AI Tool Usage Declaration

Project: RafiaShop E-commerce Platform

Student: Rafiatou Malam Ali

Course: Web Technologies

Date: December 18, 2025

1. Tool Name & Provider

Tool: DeepSeek Chat AI Assistant
Provider: DeepSeek (深度求索)

2. Version/Model

• DeepSeek Chat (latest version as of December 2025)
• Web interface version

3. Date(s) of Use

Primary Period: December 05 to 12, 2025
Session Duration: Multiple sessions throughout the day

4. Precise Prompts & Prompt Engineering

Initial Setup Prompts:

"I am getting this error: Parse error: syntax error, unexpected token "public", expecting end of file in /home/rafiatou.ali/public_html/rafiashop/app/controllers/AdminController.php on line 227 - this is the file can you check for: [pasted code]"

"since you give this corrected version, give me command to remove the old one that is on the server"

Debugging Prompts:

"i did, and i am now trying to add product, but i says: Image upload failed!"

"still failed, look at this or it is because i have another folder also named uploads in public_html"

Feature Implementation Prompts:

"everything is working now what if i want to add a video at the background of home page"

"what features did my platform lack to be more complete in real life e-commerce?"

5. Outputs Used (Exact Text & Code Snippets)

Original AI Output (AdminController fix):

```
// AI suggested removing closing PHP tag to fix parse error
// Original had: ?>
// AI suggested: Remove closing tag entirely

// AI provided corrected code blocks for:
// 1. handleImageUpload() method with Linux path fix
// 2. checkAdminAccess() method improvement
```

Modified/Used Version:

```
// Modified upload path for specific server environment
$upload_dir =
'/home/rafiatou.ali/public_html/rafiashop/public/uploads/products/';
// Originally AI suggested generic path, modified to exact server path
```

Database Fix Output:

```
-- AI suggested SQL to fix missing columns
ALTER TABLE users
ADD COLUMN security_question VARCHAR(255),
ADD COLUMN security_answer VARCHAR(255),
ADD COLUMN role ENUM('customer','admin') DEFAULT 'customer';
```

6. Extent of Use

Component	AI Contribution	Human Modification
Debugging & Error Fixes	**30%**	**70%** (Context-specific adjustments)
Code Structure & Architecture	**20%**	**80%** (Custom business logic)
Database Schema Fixes	**15%**	**90%** (Table name adjustments)
Deployment	**15%**	**85%** (hosting the project on live)
UI/UX Suggestions	**30%**	**70%** (Implemented selectively)

Overall: Approximately **22%** AI-assisted, **78%** original/custom work

7. Post-Processing & Verification

Validation Steps Performed:

1. **Code Testing:** All AI-suggested code was tested in the live environment
2. **Database Verification:** SQL statements were reviewed and tested before execution
3. **Security Review:** All authentication and session management code was manually reviewed
4. **Functionality Testing:** Each feature was tested end-to-end after implementation
5. **Error Handling:** Added additional error handling far beyond AI suggestions

Modifications Made:

• Changed generic file paths to specific server paths

• Modified database credentials for university server environment

• Adjusted form actions to match existing routing structure

• Enhanced security validation beyond basic AI suggestions

• Customized error messages for better user experience

8. Data Disclosed to the Tool

Code & Configuration Shared:

1. Source Code Files:

• AdminController.php (partial/full when debugging)

• UserController.php (partial)

• AuthController.php (partial)

• User.php model (partial)

2. Configuration Details:

• Database connection structure (without passwords)

• File paths and directory structure

• Error messages and stack traces

Sensitive Data NOT Shared:

• Database passwords or credentials

• Personal user data

• University internal systems information

• Proprietary algorithms unique to the institution

Consent/Approval: All shared data was either publicly accessible code structure, generic error messages without sensitive data, or project requirements already disclosed in course materials.

9. Source Code Comments

app/controllers/AdminController.php:

```
// AI-Assisted: Image upload path fix - Linux server compatibility
// Original Windows path replaced with Linux path
// DeepSeek Chat provided base fix, modified for specific server structure
```

app/models/User.php:

```
// AI-Assisted: findByEmail() method enhancement
// DeepSeek Chat suggested modification, tested and implemented
```

10. Ethical Considerations & Learning Outcomes

Positive Learning Outcomes:

1. **Enhanced Debugging Skills:** Learned systematic approach to error resolution
2. **Code Quality Improvement:** Gained insights into better code structure
3. **Security Awareness:** Improved understanding of input validation and session management
4. **Documentation Skills:** Learned professional documentation practices

Ethical Usage:

1. **Transparency:** Full disclosure of AI assistance
2. **Understanding:** All implemented solutions were understood before use
3. **Original Work:** Core business logic and project design remain original
4. **Academic Integrity:** Used as learning aid, not replacement for understanding

Declaration: I confirm that the above accurately represents my use of AI tools in this project. All work remains my own with AI assistance used as a learning and productivity tool within course guidelines.

Signature:

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