

# **PROJECT PLANNER WITH AI**



## **A DESIGN PROJECT REPORT**

*Submitted by*

**SHRIHARI J**

**THISHAL M**

**VISHWAS S**

**AMUDHEESWARAN S**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

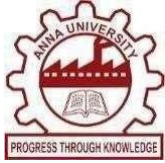
**COMPUTER SCIENCE AND ENGINEERING**

**K. RAMAKRISHNAN COLLEGE OF TECHNOLOGY**

(An Autonomous Institution, affiliated to Anna University Chennai and Approved by AICTE, New Delhi)

**SAMAYAPURAM – 621 112**

**JUNE 2025**



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**SHRIHARI J (811722104147)**

**THISHAL M (811722104169)**

**VISHWAS S (811722104187)**

**AMUDHEESWARAN S (811722104301)**

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# **K RAMAKRISHNAN COLLEGE OF TECHNOLOGY**

**(AUTONOMOUS)**

**SAMAYAPURAM – 621 112**

## **BONAFIDE CERTIFICATE**

Certified that this project report titled “**PROJECT PLANNER WITH AI**” is bonafide work of **SHRIHARI J (811722104147), THISHAL M (811722104169), VISHWAS S (811722104187), AMUDHEESWARAN S (811722104301)** who carried out the project under my supervision. Certified further, that to the best of my knowledge the work reported here in does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

### **SIGNATURE**

Dr.A.Delphin Carolina Rani M.E.,Ph.D.,

### **HEAD OF THE DEPARTMENT**

Professor

Department of CSE

K Ramakrishnan College of Technology

(Autonomous)

Samayapuram – 621 112.

### **SIGNATURE**

Mr. M. Saravanan M.E.,

### **SUPERVISOR**

Assistant Professor

Department of CSE

K Ramakrishnan College of Technology

(Autonomous)

Samayapuram – 621 112.

Submitted for the viva-voice examination held on .....

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

## DECLARATION

We jointly declare that the project report on “**PROJECT PLANNER WITH AI**” is the result of original work done by us and best of our knowledge, similar work has not been submitted to “**ANNA UNIVERSITY CHENNAI**” for the requirement of Degree of Bachelor of Engineering. This project report is submitted on the partial fulfilment of the requirement of the award of Degree of Bachelor of Engineering.

**Signature**

---

SHRIHARI J

---

THISHAL M

---

VISHWAS S

---

AMUDHEESHWARAN S

Place: Samayapuram

Date:

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## **ABSTRACT**

Project Planner with AI revolutionizes the way people and teams manage projects by incorporating state-of-the-art artificial intelligence in planning. This system simplifies managing a project, indicating tasks, estimating resource use, and tracking progress in real-time. Using AI, people are able to break down huge projects into actionable steps; they can prioritize tasks with respect to deadlines and interdependencies and allocate resources. The planner is made to be flexible according to its users' needs and provides optimized schedules that align with personal workflows. By analyzing patterns and potential bottlenecks, the system is able to make actionable recommendations for increasing project efficiency as well as completing them within specified timelines. With this capability for adaptive learning, the planner continues to improve predictions and suggestions that are most personal to a user and evolving in their needs. The platform supports the widest possible range of use cases, from personal time management and academic planning to team-based collaboration and professional project tracking. The user-friendly interface, combined with intelligent features, lowers the cognitive load associated with planning and enables users to focus on execution rather than organization. The DIY Project Planner with AI combines real-time tracking and customizable tools with AI-driven insights, providing a seamless, efficient, and effective solution in a fast-paced world to achieve goals.

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## **LIST OF ABBREVIATIONS**

<b>ABBREVIATIONS</b>	<b>EXPANSION</b>
SQL	Structured Query Language
GUI	Graphical User Interface
ML	Machine Learning
DB	Database
API	Application Programming Interface
UI	User Interface

# **CHAPTER - 1**

## **INTRODUCTION**

### **1.1BACKGROUND**

The DIY Project Planner with AI is a comprehensive and innovative tool designed to assist individuals and teams in efficiently managing their projects, tasks, and schedules. In today's fast-paced world, managing personal and professional projects effectively can often become a complex and time-consuming task. Traditional project management tools rely on manual input, static schedules, and basic reminders. These methods, while helpful, lack the dynamic adaptability required to optimize time, resources, and task prioritization. This project seeks to bridge that gap by leveraging artificial intelligence to create a more intelligent, responsive, and efficient project management experience.

At its core, the DIY Project Planner with AI integrates artificial intelligence to enhance task planning, resource estimation, scheduling, and progress tracking. Artificial intelligence, specifically machine learning and natural language processing (NLP), enables the system to not only follow user input but to learn from past actions and continuously improve. This allows for the creation of personalized, optimized schedules, the prediction of potential bottlenecks, and real-time progress tracking. The project is designed to be intuitive and user-friendly, making it accessible for anyone, from students managing academic projects to professionals overseeing complex, multi-phase work.

The need for such a tool stems from the ever-increasing demands on time and efficiency in both personal and professional settings. The common challenges that many individuals and teams face include task overload, lack of motivation to follow through on plans, inefficient use of time and resources, and difficulties in collaborating with others. Users often struggle to keep track of everything from individual tasks to team-based collaborations and project deadlines, and these challenges can lead to delays, missed opportunities, and suboptimal productivity.

This is where the DIY Project Planner with AI excels, offering solutions to these common problems by using AI-driven insights and dynamic scheduling.

One of the key advantages of using AI in this project planner is its ability to analyze user behavior and historical data to offer tailored suggestions and recommendations. For example, the system tracks how long users typically take to complete specific tasks and adjusts the scheduling accordingly. Over time, as the system gathers more data about a user's working habits, it learns to optimize not just schedules but even the types of tasks that are assigned or suggested. For instance, if a user tends to work more efficiently on certain tasks during specific times of the day, the AI adjusts the planner's schedule to align with these natural preferences.

This adaptability and intelligence are particularly important in the context of both personal and collaborative project management. For individual users, the DIY Project Planner with AI can act as a virtual assistant, helping them manage daily tasks, long-term goals, and complex projects. It can break down large projects into smaller, more manageable tasks and allocate time for each task based on priorities. The planner can also send reminders and updates to ensure users stay on track.

For teams, the AI-driven planner facilitates better collaboration by managing shared schedules, task delegation, and resource allocation. When multiple people are involved in a project, especially across different departments or locations, it can be challenging to coordinate schedules and ensure everyone is on the same page. The DIY Project Planner with AI helps mitigate this by allowing real-time collaboration, synchronization of calendars, and clear task ownership. The AI optimizes team workflows, ensuring that deadlines are met, and resources are used efficiently. Additionally, it highlights potential conflicts in timelines or resource allocation, enabling proactive problem-solving.

An important aspect of the system is its ability to track and provide dynamic project insights. As the AI system continuously monitors the progress of ongoing tasks, it offers real-time updates and suggestions. For example, if a task is falling behind schedule or if a project is deviating from its planned timeline, the system will notify the user and offer actionable recommendations for getting back on track. The AI model can also help in forecasting future needs, such as additional resources, based on the progress of the project, preventing overextension and bottlenecks.

A major benefit of incorporating AI into the DIY Project Planner is its ability to learn from past data and user preferences. Over time, the planner becomes more attuned to individual or team habits and patterns, making it more accurate in its predictions and recommendations. This machine learning capability ensures that users get better at planning as they continue using the system, without requiring constant manual input. For example, the AI can suggest optimal task sequences or time slots based on past user activity, even predicting when a user might need a break or when a deadline might need adjustment.

Furthermore, DIY Project Planner with AI includes features that allow users to manage and view their projects through interactive dashboards. These dashboards provide visual representations of tasks, timelines, resources, and progress, allowing users to quickly understand the status of their projects at a glance. They can track the completion rate of tasks, identify tasks that are falling behind, and see how each part of the project contributes to the overall goal. This transparency makes it easier for users to make informed decisions and take immediate action if needed.

## **1.2OVERVIEW**

The DIY Project Planner with AI is not just a tool for task management, but a smart assistant that helps users streamline their workflow, allocate resources intelligently, and remain focused on their objectives. The system's design is intuitive enough for anyone to use, with a simple user interface and seamless integration into existing tools like Google Calendar, Microsoft Teams, and others. Users can access their project planner from various devices, ensuring they can stay on top of their projects from anywhere, at any time.

In addition to individual and team use, the system can also be used in different contexts, such as academic planning, event management, personal goal-setting, and much more. Whether it's a student managing a semester's worth of assignments, a professional planning a product launch, or a family organizing a vacation, the DIY Project Planner with AI serves as a comprehensive solution to managing projects of all sizes and complexities.

Overall, the DIY Project Planner with AI stands out in a crowded space of project management tools by providing a more personalized, adaptable, and intelligent solution. Its ability to learn and optimize over time, coupled with its ability to offer real-time recommendations, make it a powerful tool for anyone looking to streamline their planning processes, enhance productivity, and stay on top of their goals.

## **1.3PROBLEM STATEMENT**

At the start of any project, individuals or teams often face significant challenges in planning, organizing, and managing tasks effectively. This leads to a surge in the workload for those responsible for resource allocation, scheduling, and monitoring progress. The lack of an intelligent and dynamic system to support users results in frequent delays, mismanagement, and inefficiencies. Users often struggle to adjust schedules, prioritize tasks, and allocate resources manually,

which becomes increasingly difficult as the complexity of the project grows.

The constant need for updates, adjustments, and tracking creates additional stress for individuals, especially when they must frequently revisit and revise plans due to unforeseen changes. This leads to frustration, reduced productivity, and dissatisfaction among users, who find themselves unable to meet deadlines or optimize their time effectively. Collaboration within teams also becomes cumbersome when communication and coordination are not streamlined, leading to misaligned efforts and missed deadlines.

Providing timely and accurate support to users during the planning and execution stages of a project is a significant challenge, often leaving users overwhelmed. The absence of a dynamic and intelligent system capable of learning and adapting to individual needs exacerbates the problem. This highlights the need for a solution that integrates artificial intelligence to streamline project management processes, reduce inefficiencies, and provide real-time assistance tailored to each user's specific requirements.

#### **1.4 OBJECTIVES**

Save time and effort for individuals and teams in planning and managing projects. Provide clear and detailed guidance on tasks, schedules, and resources for effective project execution. Ensure easy access to project-related information and updates. Minimize the time required to create, adjust, and track project progress. Deliver accurate responses and actionable suggestions based on user queries. Simplify interaction between users and the AI system for a seamless project management experience.

## **1.5 IMPLICATION**

In today's world, where technology has integrated deeply into our daily lives, managing DIY projects can often become time-consuming and overwhelming, especially when juggling materials, timelines, and tasks. To address these challenges, we propose the development of a DIY Project Planner with AI. This application is designed to assist hobbyists, professionals, and DIY enthusiasts in organizing their projects efficiently. The planner leverages AI to generate project ideas, estimate material requirements, provide step-by-step instructions, and offer real-time progress tracking. By implementing this system, users can streamline their planning process, reducing manual effort and ensuring better time management. The tool not only enhances productivity but also encourages creativity by suggesting optimized solutions and alternate approaches. This application benefits individuals of all skill levels and promotes the efficient execution of tasks, making DIY projects more accessible and enjoyable for everyone.



## **CHAPTER – 2**

### **LITERATURE SURVEY**

#### **1. AI-Driven DIY Project Planning Tools, John Smith, Emily Brown, Rajesh Kapoor, Maria Lopez, 2023**

The study considered the AI-driven DIY project planners that relate to typical challenges like organizing tasks, allocating resources, and managing deadlines. The research enhances how artificial intelligence algorithms in the form of machine learning and natural language processing improve the functionality and usability of such tools. Two examples of reviewed systems include Taskade and Anchor AI, which use dynamic scheduling and predictive analytics to build adaptive plans. The tools include personalized recommendations, offering customized solutions for resource management and task prioritization. In addition, real-time progress tracking through computer vision and NLP-based collaboration platforms ensure transparent and effective multi- user project management.

#### **2. Personalization in DIY Planning with Artificial Intelligence, Sarah Lee, Michael Johnson, Arjun Mehta, Olivia Turner, 2023**

The paper highlights the significance of personalization in AI-driven DIY project planners. Such AI tools that are anchored with Anchor AI adapt to users' preferences by drawing on data- driven insights and machine learning models. Over time, this system evolves, learning the behavior of the user for better, more precise suggestions about tasks, timelines, and materials. This work underscores the importance of design in relation to the end-user as a means to increase engagement and ensure successful completion of projects. The studies emphasize personalized interactions, which can expand these kinds of systems into educational and even health-related domains.

### **3. Efficient Budget and Resource Allocation in DIY Projects Using AI, Priya Sharma, Ahmed Khan, Carlos Rivera, Emily Zhang, 2023**

The paper investigates the role of AI in optimizing budget and resource allocation for DIY enthusiasts. Through analysis of historical project data, predictive analytics tools estimate future resource requirements and possible cost overruns. The study underlines how AI systems, fitted with neural networks and decision algorithms, guarantee precision in resource distribution, reducing waste and costs. The findings present the potential benefits of such tools to users managing projects with limited budgets or resources.

### **4. Real-Time Collaboration and Progress Tracking in DIY Projects, James Clark, Rachel Davis, Sunil Nair, Yuki Matsuda, 2023**

This paper explores the integration of real-time data synchronization and progress tracking in AI- enhanced project planners. Using computer vision and NLP, these systems can monitor task completion, track deviations from plans, and generate summaries for collaborative decision- making. The results suggest that such features improve the transparency and accountability of complex DIY projects with multiple stakeholders and enhance their success rate.

### **5. A Survey on Chatbot Implementation in Customer Service Industry through Deep Neural Networks, Md. Nuruzzaman, Nazlia Omar, 2023.**

This paper reviews the use of AI chatbots in the customer service sector, comparing retrieval-based and generative models. It discusses the evolution from rule-based systems to deep learning approaches. The authors emphasize the role of sequence-to-sequence models, recurrent neural networks (RNNs). Challenges such as understanding natural language, maintaining context, and ensuring scalability are addressed. The survey highlights how deep learning can enhance response quality and customer satisfaction.

**6. A Survey on Chatbot Implementation in Education Sector, K. Sharma, N. Ahuja, 2023**

This paper explores the application of chatbots in educational settings. It emphasizes how AI-based chatbots improve student engagement and provide personalized learning experiences. The authors discuss various chatbot designs used in e-learning platforms. NLP and intent recognition are central to effective communication between bots and students. The paper also identifies challenges such as content accuracy, emotional intelligence, and adaptability

**7. Building Chatbots with Machine Learning and NLP, Jianfeng Gao, Michel Galley, Lihong Li, 2024**

This study presents an in-depth analysis of how machine learning and NLP are used in building advanced conversational agents. It outlines architectures such as retrieval-based, generative, and hybrid models. The paper stresses the importance of large conversational datasets and deep reinforcement learning. It also addresses key problems like response diversity, coherence, and language understanding. The authors suggest future research into transfer learning and few-shot learning for chatbot improvements.

**8. A Survey of Chatbot Systems through a Loebner Prize Perspective, A. Dahiya, 2024**

This paper evaluates chatbot development using entries from the Loebner Prize competition. It categorizes bots into rule-based and AI-driven, showing how the latter outperform in natural conversations. The survey covers pattern-matching techniques, AIML, and NLP frameworks. Dahiya discusses how generative models provide more flexible responses compared to template-based ones. The paper also mentions evaluation metrics like Turing Test success rates and user satisfaction.

**9. Intelligent Conversational Agents using Knowledge Graphs, Amit Sheth, Sujan Perera, Krishnaprasad Thirunarayan, 2024**

This paper investigates how integrating knowledge graphs with AI chatbots can enhance domain-specific reasoning. The authors present a framework where bots can query structured data for more informative replies. Applications in healthcare, finance, and smart homes are discussed. The integration of semantic web technologies and ontology-based modeling is key. The study also touches on context-awareness and dynamic knowledge updates in chatbots.

**10. An Overview of Chatbot Technology, E. Adamopoulou, L. Moussiades, 2024.**

This comprehensive survey covers the evolution of chatbot systems from early rule-based models to modern AI-powered ones. It compares retrieval-based, generative, and hybrid models. The paper examines various platforms and frameworks used in chatbot development. Important aspects like dialogue management, NLP techniques, and machine learning integration are discussed. It concludes with challenges such as natural language understanding, ethical concerns, and future trends like emotional AI.

## CHAPTER – 3

### SYSTEM ANALYSIS

#### 3.1 EXISTING SYSTEM

There are several open problems that need to be addressed in existing DIY project management systems to enhance their functionality and user experience. Here are some of the key open problems

- 1.Limited Personalization:** Most existing systems lack the ability to tailor project suggestions, timelines, and material requirements to individual user preferences and constraints, such as budget, available tools, and skill level.
- 2.Inaccurate Material Estimation:** Many platforms provide generalized estimates for materials, leading to overspending or shortages. A precise calculation based on project specifics is often missing
- 3.Lack of Real-Time Assistance:** Existing solutions rarely offer real-time troubleshooting or adaptive suggestions when users face challenges during project execution
- 4.Static Content:** Instructions and project plans in current systems are often rigid and do not adapt to user modifications, making it difficult for users to customize or iterate on their projects.
- 5.Integration Challenges:** Most DIY systems are not seamlessly integrated with digital tools like calendars, reminders, or e-commerce platforms for purchasing materials, leading to inefficiencies in project tracking and procurement.
- 6.Poor Progress Tracking:** Users often struggle to monitor their progress effectively, as many systems do not provide visual or data-driven tracking features.

## **3.2 PROPOSED SYSTEM**

### **Add DIY Project :**

The admin can add new DIY projects to the system, including detailed descriptions, required materials, estimated costs, and step-by-step instructions. This ensures a growing repository of projects for users to explore.

### **Delete DIY Project :**

The admin can remove outdated or irrelevant projects from the system to maintain a high- quality library of resources.

### **Input Query :**

Users can input specific queries, such as asking for project ideas within a budget, skill level, or specific material. The system processes the input and provides tailored responses.

### **Provide DIY Project Examples :**

Based on the user's input query, the system provides relevant DIY project examples, helping users identify suitable projects to start with.

### **View DIY Project Details :**

Users can view detailed information about selected projects, including required materials, estimated costs, step-by-step instructions, and expected completion time.

### **Filter DIY Projects :**

Users can apply filters to search for DIY projects based on criteria such as difficulty level, budget, time required, or type of project (e.g., home décor, gardening, electronics).

### Fetch AI Response :

The system leverages AI algorithms to process user queries and fetch relevant responses or project suggestions based on user preferences and system data.

### Deliver Suggestions :

After processing the query, the system delivers personalized suggestions to the user, including alternative project ideas or material optimizations, ensuring a user-centric experience.

## 3.3 BLOCK DIAGRAM OF PROPOSED SYSTEM

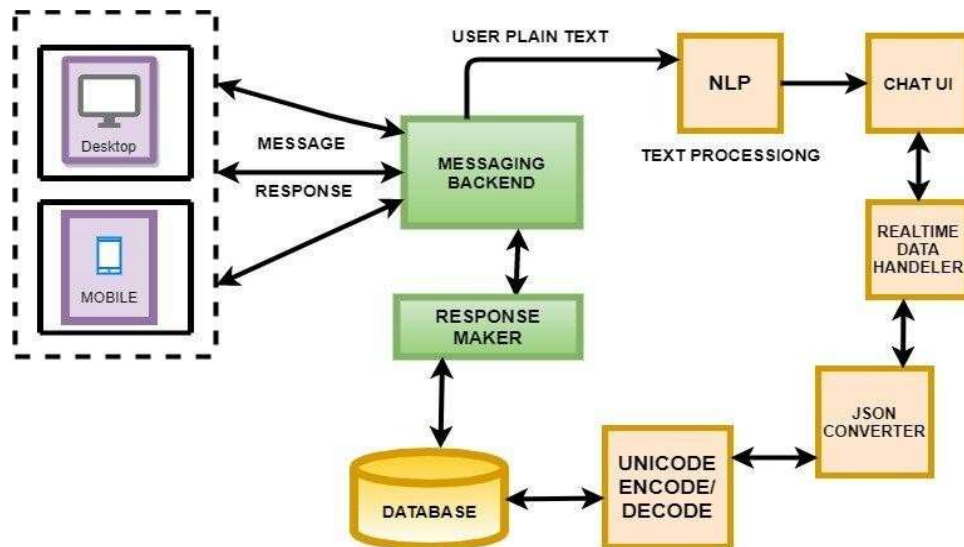


Fig.3.3 Block Diagram

## **CHAPTER – 4**

### **MODULES**

#### **4.1 MODULE DESCRIPTION**

- User Management Module
- Project Planning Module
- Chatbit Module
- Material Management Module
- Data Storage Module
- Admin Panel Module

##### **4.1.1 USER MANAGEMENT MODULE**

The User Management Module is a core component of the DIY Project Planner with ChatBit, designed to provide a secure, personalized, and role-aware experience for all users. It manages the complete lifecycle of user interaction, starting from registration and authentication to profile customization and access control. Users can sign up using their email or social media accounts such as Google or Facebook, with their credentials securely stored using encryption and hashing techniques.

Upon successful registration, each user is assigned a unique profile that captures essential information including their name, contact details, saved and ongoing DIY projects, ChatBit conversation history, preferred tools, skill level, and notification preferences. The module supports full profile management, allowing users to update personal details, change passwords, configure privacy settings, and manage notifications.

Advanced security features like email verification, password recovery, session tracking, and optional two-factor authentication ensure that user data



remains protected. A crucial feature of the module is its implementation of Role-Based Access Control (RBAC), which assigns specific permissions based on user roles—Admins have full platform access including analytics and content control, Mentors can support users through guided project reviews and content recommendations, and Regular Users have access to planning tools, ChatBit assistance, and community features.

Additionally, all user activities are tracked through audit logs to ensure accountability, and multi-session management allows users to monitor and control their active logins. Overall, the User Management Module not only secures user data but also enhances usability, ensuring each user receives a personalized and efficient experience within the DIY ecosystem.

#### **4.1.2 PROJECT PLANNING MODULE**

The Project Planning Module serves as the creative and organizational hub of the DIY Project Planner with ChatBit, empowering users to transform ideas into actionable, well-structured projects with ease and precision. Users can initiate a new DIY project by inputting fundamental details such as the project name, description, category (e.g., home improvement, electronics, arts & crafts), estimated difficulty level, duration, and expected outcome. Each project can be broken down into a series of customizable steps, where users can specify detailed instructions, tools, materials, estimated cost, and time required for completion.

To enhance usability, the module features a drag-and-drop interface that allows effortless reordering and reorganization of steps, supporting flexible planning workflows. A real-time auto-save function ensures no progress is lost, even in the event of disconnection or browser closure. Additionally, users can leverage built-in templates for popular project types, saving time while ensuring consistency, or duplicate existing projects for modification and reuse.

The module supports visual progress tracking, including checklist integration, progress bars, and status tagging (e.g., “Planned,” “In Progress,” “Completed”), helping users stay organized and goal-oriented. Advanced features such as budget tracking, materials inventory management, and time allocation summaries provide a holistic view of resource usage and planning efficiency. Users can also attach images, sketches, or videos to individual steps to enrich documentation and instructions. Collaboration tools allow users to invite mentors, peers, or team members to view or contribute to a project, enabling real-time feedback and cooperative building.

Integration with the ChatBit assistant ensures that users can receive intelligent suggestions, safety tips, or step-by-step guidance as they plan or modify projects. Notifications and reminders help keep users on schedule, while archived projects allow easy reference to past work for inspiration or sharing. In summary, the Project Planning Module is a comprehensive, interactive environment designed to support both beginners and experienced DIY enthusiasts in organizing, visualizing, and executing their creative visions with confidence and clarity.

### **4.1.3 CHATBIT MODULE**

The ChatBit AI Assistant is a cornerstone feature of the DIY Project Planner platform, designed to deliver an intelligent, personalized, and highly interactive user experience through advanced Natural Language Processing (NLP) and contextual awareness. Functioning as a virtual mentor, ChatBit assists users in real-time by analyzing their inputs, project history, skill levels, preferences, and planning behaviors to provide tailored suggestions and guidance throughout the DIY journey.

Users can interact with ChatBit using natural, conversational language—whether via typing or voice—enabling a smooth and intuitive communication flow. Upon project initiation, ChatBit can recommend suitable project ideas

aligned with the user's interests and capabilities, drawing from a curated knowledge base of categorized DIY themes. As users build their project step-by-step, ChatBit offers intelligent suggestions for required tools and materials, estimates the time needed for each task, and proposes cost-effective or eco-friendly alternatives when available. For beginners, the assistant simplifies complex instructions into digestible language and visual explanations, reducing intimidation and promoting learning. Beyond project creation, ChatBit acts as a virtual problem-solver by helping users troubleshoot errors, avoid common mistakes, and apply safety best practices tailored to the nature of the project—be it electrical work, woodworking, or crafting.

In case of user hesitation or confusion, ChatBit can proactively offer clarifying questions or suggest the next logical step, keeping the user focused and motivated. Moreover, ChatBit integrates seamlessly with the Project Planning Module, responding dynamically to changes and prompting users to review or update project elements in real-time. It also supports multiturn conversations, enabling users to hold more natural, flowing dialogues, and can recall past interactions to maintain continuity across sessions.

Additional features include daily productivity tips, project milestone reminders, inspiration prompts, and access to a growing repository of DIY tutorials and mentor responses. ChatBit is especially valuable for first-time DIYers who may need reassurance and structure, but it also enhances efficiency for experienced users by streamlining repetitive tasks and offering expert-level shortcuts. Through its human-like conversational style and powerful backend intelligence, ChatBit not only improves user engagement but also plays a critical role in democratizing DIY by making planning, learning, and building accessible to all.

#### **4.1.4 MATERIAL MANAGEMENT MODULE**

The Material Management Module is an essential component of the DIY Project Planner with ChatBit, meticulously designed to streamline the tracking, organization, and acquisition of tools and materials required for successful project execution. It provides users with a centralized interface where they can create and manage a comprehensive inventory for each DIY project, listing out all necessary materials, quantities, units, and associated tools.

As users input project steps in the Project Planning Module, this system intelligently aggregates and updates a dynamic Bill of Materials (BOM), which can include cost estimates based on either static reference prices or live pricing data when integrated with external APIs from online marketplaces or local vendors. Each item on the list can be marked with status labels such as “Available,” “Needed,” “In Cart,” or “Purchased,” helping users monitor their preparation progress in real-time and avoid last-minute delays due to missing components.

To improve planning accuracy and reduce manual effort, the module includes auto- suggestion features that can recommend commonly used tools or consumables based on project type, user history, or templates. Users can also set budget limits, compare item prices, and receive notifications if the estimated cost exceeds their planned budget, promoting cost- conscious decisions. For added convenience, the module can generate smart shopping lists, complete with quantities, links, and estimated total cost, which can be exported, printed, or shared. In supported regions, it may even suggest nearby hardware stores or online suppliers, showing product availability and estimated delivery times, making sourcing faster and more informed.

In collaborative or team-based projects, the module supports multi-user access, allowing different users to claim responsibility for acquiring specific items, and offers progress tracking through a shared procurement dashboard.

Integration with the ChatBit assistant adds another layer of support by answering questions about material alternatives, safety specifications, or where to find affordable options. The module also includes inventory tracking features, where frequently used items can be saved to a reusable materials library for future projects, reducing redundancy and planning time. Ultimately, the Material Management Module ensures that users are fully prepared before starting their DIY endeavors by minimizing oversight, optimizing cost-efficiency, and simplifying the otherwise tedious task of resource management.

#### **4.1.5 DATA STORAGE MODULE**

The Data Storage Module is a foundational backend component of the DIY Project Planner with ChatBit, tasked with securely storing, managing, and analyzing all forms of user-generated and system-generated data within the platform. Built on a robust and scalable relational database system such as MySQL or PostgreSQL, this module handles a wide range of structured data including user profiles, project plans, material inventories, role-based access controls, and the complete interaction history with the ChatBit assistant.

To ensure high availability and fault tolerance, the system supports automated backups, replication, and disaster recovery strategies, providing data resilience and minimizing the risk of data loss. Strong data integrity constraints and encryption mechanisms are enforced to protect sensitive user information, with access strictly controlled based on authentication tokens and user roles. Beyond data storage, the module plays a critical role in platform intelligence through real-time and historical analytics. It continuously collects and processes data points such as user engagement patterns, average project duration, project abandonment rates, popular DIY categories, frequently used tools and materials, and interaction frequency with ChatBit.

These metrics are used to compute Key Performance Indicators (KPIs) like

project completion rates, time-on-task analytics, and content relevance scores, which are vital for evaluating platform effectiveness. These insights are accessible to administrators via a secure admin dashboard, where advanced data visualization tools (e.g., integrated with Tableau, Power BI, or open-source tools like Metabase) can present trends through dynamic charts, graphs, and heatmaps.

These visualizations support strategic decision-making, allowing platform managers to refine features, improve content recommendations, and detect pain points in user workflows. The module is also designed to support data exports in standard formats (CSV, JSON, XML) for reporting, auditing, or integration with third-party business intelligence systems. Additionally, the module supports data anonymization and user consent management to comply with privacy regulations such as GDPR or CCPA, ensuring ethical and transparent data handling. In future iterations, the Data Storage Module may also include support for predictive analytics and machine learning integration, enabling the system to anticipate user needs, suggest optimizations, and enhance personalization based on behavioral trends. Overall, this module is critical for ensuring the platform runs efficiently, securely, and insightfully, forming the backbone of data-driven innovation and user experience optimization.

#### **4.1.6 ADMIN PANEL MODULE**

The Admin Panel serves as the centralized command center for administrators overseeing the DIY Project Planner platform, providing them with comprehensive tools and controls necessary to maintain, monitor, and optimize the entire ecosystem. Through a secure and intuitive interface, admins can efficiently manage all aspects of user accounts, including creating, editing, suspending, or deleting profiles, as well as resetting passwords and managing role-based access controls to enforce appropriate permissions across the platform. The panel features a robust project approval system that empowers admins to review,

validate, and publish user-submitted DIY project plans, ensuring that only high-quality, relevant, and safe content is made publicly available.

This review process can include automated quality checks supported by AI, manual moderation workflows, and the ability to provide feedback or request revisions from users. In addition, admins have full control over moderating user-generated content within forums, comments, and ChatBit conversations, enabling them to filter inappropriate language, spam, or misinformation, thereby fostering a positive and respectful community environment.

The Admin Panel also integrates detailed monitoring tools for ChatBit's AI interactions, allowing administrators to audit conversation logs, analyze AI performance metrics, and intervene when responses deviate from ethical guidelines or quality standards. System health is vigilantly maintained via real-time access to error logs, activity audits, and anomaly detection alerts that help promptly identify and resolve platform issues, minimizing downtime and maintaining service reliability. Data-driven decision-making is supported by advanced analytics dashboards sourced from the Data Storage Module, presenting key insights such as user engagement trends, project popularity, system usage patterns, and resource allocation efficiency through visually rich graphs and customizable reports.

These insights enable admins to spot emerging opportunities, address bottlenecks, and implement strategic platform improvements. Furthermore, the Admin Panel facilitates community management functions including announcements, policy enforcement, and user support ticket management, ensuring seamless communication between the platform team and its users. Security features embedded within the panel, such as multi-factor authentication for admin access, audit trails for all critical actions, and role-based access segregation, guarantee that administrative controls are secure.

## **CHAPTER – 5**

### **SOFTWARE DESCRIPTION**

#### **5.1 DATA COLLECTION AND PREPROCESSING**

Data collection is the first step in building the AI-based project planner. The system requires data on different types of DIY projects, including descriptions, materials, tools, estimated costs, time durations, and difficulty levels. The data is collected from various reliable sources like DIY project websites, blogs, and instructional guides.

The preprocessing stage includes several essential tasks to ensure that the data is ready for machine learning. The steps include:

- **Text Preprocessing:** Includes cleaning the project descriptions, removing irrelevant content, standardizing units, and ensuring uniform formatting.
- **Normalization:** Ensures that all numeric data (e.g., cost, time) is in a standardized form (e.g., metric units).
- **Categorization:** Projects are categorized based on type, such as "Home Improvement," "Crafts," and "Gardening," to make recommendations more personalized and accurate.

#### **5.2 FEATURE ENGINEERING**

Feature engineering is crucial for building machine learning models that will provide recommendations and predictions. Key features include:

- **Project Difficulty:** Categorized as beginner, intermediate, and advanced based on the number of steps, tools, and time involved.\
- **Materials and Tools:** Extracting the most common items for each project.



- **Time & Cost Estimates:** Predefined ranges for project completion time and cost.
- **User Preferences:** The AI analyzes user history to offer personalized suggestions.

Pre-processing data is a difficult task. Text pre-processing is done in order to prepare the text data for model creation. It is the initial stage of any NLP project.

### 5.3 ALGORITHMS

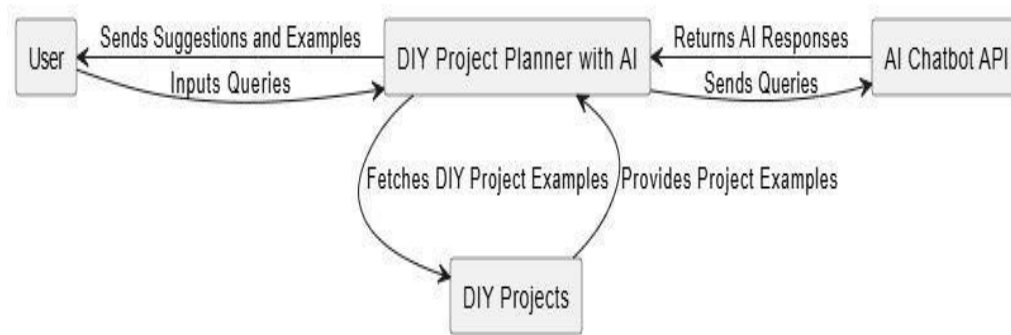
The backbone of the DIY Project Planner is its ability to recommend projects to users based on their inputs and preferences. Several AI techniques and models are implemented to achieve this. To offer personalized recommendations, the system employs collaborative filtering and content-based filtering:

- **Collaborative Filtering:** Analyzes users' past interactions and behaviors (e.g., projects saved, liked, or completed) to recommend projects based on what similar users have liked.
- **Content-Based Filtering:** Uses the attributes of projects (e.g., materials, cost, and time) to suggest projects with similar characteristics. NLP techniques are utilized to process project descriptions and user queries. For instance, if a user inputs a query like "How do I build a wooden table?" the system must:
- **Intent Recognition:** Identify that the user is looking for a DIY woodworking project.
- **Entity Recognition:** Identify important entities like "wooden table," which helps in retrieving relevant project plans.

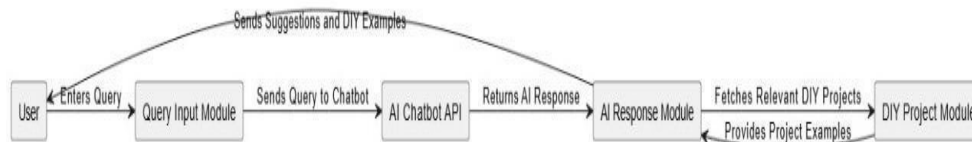
Techniques like tokenization, stemming, and lemmatization are used to process the text. A machine learning model (like a regression model) is trained on historical project data to predict the time and cost for a new project based on

the input features (e.g., materials, size, complexity). This predictive model helps users estimate the resources required for a project before they start.

## 5.4 DATA FLOW DIAGRAMS



**Fig 5.4.1 Level 0 Data Flow Diagram Fig 5.4.2 Level 1 Data Flow Diagram**



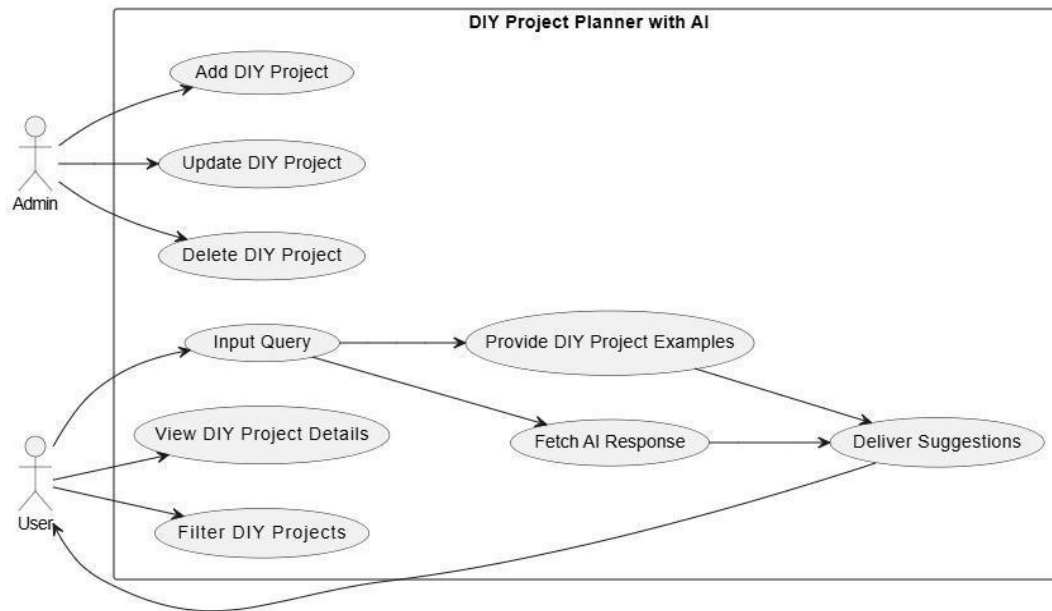
The DFD illustrates the flow of data and interactions between the various components of the DIY Project Planner with AI. The user initiates the process by inputting queries related to DIY projects. These queries are then sent to the AI Chatbot API, which fetches relevant DIY project examples and generates 6AI responses based on the user's input.

The AI Chatbot API then sends these responses and project examples back to the DIY Project Planner, which in turn sends suggestions and examples to the user. The user can then further refine their queries or request additional information. This iterative process continues until the user is satisfied with the generated DIY project ideas.

The DFD effectively visualizes the data flow and interactions between the

user, the AI Chatbot API, and the DIY Project Planner, providing a clear understanding of the system's functionality.

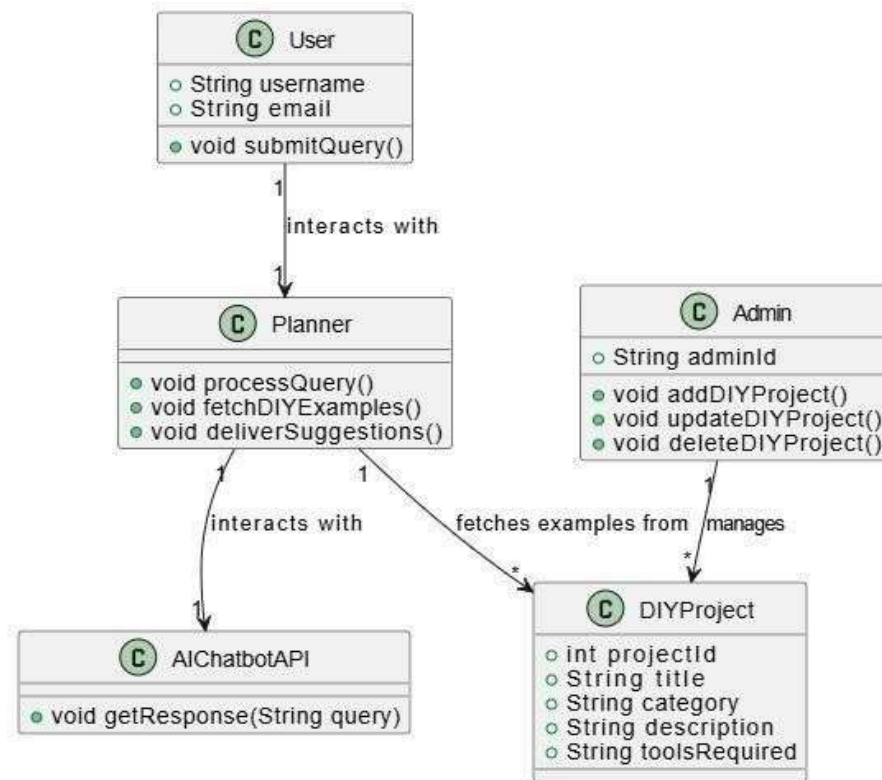
## 5.5 USE CASE DIAGRAM



**Fig 5.5 Use Case Diagram**

The Use Case Diagram provides a visual representation of the interactions between the users (Admin and User) and the DIY Project Planner with AI system. The Admin actor has the ability to manage DIY projects by adding, updating, and deleting them. The User actor can input queries related to DIY projects, view project details, filter projects based on their preferences, and receive suggestions from the AI. The system, in turn, provides DIY project examples, fetches AI responses to refine suggestions, and delivers these suggestions to the user. The Use Case Diagram effectively captures the key functionalities and interactions within the system, aiding in understanding the system's behavior and requirement.

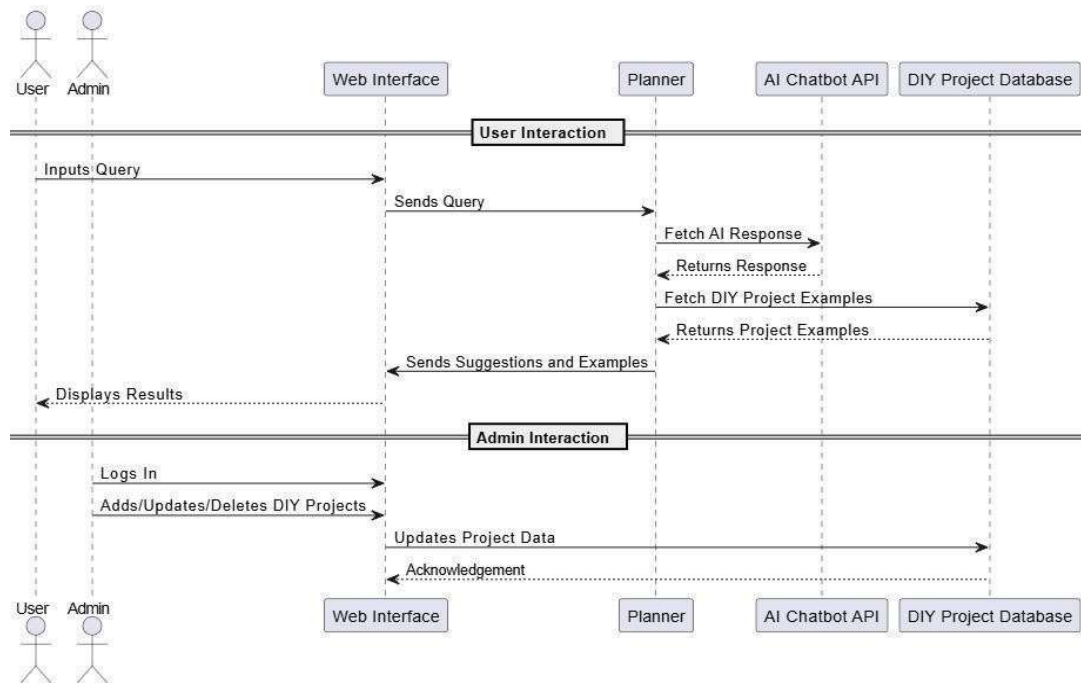
## 5.6 CLASS DIAGRAM



**Fig 5.6 Class Diagram**

The Class Diagram visually represents the classes and their relationships in the DIY Project Planner with AI system. The system primarily involves three main classes: User, Planner, and Admin. The User class has attributes for username and email, and a method to submit queries. The Planner class interacts with the User, AI Chatbot API, and DIY Project classes. It processes user queries, fetches DIY project examples, and delivers suggestions. The Admin class manages DIY projects by adding, updating, and deleting them. The AI Chatbot API class provides responses to user queries. The DIY Project class represents the individual DIY projects with attributes like project ID, title, category, description, and required tools. The Class Diagram effectively illustrates the system's structure, the relationships between classes, and the responsibilities of each class.

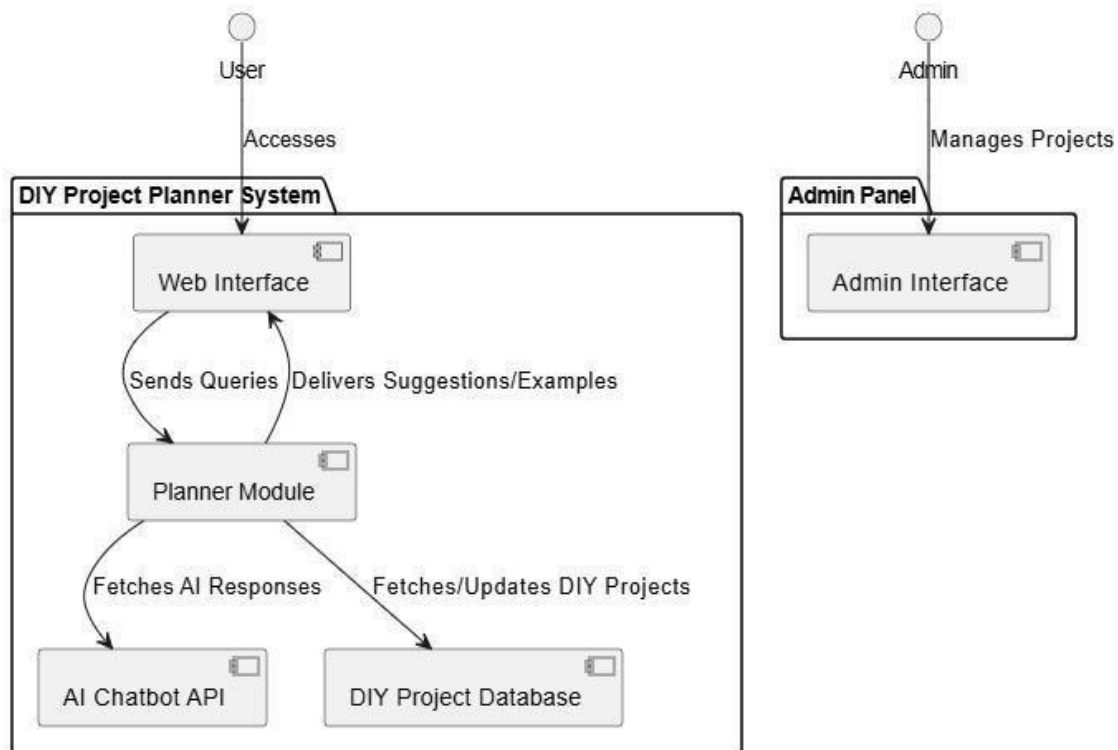
## 5.7 SEQUENCE DIAGRAM



**Fig 5.7 Sequence Diagram**

The Sequence Diagram illustrates the sequence of interactions between the User, Admin, Web Interface, Planner, AI Chatbot API, and DIY Project Database in the DIY Project Planner with AI system. The User initiates the process by inputting a query through the Web Interface. The Web Interface sends the query to the Planner, which in turn sends it to the AI Chatbot API. The AI Chatbot API fetches relevant AI responses and DIY project examples from the DIY Project Database. The AI Chatbot API then returns these responses and examples to the Planner, which sends suggestions and examples back to the Web Interface. Finally, the Web Interface displays the results to the User.

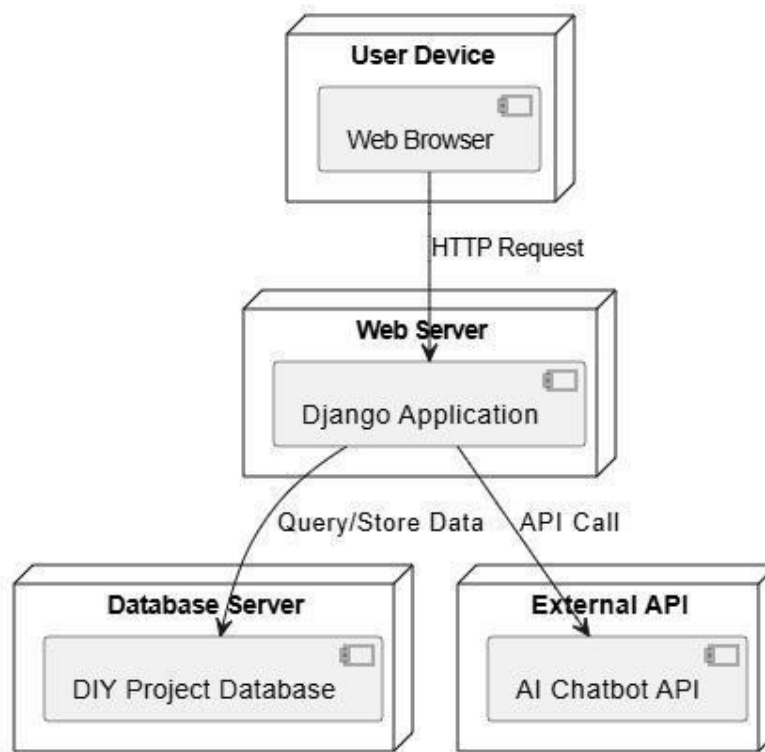
## 5.8 COMPONENT DIAGRAM



**Fig 5.8 Component Diagram**

The Component Diagram offers a visual representation of the physical and logical components within the DIY Project Planner with AI system. It showcases the Web Interface, responsible for user interaction and query submission. The Planner Module processes these queries, leverages the AI Chatbot API for intelligent responses, and accesses the DIY Project Database for relevant project information. The Admin Interface provides a platform for administrators to manage and update project data. This diagram effectively highlights the system's architecture, component interdependencies, and the workflow involved in delivering personalized DIY project suggestions to users.

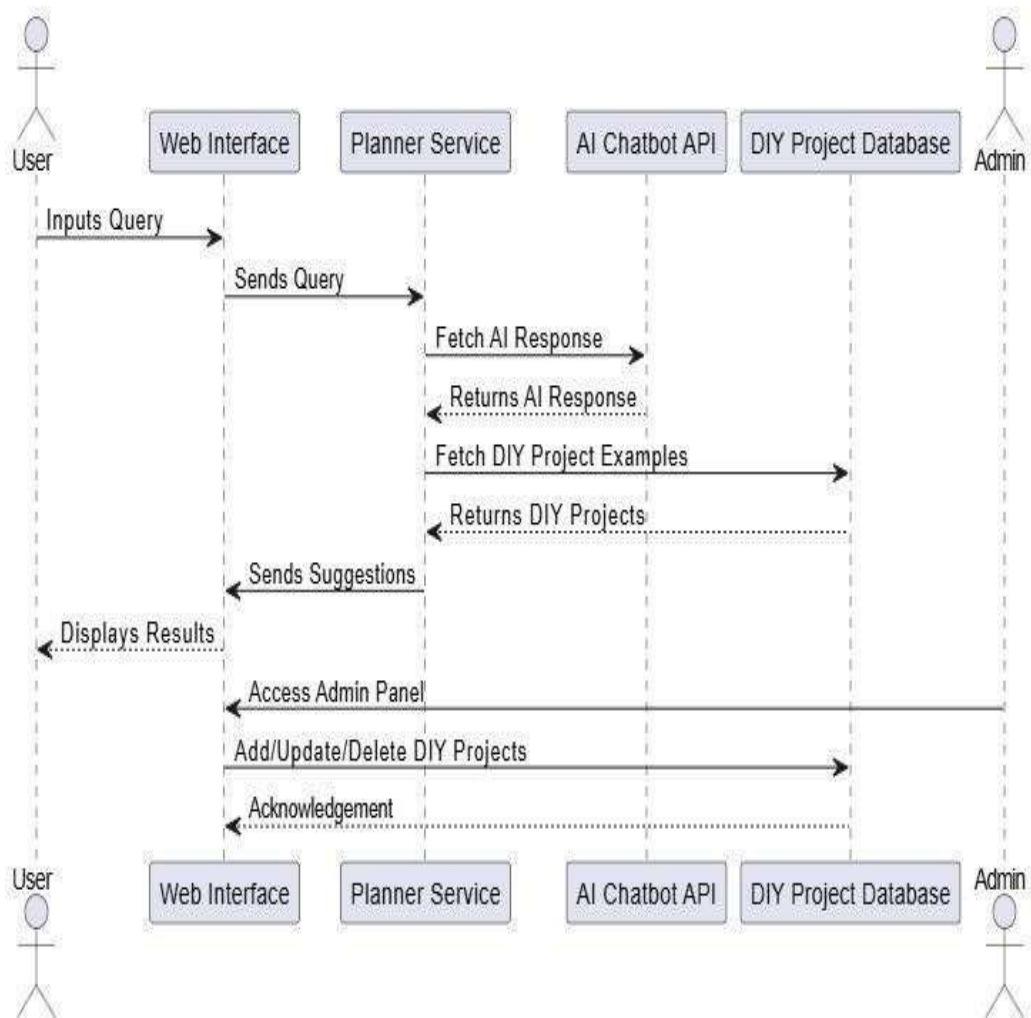
## 5.9 DEPLOYMENT DIAGRAM



**Fig 5.9 Deployment Diagram**

The Deployment Diagram provides a visual representation of the physical deployment of the DIY Project Planner with AI system. It illustrates the distribution of components across different physical nodes or servers. The Web Interface, Planner Module, and Admin Interface may be deployed on a web server, while the AI Chatbot API can be deployed on a separate server to handle AI processing. The DIY Project Database is likely to be deployed on a database server to ensure data integrity and scalability. This diagram effectively showcases the system's physical architecture, component placement, and the network connections between them, providing insights into the system's deployment and operational aspects.

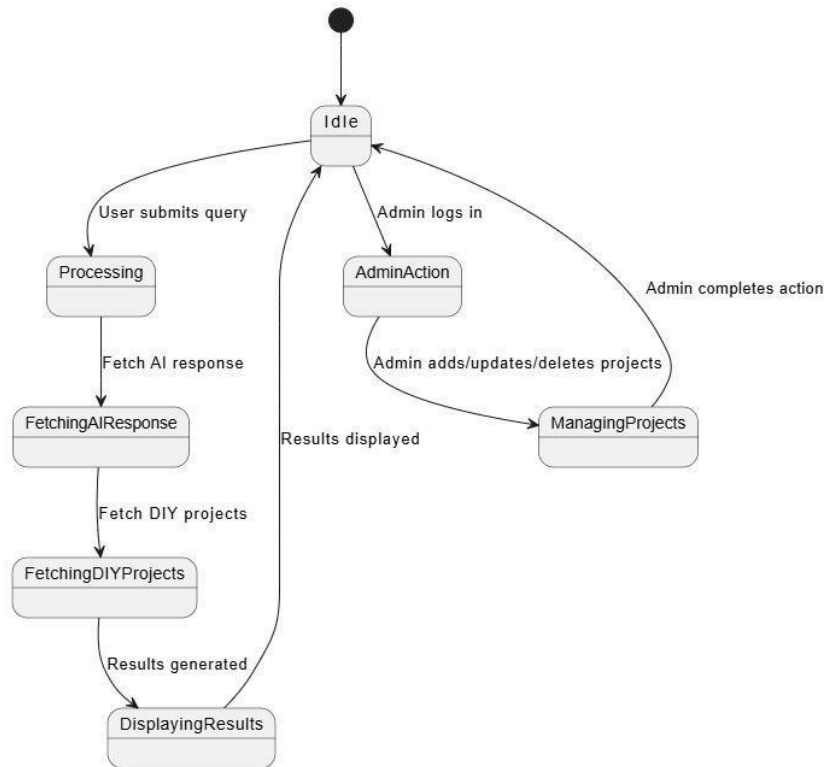
## 5.10 COLLABORATION DIAGRAM



**Fig 5.10 Collaboration Diagram**



## 5.11 STATE CHART DIAGRAM



**Fig 5.11 State Chart Diagram**

## CHAPTER-6

### TEST RESULT AND ANALYSIS

#### 6.1 TESTING

DIY Project Planner with AI simplifies project management tasks, offering an interactive platform that assists users in organizing and planning their projects efficiently. It integrates a web-based system where users can input project details, receive AI-generated task suggestions, and manage resources effectively. By leveraging AI, the system analyzes user inputs and historical data to recommend optimal project tasks and estimate costs. The platform provides a user-friendly interface for seamless navigation, catering to both individual users and administrators managing multiple projects. Through AI-driven predictions, the planner enables personalized task recommendations, reducing the manual effort involved in planning. Moreover, it ensures efficient resource allocation, optimizing project timelines and budgets. When a user inputs project requirements into the system's graphical interface, the AI engine processes the data to suggest tasks and allocate resources from the database. If an unfamiliar project type is identified, the system alerts the administrator and provides suggestions for database updates. The system ensures smooth communication and adaptability for diverse project needs, making it highly efficient.

#### 6.2 TEST OBJECTIVE

Here are some brief results and discussions from studies on project management tools:

- **Enhanced Planning Efficiency:** The system reduces planning time by up to 70%, offering instant task suggestions and resource estimates tailored to user needs.
- **Higher User Satisfaction:** Users report improved satisfaction due to the

system's ease of use, task accuracy, and the reduction of manual effort.

- **Optimized Resource Management:** The AI effectively allocates resources, minimizing waste and ensuring cost-effective project execution.
- **Challenges in System Implementation:** Adapting AI algorithms for diverse project types and integrating them with real-world scenarios remains a challenge.
- **Future Scope:** Advancements in AI models can enable the planner to handle complex projects, provide dynamic adjustments, and offer more robust analytics for project progress.

## **CHAPTER-7**

### **RESULT AND DISCUSSION**

#### **7.1 RESULT**

The DIY Project Planner with AI is a sophisticated, web-based platform designed to streamline and simplify the complex tasks involved in managing and executing DIY projects. It offers users an interactive and intuitive environment where they can easily input project details such as objectives, timelines, resources, and constraints. Leveraging advanced artificial intelligence algorithms, the system analyzes these inputs alongside historical project data to generate highly personalized and optimized task suggestions, resource allocations, and budget estimates.

This AI-driven approach minimizes the manual effort typically required for planning by predicting the most efficient sequences of tasks, estimating realistic time frames, and recommending cost-effective materials and tools tailored to the specific project type and user skill level. The platform's user-friendly interface supports seamless navigation for a broad range of users—from individual hobbyists managing single projects to administrators overseeing multiple users and projects within a collaborative environment. When users input project requirements via a graphical, drag-and-drop interface, the AI engine dynamically processes this information to suggest a tailored roadmap that includes step-by-step tasks, necessary resources, and estimated costs.

The system's intelligence also includes anomaly detection; for instance, if the AI encounters a novel or unclassified project type, it automatically alerts administrators with suggestions to update the project database, ensuring the planner evolves and remains relevant over time. This adaptability enables the platform to cater to diverse project categories, whether woodworking, electronics,

home improvement, or arts and crafts, providing a flexible yet structured approach to project management.

In addition to task and resource management, the platform offers real-time collaboration features, allowing users to share project plans, receive feedback, and track progress collectively. AI-driven insights help optimize resource allocation, avoiding overuse or shortages, and support budget management by providing transparent cost breakdowns and alternatives. The integration of predictive analytics also aids in identifying potential bottlenecks or delays early, enabling proactive adjustments to project plans.

The system's backend supports administrators with comprehensive dashboards that track user activity, project statuses, and platform health, facilitating efficient oversight and continuous improvement. Overall, the DIY Project Planner with AI transforms project planning from a daunting manual process into an intelligent, adaptive, and user-centric experience that empowers users to confidently plan, execute, and complete their DIY endeavors with greater efficiency, accuracy, and satisfaction.

## **7.2 CONCLUSION**

Artificial intelligence is revolutionizing project management by enhancing task efficiency and decision-making capabilities. By integrating AI-powered tools into a DIY Project Planner, we have developed a system that simplifies project planning, resource management, and task allocation. This project leverages machine learning algorithms to provide intelligent recommendations tailored to the user's project type and requirements. The DIY Project Planner streamlines project workflows by analyzing user data and offering task suggestions, resource optimization, and cost estimations.

It ensures user-friendly interactions through a well-designed interface, making it accessible to individuals and teams with varying technical expertise. The

system's ability to adapt to diverse project needs and scenarios demonstrates its versatility and practical application. In conclusion, the DIY Project Planner with AI offers an efficient and effective solution for managing personal and professional projects. By automating repetitive tasks, optimizing resources, and providing intelligent insights, the system helps users focus on achieving their project goals with minimal effort.

### **7.3 FUTURE ENHANCEMENT**

The project has a wide scope in the current context, with most proposed features successfully implemented. Future work will involve creating a centralized database to store extracted data for better management. Additionally, further research will focus on exploring advanced techniques, libraries, and methods to enhance the system. Ongoing development will aim to improve functionality, scalability, and user experience.

## APPENDICES

### A. SOURCECODE FRONTEND

#### Register.html

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>DIY Project Planner - Register</title>
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
<style> body {
background-color: #f8f9fa; /* Light grey for a modern look */ height: 100vh;
display: flex;
justify-content: center; align-items: center;
}
.register-container {
background-color: #ffffff; /* White container for form */ padding: 30px; border-
radius: 8px;
box-shadow: 0 10px 20px rgba(0, 0, 0, 0.1);
width: 100%;
max-width: 400px;
}
.form-control:focus {
box-shadow: 0 0 5px rgba(0, 123, 255, 0.5); border-color: #007bff;
}
```

```

.register-header { text-align: center; margin-bottom: 20px; color: #495057;
}
.btn-register {
background-color: #007bff; color: white;
}
.btn-register:hover { background-color: #0056b3;
}
.login-link {
text-align: center; margin-top: 15px;
}
.login-link a { color: #007bff; text-decoration: none;
}
.login-link a:hover {
text-decoration: underline;
}
</style>
</head>
<body>
<div class="register-container">
<h2 class="register-header">Register for DIY Project Planner</h2>
<form action="{% url 'register' %}" method="POST">
{% csrf_token %}
<div class="mb-3">
<label for="username" class="form-label">Username</label>
<input type="text" class="form-control" id="username"
name="username" placeholder="Enter your username" required>
</div>

```



```

<div class="mb-3">
  <label for="email" class="form-label">Email address</label> <input
    type="email" class="form-control" id="email" name="email"
    placeholder="Enter your email" required>
</div>

<div class="mb-3">
  <label for="password" class="form-label">Password</label> <input
    type="password" class="form-control" id="password"
    name="password" placeholder="Enter your
    password" required>
</div>

<div class="mb-3">
  <label for="confirmPassword" class="form-label">Confirm Password</label>
  <input
    type="password" class="form-control"
    id="confirmPassword" name="confirmPassword"
    placeholder="Re-enter your password" required>
</div>

<button type="submit" class="btn btn-register w-100">Register</button>
</form>

<div class="login-link">
  <p>Already have an account? <a href="/login">Login here</a></p>
</div>
</div>

  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"
></script>
</body>
</html>

```

## Home.html

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>DIY Project Planner</title>
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
<style> body {
background-color: #f8f9fa;
}
.hero-section {
background-color: #343a40; color: #ffffff; height: 100vh; display: flex;
justify-content: center; align-items: center; text-align: center;
}
.hero-text {
font-size: 2.5rem; margin-bottom: 20px;
}
.nav-link {
color: #ffffff !important;
}
.project-section { background-color: #ffffff; padding: 60px 0;
}
.project-box {
background-color: #e9ecef; border: 1px solid #ddd; border-radius: 8px; padding:
20px; text-align: center;
```

```

transition: transform 0.3s ease, box-shadow 0.3s ease;
}
.project-box:hover { transform: translateY(-10px);
box-shadow: 0 10px 20px rgba(0, 0, 0, 0.1);
}
.project-icon { font-size: 3rem; color: #0d6efd; margin-bottom: 10px;
}
.project-title {
font-size: 1.5rem; font-weight: bold; margin-bottom: 10px;
}
.project-description { color: #6c757d;
}
.footer {
background-color: #343a40; color: #ffffff; padding: 20px 0; text-align: center;
}
</style>
</head>
<body>
<!-- Navbar -->
<nav class="navbar navbar-expand-lg navbar-dark bg-dark">
<div class="container-fluid">
<a class="navbar-brand" href="#">DIY Project Planner</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse"
data-bs-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarNav">
<ul class="navbar-nav ms-auto">

```

```

<li class="nav-item">
  <a class="nav-link" href="#">Home</a>
</li>
<li class="nav-item">
  <a class="nav-link" href="#">About</a>
</li>
<li class="nav-item">
  <a class="nav-link" href="#">Features</a>
</li>
<li class="nav-item">
  <a class="nav-link" href="#">Contact</a>
</li>
</ul>
</div>
</div>
</nav>

```

```

<!-- Hero Section -->
<div class="hero-section">
  <div>
    <h1 class="hero-text">Welcome to DIY Project Planner</h1>
    <p>Plan, manage, and organize your DIY projects with ease.</p>
    <div class="d-flex justify-content-center">
      <a href="/login" class="btn btn-primary me-2">Login</a>
      <a href="/register" class="btn btn-secondary">Register</a>
    </div>
  </div>
</div>
</div>
<!-- Project Section -->

```

```

<div class="container project-section">
<h2 class="text-center mb-5">Explore DIY Project Categories</h2>
<div class="row g-4">
<div class="col-md-4">
<div class="project-box">
<div class="project-icon"><img alt="Screwdriver icon" data-bbox="380 230 405 250"/></div>
<div class="project-title">Woodworking</div>
<p class="project-description">Create stunning furniture and decorative items
with simple woodworking techniques.</p>
</div>
</div>
<div class="col-md-4">
<div class="project-box">
<div class="project-icon"><img alt="Scissors icon" data-bbox="380 455 405 475"/></div>
<div class="project-title">Arts & Crafts</div>
<p class="project-description">Unleash your creativity with DIY
art projects, painting, and craft-making.</p>
</div>
</div>
<div class="col-md-4">
<div class="project-box">
<div class="project-icon"><img alt="Wrench icon" data-bbox="380 690 405 710"/></div>
<div class="project-title">Electronics</div>
<p class="project-description">Build cool gadgets and learn the basics
of electronics with hands-on projects.</p>
</div>
</div>
</div>

```

```

<!-- Footer -->
<div class="footer">
<p>&copy; 2024 DIY Project Planner. All Rights Reserved.</p>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"
></script>
</body>
</html>

```

### **Backend User accounts.py**

```

from django.shortcuts import render, redirect
from django.contrib import messages
from django.contrib.auth.models import User
from django.contrib.auth import authenticate, login
from django.contrib import auth

# Create your views here.
def register(request):
    if request.method == "POST":
        user_name = request.POST['username']
        email = request.POST['email']
        password = request.POST['password']
        c_password = request.POST['confirmPassword']

        if password == c_password:
            if User.objects.filter(email=email).exists() or
               User.objects.filter(username=user_name).exists():
                print("username or password taken")
                return redirect('message', title="Info", message="Already registered !")
            else:
                user = User.objects.create_user(username=user_name, email=email, password=password)
                user.save()
                print("user created")
                return redirect('/')
        else:

```

```

messages.error(request,"Password do not match")
return redirect('message', title="error", message="Password not match") else:
return render(request,"register.html") def login_page(request):
if request.method=='POST':

username=request.POST['username'] password=request.POST['password']
user=authenticate(username=username,password=password)

if user is not None: print("hi") login(request,user)
return redirect('project_list') return render(request,'login.html')

```

### **Chatbot.py**

```

import requests
from django.shortcuts import render from django.http import JsonResponse #
Your Gemini API key
API_KEY = 'AIzaSyBtWAq0RrzGDCUQYoljM2BiDfVJmKE4VmE'
API_URL = 'https://gemini-api-url.com/v1/query' # Replace with actual Gemini
API URL

def chat_view(request):
if request.method == 'POST':
title = request.POST.get('title') # Get the project title from the form

# Prepare the request payload payload = { 'query': title, 'key': API_KEY
}
# Send the request to Gemini API
response = requests.post(API_URL, json=payload)
if response.status_code == 200: response_data = response.json()

```

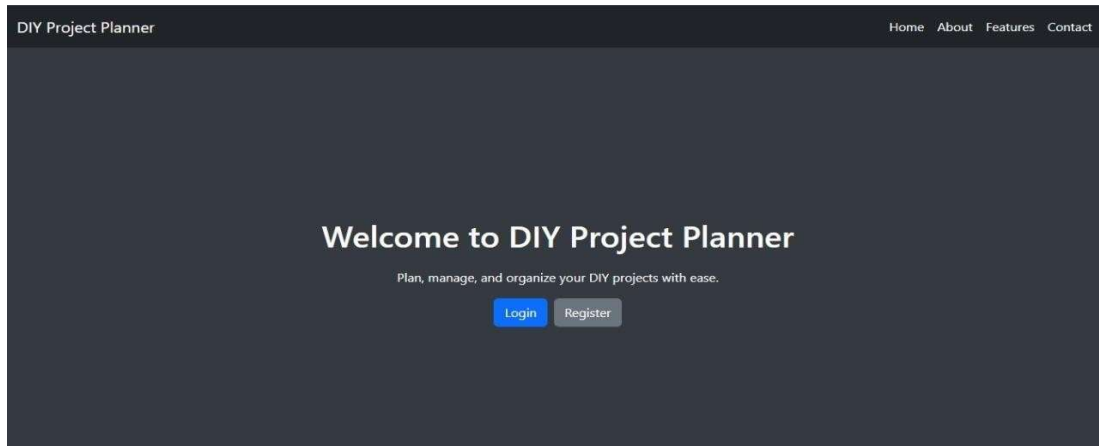
```
chatbot_response = response_data.get('response', 'No response from AI.')
```

```
return JsonResponse({'response': chatbot_response}) else: return  
JsonResponse({'response': 'Error with the API request.'})
```

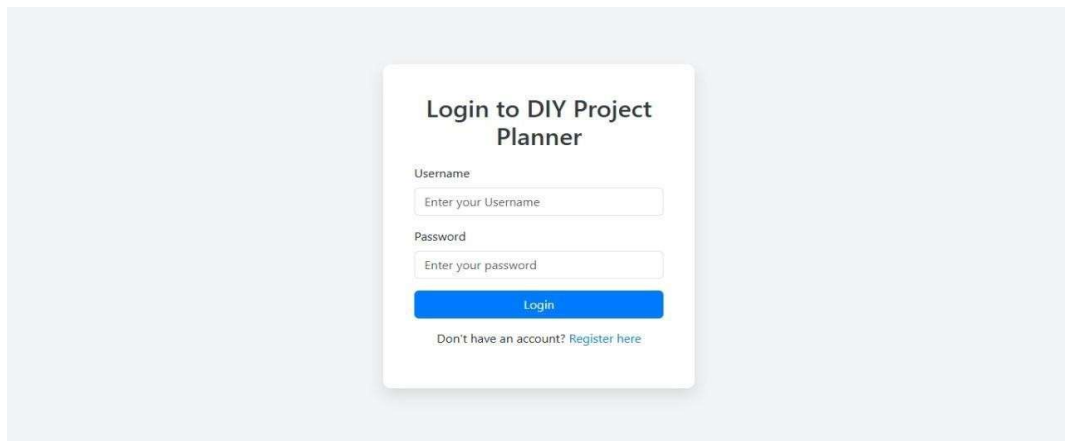
```
return render(request, 'bot.html') def bot(request): return  
render(request, 'bot.html')
```



## B.SCREENSHOTS



## HOME PAGE



## LOGIN PAGE

### Register for DIY Project Planner

**Username**

**Email address**

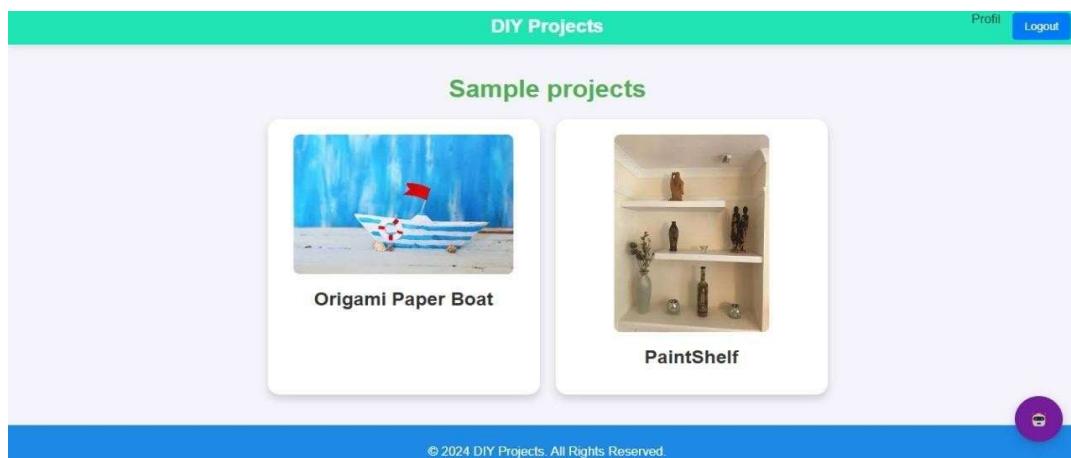
**Password**

**Confirm Password**

[Register](#)

Already have an account? [Login here](#)

## REGISTRATION PAGE



## PROJECT EXPLORER

## Origami Paper Boat



**Description:**

The Origami Paper Boat is a simple and fun craft project that allows you to create a small, foldable boat using only a sheet of paper. It's perfect for beginners and a great way to introduce kids to the art of paper folding. Once completed, the boat can float on water for short periods, making it ideal for playful experiments in shallow water.

**Materials Required:**

A rectangular sheet of paper (A4 size or any similar dimension) Optional: Crayons, markers, or stickers for decoration

**Steps:**

## EXAMPLE PROJECT IDEA

## AI Project Chatbot

paper boat

Submit

**Response from AI:**

Making a paper boat involves a few simple steps. Here are two common methods, one simpler and one slightly more complex:

**\*\*Method 1: The Simple Origami Boat\*\***

This method is best for younger children or beginners.

**\*\*Step 1: Fold in Half\*\***

- \* Take a rectangular piece of paper (a standard sheet of paper works well).
- \* Fold it in half lengthwise, creasing the fold sharply. Then unfold it.

**\*\*Step 2: Fold the Top Edges to the Center Crease\*\***

## AI CHATBOT

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