

### Functionalities – Email



- In Carpentry ManageBase, the application's advanced email feature uses a Hotmail server, allowing for seamless communication with customers directly through the platform. Carpentry promotes efficiency and strengthening customer relationships.

### Functionalities – Customers



- The customers functionality in Carpentry ManageBase allows users to easily access and edit customer information, enabling efficient management of client details and fostering strong customer relationships.



## Carpentry ManageBase Overview

- Carpentry ManageBase, an AI-powered, Java-based system, creates visuals from project requirements, aids effective communication, and manages detailed project tracking. It offers flexible adjustments for project and customer data accuracy. It also streamlines order tracking and features an inventory management component for effective stock level monitoring.

### Work plan and schedule for the future.



- Updating the database in MySQL to enhance system's visibility and accessibility of data.
- Enhancing the user interface to improve usability and user experience.



## Navigating the Path to Success



- SYSTEM ARCHITECTURE: A visual representation of the system's components and their interactions.
- DATA FLOW: A diagram illustrating the flow of data between different parts of the system.
- USER INTERFACE: A screenshot of the application's user interface, showing the layout and design.
- DATABASE: A diagram showing the database structure and the relationships between different data tables.
- SECURITY: A diagram illustrating the security measures implemented to protect the system and its data.

### Functionalities – Orders Catalog

- The orders catalog functionality in Carpentry ManageBase allows carpenters to maintain a comprehensive list of customer orders, including order details such as customer name, order number, and status. This enables efficient tracking and management, and easy access to important order information.

### Functionalities – Generate Images

- Leveraging the DALL-E AI tool, Carpentry ManageBase generates tailored images from user requirements, enhancing project visualization and collaboration in the team.



## THANK YOU?

Special thanks to our mentor – Prof. Dr. Karthikeyan Srinivasan  
Students: Jyoti Mahto & Jyoti Mahto

### Powering Carpentry Technologies and Tools



- Carpentry ManageBase relies on a robust technology stack, including Java, Eclipse IDE, and MySQL database, to ensure seamless operation and scalability.
- The application is built using modern web development frameworks and libraries, ensuring a user-friendly interface and efficient performance.
- The system is designed to be modular and extensible, allowing for future enhancements and integration with other tools and services.



**Carpentry**

**ManageBase**

# Carpentry ManageBase e Overview

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# Functionalities – Generate images.

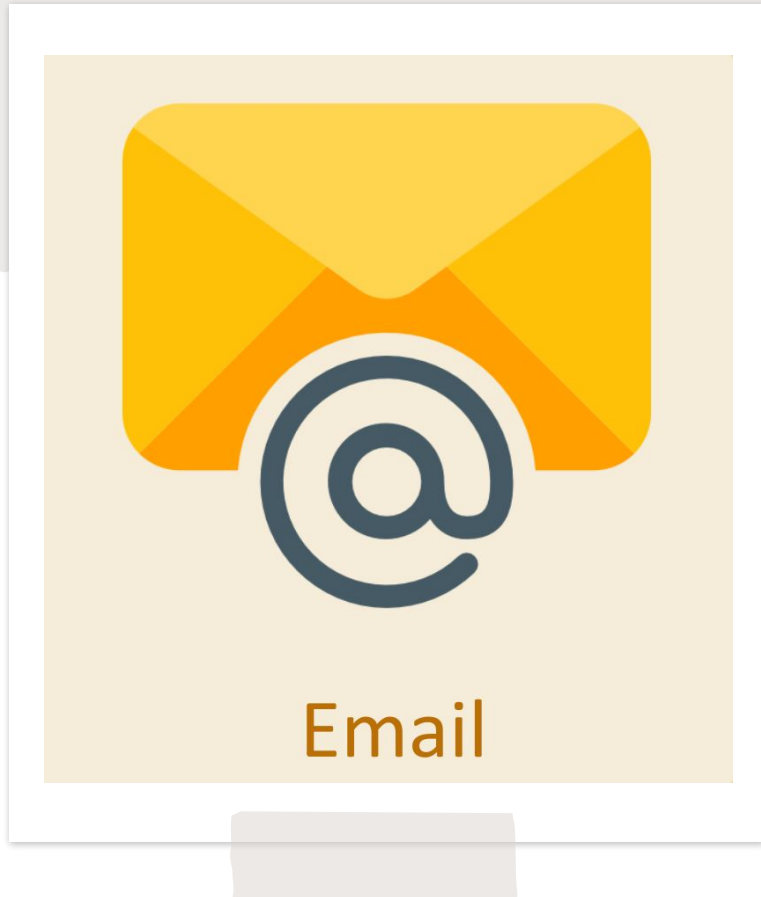
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- Leveraging the DALL-E AI tool, Carpentry ManageBase generates tailored images from user requirements, enhancing project visualization and collaboration in the carpentry industry.





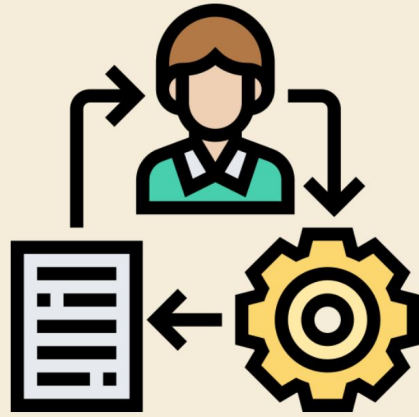
# Functionalities – Email



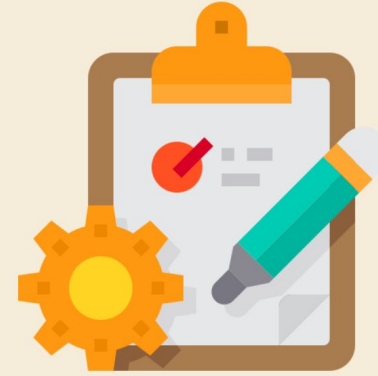
- In Carpentry ManageBase, the application's integrated email feature uses a Hotmail server, allowing for seamless communication with customers directly through the platform, thereby promoting efficiency and strengthening customer relationships.



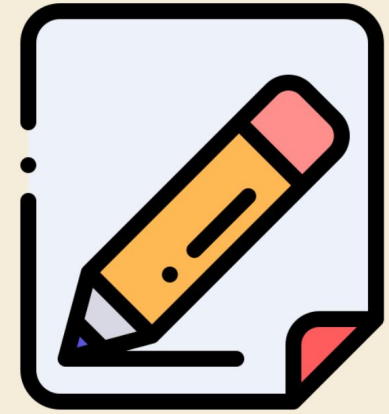
New Project



Current Projects



Project Details



Edit Project

## Functionalities – Project

- Carpentry ManageBase offers comprehensive project management functionalities. Carpenter can initiate new projects, view detailed information about ongoing projects, and make necessary adjustments through the edit project feature. This provides a complete overview of all current projects, streamlining the management and execution of carpentry tasks.

# Functionalities – Suppliers Management

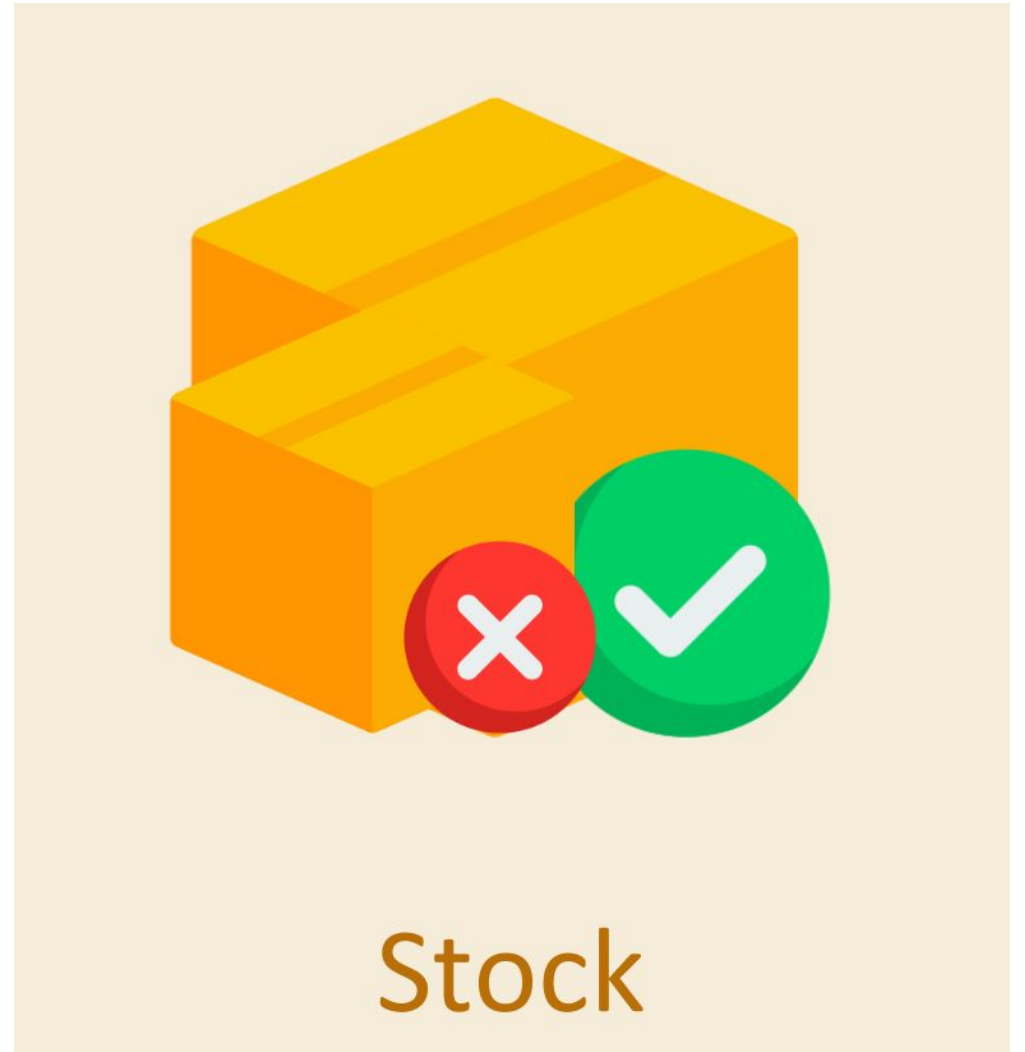
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- This feature empowers carpenters to meticulously select and manage their suppliers. With an intuitive interface, users can compare suppliers, evaluate their offerings, and choose the best ones to work with for ordering materials. This not only ensures quality but also aids in cost management, allowing carpenters to maintain an optimal balance between cost and quality.

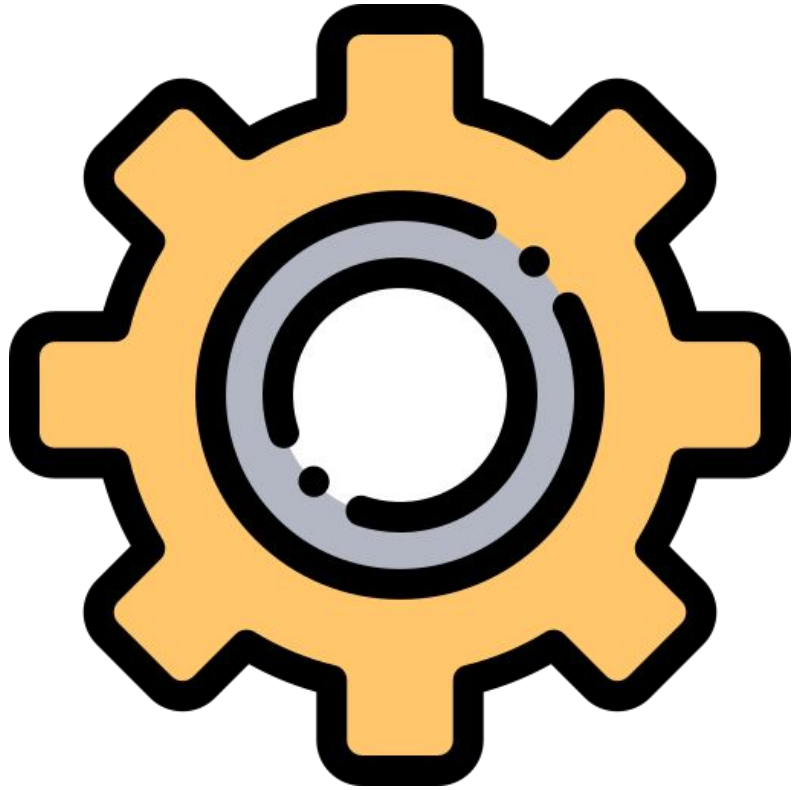


# Functionalities – Stock & Ordered Materials

- The dedicated stock screen serves as a control center for managing wood information. It provides detailed insights into the types, quantities, and conditions of wood available in stock, enabling carpenters to make informed decisions about material usage. With real-time updates and easy-to-navigate interfaces, managing wood stock becomes a hassle-free task, contributing to the smooth progression of projects.







# Functionalities – Settings

- The system comes with a customizable settings screen, providing users with the ability to take control of various aspects of the application. Whether it's adjusting notification preferences, modifying display settings, or managing user access, the settings screen allows for a tailored user experience, ensuring that the application aligns perfectly with the carpenter's workflow and preferences.

# Functionalities – Customers

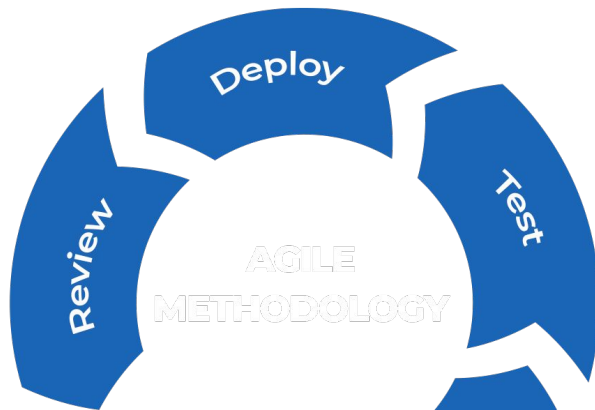
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Customers

- The customers functionality in Carpentry ManageBase allows users to easily access and edit customer information, enabling efficient management of client details and fostering strong customer relationships.

eclipse



Plan

Design

Develop

Launch

## Powering Carpentry ManageBase: Technologies and Tools

- Carpentry ManageBase utilizes Java programming language with JavaFX and Scene Builder for the user interface design. Eclipse IDE provides a productive development environment. OpenAI DALL-E tool generates images from text descriptions. MySQL Workbench 8.0 CE serves as the database, and Agile methodology is followed for flexible and iterative development.

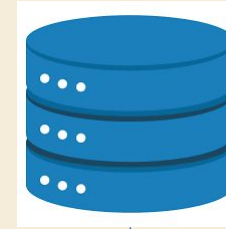
# Application Architecture



Dall-E API Server



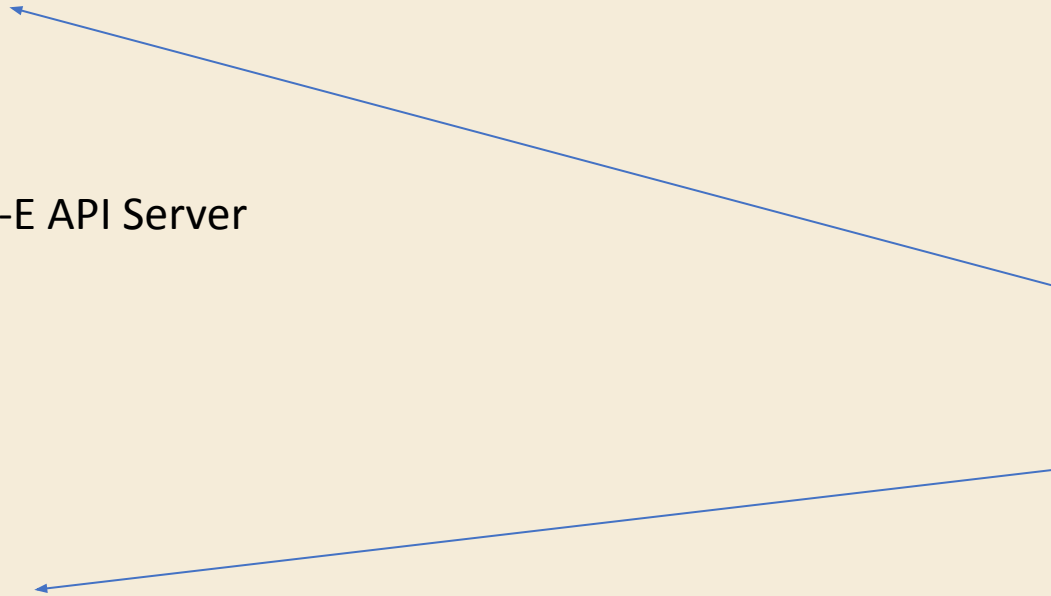
Email server



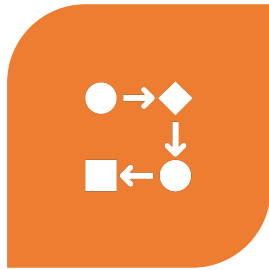
MySQL Workbench 8.0 CE



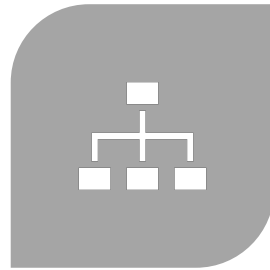
Carpentry PC



# Navigating the Path to Success



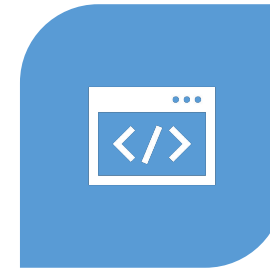
GETTING STARTED WITH GITLAB.



ALIGNING THE PROJECT WITH  
CLIENT REQUIREMENTS.



CONNECTING TO THE SERVERS  
(SMTP, IMAP, DALL-E API).



HOW TO IMPROVE A PROJECT  
TO BE MORE USER-FRIENDLY  
WITH AS MUCH FUNCTIONALITY  
AS POSSIBLE.



# Work plan and schedule for the future.

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- Updating the database to MySQL to enhance the system's scalability and accommodate larger volumes of data.
- Enhancing the user interface (UI) to improve usability and user-friendliness.
- In order to provide users with the most helpful and precise responses, we should continually work on improving the accuracy of the AI.

# THANK YOU Questions?

Special thanks to our mentor – Prof, Iris Reinhartz-Berger.

Students: Hasan Masalha & Jawad Makhoul.