

# **To-Do List Application**

## **Overview**

This To-Do List Application is a Java-based desktop application that allows users to manage their tasks efficiently. Users can register, log in, and perform various operations such as adding, viewing, editing tasks, and adding notes to them. The application uses a simple text file system to store user credentials and tasks, making it lightweight and easy to run.

## **Features**

- **User Registration & Authentication:**
  - Users can create an account and log in to access their personal task lists.
- **Task Management:**
  - Users can add tasks with a title and priority level.
  - View tasks with detailed information including title, priority, and notes.
  - Edit existing tasks to update their priority.
  - Add notes to existing tasks for additional context.
- **User Interface:**
  - A user-friendly GUI built using Java Swing, providing a clear and intuitive experience.

## **Technology Stack**

- **Programming Language:** Java
- **Framework:** Java Swing (for GUI)
- **File I/O:** Text files for storing user and task data.

## **Getting Started**

### **Prerequisites**

- Java Development Kit (JDK) installed on your machine.

### **Installation**

1. Clone the repository:

```
bash
```

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```
git clone https://github.com/your-username/todo-list-application.git
```

2. Navigate to the project directory:

```
bash
```

Copy code

```
cd todo-list-application
```

3. Compile and run the application:

```
bash
```

Copy code

```
javac ToDoListApplication.java
```

```
java ToDoListApplication
```

### **Usage**

1. Upon launching the application, users are greeted with a welcome screen.
2. Users can choose to log in or register.
3. After logging in, users can manage their tasks through the task menu.

### **File Structure**

- users.txt: Stores registered user credentials in the format username:password.
- tasks.txt: Stores user tasks in the format username:title:priority:notes.

### **Contributing**

Contributions are welcome! Please feel free to submit a pull request or open an issue for any improvements or bug fixes.