

## User Guide – AI Study & Productivity Assistant

CMSC 495 User Guide

AI Study & Productivity Assistant

Course: CMSC 495 – Capstone Project

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## 1. Introduction

The **AI Study & Productivity Assistant** is a web-based academic management application designed to help college students organize coursework, manage deadlines, track progress, and receive AI-powered academic assistance.

The system combines:

- Secure user authentication
- Assignment management tools
- Progress analytics
- AI-generated study plans
- AI-generated summaries

This User Guide provides step-by-step instructions for installing, launching, and using the application effectively.

## 2. System Overview

The AI Study & Productivity Assistant is built using:

- Python (Flask framework)
- SQLAlchemy (database ORM)
- SQLite (local database)
- Hugging Face AI API (optional AI integration)
- HTML/CSS/JavaScript frontend

## User Guide – AI Study & Productivity Assistant

The system operates locally on the user's computer and runs through a web browser at:

`http://127.0.0.1:5000`

All user data is securely stored in a local database file.

### 3. System Requirements

Before running the application, ensure the following requirements are met:

#### Required Software

- Python 3.9 or higher
- Git (to clone repository)
- Internet connection (for AI features)
- Modern web browser (Chrome, Firefox, Edge)

#### Supported Operating Systems

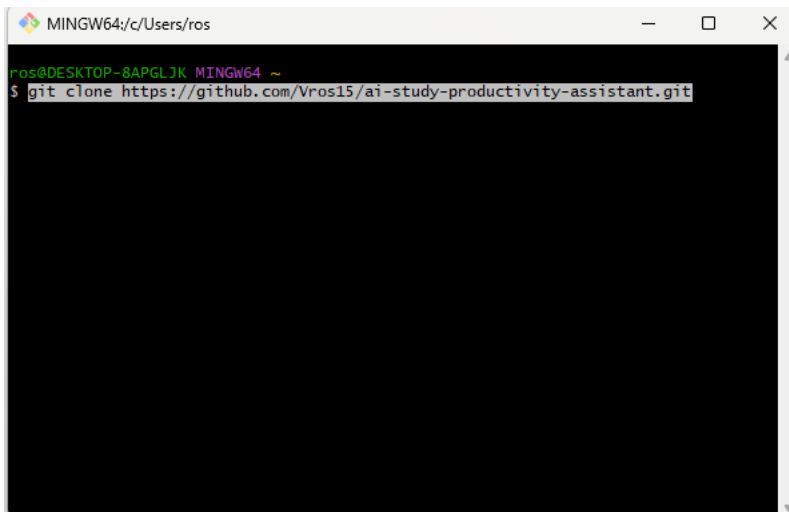
- Windows 10 or later
- macOS
- Linux

### 4. Installation and Setup

Step 1: Clone the Repository

Open Command Prompt or Git Bash and enter:

```
git clone https://github.com/Vros15/ai-study-productivity-  
assistant.git
```



This downloads the application to your computer.

## 5. Launching the Application (Windows Users)

The project includes an automated startup script to simplify setup.

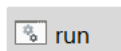
### Step 1: Locate the Project Folder

Open the folder where the repository was cloned.

### Step 2: Run the Startup Script

Double-click:

run.bat

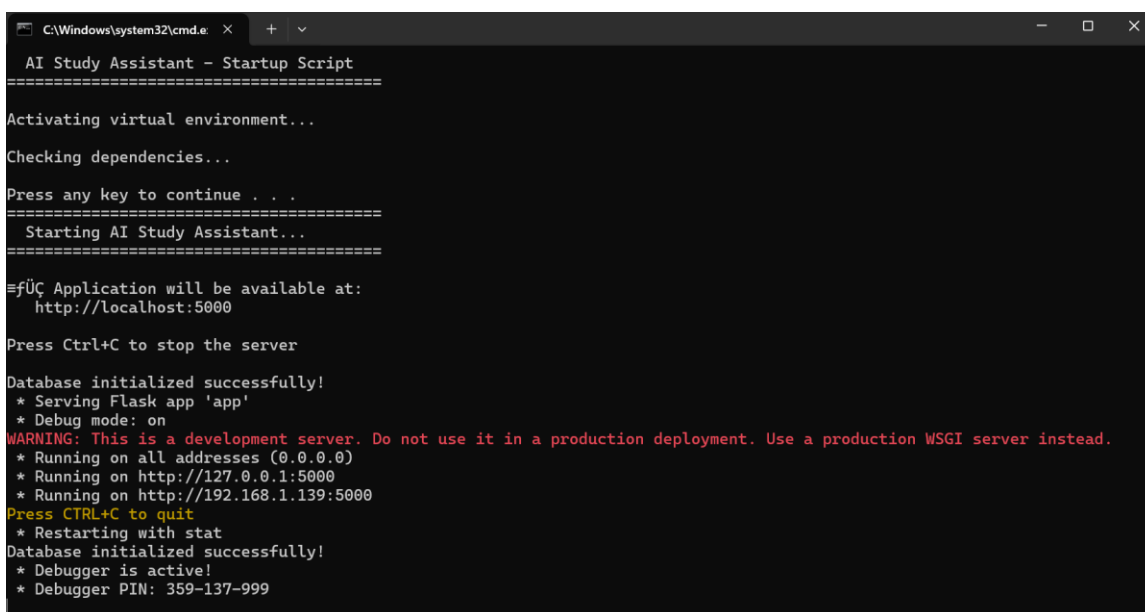


The script will automatically:

- Create a virtual environment (if not already created)

- Install required dependencies
- Create a .env file if missing
- Initialize the database
- Launch the Flask server

**Figure 1 – Application Startup Screen**



```
C:\Windows\system32\cmd.exe X + v
AI Study Assistant - Startup Script
=====
Activating virtual environment...
Checking dependencies...
Press any key to continue . . .
=====
Starting AI Study Assistant...
=====
Application will be available at:
http://localhost:5000
Press Ctrl+C to stop the server
Database initialized successfully!
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://192.168.1.139:5000
Press CTRL+C to quit
* Restarting with stat
Database initialized successfully!
* Debugger is active!
* Debugger PIN: 359-137-999
```

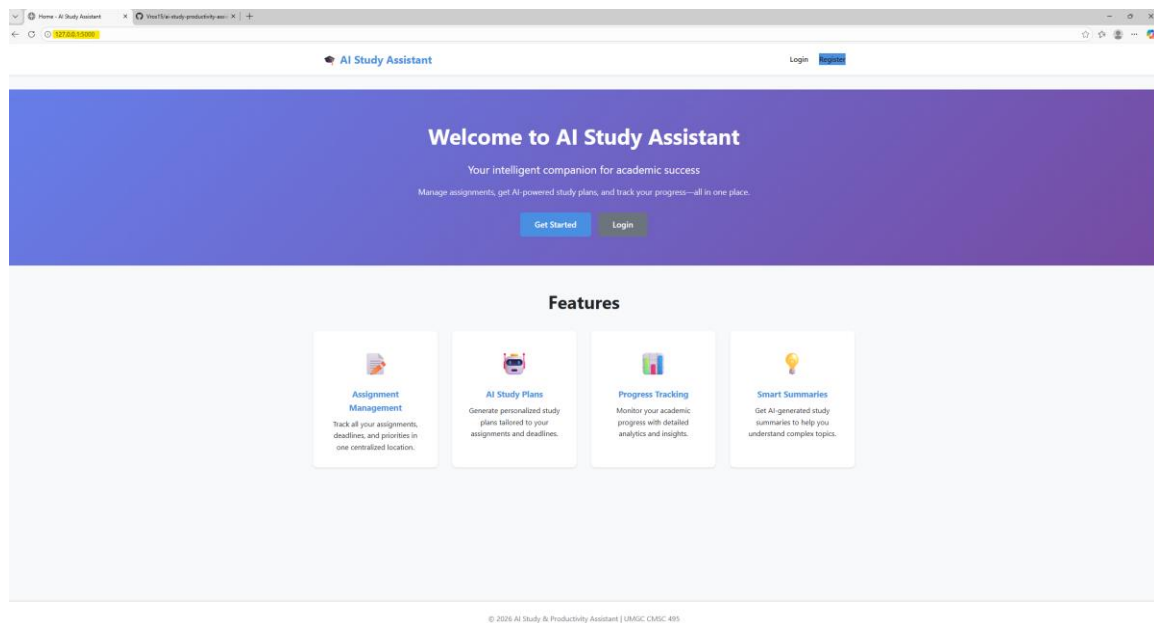
When the application starts successfully, you will see:

```
Running on http://127.0.0.1:5000
```

### Step 3: Open the Application in Browser

Open your browser and go to:

```
http://127.0.0.1:5000
```

**Figure 2 – AI Study Assistant Home Page**

## 6. Getting Started


### 6.1 Creating an Account

1. Click **Register**
2. Enter:
  - Username
  - Email address
  - Password (minimum 6 characters)
3. Click **Create Account**



## User Guide – AI Study & Productivity Assistant

If registration is successful, you will be redirected to the login page.

 **AI Study Assistant**

Login [Register](#)

Account successfully created! Please login. ×

### Log In

Welcome back! Please log in to continue.

**Username**

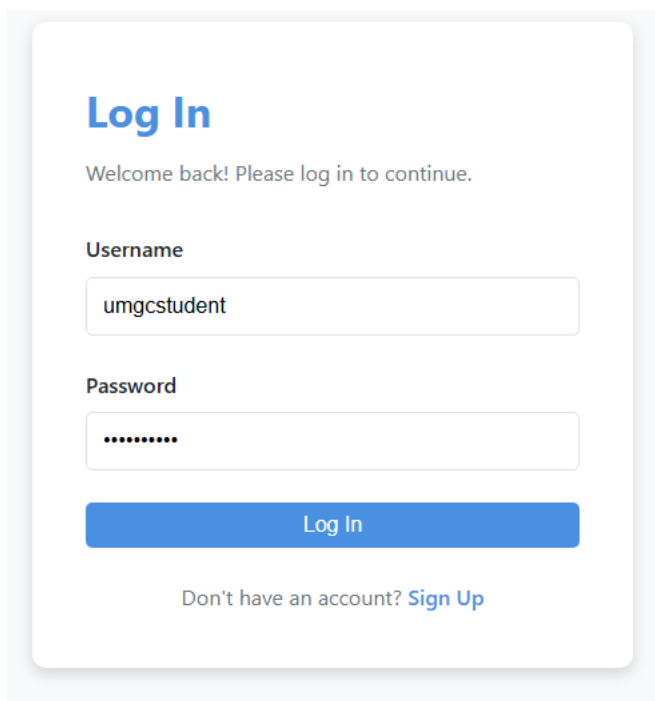
**Password**

[Log In](#)

Don't have an account? [Sign Up](#)

## 6.2 Logging In

1. Enter your username and password.
2. Click **Log In**.
3. Upon successful authentication, you will be redirected to your dashboard.



**Log In**

Welcome back! Please log in to continue.

**Username**

**Password**

**Log In**

Don't have an account? [Sign Up](#)

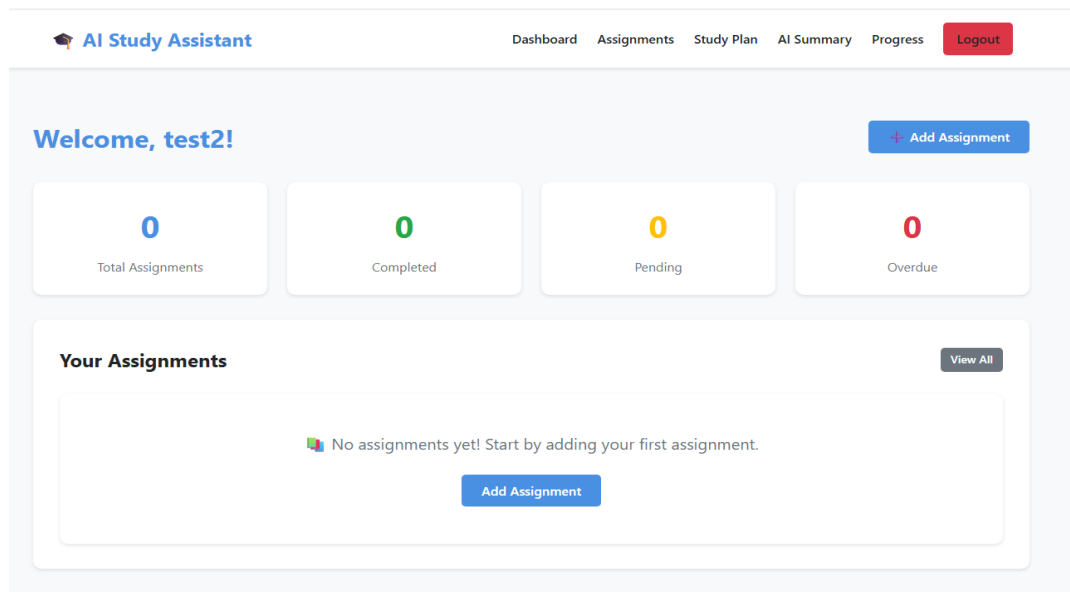
If credentials are incorrect, an error message will appear.

### 6.3 Dashboard Overview

The Dashboard displays:

- Total assignments
- Completed assignments
- Pending assignments
- Overdue assignments
- Assignment list with:
  - Title
  - Due date
  - Priority
  - Status
  - Action buttons (Edit, Complete, Delete)

Each user can only view their own assignments.



## 6.4 Managing Assignments

### Adding an Assignment

1. Click **Add Assignment**
2. Enter:
  - Title
  - Description (optional)
  - Due Date
  - Priority (Low, Medium, High)
3. Click **Submit**

The assignment will appear immediately on your dashboard.


## Add Assignment

Assignment Title \*

Description

User Guide for week 7 Capstone 495

Due Date \*



Priority \*

High


Add AssignmentCancel




### Your Assignments

View All

User GuideHIGHPENDING

User Guide for week 7 Capstone 495

 Due: Feb 24, 2026 (2 days left)

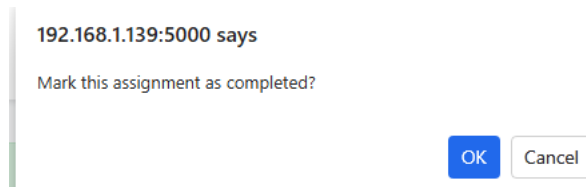


### Editing an Assignment

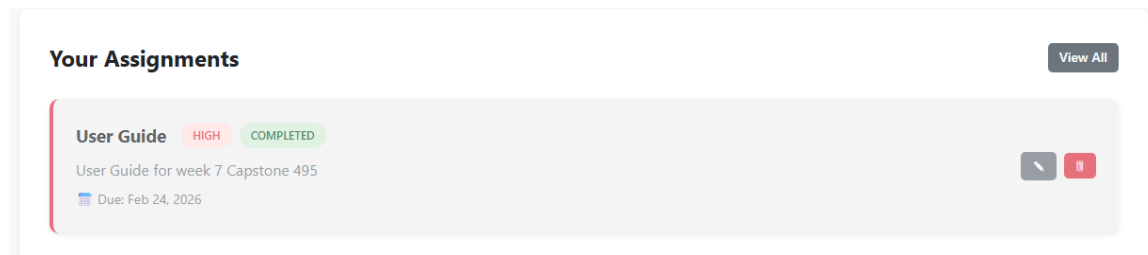
1. Click the **Edit** icon next to an assignment.
2. Modify fields as needed.
3. Click **Save Changes**.

### Marking an Assignment Complete

Click the **Complete (✓)** button.



The assignment status updates to **Completed**.



### Deleting an Assignment

1. Click **Delete**
2. Confirm the action

The assignment is permanently removed from your account.


## 6.5 Generating AI Study Plans

1. Click **Study Plan** in the navigation menu.
2. Select one or more pending assignments.
3. Click **Generate Study Plan**.

The system:

- Sends selected assignments to the AI module.
- Generates a personalized study schedule.
- Displays recommended time allocation and strategies.
- Saves the study plan to your progress history.

If no API key is configured, the system uses a fallback generator.

 **AI Study Assistant**

DashboardAssignments**Study Plan**AI SummaryProgressLogout

## Your Personalized Study Plan

AI-generated on February 21, 2026 at 03:51 PM

### Personalized Study Plan

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#### Your Assignments

**1. UserGuide**

- **Due Date:** February 23, 2026
- **Priority:** High
- **Days Remaining:** 1
- **Recommendation:** This assignment is due soon! Prioritize completing this today.

#### Study Tips

- Break large assignments into smaller tasks
- Schedule regular study sessions
- Take short breaks every 50 minutes
- Start with high-priority items
- Review completed work before submission

---

#### Included Assignments:

UserGuide **HIGH** - Due Feb 23, 2026

Print Study Plan

Generate New Plan

Back to Dashboard

## 6.6 Generating AI Summaries

1. Click **AI Summary**
2. Select an assignment OR enter custom notes.
3. Click **Generate Summary**

The AI module will:

- Analyze the content
- Generate structured study guidance
- Provide key points and recommendations

The screenshot displays the 'AI Study Assistant' web application. At the top, a navigation bar includes a logo, the text 'AI Study Assistant', and links for 'Dashboard', 'Assignments', 'Study Plan', 'AI Summary', 'Progress', and a 'Logout' button. The main content area is titled 'Study Summary' and details an assignment named 'UserGuide'. It provides key information such as a due date of February 23, 2026, and a high priority level. A description identifies the assignment as the 'UMGC CMSC 495 Capstone Project'. A 'Suggested Approach' section lists five steps: reviewing requirements, breaking tasks into manageable pieces, creating a timeline, gathering resources, and starting with the most challenging parts. 'Additional Notes' provide a comprehensive overview of the assignment's purpose, guidelines for format and submission, and a list of topics to be covered. 'Study Tips' encourage staying organized, taking breaks, seeking help, and reviewing work before submission. At the bottom, three buttons are visible: 'Print Summary', 'Generate New Summary', and 'Back to Dashboard'.

**AI Study Assistant**      Dashboard   Assignments   Study Plan   AI Summary   Progress   Logout

### Study Summary

**Assignment: UserGuide**

**Key Information**

- Due Date: February 23, 2026 (1 days remaining)
- Priority Level: High

**Description**

UMGC CMSC 495 Capstone Project

**Suggested Approach**

- Review all assignment requirements carefully
- Break down the assignment into manageable tasks
- Create a timeline for completion
- Gather necessary resources and materials
- Start with the most challenging parts first

**Additional Notes**

Unit 7 Assignment: User Guide The User Guide should be a comprehensive and easy-to-navigate document that provides users with all the information they need to use the software successfully. In this assignment, the project team will be submitting a User Guide document for their group project. The document should consist of step-by-step instructions on how to make the best use of their product including the standards & guidelines, troubleshooting guides, installation process, and additional information that aids customers in solving problems on their own. The document should be comprehensive and incorporate annotated screenshots and diagrams for easy navigation. The team should work collaboratively and submit a Word document (PDF or RTF is also acceptable) with following topics outlined: User Guide Outline: Introduction Overview of the software Purpose of the User Guide Target audience Getting Started Installation instructions System requirements User interface overview Using the Software Step-by-step instructions for using the software's main features Troubleshooting tips Reference Glossary of terms Index Take Action Review the CMSC 495 Sample Project User Guide to guide your work. Guidelines for the format and submission of the paper are as follows: The paper should be 5-7 pages of text in length. (This minimum and maximum length should not include the title page, separate figures and tables, or the list of references); The paper should include a cover page containing the project's title and the names of project team members. All team members should submit the same document to the assignment submission area. Careful attention should be given to source citations, and a proper listing of references. The paper should be well formatted and well organized with proper formatting of all graphs, images, tables etc. The students should submit their original work. Work prepared for other courses or use of material obtained for this course from other students, past or present, is expressly prohibited and can result in a grade of zero for an assignment and/or course failure.

**Study Tips**

- Stay organized and keep track of your progress
- Take regular breaks to maintain focus
- Seek help if you encounter difficulties
- Review your work before final submission

Print Summary   Generate New Summary   Back to Dashboard



## 6.7 Viewing Progress

Click **Progress** to view:

- Completion rate percentage
- Priority breakdown
- Timeline view of assignments
- Recently generated study plans

This feature provides academic performance insights.

## 6.8 Logging Out

1. Click **Logout** in the top navigation.
2. Your session ends securely.
3. You are redirected to the home page.

## 7. Standards & Usage Guidelines

- Use strong passwords.
- Do not share login credentials.
- Keep API keys private in the .env file.
- Do not manually edit the database file.
- Always log out when using shared computers.
- Use the run.bat file to ensure correct startup configuration.

## 8. Troubleshooting

### Application Will Not Start

- Ensure Python is installed.
- Confirm run.bat was executed from project root folder.
- Verify internet connection.

### Cannot Access <http://127.0.0.1:5000>

- Confirm the terminal shows:

```
Running on http://127.0.0.1:5000
```

- Refresh the browser.
- Restart the application.

### AI Features Not Working

- Verify API key is added to .env.
- Ensure internet connection.
- Restart the application.

### Database Errors

- Delete the SQLite database file (development use only).
- Restart the application to reinitialize.

## 9. Frequently Asked Questions

### **Q: Can multiple users use the system?**

Yes. Each user has separate account data stored securely.

### **Q: Is my data secure?**

Yes. User authentication and session management protect user data.

### **Q: Does the AI feature require internet?**

Yes. AI generation requires internet access.

### **Q: Can this be deployed publicly?**

Yes, with production configuration (WSGI server required).

## 10. Support & Contact Information

For technical issues:

- Contact project team members
- Submit an issue on GitHub
- Review README documentation