# Fake Review Monitoring System

A project report submitted to

**Rajiv Gandhi University of Knowledge Technologies**

**SRIKAKULAM**

**In partial fulfilment of the requirements for the**

**Award of the degree of**

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**

**Submitted by**

**3rd year B.Tech 2nd semester**

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**Rajiv Gandhi University of Knowledge Technologies-SKLM**

# CERTIFICATE

This is to certify that the thesis work titled “**Fake** **review monitoring system**” was successfully completed by **S.SRIDEVI (S170396)**, **P.SAI LAKSHMI (S171065), K.BHAVANI (S170142)** In partial fulfilment of the requirements for the Mini Project in Computer Science and Engineering of **Rajiv Gandhi University of Knowledge Technologies** under my guidance and output of the work carried out is satisfactory.

**Mrs.S.Lakshmisri madam,M.Tech Mrs.S.Lakshmisri madam,M.Tech**

**Project Guide Head of the Department**

# DECLARATION

I declared that this thesis work titled “**Fake review monitoring system**” is carried out by me during the year 2020-21 in partial fulfilment of the requirements for the Mini Project in **Computer Science and Engineering.**

I further declare that this dissertation has not been submitted elsewhere for any Degree. The matter embodied in this dissertation report has not been submitted elsewhere for any other degree. Furthermore, the technical details furnished in various chapters of this thesis are purely relevant to the above project and there is no deviation from the theoretical point of view for design, development and implementation.

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I am also grateful to other members of the department without their support my work would have been carried out so successfully.

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# ABSTRACT

In general public require reviews approximately about the product before investing their money onto it. So the users look for various opinions within the internet site however they can't differentiate between genuine or fake reviews. In few websites some of the good reviews are posted by the company members in order to create a false product reviews. Also they used to provide good reviews for the different products designed by their own company. The user will no longer be capable on finding out whether an evaluation is authentic or fake. To discover the fake evaluation in the websites this "Fake Review Monitoring System . The user will be login to the application with the usage of his consumer user name identification and the password and will be viewing various products and will provide the review about those product. To discover whether a overview is fake or genuine, system will be finding out the user name of a consumer. If a system study fake reviews sent by using the similar user names then it will be marked as fake review. This system allows a consumer to find out the correct assessment of a product.

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# Chapter-1

## INTRODUCTION

### 1.1 Introduction

On some review websites, some good reviews are added by the product company people themselves to make the product famous this person belongs to Social Media Optimization team. So people come across various reviews on the website but these reviews are genuine or fake and are not identified by the user. To find out the fake review on the website this “Fake Review Monitoring System”.

* Identify the fake reviews by using “User Name”.
* User once access the system, user can view product and can post review about the product.
* System will track the user name and password of the user.

### 1.2 Statement of the problem

To find out fake review in the website this “Fake Review Monitoring System” .

In recent years, online reviews have been playing an important role in making purchase decisions. This is because, these reviews can provide customers with large amounts of useful information about the goods or service. However, to promote factitiously or lower the quality of the products or services, spammers may forge and produce fake reviews. Due to such behaviour of the spammers, customers would be mislead and make wrong decisions. Thus detecting fake (spam) reviews is a significant problem. Opinion spamming refers to the use of excessive and methods, such as creating a large volume of fake reviews, in order to generate biased positive or negative opinions for a target product or service with the intention of promoting or demoting it, respectively. The reviews created for this purpose are known as fake, spam or reviews, and the authors responsible for composing such deceptive content

are known as fake or spam reviewers.

### 1.3 Objective

* The identified challenges motivate to bring up a solution to all the problems stated in the above problem statement section. Following are the objectives of the proposed approach and this thesis work.
* The main objective of the project is to Identify the fake reviews posted on the online shopping portal using user name.

### Goals

This system helps the user to find out correct review of the product.

* Admin will add products to the system.
* Identify the fake reviews by using “User Name”.
* User once access the system, user can view product and can post review about the product.
* System will track the user name and password of the user.

### 1.5 Scope of Project

* The user gets genuine reviews about the product.
* User can post their review about the product.
* Users can spend money on valuable products.
* Users can identify the fake reviews by using username

### 1.6 Applications

* Based on the Username and password we get the clear idea about reviews which is genuine or fake.
* Online shopping
* Feedback forms
* Movies reviews

### 1.7 Limitations

* User will be allowed to review only if he is logged into our online portal.
* After logging in user will be allowed to review for the product.
* Once the user enters the review, the reviews will be processed and analyzed for spam on following conditions:
* Does the review entered by the user contain any link which redirects them to other product page for brand promotion?
* Analyzing whether multiple review have come from the same user.
* Analyze whether same email account or same ip-address are used for multiple reviews on same product.
* Analyze the reviews or ratings to detect whether reviews are spam or not.
* If the review posted by the user satisfies any of the above specified conditions then it will be considered as spam/fake reviews.
* Once the review is detected as spam review or fake review, then user account will be blocked and review will be reported to the administrator.

# Chapter-2

## LITERATURE SURVEY

2.1 Collect Information

It is very difficult to detect a fake or spam reviews. The fake reviewers provide undeserving reviews to the products in order to increase or decrease the sales in less amount of time. There are three types of reviews seen.

### 2.2 Study

* Online shopping
* Admin
* Users
* Fake review monitoring

### 2.3 Benefits

* User gets genuine about the product
* User can post their own review about the product
* User can spend money on valuable products.

### 2.4 Summary

Our software will help the user to pay for the right product. Our software will do analysis and then if any fake review is found from any user name consistently then admin. In this way it monitors the fake review made on any product. And user can be sure about the products availability on the application and reviews too.

# Chapter -3

## ANALYSIS

### 3.1 Existing system

Today most of the people spend their time onto the websites of online shopping portals for making some purchases. Before they place any order they go through the reviews that is being posted for that product. According to the survey taken it is shown that nearly 30% of the people examine the reviews of the product with the reviews of the other product in order to acquire a consistent and an honest product. About 50% of the people look upon the rankings of the product they wish to purchase and more than 80% of the people depend on the reviews posted for that particular product before they make a purchase. So it is clear that every person give importance to the reviews posted by each other in the online websites. With the help of those posted reviews they decide whether to place an order or not. A reality is that if the customer or a user’s gets the real standard impact of the product through thinking about their present influence of those product, it is high feasible that they are going to truly buy the product. If the general impact is not right, then it might be an unsure on that they won’t be purchasing the products. Hence the customers can post several review text which may influence the people and also the agencies in order to offer unworthy spam reviews for selling.

### 3.2 Disadvantages

International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) |

* Some of the corporation which post a fake reviews on the fake products or on the authentic products and the consumer will be caught. The current technique fails to do this accurately.
* Also when an identical user keep on posting the fake reviews again and again then they are the same, the existing system can’t find it precisely.

### 3.3 Proposed System

As most of the people need an overview of the product before spending their money on that product. Therefore humans encounter diverse opinions inside the website however those evaluations are real or fake is not always diagnosed with the aid of the consumer. They supply top opinions for a plenty of extraordinary products which are manufactured by their personal company. So the person who is reviewing the comments may find it difficult to distinguish between the genuine reviews and the fake reviews. In order to discover fail evaluation inside the portal this system was delivered. This application will discover fake reviews posted through their IP address onto the social media group. The person who is willing to buy a product may enter into the system using their user identification and a valid password and they can view a variety of products available in the portal and also they could post review about that product. As the customers are reviewing they need to provide the e-mail identity from which they are reviewing.

**The proposed system will be working as mentioned below:**

* The products will be uploaded into the system only by the administrator.
* When the person tries to login to the system they need to fill in their valid login credentials.
* Once the user login is successful they can come across various products available in the portal and also they can post their reviews about those products.
* For posting of reviews, each users identification will be tested.
* When the posted reviews is found to be a fake one then the administrator will block that particular person so that they can no longer posts their comments.
* The admin will be deleting the reviews which are faux.

### 3.4 Advantages

* The user can get genuine reviews about the product they wish to purchase.
* The user can submit their review about the product they have purchased.
* Also the user can spend their money on the valuable products.

system can’t find it precisely.

### 3.5 System Requirements

#### Software Requirements:

* Operating system : Windows 10
* Coding languages : Frontend & Backend
* Tools : Visual studio
* Database : SQL server

#### Hardware Requirements:

* System Type : x64-based PC
* System Model : HP 245 G6 Notebook PC
* Input devices : Keyboard
* Hard Disk : 16GB for 32-bit
* RAM : 4GB

reality is that if the customer or a user’s gets the real standard impact of the product through thinking abo

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# Chapter-4

## SYSTEM DESIGN

### 4.1 DESIGN OF THE SYSTEM

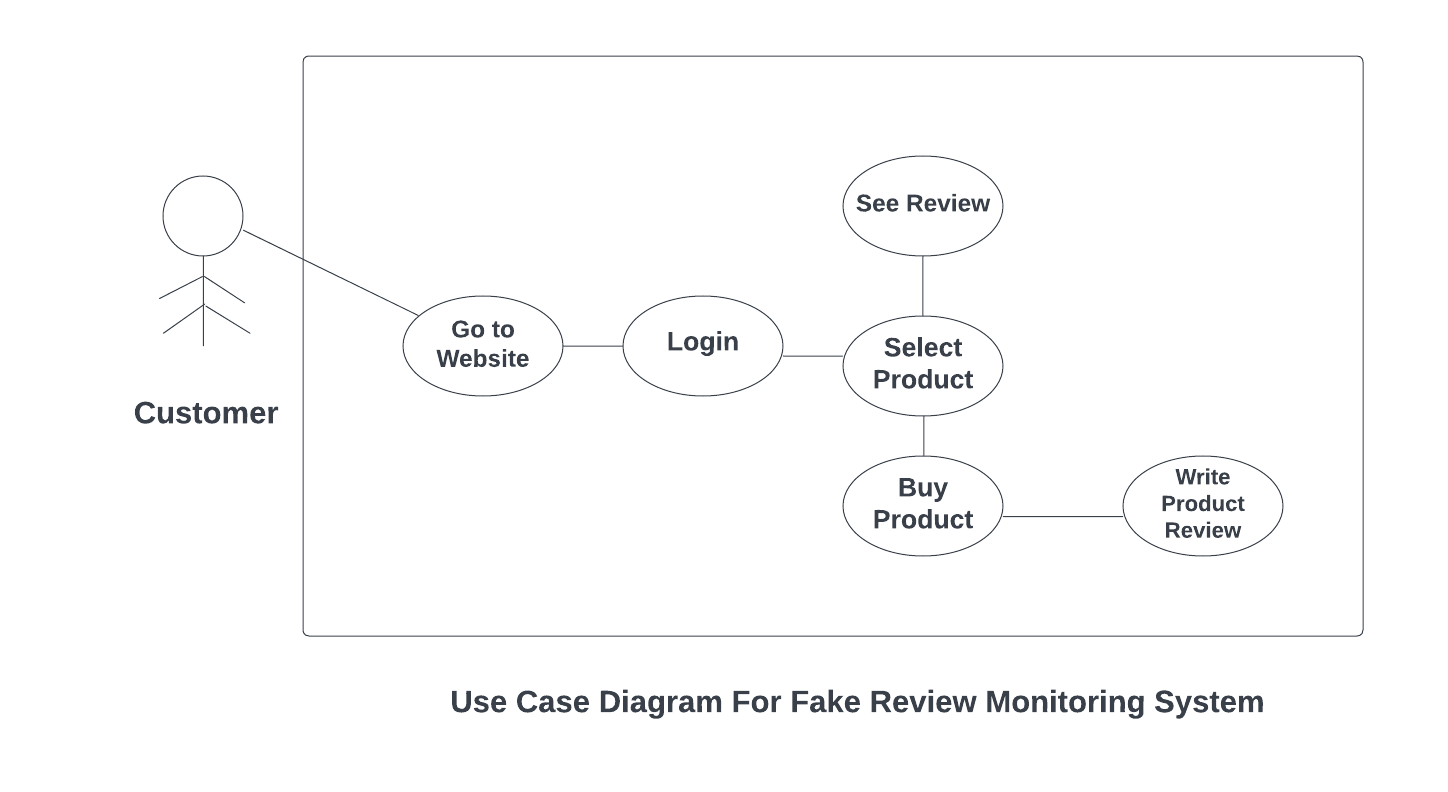
Unified Modelling Language (UML) was created in 1995 by using merging diagramming conventions used by three application development methodologies: OMT by James Rum Baugh, Objector y by Invar Jacobson and the Brooch procedure by using Grady Brooch. Previous to this time, these three amigos, together with a few dozen other practitioners had promoted competing methodologies for systematic program development, each and every with its possess system of diagramming conventions. The methodologies adopted a sort of cookbook sort of pushing a application task via a succession of life cycle stages, culminating with a delivered and documented software. One purpose of UML was once to slash the proliferation of diagramming techniques by way of standardizing on a original modelling language, as a result facilitating verbal exchange between builders. It performed that goal in 1997 when the (international) Object administration team (OMG) adopted it as a commonplace. Some critics don’t forget that UML is a bloated diagramming language written by means of a committee. That said, I do not forget it to be the nice manner to be had today for documenting object-oriented program progress. It has been and is fitting more and more utilized in industry and academia. Rational Rose is a pc Aided program Engineering (CASE) software developed by way of the Rational organization underneath the course of Brooch, Jacobson and Rumbaugh to support application progress using UML. Rational Rose is always complex due to its mission of wholly supporting UML. Furthermore, Rational Rose has countless language extensions to Ada, C++, VB, Java, J2EE, and many others. Rational Rose supports ahead and reverse engineering to and from these langue ages. However, Rational Rose does now not aid some usual design tactics as knowledge drift diagrams and CRC cards, due to the fact that these will not be a part of UML. Considering that Rational Rose has so many capabilities it is a daunting task to master it. Happily, loads can be executed making use of only a small subset of these capabilities. These notes are designed to introduce beginner builders into making productive use of the sort of subset.

### 4.1.1 Class diagram:

Class diagram in the Unified Modelling Language (UML), is a kind of static structure diagram has describes the constitution of a process through showing the system's classes, their attributes, and the relationships between the class. The motive of a class diagram is to depict the classes within a model. In an object-oriented software, classes have attributes (member variables), operations (member capabilities) and relation.

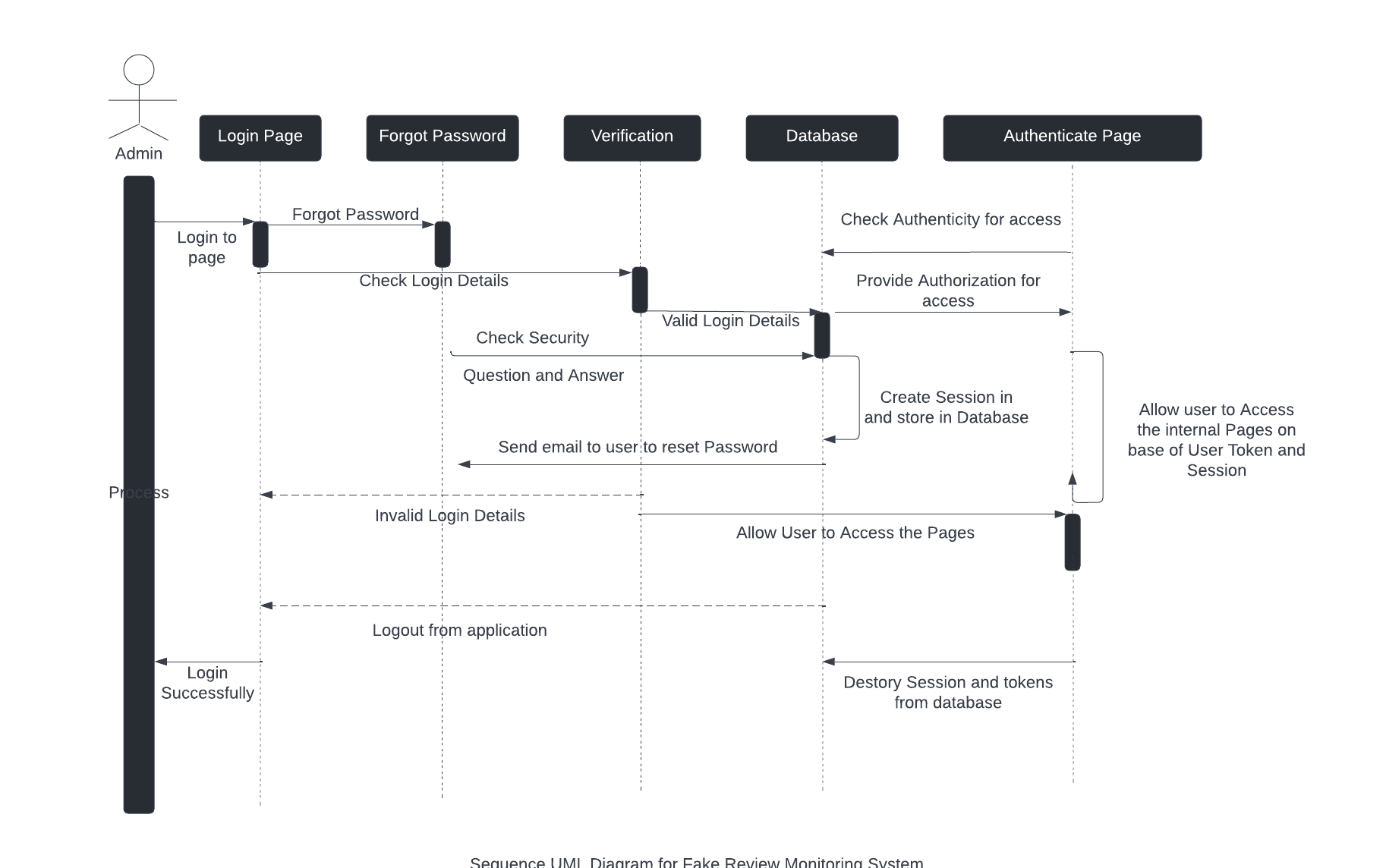
### 4.1.2 Use Case Diagram:

It is a visually representation what happens when actor interacts with system. A use case diagram captures the functional aspects of a system. The system is shown as a rectangle with name of the system inside ,the actor are shown as stick figures, the use case are shown as solid bordered ovals labelled with name of the use case and relationships are lines or arrows between actor and use cases. Symbols used in Use case are as follows-



### 4.1.3 SEQUENCE DIAGRAM

A sequence diagram in Unified Modelling Language (UML) is one variety of interaction diagram that suggests how methods operate with one other and in what order. It is a construct of a Message Sequence Chart. Sequence diagrams are quite often referred to as event-hint diagrams, event situations, and timing diagrams. A sequence diagram suggests, as parallel vertical traces (lifelines), special systems or objects that are residing at the same time, and, as horizontal arrows, the messages exchanged between them, within the order the place they occur.

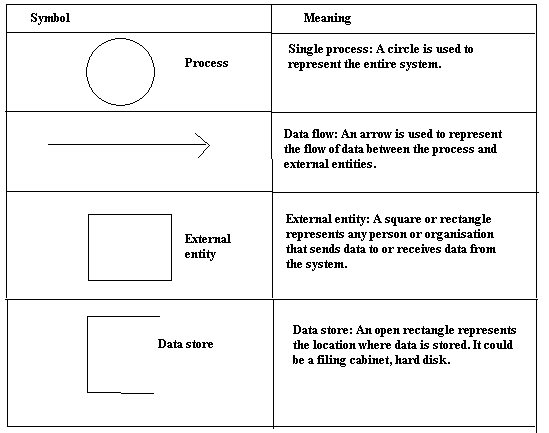


### 4.1.4 DFD Diagram:

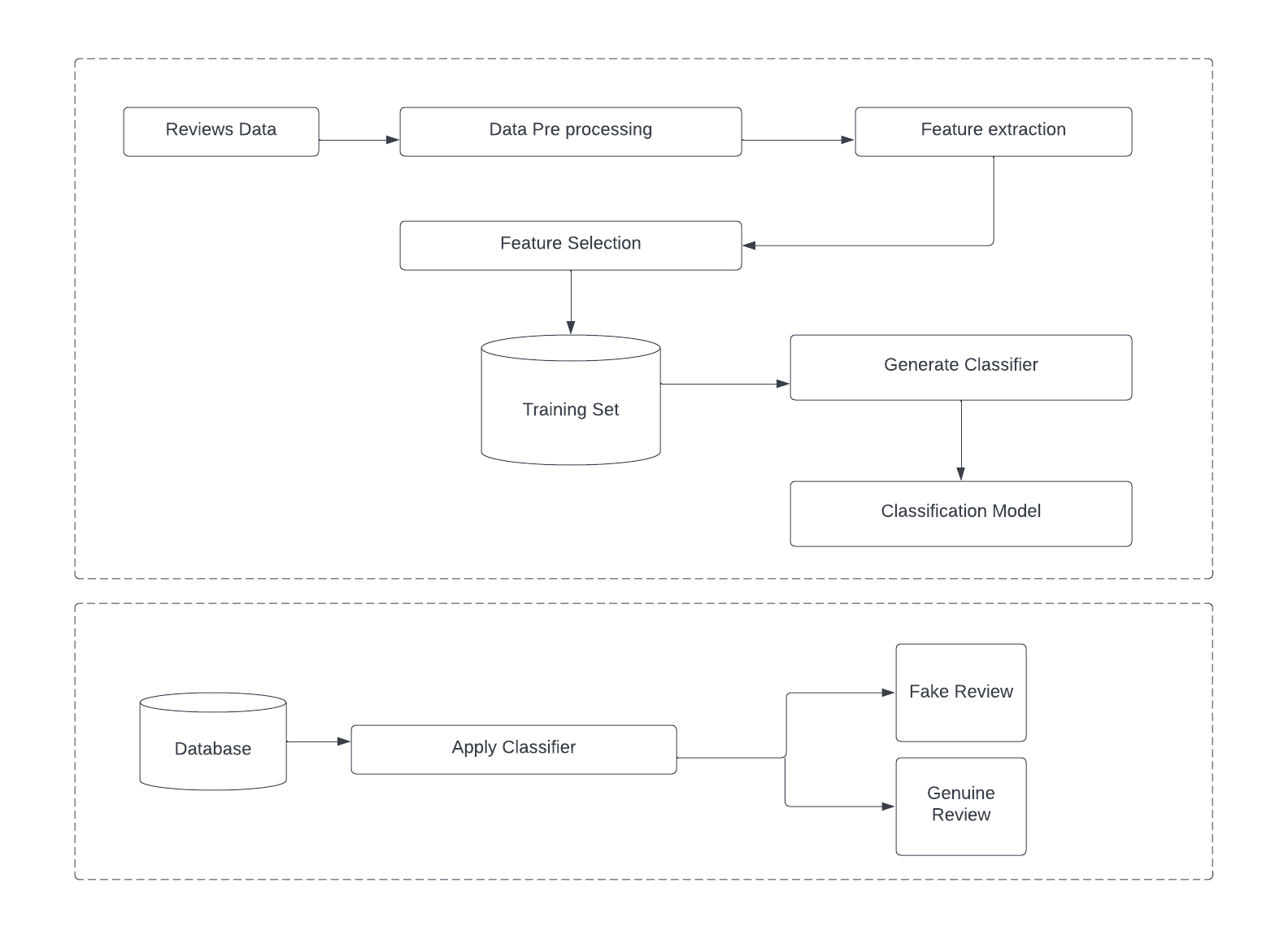
A data flow diagram or bubble chart (DFD) is a graphical representation of the "flow" of data .through an information system, modelling its process aspects. Often they are a preliminary step used to create an overview of the system which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design). A DFD shows what kinds of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel (which is shown on a flowchart).

The primitive symbols used for constructing DFD’s are:

Symbols used in DFD



#### DFD Diagram :



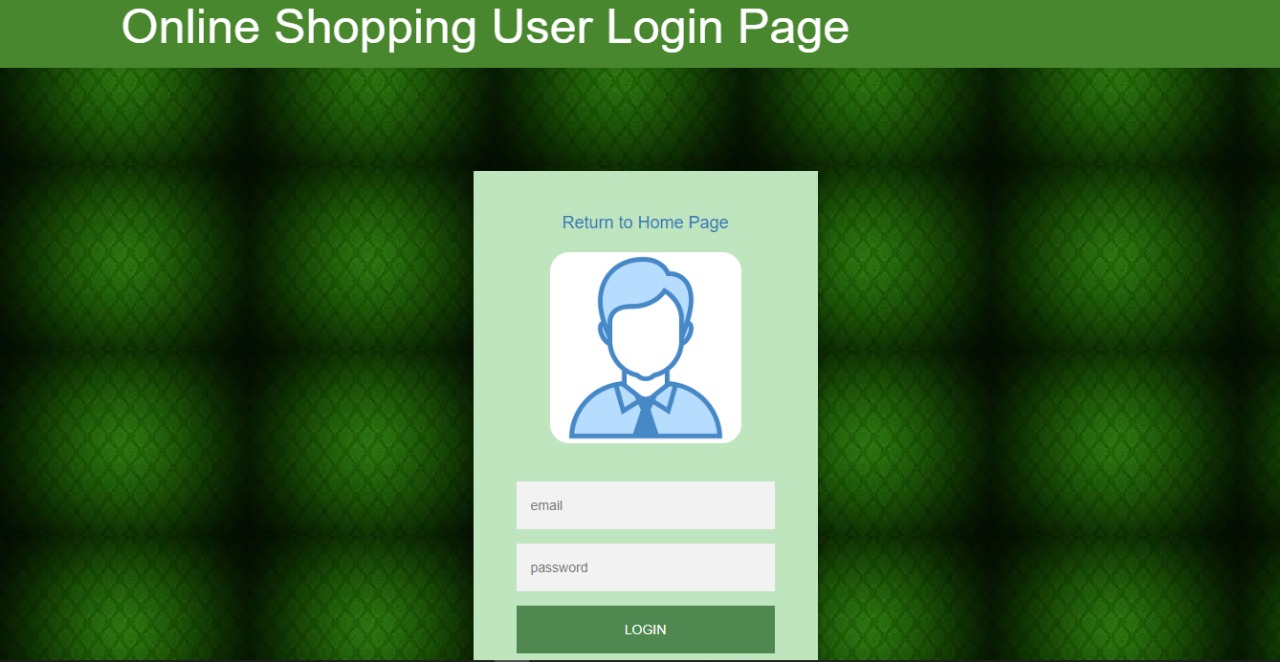
# Chapter -5

## SYSTEM IMPLEMENTATION

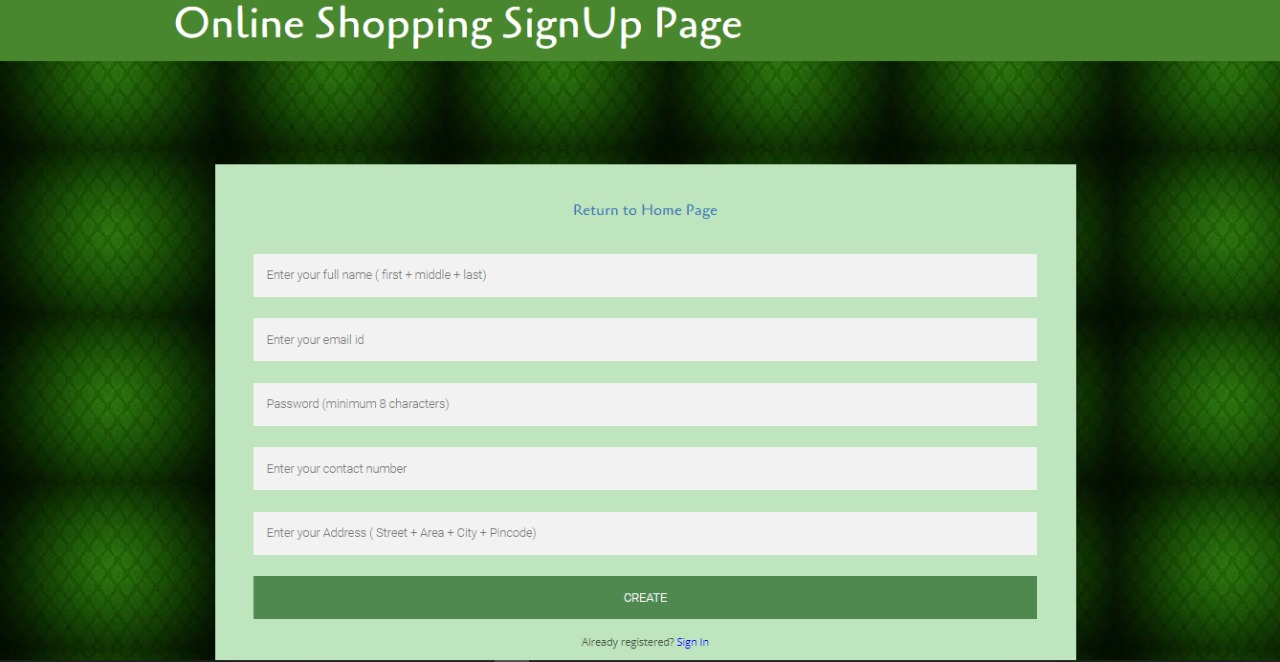
### 5.1 Web Application

It is done by using JAVASCRIPT ,CSS, PHP, React.js, Firebase we use the necessary components to implement this. React.js, Java script , CSS for frontend and PHP, firebase for backend. With these React.js we built pages like Login ,Register, Review page etc...with firebase we store the data and maintain database.

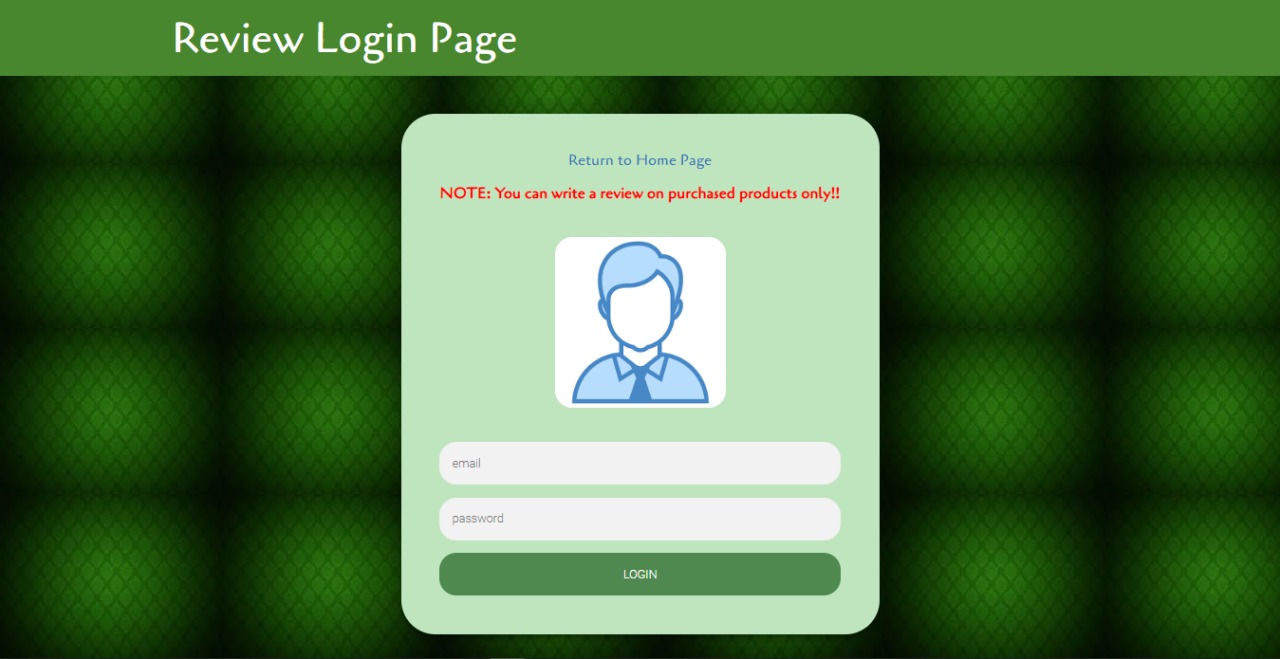
### 5.1.1 Output of Login Page

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### 5.1.2 Output of Register Page

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### 5.1.3 Output of Review Page

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### 5.1.4 Output of Home Page

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### 5.2 Mobile Application

The restriction of requirement of product name in particular product review can be removed though it might be a tough task. The admin has to manually block the IP of the spammer account by identifying its pattern, automatic blocking can also be achieved in the future scope of the system. Apps with fake reviews are on average three times less offered as paid, when compared to the regular apps. Developers may invest their money for buying fake review. So that we need to analyze the monitorization of apps in the fake review data set.

# Chapter-6

## WEB TESTING

### 6.1 INTRODUCTION

.Web Testing, or website testing is checking your web application or website for potential bugs before its made live and is accessible to general public. Web Testing checks for functionality, usability, security, compatibility, performance of the web application or website.

During this stage issues such as that of web application security, the functioning of the site, its access to handle applied as well as regular users and its ability to handle traffic is checked.

### 6.2 TYPES OF TESTS:

#### 6.2.1 Unit testing:

Unit checking out involves the design of scan circumstances that validate that the Internal application good judgment is functioning safely, and that program inputs produce legitimate outputs. All decision branches and interior code float must be validated. It's the checking out of character application items of the application . It is achieved after the completion of an person unit earlier than integration. It is a structural checking out, that relies on competencies of its construction and is invasive. Unit exams participate in common exams at component level and scan a distinct business approach, utility, and/or process configuration. Unit assessments be certain that every specified course of a industry method performs appropriately to the documented requisites and involves clearly outlined inputs and anticipated results.

#### 6.2.2 Integration testing:

Integration Testing are designed to scan built-in program accessories to determine within the occasion that they evidently run as one software. Trying out is occasion driven and is more concerned with the fundamental final result of screens or fields. Integration assessments reveal that despite the fact that the accessories had been for my part pleasure, as proven through effectively unit checking out, the combo of accessories is correct and regular. Integration checking out is chiefly aimed at exposing the issues that come up from the performance of different components.

#### 

#### 6.2.3 Functional testing:

1. Functionality Testing of a Website

Functionality Testing of a Website is a process that includes several testing parameters like user interface, APIs, database testing, security testing, client and server testing and basic website functionalities. Functional testing is very convenient and it allows users to perform both manual and automated testing. It is performed to test the functionalities of each feature on the website.

**Web based Testing Activities includes:**

Test all links in your webpages are working correctly and make sure there are no broken links. Links to be checked will include –

Outgoing links

Internal links

Anchor Links

MailTo Links

Test Forms are working as expected. This will include-

Scripting checks on the form are working as expected. For example- if a user does not fill a mandatory field in a form an error message is shown.

Check default values are being populated

Once submitted, the data in the forms is submitted to a live database or is linked to a working email address

Forms are optimally formatted for better readability

HTML and CSS to ensure that search engines can crawl your site easily. This will include

Checking for Syntax Errors

Readable Colour Schemas

Standard Compliance. Ensure standards such W3C, OASIS, IETF, ISO, ECMA, or WS-I are followed

Test business workflow– This will include

Testing your end – to – end workflow/ business scenarios which takes the user through a series of web pages to complete.

Test negative scenarios as well, such that when a user executes an unexpected step, appropriate error message or help is shown in your web application.

Tools that can be used: QTP , IBM Rational , Selenium

#### 6.2.4 Usability testing:

Usability Testing has now become a vital part of any web based project. It can be carried out by testers like you or a small focus group similar to the target audience of the web application.

**Test the site Navigation:**

Menus, buttons or Links to different pages on your site should be easily visible and consistent on all web pages

**Test the Content:**

Content should be legible with no spelling or grammatical errors.

Images if present should contain an “alt” text

Tools that can be used: Chalkmark, Clicktale, Clixpy and Feedback Army

#### 6.2.5 Interface Testing:

Three areas to be tested here are – Application, Web and Database Server

Application: Test requests are sent correctly to the Database and output at the client side is displayed correctly. Errors if any must be caught by the application and must be only shown to the administrator and not the end user.

Web Server: Test Web server is handling all application requests without any service denial.

Database Server: Make sure queries sent to the database give expected results.

Test system response when connection between the three layers (Application, Web and Database) cannot be established and appropriate message is shown to the end user.

Tools that can be used: AlertFox, Ranorex

#### 6.2.6 Database Testing:

Database is one critical component of your web application and stress must be laid to test it thoroughly. Testing activities will include-

Test if any errors are shown while executing queries

Data Integrity is maintained while creating, updating or deleting data in database.

Check response time of queries and fine tune them if necessary.

Test data retrieved from your database is shown accurately in your web application

Tools that can be used: QTP, Selenium

#### 6.2.7 Compatibility testing:

Compatibility tests ensures that your web application displays correctly across different devices. This would include-

Browser Compatibility Test: Same website in different browsers will display differently. You need to test if your web application is being displayed correctly across browsers, JavaScript, AJAX and authentication is working fine. You may also check for Mobile Browser Compatibility.

The rendering of web elements like buttons, text fields etc. changes with change in Operating System. Make sure your website works fine for various combination of Operating systems such as Windows, Linux, Mac and Browsers such as Firefox, Internet Explorer, Safari etc.

**Tools that can be used**: Net Mechanic

#### 6.2.8 Performance Testing:

This will ensure your site works under all loads. Software Testing activities will include but not limited to –

Website application response times at different connection speeds

Load test your web application to determine its behaviour under normal and peak loads Stress test your web site to determine its break point when pushed to beyond normal loads at peak time.

Test if a crash occurs due to peak load, how does the site recover from such an event Make sure optimization techniques like gzip compression, browser and server side cache enabled to reduce load times

**Tools that can be used**: Loadrunner, JMeter

#### 6.2.9 Security testing:

Security Testing is vital for e-commerce website that store sensitive customer information like credit cards. Testing Activities will include-

Test unauthorized access to secure pages should not be permitted. Restricted files should not be downloadable without appropriate access. Check sessions are automatically killed after prolonged user inactivity. On use of SSL certificates, website should re-direct to encrypted SSL pages.

Tools that can be used: Babel Enterprise, BFBTester and CROSS

#### 6.3.0 Crowd Testing:

You will select executed a select group of people in the company. Crowd sourced testing is an interesting and upcoming concept and helps unravel many a unnoticed defects.

**Tools that can be used**: People like you and me !!!. And yes , loads of them!

This concludes the tutorial. It includes almost all testing types applicable to your web application. As a Web-tester its important to note that web testing is quite an arduous process and you are bound to come across many obstacles. One of the major problems you will face is of course deadline pressure. Everything is always needed yesterday! The number of times the code will need changing is also taxing. Make sure you plan your work and know clearly what is expected of you. Its best define all the tasks involved in your web testing and then create a work chart for accurate estimates and planning.

### 6.3 LEVELS OF TESTING

#### 6.3.1 Unit testing strategy

Unit checking out is most commonly performed as a part of a mixed code and unit experiment part of the software lifecycle, though it be not exceptional for coding and unit checking out to be performed as two targeted phases.

**Test strategy and approach:**

Field testing out can be carried out manually and sensible assessments shall be written in element.

**Test objectives**

* Each field must be work correctly.
* Each page must be activated through the specified link.
* Features to be tested
* Verify that the entries are of the correct format
* No duplicate entries should be allowed

#### 6.3.2 Integration testing strategy

Software integration testing is the incremental integration checking out of two otherwise further included software gears on top of a solo stage to fabricate failure induced with the aid of interface defects. The project of the mixing scan is to check that components or program applications,

e.g. Components in a program approach or œ one step up œ software purposes at the company degree œ interact without error.

**Test Results:**

All of the scan circumstances recounted above passed efficiently. No defects encountered.

#### 6.3.3 Acceptance Testing

User Acceptance testing trying out is a crucial section of any mission and requires enormous participation by the tip user. It additionally ensures that the procedure meets the functional specifications.

**Test Results:**

The entire test cases recounted above passed effectually. No defects Encountered .

# Future Enhancement

Before purchasing anything, it is normal human behaviour to do a survey on that product. Based on reviews, customers can compare different brands and can finalize a product of their interest. These online reviews can change the opinion of a customer about the product. If these reviews are true, then this can help the users to select proper product that satisfy their requirements. On the hand , if the reviews are manipulated or not true then this can mislead user.

# Conclusion

Due to the rapid improvement of the internet, the size of fake and real reviews is increasing. Because of these huge reviews, there is no good review has been identified. Some of the false reviews cause a bad selection of products happens, genuinely missing in that product. This work explains various fake review monitoring system. The genuine reviews on genuine product. And user can be sure about the products availability on that application and review. So we solve the problem of fake reviews using the user name and the password. Our software will help the user to pay for the right product. Our software will do analysis and then if any fake reviews is found from any username. In this way it monitors the fake review made on any product. And user can be sure about the products availability on the application and reviews.

# REFERENCES

* Rastogi, M. Mehrotra, “Opinion spam Detection in Online Reviews”, Journal of information and Knowledge Management, vol. 16, no. 04, pp. 1-38, 2017.
* J. Rout,S. Singh, S. Jena, and S. Bakshi, “Deceptive review detection using labelled and unlabelled data”, Multimedia Tools and Applications,vol.76, no. 3, pp. 3187-3211, 2016.
* S. Banerjee, A. Chua, J. Kim, “Using Supervised Learning to Classify Authentic and Fake Online Reviews ”, Proceeding of the 9th International Conference on Ubiquitous Information Management and Communication”, ACM, 2015.
* <https://ieeexplore.ieee.org/document/8884529>
* <https://ieeexplore.ieee.org/document/9358716>

# APPENDIX

## SOURCE CODE

### Login code

<!DOCTYPE html>

<html>

<head>

<link href="css/bootstrap.css" rel="stylesheet" type="text/css" media="all" />

<link href="css/style.css" rel="stylesheet" type="text/css" media="all" />

<link rel="stylesheet" href="css/ken-burns.css" type="text/css" media="all" />

<link rel="stylesheet" href="css/animate.min.css" type="text/css" media="all" />

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />

<meta name="keywords" content="ONLINE SHOPPING" />

<script type="application/x-javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); } </script>

<script src="js/jquery.min.js"></script>

<script src="js/bootstrap.min.js"></script>

<link href='//fonts.googleapis.com/css?family=Cagliostro' rel='stylesheet' type='text/css'>

<link href='//fonts.googleapis.com/css?family=Open+Sans:400,300,300italic,400italic,600,600italic,700,700italic,800,800italic' rel='stylesheet' type='text/css'>

<style type="text/css">body {

background-image: url(images/background.jpg) ; /\* fallback for old browsers \*/

font-family: "Roboto", sans-serif;

-webkit-font-smoothing: antialiased;

-moz-osx-font-smoothing: grayscale;

}

</style>

</head>

<body>

<div class="header">

<div class="container">

<nav class="navbar navbar-default">

<div class="container-fluid">

<div class="navbar-header">

<div class="navbar-brand">

<h1><a href="">Online Shopping</a></h1>

</div>

</div>

<div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">

<nav class="link-effect-4" id="link-effect-4">

<ul class="nav navbar-nav">

<!--<li><a href="home.html"><span data-hover="Home">Home</span></a></li>-->

<!--<li><a href="sign-up.php"><span data-hover="Register">Register</span></a></li>-->

<li><a href="sign-out.php"><span data-hover="Login">Logout</span></a></li>

</ul>

</nav>

</div>

</div>

</nav>

</div>

</div>

</body>

</html>

### Registration(Log-in)

<?php

session\_start();

?>

<!DOCTYPE html>

<html>

<head>

<title>Online Shopping</title>

<!--css-->

<link href="css/bootstrap.css" rel="stylesheet" type="text/css" media="all" />

<link href="css/style.css" rel="stylesheet" type="text/css" media="all" />

<link rel="stylesheet" href="css/ken-burns.css" type="text/css" media="all" />

<link rel="stylesheet" href="css/animate.min.css" type="text/css" media="all" />

<!--css-->

<style>

@import url(https://fonts.googleapis.com/css?family=Roboto:300);

.login-page {

width: 360px;

padding: 8% 0 0;

margin: auto;

}

.form { position: relative;

z-index: 1;

background: #bee5bd;

max-width: 360px;

margin: 0 auto 100px;

padding: 45px;

text-align: center;

box-shadow: 0 0 20px 0 rgba(0, 0, 0, 0.2), 0 5px 5px 0 rgba(0, 0, 0, 0.24);

}

.form input {

font-family: "Roboto", sans-serif;

outline: 0;

background: #f2f2f2;

width: 100%;

border: 0;

margin: 0 0 15px;

padding: 15px;

box-sizing: border-box;

font-size: 14px;

}

.form button {

font-family: "Roboto", sans-serif;

text-transform: uppercase;

outline: 0;

background: #50894f;

width: 100%;

border: 0;

padding: 15px;

color: #FFFFFF;

font-size: 14px;

-webkit-transition: all 0.3 ease;

transition: all 0.3 ease;

cursor: pointer;

}

.form .imag {

width: 200px;

border-style: ridge;

border-radius: 20px;

}

.form button:hover,.form button:active,.form button:focus {

background: #43A047;

}

.form .message {

margin: 15px 0 0;

color: #435142;

font-size: 12px;

}

.form .message a {

color: #4CAF50;

text-decoration: none;

}

.form .register-form {

display: none;

}

.contain {

position: relative;

z-index: 1;

max-width: 300px;

margin: 0 auto;

}

.contain:before, .contain:after {

content: "";

display: block;

clear: both;

}

.contain .info {

margin: 50px auto;

text-align: center;

}

.contain .info h1 {

margin: 0 0 15px;

padding: 0;

font-size: 36px;

font-weight: 300;

color: #1a1a1a;

}

.contain .info span {

color: #4d4d4d;

font-size: 12px;

}

.contain .info span a {

color: #000000;

text-decoration: none;

}

.contain .info span .fa {

color: #EF3B3A;

}

body {

background-image: url(images/login.jpg) ; /\* fallback for old browsers \*/

font-family: "Roboto", sans-serif;

-webkit-font-smoothing: antialiased;

-moz-osx-font-smoothing: grayscale;

}

</style>

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />

<meta name="keywords" content="ONLINE SHOPPING" />

<script type="application/x-javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); } </script>

<!--js-->

<script src="js/jquery.min.js"></script>

<script src="js/bootstrap.min.js"></script>

<!--js-->

<!--webfonts-->

<link href='//fonts.googleapis.com/css?family=Cagliostro' rel='stylesheet' type='text/css'>

<link href='//fonts.googleapis.com/css?family=Open+Sans:400,300,300italic,400italic,600,600italic,700,700italic,800,800italic' rel='stylesheet' type='text/css'>

<!--webfonts-->

</head>

<body>

<!--header-->

<!--<div class="col-md-12 wel-grid"> -->

<div class="header">

<div class="container">

<nav class="navbar navbar-default">

<div class="container-fluid">

<!---Brand and toggle get grouped for better mobile display-->

<div class="navbar-header">

<div class="navbar-brand">

<h1><a href=""><center>Online Shopping User Login Page</center></a></h1>

</div>

</div>

</div>

</nav>

</div>

</div>

<div class="login-page">

<div class="form">

<a href = "home.html"><h4> Return to Home Page </h4></a><br>

<img class="imag" src = "images/user\_login.png">

<br><br><br>

<form class="login-form" action="user-sign-in.php" method="post">

<input type="text" placeholder="email" name="email"/>

<input type="password" placeholder="password" name="password"/>

<button type="submit" name="submit">login</button>

<p class="message">Not registered? <a href="sign-up.php"><font color='blue'>Create an account</font></a></p>

<br>

</form>

</div>

</div>

</div>

</body>

</html>

<?php

include('footer.php');

?>

### Sign-Up

<!DOCTYPE html>

<html>

<head>

<title>Online Shopping</title>

<!--css-->

<link href="css/bootstrap.css" rel="stylesheet" type="text/css" media="all" />

<link href="css/style.css" rel="stylesheet" type="text/css" media="all" />

<link rel="stylesheet" href="css/ken-burns.css" type="text/css" media="all" />

<link rel="stylesheet" href="css/animate.min.css" type="text/css" media="all" />

<!--css-->

<style>

@import url(https://fonts.googleapis.com/css?family=Roboto:300);

.login-page {

width: 1000px;

padding: 8% 0 0;

margin: auto;

}

.form {

position: relative;

z-index: 1;

background: #bee5bd;

/background-color: transparent;/

max-width: 1160px;

margin: 0 auto 100px;

padding: 45px;

text-align: center;

box-shadow: 0 0 20px 0 rgba(0, 0, 0, 0.2), 0 5px 5px 0 rgba(0, 0, 0, 0.24);

}

.form input {

font-family: "Roboto", sans-serif;

outline: 0;

background: #f2f2f2;

width: 100%;

border: 0;

margin: 0 0 25px;

padding: 15px;

box-sizing: border-box;

font-size: 14px;

}

.form button {

font-family: "Roboto", sans-serif;

text-transform: uppercase;

outline: 0;

background: #50894f;

width: 100%;

border: 0;

padding: 15px;

color: #FFFFFF;

font-size: 14px;

-webkit-transition: all 0.3 ease;

transition: all 0.3 ease;

cursor: pointer;

}

.form button:hover,.form button:active,.form button:focus {

background: #43A047;

}

.form .message {

margin: 15px 0 0;

color: #435142;

font-size: 12px;

}

.form .message a {

color: #4CAF50;

text-decoration: none;

}

.form .register-form {

display: none;

}

.contain {

position: relative;

z-index: 1;

max-width: 300px;

margin: 0 auto;

}

.contain:before, .contain:after {

content: "";

display: block;

clear: both;

}

.contain .info {

margin: 50px auto;

text-align: center;

}

.contain .info h1 {

margin: 0 0 15px;

padding: 0;

font-size: 36px;

font-weight: 300;

color: #1a1a1a;

}

.contain .info span {

color: #4d4d4d;

font-size: 12px;

}

.contain .info span a {

color: #000000;

text-decoration: none;

}

.contain .info span .fa {

color: #EF3B3A;

}

body {

background-image: url(images/login.jpg); /\* fallback for old browsers \*/

font-family: "Roboto", sans-serif;

-webkit-font-smoothing: antialiased;

-moz-osx-font-smoothing: grayscale;

}

</style>

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />

<meta name="keywords" content="ONLINE SHOPPING" />

<script type="application/x-javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); } </script>

<!--js-->

<script src="js/jquery.min.js"></script>

<script src="js/bootstrap.min.js"></script>

<!--js-->

<!--webfonts-->

<link href='//fonts.googleapis.com/css?family=Cagliostro' rel='stylesheet' type='text/css'>

<link href='//fonts.googleapis.com/css?family=Open+Sans:400,300,300italic,400italic,600,600italic,700,700italic,800,800italic' rel='stylesheet' type='text/css'>

<!--webfonts-->

</head>

<body>

<div class="header">

<div class="container">

<nav class="navbar navbar-default">

<div class="container-fluid">

<div class="navbar-header">

<div class="navbar-brand">

<h1><a href=""><center>Online Shopping SignUp Page</center></a></h1>

</div>

</div>

</div>

</nav>

</div>

</div>

<div class="login-page">

<div class="form">

<form class="login-form" action="user-sign-up.php" method="post">

<a href = "home.html"><h4> Return to Home Page </h4></a><br><br>

<input type="text" placeholder="Enter your full name ( first + middle + last)" name="uname"/>

<input type="text" placeholder="Enter your email id" name="email" />

<input type="password" placeholder="Password (minimum 8 characters)" name="password" />

<input type="text" placeholder="Enter your contact number" name="phone" />

<input type="text" placeholder="Enter your Address ( Street + Area + City + Pincode)" name="address" />

<button type="submit" name="submit">create</button>

<p class="message">Already registered? <a href="sign-in.php"><font color='blue'>Sign In</font></a></p>

</form>

<br><br>

</div>

</div>

</div>

</body>

</html>

### Review product

<?php

session\_start();

header("Cache-Control", "no-cache, no-store, must-revalidate");

$login = $\_GET['login'];

$username = "Dummy";

if($login==0)

include("header.php");

if($login==1 && isset($\_SESSION["user"]))

{

$username = $\_SESSION["user"];

include("login\_header.php");

}

$conn = mysqli\_connect("localhost","root","");

mysqli\_select\_db($conn,"ita");

$sql = "select \* from orders where username like '$username' order by pid";

if ($result = $conn->query($sql))

{

}

else

{

echo '<br><font face="verdana" color="blue" size="6"><b>You have not purchased any products to write a review!!<b></font>';

echo '<br><br><img src="images/sad.jpg" height="200px" width="200px" align="center"/><br><br>';

echo '<h2><a href="sign-out.php"><font face="helvetica" color="red">LOGOUT</font></a></h2>';

}

?>

<HTML>

<HEAD>

<TITLE>Review Product</TITLE>

<!--<link href="imageStyles.css" rel="stylesheet" type="text/css" />-->

<style>

div.box {

width: 500px;

height: auto;

border-style: solid;

border-radius: 15px;

border-color: grey;

padding: 20px;

margin: 5px;

background-color: #d6ebd9;

}

div.box img {

width: 200px;

height: 200px;

margin-right: 10px;

-webkit-transition-duration: 0.4s; /\* Safari \*/

transition-duration: 0.5s;

text-align: right;

align-content: right;

align-items: right;

}

div.box img:hover {

transform: scale(1.2);

}

div.box h3 {

text-align: center;

font-family: arial;

padding-top: 20px;

}

div.box h4 {

text-align: center;

font-family: arial;

padding-top: 20px;

}

div.box input {

margin-top: 10px;

margin-bottom: 10px;

background-color: #4CAF50;

-webkit-transition-duration: 0.4s; /\* Safari \*/

transition-duration: 0.4s;

}

div.box input:hover {

background-color: #367477;

color: white;

}

div.box textarea {

width: 420px;

}

.gallery {

width: 200px;

height: 200px;

padding: 35px;

}

body {

background-image: url(images/background1.jpg) ;

text-align: center;

}

</style>

</HEAD>

<body>

<br><br>

<div class="main">

<table align="center">

<?php

$i=0;

if ($result = $conn->query($sql))

{

while($row = mysqli\_fetch\_assoc($result))

{

$pid = $row['pid'];

if($i%2==0){

echo"<tr>";

}

$prod = "select \* from products where pid='$pid'";

$res = mysqli\_query($conn, $prod);

$row1 = mysqli\_fetch\_array($res);

$category = "";

if($pid[0]==1)

$category = "men";

else if($pid[0]==2)

$category = "women";

else if($pid[0]==3)

$category = "books";

else if($pid[0]==4)

$category = "gadgets";

else if($pid[0]==5)

$category = "sports";

$pname = $row['pname'];

$email = $row['email'];

echo"<td><div class = 'box'><img src = 'images/{$category}/{$row1[4]}' alt = '{$row['pid']}'>

<h4><b>{$row['pname']}<b></h4>

<br>

<form action = 'review-submit.php?pid=$pid & pname = $pname & email=$email & username=$username' method = 'post'>

<textarea name='comment' rows='5' cols='40'></textarea><br>

<input type='submit' class='btn btn-primary' align='center' name='submit' value='Submit Review'></input></form></div></td>";

if($i%2==1){

echo"</tr>";

}

$i++;

}

}

?>

</table>

</div>

<br><br><br><br><br><br><br>

</BODY>

</HTML>

<?php

echo "<br>";

include("footer.php");

?>

### Review sign-in

<?php

session\_start();

?>

<!DOCTYPE html>

<html>

<head>

<title>Review Page</title>

<!--css-->

<link href="css/bootstrap.css" rel="stylesheet" type="text/css" media="all" />

<link href="css/style.css" rel="stylesheet" type="text/css" media="all" />

<link rel="stylesheet" href="css/ken-burns.css" type="text/css" media="all" />

<link rel="stylesheet" href="css/animate.min.css" type="text/css" media="all" />

<!--css-->

<style>

@import url(https://fonts.googleapis.com/css?family=Roboto:300);

.login-page {

width: 560px;

padding: 3% 0 0;

margin: auto;

}

.form {

position: relative;

z-index: 1;

background: #bee5bd;

max-width: 560px;

margin: 0 auto 100px;

padding: 45px;

text-align: center;

align-content: center;

align-items: center;

box-shadow: 0 0 20px 0 rgba(0, 0, 0, 0.2), 0 5px 5px 0 rgba(0, 0, 0, 0.24);

border-radius: 40px;

}

.form input {

font-family: "Roboto", sans-serif;

outline: 0;

background: #f2f2f2;

width: 100%;

border: 0;

margin: 0 0 15px;

padding: 15px;

box-sizing: border-box;

font-size: 14px;

border-radius: 20px;

}

.form button {

font-family: "Roboto", sans-serif;

text-transform: uppercase;

outline: 0;

background: #50894f;

width: 100%;

border: 0;

padding: 15px;

color: #FFFFFF;

font-size: 14px;

-webkit-transition: all 0.3 ease;

transition: all 0.3 ease;

cursor: pointer;

border-radius: 20px

}

.form .imag {

width: 200px;

border-style: ridge;

border-radius: 20px;

}

.form button:hover,.form button:active,.form button:focus {

background: #43A047;

}

.form .message {

margin: 15px 0 0;

color: #435142;

font-size: 12px;

}

.form .message a {

color: #4CAF50;

text-decoration: none;

}

.form .register-form {

display: none;

}

.contain {

position: relative;

z-index: 1;

max-width: 300px;

margin: 0 auto;

}

.contain:before, .contain:after {

content: "";

display: block;

clear: both;

}

.contain .info {

margin: 50px auto;

text-align: center;

}

.contain .info h1 {

margin: 0 0 15px;

padding: 0;

font-size: 36px;

font-weight: 300;

color: #1a1a1a;

}

.contain .info span {

color: #4d4d4d;

font-size: 12px;

}

.contain .info span a {

color: #000000;

text-decoration: none;

}

.contain .info span .fa {

color: #EF3B3A;

}

body {

background-image: url(images/login.jpg) ; /\* fallback for old browsers \*/

/\*background: -webkit-linear-gradient(right, #76b852, #8DC26F);

background: -moz-linear-gradient(right, #76b852, #8DC26F);

background: -o-linear-gradient(right, #76b852, #8DC26F);

background: linear-gradient(to left, #76b852, #8DC26F);\*/

font-family: "Roboto", sans-serif;

-webkit-font-smoothing: antialiased;

-moz-osx-font-smoothing: grayscale;

align-items: center;

text-align: center;

align-content: center;

}

</style>

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />

<meta name="keywords" content="ONLINE SHOPPING" />

<script type="application/x-javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); } </script>

<!--js-->

<script src="js/jquery.min.js"></script>

<script src="js/bootstrap.min.js"></script>

<!--js-->

<!--webfonts-->

<link href='//fonts.googleapis.com/css?family=Cagliostro' rel='stylesheet' type='text/css'>

<link href='//fonts.googleapis.com/css?family=Open+Sans:400,300,300italic,400italic,600,600italic,700,700italic,800,800italic' rel='stylesheet' type='text/css'>

<!--webfonts-->

</head>

<body>

<!--header-->

<!--<div class="col-md-12 wel-grid"> -->

<div class="header">

<div class="container">

<nav class="navbar navbar-default">

<div class="container-fluid">

<!---Brand and toggle get grouped for better mobile display-->

<div class="navbar-header">

<div class="navbar-brand">

<h1><a href="home.html"><center>Review Login Page</center></a></h1>

</div>

</div>

</div>

</nav>

</div>

</div>

<div class="login-page">

<div class="form">

<a href = "home.html"><h4> Return to Home Page </a><br><br>

<font color="red"><b>NOTE: You can write a review on purchased products only!!</b></font></h4>

<br><br>

<img class="imag" src = "images/user\_login.png">

<br><br><br>

<form class="login-form" action="review-user-sign-in.php" method="post">

<input type="text" placeholder="email" name="email"/>

<input type="password" placeholder="password" name="password"/>

<button type="submit" name="submit">login</button>

<!--<p class="message">Not registered? <a href="sign-up.php"><font color='blue'>Create an account</font></a></p>-->

<br>

</form>

</div>

</div>

</div>

</body>

</html>

<?php

include('footer.php');

?>

### Review product

<?php

session\_start();

include("login\_header.php");

$conn = mysqli\_connect("localhost","root","");

if (mysqli\_connect\_errno())

{

echo "Failed to connect to MySQL: " . mysqli\_connect\_error();

}

mysqli\_select\_db($conn,"ita");

if(isset($\_POST['submit']))

{

$\_SESSION["user"] = $\_GET['username'];

$username = $\_GET['username'];

$pid = $\_GET['pid'];

//$pname = $\_GET['pname'];

$prod = "select \* from products where pid='$pid'";

$res = mysqli\_query($conn, $prod);

$row1 = mysqli\_fetch\_array($res);

$pname = $row1[2];

$email = $\_GET['email'];

$review = htmlspecialchars($\_POST['comment']);

$ip = "10.100.12.34";

/\*

function get\_client\_ip\_server()

{

$ipaddress = '';

if ($\_SERVER['HTTP\_CLIENT\_IP'])

$ipaddress = $\_SERVER['HTTP\_CLIENT\_IP'];

else if($\_SERVER['HTTP\_X\_FORWARDED\_FOR'])

$ipaddress = $\_SERVER['HTTP\_X\_FORWARDED\_FOR'];

else if($\_SERVER['HTTP\_X\_FORWARDED'])

$ipaddress = $\_SERVER['HTTP\_X\_FORWARDED'];

else if($\_SERVER['HTTP\_FORWARDED\_FOR'])

$ipaddress = $\_SERVER['HTTP\_FORWARDED\_FOR'];

else if($\_SERVER['HTTP\_FORWARDED'])

$ipaddress = $\_SERVER['HTTP\_FORWARDED'];

else if($\_SERVER['REMOTE\_ADDR'])

$ipaddress = $\_SERVER['REMOTE\_ADDR'];

else

$ipaddress = 'UNKNOWN';

return $ipaddress;

}

\*/

function get\_client\_ip\_env()

{

$ipaddress = '';

if (getenv('HTTP\_CLIENT\_IP'))

$ipaddress = getenv('HTTP\_CLIENT\_IP');

else if(getenv('HTTP\_X\_FORWARDED\_FOR'))

$ipaddress = getenv('HTTP\_X\_FORWARDED\_FOR');

else if(getenv('HTTP\_X\_FORWARDED'))

$ipaddress = getenv('HTTP\_X\_FORWARDED');

else if(getenv('HTTP\_FORWARDED\_FOR'))

$ipaddress = getenv('HTTP\_FORWARDED\_FOR');

else if(getenv('HTTP\_FORWARDED'))

$ipaddress = getenv('HTTP\_FORWARDED');

else if(getenv('REMOTE\_ADDR'))

$ipaddress = getenv('REMOTE\_ADDR');

else

$ipaddress = 'UNKNOWN';

return $ipaddress;

}

$ip = get\_client\_ip\_env();

$sql = "insert into reviews (pid, pname, username, email, review, ip) values ('$pid', '$pname', '$username', '$email', '$review', '$ip')";

if (mysqli\_query($conn, $sql))

{

echo "review submitted";

$\_SESSION["user"] = $\_GET['username'];

echo "<script>window.alert('Review submitted successfully!!')</script>";

//window.location.href='review-product.php?login=1 & username={$username}'</script>";

}

else

{

$\_SESSION["user"] = $\_GET['username'];

echo "<script>window.alert('Could not submit review')

windo.location.href='review-product.php?login=1 & username={$username}'</script>";

}

}

?>

### Review user sign-in

<?php

//session\_start();

//header("Cache-Control", "no-cache, no-store, must-revalidate");

$conn = mysqli\_connect("localhost","root","");

if (mysqli\_connect\_errno())

{

echo "Failed to connect to MySQL: " . mysqli\_connect\_error();

}

mysqli\_select\_db($conn,"ita");

$entry = 1;

if(isset($\_POST['submit']))

{

$password=$\_POST["password"];

$email=$\_POST["email"];

$check = "select \* from users where email='$email' and password='$password'";

$res = $conn->query($check);

if (mysqli\_num\_rows($res) > 0)

{

$row = mysqli\_fetch\_assoc($res);

$user = $row['name'];

session\_start();

$\_SESSION["user"] = $user;

echo ("<SCRIPT LANGUAGE='JavaScript'>

window.alert('Welcome {$user}')

window.location.href='review-product.php?login=1'

</SCRIPT>");

}

else

{

echo "<script>window.alert('Invlaid Credentials!!')

window.location.href='review-sign-in.php'</script>";

}

}

?>

### Test code

import sys

import json

x=sys.argv[1]

file = open(x, "r")

contents = file.read()

list1 = [contents]

#print(list1)

#import json

# read the data from disk and split into lines

# we use .strip() to remove the final (empty) line

import json

import pickle

from collections import Counter

from sklearn.feature\_extraction.text import TfidfVectorizer

from datetime import datetime

from sklearn.model\_selection import train\_test\_split

from sklearn.svm import LinearSVC

from sklearn.metrics import accuracy\_score

from sklearn.metrics import classification\_report

from sklearn.feature\_extraction.text import TfidfVectorizer

from nltk.corpus import stopwords

from nltk.tokenize import word\_tokenize

with open("product\_reviews.json") as f:

reviews = f.read().strip().split("\n")

reviews = [json.loads(review) for review in reviews]

texts = [review['reviewText'] for review in reviews]

stars = [review['overall'] for review in reviews]

'''

def balance\_classes(xs, ys):

freqs = Counter(ys)

# the least common class is the maximum number we want for all classes

max\_allowable = freqs.most\_common()[1][1]

num\_added = {clss: 0 for clss in freqs.keys()}

new\_ys = []

new\_xs = []

for i, y in enumerate(ys):

if num\_added[y] < max\_allowable:

new\_ys.append👍

new\_xs.append(xs[i])

num\_added[y] += 1

return new\_xs, new\_ys

print(Counter(stars))

balanced\_x, balanced\_y = balance\_classes(texts, stars)

print(Counter(balanced\_y))

'''

vectorizer = TfidfVectorizer(ngram\_range=(1,2))

print("before fit-transform"+str(datetime.now()))

vectors = vectorizer.fit\_transform(texts)

print("after fit-transform"+str(datetime.now()))

stop\_words = set(stopwords.words('english'))

print("without removing stopwords")

vec1 = vectorizer.transform(list1)

with open('myClassifier.pkl', 'rb') as fid:

loaded\_classifier = pickle.load(fid)

mypred = loaded\_classifier.predict(vec1)

#print(vec1)

print(mypred)

#print(x)

#print👍

#return x

#y=x+" "+"world"

#print👍

#return json.dumps👍