting, the platform must offer powerful tools for generating customized reports on various aspects of the project, including assessments, progress reports and recommendations. The management of project ceremony recommendations is a key element, enabling suggestions to be tracked, implemented and the project plan adjusted accordingly. In addition, the platform also handles the tracking of credits linked to integration projects.

In short, this comprehensive platform offers an integrated solution for managing all aspects of integration projects, at all levels, promoting efficient coordination and optimal project success.

Technologies :

- FrontEnd:
ReactJs/NextJS
- BackEnd: ExpressJS
- DataBase : MongoDB

Project : Human Resource Management APPLICATION

Description :

Our Human Resource Management project is a user-friendly solution designed to streamline workforce organization and enhance communication and collaboration. It empowers managers to plan and monitor team activities efficiently, resolve scheduling conflicts, and reward performance based on client-defined criteria. The system ensures open integration with other applications through APIs, supports multi-device access with a responsive design, and offers deployment flexibility in installation or Software as a Service (SaaS) modes. Adhering to coding best practices, it accommodates a substantial data volume for testing purposes. Leveraging Angular for the frontend and Node.js (Nest framework) for the backend, our solution provides a comprehensive approach to human resource processes, promoting a seamless and efficient experience for organizations.

Technologies :

- FrontEnd: Angular
- BackEnd: NestJS
- DataBase: MongoDB

Project : DEVELOPMENT OF A BUSINESS MANAGEMENT APPLICATION 2.0

Description :

In this project, we're developing a cool 2.0 business management app. The goal is to make it easy for businesses to handle everything from planning to finances. We've picked some great tech, like ExpressJS for the backend and Angular for the frontend, to make sure it's smooth and user-friendly. The app will have features like a dashboard for quick insights, managing products, clients, suppliers, sales, purchases, stocks, and finances. Security is a big deal, so we're ensuring secure login and role-based access. We're also protecting sensitive data with encryption. The technical details are well-documented, and the project will be delivered on a set schedule, ensuring a complete and efficient business management solution for our users.

Technologies :

- FrontEnd:
Angular
- BackEnd:
ExpressJS+Django
- DataBase : MongoDB

Project : MediColGes: Platform for the Creation and Management of Collaborative Collection Projects for Multimodal Medical Data.

Description :

The MediColGes project aims to develop a generic platform for the collection, processing, and normalization of medical data. The system targets researchers, healthcare professionals, and medical institutions, providing them with features dedicated to project management and collaborative work at a distance.

Project Objectives:

- Design and develop a configurable platform for the collection, preprocessing, and normalization of medical data.
- Provide features for creating data collection projects, managing members, generating forms, and handling medical data.
- Facilitate remote collaborative work among healthcare professionals, particularly doctors, for coordination, secure sharing of images and medical data, and assistance in decision-making regarding therapeutic protocols.

Technologies :

- FrontEnd: ReactJs
- BackEnd: ExpressJS
- DataBase : MongoDB

Project : Social network at work for university



Description :

Building a social structure for the management of academic activities across academic units and among educators within a university.


The project 'Social Network at Work for University' aims to create a professional social network for educators. The objective is to facilitate communication, collaboration, and information sharing within the university community.

Technologies :

- FrontEnd:
ReactJs/NextJS
- BackEnd:
ExpressJS+Django
- DataBase : MongoDB

Project 10

Project : Smart recommendation application for educational resources, internships, and jobs based on learners' profiles



Description :

An intelligent recommendation application for educational resources, internships, and jobs based on learners' profiles could be beneficial in helping them find opportunities that align with their interests, skills, and goals. This application offers adaptive strategies according to learners' profiles.

Technologies :

- FrontEnd:
ReactJs/NextJS
- BackEnd:
ExpressJS+Django
- DataBase : MongoDB

Project : Web platform for the sports and technical management of football staff.



Description :

The objective of this web platform is to provide football technical staff with a comprehensive tool for managing their activities. It should enable them to:

- Organize their work and track the players' performance progress
- Develop personalized training plans
- Prevent injuries.

Technologies :

- FrontEnd: Angular
- BackEnd: ExpressJS
- DataBase : MongoDB

Project : Energy Guard

Description :

Developing a web application focused on industrial energy management through IoT sensors installed on various machines. The application's key functionalities include collecting data from these sensors, analyzing the gathered information, and presenting a comprehensive dashboard. This dashboard offers visual representations such as charts and tables to provide insights into energy consumption patterns within the industry. The goal is to empower users to monitor, analyze, and optimize energy usage efficiently for enhanced sustainability and operational efficiency.

Technologies :

- FrontEnd: ReactJs
- BackEnd: ExpressJS
- DataBase: MongoDB

Energy Guard features a web application offering:

- Measurement of electrical and thermal energy parameters.
- Real-time monitoring of sensitive parameters (power factor, harmonics, etc.).
- Tracking of alarms and events, along with production management.
- Cost accounting and reporting of energy consumption.

Project : Professional Opportunities Management Platform

Description :

The project aims to design and develop a web application dedicated to the efficient management of professional opportunities, with a specific focus on transparently disseminating internship and job offers, as well as organizing the collection of corresponding applications. The application will serve as a virtual bridge between job seekers and professionals offering opportunities.

Technologies :

- FrontEnd: ReactJs
- BackEnd: ExpressJS
- DataBase: MongoDB

Key Features:

- Dissemination of Internship and Job Offers
- Collection of Applications
- Centralized Management of Applications
- Sharing of Applications with Professionals
- Notifications and Tracking

This project aims to streamline and optimize the process of searching and selecting professional opportunities, creating a collaborative and efficient platform for companies, candidates, and professionals involved in the recruitment process.


Project : TektAI

Description :

TektAI is a comprehensive development initiative aiming to bridge the gap between industry and data science developers. The project entails the creation of a web platform where companies can submit real-world challenges, and developer teams can register, collaborate, and submit solutions. The platform includes features such as automated performance evaluation, team rankings, and a prize allocation process. TektAI's goal is to provide a dynamic space for industry-driven data science challenges, fostering collaboration and innovation among companies, developers, and students in the field.

Technologies :

- FrontEnd: ReactJs
- BackEnd: ExpressJS / Django
- DataBase: MongoDB

The background of the image is a solid green color. Overlaid on this green background is a faint, semi-transparent image of several hands reaching up and holding a white rectangular object, possibly a document or a sign, in the center. The hands are of various skin tones and are positioned around the central object, creating a sense of collective effort or agreement.

**"Many ideas grow better
when transplanted into
another mind than the one
where they sprang up."**

—Oliver Wendell Holmes