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DECEPTIVE PRODUCT FEEDBACK IDENTIFICATION WITH ML

GUIDE NAME:

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CONTENTS

AREA OF THE PROJECT AND FIELD OF THE PROJECT

AREA OF PROJECT : Machine Learning (ML)

FIELD OF PROJECT : E-Commerce

PROBLEM STATEMENT

In the online marketplace, authentic product reviews are pivotal for consumer trust. However, deceptive feedback threatens platform reputation. The project addresses this by implementing "Deceptive Product Feedback Identification with ML." Using LSA , the system automates the identification of fake reviews, providing a technical solution to enhance the integrity of online product feedback.

LITERATURE SURVEY

SI. NO	TITLE AND AUTHOR, YEAR	PUBLISHER & JOURNAL NAME	METHODOLOGY USED	DRAWBACKS
1.	Machine Learning Approaches for Fake Reviews Detection(2022)	IEEE	• Checked rating behaviour of the product. • Unnecessary bad or good reviews were eliminated	Relatively slower compared to LSA
2.	Exploring E-Commerce Product Experience Based on Fusion Sentiment Analysis Method (2022)	IEEE	• Uses NLP to analyse the opinion mined • Analysis of semantic sentiment	Lacks the tracking of redundant review

SI. NO	TITLE AND AUTHOR, YEAR	PUBLISHER & JOURNAL NAME	METHODOLOGY USED	DRAWBACKS
3.	IP spam detection using Machine Learning for Data Analytics	IEEE	• Tracks IP	Doesn't uses a standard ML model
4.	Opinion Mining Using Multi-Dimensional Analysis (2023)	IEEE	• Classify the opinion expression with ML and NLP • Recognition of emotion	Relatively slower compared to LSA

OBJECTIVES

- Develop a Fake Review Detection System for online e-commerce platforms.
- Address the increasing impact of product reviews on consumer purchasing decisions.
- Create a technology-driven solution to automatically identify and filter out fake or misleading reviews.
- Ensure the authenticity of customer feedback, contributing to a fair online shopping environment.
- Contribute to the overall integrity of online marketplaces and e-commerce platforms.
- Foster a transparent and reliable system for users to make well-informed purchasing decisions.

ABSTRACT

"Deceptive Product Feedback Identification with ML" tackles the challenge of identifying fake reviews in online platforms. Leveraging machine learning, specifically Latent Semantic Analysis (LSA) to detect reviews, biased user promotions, IP address patterns, review floods, simultaneous similar reviews, and LSA for meaningful analysis. This technical solution ensures automated and robust deception detection, safeguarding the credibility of online product reviews.

INTRODUCTION

- Reviews on online websites play a vital role in sales of the product as before buying people try to get all the pros and cons of the product.
- The scope and need of online markets and e-commerce platforms are on the rise.
- The amount of feedbacks for products are present in detail for users to analyze the product they are buying.
- Users sometime bombard the review section with extreme comments which can work in favor or against the product.
- This project aims to take care of factitious review

EXISTING SYSTEM

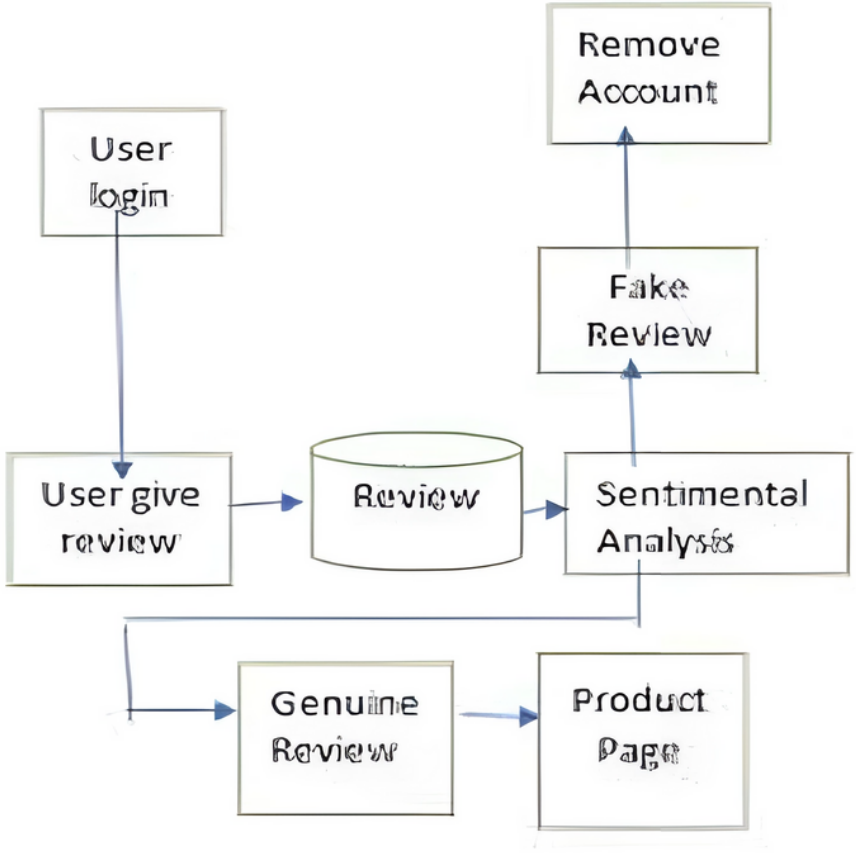
- User are not able to find out whether the review is genuine or fake. If the social media optimization team uses different IP address to send the same review, system fail to track the fake review.

- Brands can use their resources to wrongly increase the rating of their particular products. Same user can write multiple reviews from different accounts.

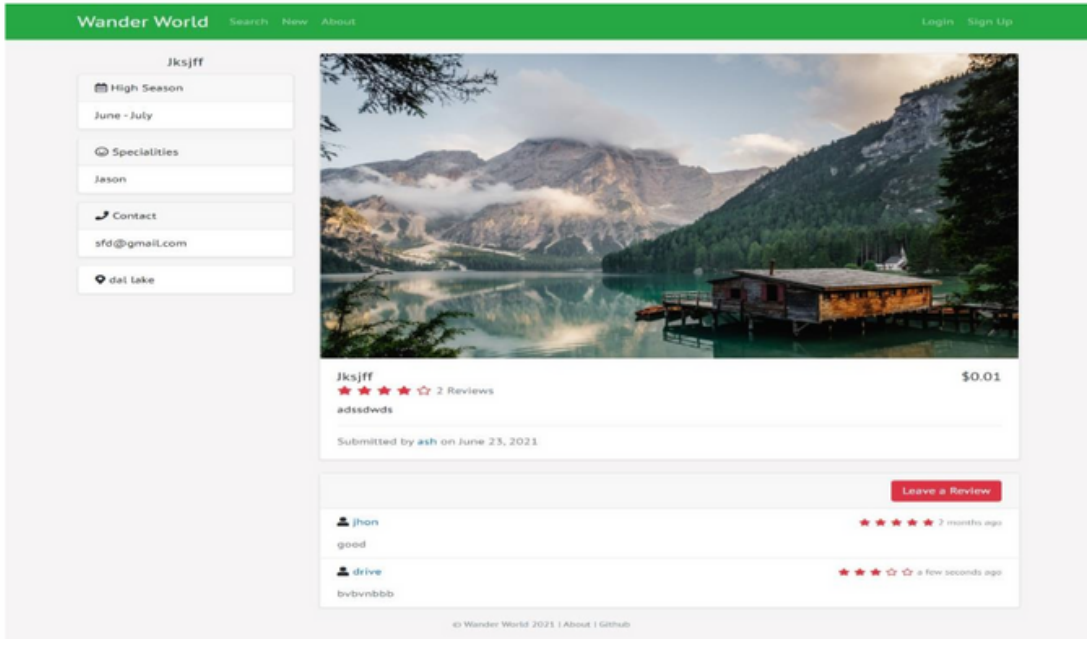
PROPOSED SYSTEM

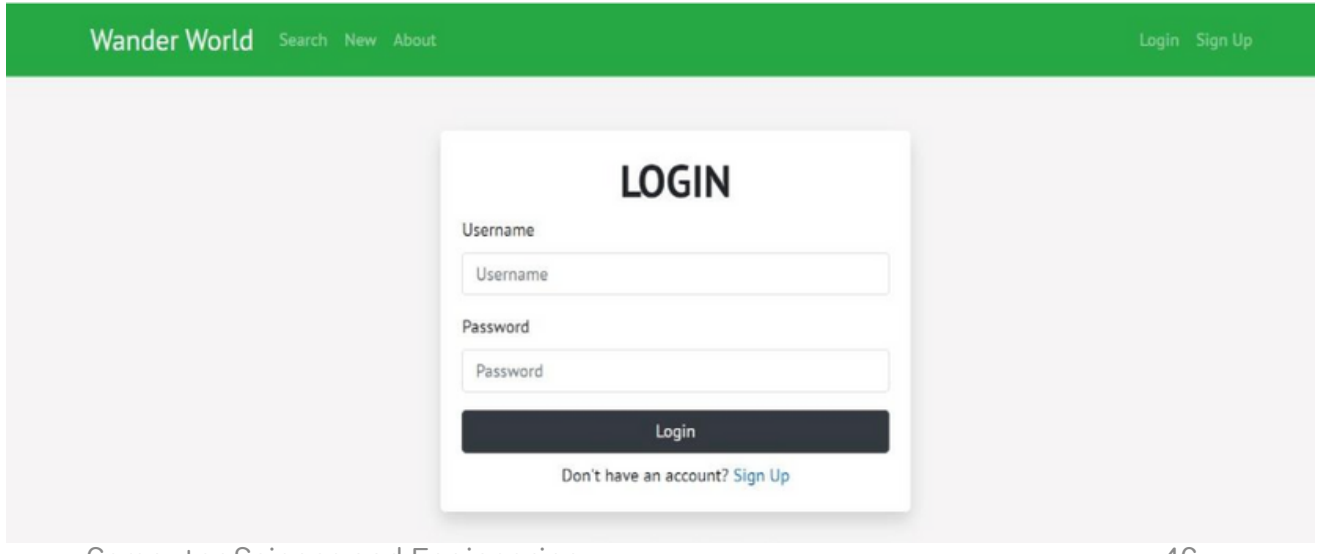
- Reviews by customers on a product will act as our data on which methods will be applied.
- For filtering the fake reviews from genuine one mining method will be carried out.
- Apply analysis algorithm to make insightful data analysis with methods like text mining ,sentimental analysis natural language processing or NLP

PROPOSED SYSTEM-BLOCK DIAGRAM



EXPECTED OUTPUT





WORKPLAN / TIME SCHEDULE

MONTH	WORK PLAN
JANUARY 24	• Worked on the idea and synopsis of the project • Assessed various methodologies through the published research papers
FEBRUARY 24	• Design the front end of the website • Authenticate users using Google OAuth
MARCH 24	• Include the backend part and database to store user reviews • Detect multiple reviews submitted through the same IP addresses
APRIL 24	• Inclusion of sentimental analysis, latent semantic analysis, and content similarity. • Final testing of system

HARDWARE/SOFTWARE USED

OS: Linux/Windows-10/Macos
Processor : Atleast 4 cores CPU
Main Memory : 8GB RAM
Hard Disk : 75GB

Python Language
Jupyter Notebook

APPLICATIONS

- To be intergrated in an E-commerce Website
- Detect Fake reviews with ML in E-commerce Platforms
- Monitors the IP

REFERENCES

MACHINE LEARNING APPROACHES FOR FAKE REVIEWS DETECTION:
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OPINION MINING USING MULTI-DIMENSIONAL ANALYSIS 2023
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TEXT MINING AND EMOTION CLASSIFICATION ON MONKEYPOX TWITTER DATASET: A DEEP LEARNING-NATURAL LANGUAGE PROCESSING (NLP) APPROACH
RUTH OLUSEGUN 1 , TIMOTHY OLADUNNI AND HALIMA AUDU AND YAO HOUKPATI AND STAPHORD BENGESI


Thank
You