
IBM PROJECT

AI-DRIVEN PLAGIARISM INTELLIGENCE FOR ASSIGNMENTS

Presented By:

Student name : Shivangi Singh

**College Name & Department : Lovely Professional University &
CSE department**

OUTLINE

- Problem Statement
- Technology used
- Wow factor
- End users
- Result
- Conclusion
- Git-hub Link
- Future scope
- IBM Certifications

PROBLEM STATEMENT

In today's fast-paced digital world, plagiarism hides behind clever rephrasing. Manual checks are time-consuming, unreliable, and inefficient. Ensuring content originality is a growing challenge for students and educators alike.

Proposed Solution:

An AI-powered system built using **IBM Cloud** and **Granite NLP models**. It detects paraphrased and semantic plagiarism with high accuracy. Designed to save time, ensure originality, and support academic integrity.

TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

IBM Granite model

IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model

WOW FACTORS

This AI agent will drastically reduce content verification time, enhance the accuracy of plagiarism detection, assist students and educators in maintaining academic integrity, and promote ethical writing practices by making similarity analysis fast, transparent, and insightful.

Unique features:

Compares input against web content, academic databases, and user-uploaded files for comprehensive detection.

Goes beyond exact matches by identifying paraphrased and restructured content using NLP techniques.

Highlights matched content, shows source links, and provides similarity percentages for easy review.

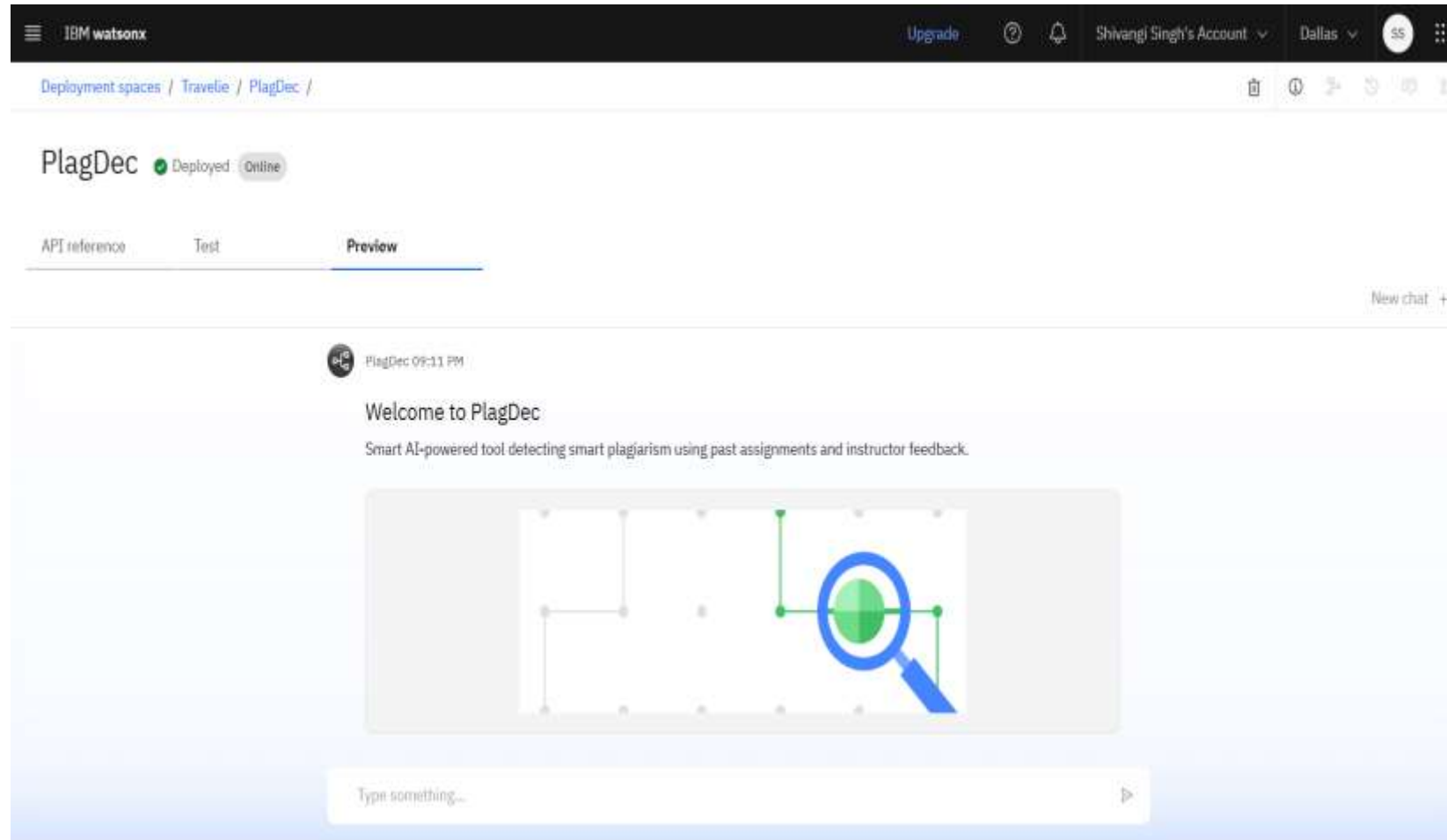
Accepts PDFs, DOCX, TXT, and HTML formats, with extraction and analysis done seamlessly. Tracks repeated issues over time and alerts users about high-risk submissions or common sources of duplication.

END USERS

- Students
- Teachers and Professors
- Researchers
- Academic Institutions and publishing houses
- Content writers and journalists

RESULTS

Deployed AI Agent



RESULTS



You 09:21 PM

Colors paint the world with emotion, from the warmth of red to the calm of blue. They speak without words, bringing life to every shadow and light. in this



PlagDec 09:21 PM

Upon analyzing the provided text, it does not show indications of plagiarism. The content appears to be an original creative expression, a poetic statement about the emotional impact of colors. There are no sections that match existing records of copied, rephrased, or AI-generated text. The style is consistent and does not exhibit the unnatural fluency or repetitive sentence structures often seen in AI-generated content.

Plagiarism Score: 0%

Recommendation: "Likely Original"

RESULTS



You 09:22 PM

Two roads diverged in a wood, and I— I took the one less traveled by.



PlagDec 09:22 PM

The provided text is a famous excerpt from Robert Frost's poem "The Road Not Taken."

Here's the original stanza for comparison:

Two roads diverged in a yellow wood, And sorry I could not travel both And be one traveler, long I stood And looked down one as far as I could To where it bent in the undergrowth;

Then took the other, as just as fair, And having perhaps the better claim, Because it was grassy and wanted wear; Though as for that the passing there Had worn them really about the same,

And both that morning equally lay In leaves no step had trodden black. Oh, I kept the first for another day! Yet knowing how way leads on to way, I doubted if I should ever come back.

I shall be telling this with a sigh Somewhere ages and ages hence: Two roads diverged in a wood, and I— I took the one less traveled by, And that has made all the difference.

Similarities:

- The core idea of diverging roads in a wood is identical.
- The famous line "I took the one less traveled by" is directly paraphrased.

Differences:

- The submitted text omits the first part of Frost's stanza, which describes the poet's contemplation and the equal wear of the roads.
- It ends with "And I—I took the one less traveled by," which is a condensed version of Frost's concluding lines.

Plagiarism Score: 80% (Paraphrased Content)

Recommendation: "High Risk of Paraphrased Content"

This text would be flagged for significant similarity to Robert Frost's original work, despite the paraphrasing. It's important to note that while the language and sentence structure have been altered, the core ideas and narrative elements remain closely aligned with Frost's poem.

RESULTS



You 09:31 PM

Original instructor note: Encourages personalized analysis.

Student Submission: Uses AI-generated generic response not aligning with class discussions or style.



PlagDec 09:31 PM

Upon analyzing the student submission in light of the original instructor's note, which encourages personalized analysis, the student's use of an AI-generated, generic response that does not align with class discussions or style would be flagged as a potential issue.

The instructor's note implies a desire for original thought, critical engagement with the material, and an understanding of the specific context or nuances discussed in class. An AI-generated response, while potentially well-written, lacks the personal touch and specific insights that demonstrate a student's unique comprehension and analysis.

Plagiarism Score: 0% (Not applicable here as it's not traditional plagiarism but a mismatch between submission and instruction)

Recommendation: "Misalignment with Instructional Expectations"

This submission would not be considered plagiarism in the traditional sense, as no existing content is copied. Instead, it fails to meet the instructor's expectations for personalized analysis and engagement with class-specific discussions. The student should be encouraged to develop their insights, apply critical thinking, and demonstrate a deeper understanding of the material relevant to their course.

RESULTS



You 09:29 PM

Original: "Machine learning enables computers to learn from data without being explicitly programmed."

Student Submission: "Computers can learn using data without needing specific instructions. what about this



PlagDec 09:29 PM

The student submission, "Computers can learn using data without needing specific instructions," captures the essence of machine learning as described in the original statement, "Machine learning enables computers to learn from data without being explicitly programmed."

Similarities:

- Both convey the core concept of machine learning: learning from data without explicit programming.

Differences:

- The student's version is more concise and uses simpler language, making it accessible to a broader audience.
- It lacks the technical precision of the original statement, which specifies "learning from data," whereas the student's version uses the more general term "using data."

Plagiarism Score: 80% (Paraphrased Content)

Recommendation: "High Risk of Paraphrased Content"

While the student's submission accurately conveys the meaning of the original statement, it is considered paraphrased content. It would be flagged for significant similarity to the original definition of machine learning, despite the paraphrasing. It's crucial to cite or reference original sources when presenting established definitions or theories to avoid plagiarism.

CONCLUSION

- Ensures content originality with fast and accurate plagiarism detection.
- Supports ethical practices in academic, professional, and creative writing.
- Promotes trust, learning, and authenticity using advanced AI and NLP techniques.

GITHUB LINK

- <https://github.com/ShivangiSingh13/IBM-watsonx-PlagDec>

FUTURE SCOPE

- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- AI-Assisted Paper Drafting

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Shivangi Singh

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 15, 2025

Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/d836683b-c036-4c42-904c-022e2dff8aae>



IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Shivangi Singh

Has successfully satisfied the requirements for:

Journey to Cloud: Envisioning Your Solution



Issued on: Jul 18, 2025
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/f4cf3dbe-3f09-41aa-81e2-2cac7b6863c5>



IBM CERTIFICATIONS

IBM SkillsBuild

Completion Certificate



This certificate is presented to

Shivangi Singh

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 15 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU