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## Ai Based To Do Assist-Todify

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**Abstract**— This paper introduces TO-DO ASSIST (Todify), a desktop application designed for task management that integrates a user's to-do list with artificial intelligence. Todify offers a unified platform for organizing personal tasks, utilizing AI for task delegation, and facilitating collaborative efforts to enhance task efficiency. Leveraging to-do list and instant messaging metaphors, the application allows users to initiate, manage, and modify complex tasks executed by agents. The interaction between the user and AI is streamlined through simple operations on to-do items and direct-manipulation chat. The goal is to establish seamless interactions that result in workload reduction, decreased cognitive load, and improved task performance. Unlike other task management applications, Todify not only assists with task organization but also provides creative suggestions for task completion, fostering user creativity. Importantly, the AI suggestions aim to enhance creativity without promoting laziness.

**Keywords**— API, Open AI, TODO

### I. INTRODUCTION

This paper represents the AI BASED TODO SERVICE named Todify. People suffer to remember important meetings, assignment projects and important papers in allotted time due to insufficient memory. So , the main objective is to help users not only in reminding them but also helping them to complete work . It helps the user not to rush the work. It automatically sorts the work priority wise and helps the user to achieve the work. Helping in work but in what way? When you are about to deliver a speech tonight but you have forgotten to prepare, at that time to reduce your workload our AI will help you. On the time when you store that you have to deliver the speech our AI will fetch all the details about your topic so you can complete your work without

being hectic. You are a student and you have to submit an assignment. But you have no idea how to complete that, but our AI can when you give the topic it helps you in fetching all the links in priority order and also helps you in aligning your assignment.

## II. LITERATURE SURVEY

### A. LITERATURE SURVEY NO.1

Author :Gary Banks Chairman, Productivity Commission Title:“Productivity policies: the ‘to do’ list” June 2012, The speaker emphasized that the list of priorities may appear encompassing or complex for those seeking quick fixes, asserting that there is no single solution to enhance Australia's productivity performance. The speaker's usual response to the question of the most crucial reform for productivity improvement is that a policy approach based on a singular presumption would inevitably fail. Instead, the speaker advocates for a comprehensive "productivity policy" that considers both the drivers and enablers of firm performance, consistently applied. This necessitates policy-making processes capable of achieving clarity on problems, establishing agreed objectives, and ensuring thorough testing of proposed solutions, including attention to detail and consultation with those most affected. The speaker highlighted the value of sound policymaking fundamentals, citing the beneficial and enduring structural reforms of the 1980s and 1990s. According to the speaker, good process in policy formulation stands out as the most crucial element on the 'to do list' for those serious about securing Australia's future productivity and the associated prosperity.

### B. LITERATURE SURVEY NO.2

Authors :Kenneth Conley, James Carpenter SRI International, Title:“Towel: Towards an Intelligent To-Do List”, published in 2007. The researchers described Towel as a user interface tailored for seamless task management, seamlessly blending agent-executed tasks with a user's personal to-do management system, incorporating instant-messaging metaphors for effective communication. They outlined the modeling of to-dos and tasks, emphasizing the ease with which users can delegate tasks to a software personal assistant. The flexibility of the to-do list and instant messaging metaphor was showcased through the integration of various AI-based components, including task management, ontology, state estimation, calendar scheduling, learning mechanisms, explanation, duration prediction, and task delegation.

While recognizing the need for further development, the researchers noted that Towel has already been deployed within the CALO project. They highlighted several future directions for Towel and the task-execution platform, encompassing specific improvements like more accurate task duration predictions, procedure modification within chat interactions, user-to-user instant messaging, and the inclusion of a broader range of to-do types, such as email messages, calendar events, and semantic objects. These directions were informed by ongoing research within the CALO project and valuable user feedback.

### C. LITERATURE SURVEY NO.3

“User Interface (UI) Design and User Experience Questionnaire (UEQ) Evaluation of a To-Do List Mobile Application to Support Day-To-Day Life of Older Adults”, This research addresses the underrepresentation of mobile applications catering to older adults, despite their increased smartphone usage. The study introduces a specialized to-do list application designed to support non-declarative memory encoding, storage, and retrieval in individuals aged 60 to 75. The evaluation involved 15 participants (5 men and 10 women), who were tasked with completing nine usability tasks. Notably, 60% of users accomplished these tasks with only one or two attempts, indicating a high level of usability.

While the study identified three usability issues, it proposed an iteration plan for improvement. Despite these challenges, the application demonstrated positive attributes such as attractiveness, efficiency, dependability, stimulation, and novelty for older adults. The usability concerns did not overshadow the overall positive user experience, as indicated by the participants' responses to the User Experience Questionnaire (UEQ) and interview questions.

One notable aspect is the application's rating of excellence in all aspects except for perspicuity, where it met user expectations. This high level of user satisfaction suggests that the prototype effectively addresses the intended goals of enhancing non-declarative memory in older adults through a to-do list interface on smartphones. The study concludes that the results can serve as a benchmark for future iterations and the development of mobile to-do list applications tailored to the unique needs of older users.

### D. LITERATURE SURVEY NO.4

Authors: Sang Won Lee, Marx Boyuan Wang Title TaskScape: Fostering Holistic View on TO DO list .The paper introduces a departure from traditional task list management tools, emphasizing the need for a more holistic approach to measuring workers' performance and well-being within productivity tools. Despite the advancements in intelligence and connectivity in the workspace, existing to-do list applications often employ binary measurements, focusing solely on task completion without considering the broader aspects of individual well-being and emotional states.

The authors propose a novel task management system called TaskScape, designed to address this limitation by enabling users to gain awareness in two key aspects: (1) how they plan and complete tasks and (2) how they emotionally engage with their work. TaskScape aims to go beyond the conventional task list paradigm, providing users with a holistic view of their tasks to facilitate reflection on their work, planning performance, and emotional values related to their tasks.

The system is envisioned to encourage users to reflect on their work, prompting considerations beyond mere task completion. The poster outlines the design, development, and ongoing validation progress of TaskScape,

emphasizing its role in nudging workers to adopt a holistic perspective on work productivity and reminding them that work is an integral part of life. The authors aim to explore whether this holistic view can contribute to a more profound understanding of work-related aspects, such as task planning and emotional well-being, ultimately fostering a balanced approach to work and life.

#### E. LITERATURE SURVEY NO.5

Title: Development of Collaborative Task Management and Financial Tracking System

Authors: Diana Ringgau, Chen Wong Keong, Bong Siaw Wee (PoliteknikMukah, Sarawak, Malaysia)

This paper aims to address the shortcomings found in current task management applications on both Android and iOS platforms, specifically their emphasis on individual usage and the lack of robust collaboration features for group members. In response to these challenges, the paper introduces an innovative application titled "Group Task Management" integrated with a Monetary Management System. The primary objective is to facilitate cooperative task management and financial tracking within group settings.

Utilizing the Rapid Application Development Method, the application is designed to align with natural task management practices and is highly customizable to cater to user preferences. The target user base includes a diverse range of individuals such as family members, project groups, and those seeking an all-encompassing solution for integrated task management and financial tracking. Key features include the identification of daily tasks, a clear distinction between tasks requiring financial support and income-generating tasks, and the incorporation of interactive tables and bar charts seamlessly integrated into an electronic calendar. The application allows for effortless status updates by group members across various devices, promoting a smooth collaborative experience. Furthermore, there is potential for future expansion, with the incorporation of additional features based on user feedback and specific requests.

### III. PROPOSED SYSTEM

Todify is an Indian application for assisting the user with your work in both reminding and assisting the user. Its major goal is to support the user with his work tasks assignment and also memorizing it. With the help of openAIapi and with our own to-do software we are achieving it. The site specializes in providing you with the best and interactive solution to your tasks. This is meant to reduce your work pressure and improve mental health.

The suggested system Todify is made with the base Java programming language and it is an AI integrated application, which has its own working model. It's based on a ToDo list integrated with AI for its own purpose. When we note the work to be done; with the help of an open ai api we get the result when we need to, the result is based on the work we need to do and we are able to store the results.

As our model is based on the user we don't clear the memory of the AI in the new session without users permission. As we give Offline Storage, online cloud storage and even 3rd party cloud storage is available so the user can store as many as results to them with unlimited storage. This seems to be the new in this industry and its available for everyone.

## IV.PROPOSED ALGORITHM

The proposed algorithm we are using is Python programming language and open ai api. We are integrating python and open AI to perform our work. We are also using libraries like Tkinter&PyAutoGUI to perform our work.

### A.ALGORITHM OVERVIEW

TKINTER (User Interface):

Create a graphical user interface for the ToDo list application using Tkinter. Create a main window with a text entry for adding tasks, a list box for displaying tasks, and task manipulation buttons

MANAGEMENT OF TASKS:

In the Tkinter application, add, delete, and update task functions. To store the tasks, use a data structure (such as a list).

NATURAL LANGUAGE PROCESSING (Open AI):

Use the Open AI API to integrate natural language processing. Use the Open AI API to interpret the user's natural language queries. Use the API to analyze task descriptions and extract relevant data.

AI POWERED TASKS:

Using the OpenAI API, create a function that generates AI- powered task suggestions. Allow users to request task recommendations from the AI based on their preferences or workload.

AUTOMATION (PyAutoGUI):

Py Auto GUI can be used for automation tasks such as simulating mouse clicks or keyboard input. Implement automation in the application for repetitive or time-consuming tasks.

INTERACTION AND TASK DISPLAY:

The tasks will be displayed in the Tkinterlistbox. Allow users to interact with tasks via the Tkinter interface (e.g., mark as completed, edit task details).

## USER INPUT AND LEARNING:

Implement a feedback mechanism to gather information about user preferences and behavior. Over time, use the feedback to improve the AI-powered task suggestions.

## HANDLING ERRORS:

Implement error handling mechanisms for potential issues such as API request failures or incorrect user input. Provide the user with informative error messages.

## B.WORKFLOW

- 1)The application is initiated, and the Tkinter graphical user interface (GUI) becomes visible.
- 2)Tasks are input by the user through the text entry widget.
- 3)The tasks are stored in a designated data structure, such as a list, and are presented in the Tkinterlistbox.
- 4)Users have the option to request task recommendations from the AI using a dedicated button or command.
- 5)The Open AI API processes the natural language query and provides AI-generated task suggestions. 6) The AI suggestions are presented to the user, who can decide to include them in the task list.
- 7) Automation features utilizing PyAutoGUI are integrated to streamline repetitive tasks, contributing to an enhanced user experience.

## C.TECHNOLOGIES AND TOOLS

### PYTHON

Python is recognized as a high-level programming language appreciated for its readability and user-friendly syntax. With a diverse set of libraries and frameworks, Python offers adaptability for various applications, including web development, data science, and artificial intelligence. Python is the primary programming language utilized for developing the backend logic, user interface, and automation scripts in ToDo list applications.

### TKINTER

Tkinter, serving as the standard GUI (Graphical User Interface) toolkit for Python, provides a toolkit for crafting. Desktop applications featuring graphical elements like buttons and text input fields. In the context of ToDo list applications, Tkinter is applied to construct graphical user interfaces, allowing for the creation of windows, buttons, input fields, and other elements that enhance user interaction.

## OpenAI API:

The OpenAI API provides access to advanced natural language processing models, such as generative pre-trained transformer (GPT) models. This API empowers developers to seamlessly integrate robust language models into their applications, enabling functionalities such as interpreting user input, generating action recommendations, and refining the application's understanding and responsiveness to user queries. Developers are equipped with an API key for authentication when initiating API requests.

## PyAutoGUI

PyAutoGUI is a cross-platform GUI automation library for Python, simplifying the automation of mouse and keyboard actions. Its capabilities extend to tasks like simulating user interactions. In a ToDo list application, PyAutoGUI is harnessed to automate actions like simulating mouse clicks or keyboard input, providing an effective solution for repetitive or time-consuming tasks. PyAutoGUI finds application in various automation scenarios, including triggering actions based on OpenAI responses or automating repetitive tasks within the Tkinter interface.

### III. WORKING PRINCIPLE

When a user provides a task to be completed by him on a particular date, time and name of the task. Based on the time priority our AI will work on the tasks of him. Our model will help the user to accomplish his task by in many possible ways i.e, collecting up the resource more on. Once the model has completed the work that will notify the user about it and when the time and date is nearing up also it will notify with the data collected. User is able to view the data any time he needs to even after the task is completed. Data are stored in local storage in docx format. When the user gives a task that is stored and our task given will start on the project that will be viewed side by side as a notepad pops up. As we mentioned before the in workflow the works take place

### IV. ALGORITHM

1. The application flow begins by asking for the user's 'To-Do' name and Time/Date.
2. After the user's todo name and options have been saved. The application displays it in the GUI.
3. when time given by the user is equal to real time in module it returns true starts execution
4. When the algorithm determines that the time given by the user is equal to real timeThe "Notepad.exe" pops up and writes AI-based steps to finish todo.
5. This works in a loop to maintain consistency among users.

## V. EXISTING SYSTEM

There are some existing systems like Todoist, Taskify, Task- scape and etc. these all will help you only by reminding the user not by helping to achieve the work i.e, collecting points, resource and data and so on. So this is going to the 1st ToDo app with this features.

## I. CONCLUSION

An AI-based to-do assistant is designed to enhance productivity and efficiency by providing intelligent suggestions and guidance on how to approach projects, assignments, and tasks. Unlike concerns about AI making individuals lazy, this tool aims to empower users to complete tasks in a timely manner. By leveraging artificial intelligence, the assistant offers valuable insights, recommends efficient strategies, and helps users stay organized throughout the project or task lifecycle.

The primary goal of this AI-based assistant is to facilitate effective time management, ensuring timely submission of assignments and projects. Rather than fostering laziness, it encourages users to work more efficiently by streamlining their workflow and offering tailored recommendations. The application of AI in task management is seen as a positive force, transforming the way people work and ultimately contributing to improved productivity.

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