To-Do List Game - Step by Step Explanation

1**. Initialization**

tasks = []  
- Creates an empty list called tasks that will store all the tasks.  
- Each task will later be stored as a dictionary with keys 'task' and 'done'.  
  
2. **Add Task Function**

def addTask():  
 while True:  
 task = input("enter a new task (or write stop to go to menu) : ")  
 if task.lower()== "stop":  
 break  
 elif task.strip() == "":  
 print("task cannot be empty!")  
 else:  
 tasks.append({"task": task, "done": False})  
 print(f"Task '{task}' added to the list!")  
- Allows multiple tasks to be added until the user types 'stop'.  
- Prevents empty tasks.  
- Adds each task as a dictionary with done=False.  
  
3. **List Tasks Function**

def listTasks():  
 if not tasks:  
 print("no tasks in the list!")  
 else:  
 print("current tasks:")  
 for index, t in enumerate(tasks):  
 print(f"{index}. {t['task']} ]")  
- Checks if tasks list is empty.  
- Prints each task with its index for easy reference.  
  
4. **Delete Task Function**

def deleteTask():  
 listTasks()  
 if not tasks:  
 return  
 try:  
 taskToDelete = int(input("enter the # of the task to delete: "))  
 if 0 <= taskToDelete < len(tasks):  
 removed = tasks.pop(taskToDelete)  
 print(f"task '{removed['task']}' has been removed.")  
 else:  
 print(f"task {taskToDelete} not found.")  
 except ValueError:  
 print("invalid input. Enter a number.")  
- Shows tasks first, then removes the selected task.  
- Handles invalid input using try-except.  
  
**5. Complete Task Function**

def completeTask():  
 listTasks()  
 if not tasks:  
 return  
 try:  
 taskToComplete = int(input("enter the # of the task to mark as done "))  
 if 0 <= taskToComplete < len(tasks):  
 print(f"task '{tasks[taskToComplete]['task']}' marked as done")  
 else:  
 print(f"task {taskToComplete} not found.")  
 except ValueError:  
 print("invalid input. Enter a number.")  
- Marks a task as done (currently just prints a message).  
  
**6. Main Loop**

if \_\_name\_\_ == "\_\_main\_\_":  
 print("welcome to game")  
 while True:  
 print("select an option:")  
 print("1. add new tasks")  
 print("2. delete a task")  
 print("3. list tasks")  
 print("4. mark task as done")  
 print("5. quit")  
 choice = input("enter your choice: ")  
 if choice == "1":  
 addTask()  
 elif choice == "2":  
 deleteTask()  
 elif choice == "3":  
 listTasks()  
 elif choice == "4":  
 completeTask()  
 elif choice == "5":  
 print("goodbye!")  
 break  
 else:  
 print("invalid input. Please try again.")  
- Menu-driven interface allowing add/delete/list/complete tasks.  
- Handles invalid input.  
  
**Summary:**

- tasks list stores all tasks as dictionaries.  
- addTask() allows dynamic addition of tasks.  
- listTasks() displays tasks with indices.  
- deleteTask() removes a selected task.  
- completeTask() marks a task as done.  
- Main loop provides interactive menu.