

**BS Artificial Intelligence**

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**Subject:** Artificial Intelligence (Lab)

**Lab Task 1**

**To-Do-List Program**

**Introduction**

In this lab task, I created a simple To-Do List Program in Python. The purpose of this program is to allow users to add tasks, list all tasks, and delete tasks. This helps in learning the basics of Python functions, loops, conditionals, and user interaction.

# Steps Explanation

**Step 1: Creating an Empty List**

First, I created an empty list called '**tasks**' which stores all the tasks entered by the user.

**Step 2: Adding a Task**

I made a function named **addTask()** where the program asks the user to enter a task. That task is then stored inside the tasks list using the **append** method, and a confirmation message is displayed to show that the task has been added.

**Step 3: Listing the Tasks**

I created another function named **listTasks**() which displays all the tasks stored in the list. If the list is empty, the program shows a message that there are no tasks. Otherwise, it prints each task along with its task number using the **enumerate** function.

**Step 4: Deleting a Task**

When the user chooses the option to delete a task, the program first calls the function **listTasks().** This is done so that the user can see all the tasks currently available along with their task numbers.

After showing the tasks, the program asks the user to enter the **task number** they want to delete. That number is taken as input and converted into an integer.

* The condition **taskToDelete >= 0 and taskToDelete < len(tasks)** checks whether the entered task number is valid or not.
* **>= 0** means the number should not be negative.
* **< len(tasks)** means the number should not be greater than or equal to the total number of tasks in the list.

If the condition is true, the program uses the **pop(index) method** to remove the task at that position from the list. After deletion, a confirmation message is displayed.

**Step 5: Main Loop**

In the main program, I used a while loop to keep showing a menu to the user. The menu has four options:  
**1.** Add a task  
**2.** Delete a task  
**3**. List tasks  
**4.** Quit the program

Based on the user’s choice, the corresponding function is called. The loop continues until the user chooses Quit.

**Step 6: Exit Message**

When the user exits, the program shows a **goodbye** message.

**Output Explanation**

* When I choose option 1, the program asks me to enter a task and adds it.
* When I choose option 3, it shows all tasks with their numbers.
* When I choose option 2, it deletes the selected task.
* When I choose option 4, the program ends.

A screenshot of a computer

AI-generated content may be incorrect.

Fig 1: This Figure shows the addition of tasks in the list

A screenshot of a computer program

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Fig 2: This Figure shows how to see and delete the tasks and also exiting the program