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# **TIAA - INTERNAL CLASSIFIEDS**

## **PrepUp Project Report**

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# **CHAPTER NO. 1**

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## ***Introduction***

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### **1.1 Problem Definition**

Internal Classifieds is a web based portal that provides an easy way to sell products to a large customer base online. It must be available to audience wanting to sell or purchase products from another user, where the goods may be new, refurbished or pre-owned such as cars, furniture, electronics, etc. Being a web-based project, this application should be able to provide options for users to post, browse, buy and sell various products. It should also allow users to post their products in various categories. There should be an option to ask questions and reply should be given by product owner who posted a particular ad. There should be an admin user to approve/reject any posting on the portal. It must have a responsive UI design and should be a scalable solution.

### **1.2 Scope**

The scope of our project can be defined within the boundaries or features mentioned underneath:

- Admin should be able to approve/reject any posting.
- Admin should also be able to manage listings on portal to remove posts.
- User must be allowed to block comments on particular postings.
- Users should be able to list products, uploading images, details about product.
- All posts should go through approval process.
- There should be mail alerts on approval/rejection of any posting.
- There should be option to bookmark/favorite any posting for users browsing the catalogue.
- All products should be categorized.
- User must have an option to buy and sell various products.
- User must be able to view their past wins or purchases.
- Users should have option to hide/show/close the posting.

- Users must be able to quote a price on any product.
- Search Feature based Results must be available to the user.
- Chatbot for Customer Support.
- Sentimental Analysis on Comments for analysis.
- User should be able to view their own postings.
- User should have an option to ask question on postings and an email should be sent to the user who has listed the posting.

## 1.3 Technologies Used

- **Bootstrap:** Bootstrap libraries were used as they include free and open-source CSS framework directed at creating responsive, mobile-first front-end web development.
- **HTML & CSS:** HTML and CSS was used to design front-end templates for typography, forms, buttons, navigation, and other interface components.
- **Python:** Python and its libraries were used for back-end implementation.
- **SQLite:** SQLite database was used to store the data generated and required by the system.
- **Django:** Django is a Python-based free and open-source web framework that follows the model-template-views (MVT) architectural pattern used as a base framework for development.
- **NLP:** NLP or Natural Language Processing was used in the Sentimental Analysis to review and analyse user comments.

## 1.4 Utilities Required

### 1.4.1 Client (End User)

#### 1.4.1.1 Hardware Requirements

- **RAM:** 4GB and above
- **Secondary Storage:** 15-20% of Disk Space Available
- **Graphic Card:** Not Applicable
- **CPU:** 2 x 64-bit 2.8 GHz 8.00 GT/s CPUs
- **Processor:** Any modern 64-bit AMD64/x86-64 or 32-bit x86 processor
- **Device:** Any modern display. 1280 × 1024 or higher resolution is recommended

### **1.4.1.2 Software Requirements**

- **Web Browser:** Mozilla Firefox 87+ (recommended) / Google Chrome 89+ / Opera 75+ / Microsoft Edge 89+
- **Operating System:** Windows 7/8/10 (recommended) / Mac OS 10+ / any Linux Distribution (Ubuntu, Fedora, etc.)
- **Internet Connection:** Required when application hosted

## **1.4.2 Developer**

### **1.4.2.1 Hardware Requirements**

- **RAM:** 8GB and above (recommended) / 4GB (minimum)
- **Secondary Storage:** 15-20% of Disk Space Available
- **Graphic Card:** Not Applicable
- **CPU:** 2 x 64-bit 2.8 GHz 8.00 GT/s CPUs
- **Processor:** Any modern 64-bit AMD64/x86-64 or 32-bit x86 processor
- **Device:** Any modern display. 1280 × 1024 or higher resolution is recommended

### **1.4.2.2 Software Requirements**

- **Web Browser:** Mozilla Firefox 87+ (Used for Development) / Google Chrome 89+ / Opera 75+ / Microsoft Edge 89+
- **Operating System:** Windows 7/8/10 (Used for Development) / Mac OS 10+ / any Linux Distribution (Ubuntu, Fedora, etc.)
- **Internet Connection:** Required for Development and after hosting
- **Python:** version 3.8.3 (in use) and above
  - Download Link: <https://www.python.org/downloads/release/python-383/>
  - Installation Guide: <https://docs.python.org/3/using/windows.html>
- **Django:** version 3.0.8 (in use) and above
  - Download Link: <https://www.djangoproject.com/download/>
  - Installation Guide: <https://docs.djangoproject.com/en/3.2/howto/windows/>

## **CHAPTER NO. 2**

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### ***Software Project Management Plan***

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## **2.1 Introduction**

### **2.1.1 Project Overview**

Internal Classifieds is a web based portal that provides an easy way to sell products to a large customer base online. It must be available to audience wanting to sell or purchase products from another user, where the goods may be new, refurbished or pre-owned such as cars, furniture, electronics, etc. Being a web-based project, this application should be able to provide options for users to post, browse, buy and sell various products. It should also allow users to post their products in various categories. There should be an option to ask questions and reply should be given by product owner who posted a particular ad. There should be an admin user to approve/reject any posting on the portal. It must have a responsive UI design and should be a scalable solution.

The purpose of this document is to present a detailed description of the Application. It will explain the purpose and features of the system along with its interfaces, the constraints under which it must operate and how the system will react to external stimuli. The application works on web based platforms on various OS and is to be created using Django Framework, Python and a few supporting technologies. This document is mainly for both developers and project manager to determine the procedure in the creation of further phases of the application and determine a road map or work flow for the same.

### **2.1.2 Project Deliverables**

Projects create deliverables, which are simply the results of the project or the processes in the project. That means a deliverable can be something as big as the objective of the project itself or the reporting that is part of the larger project.

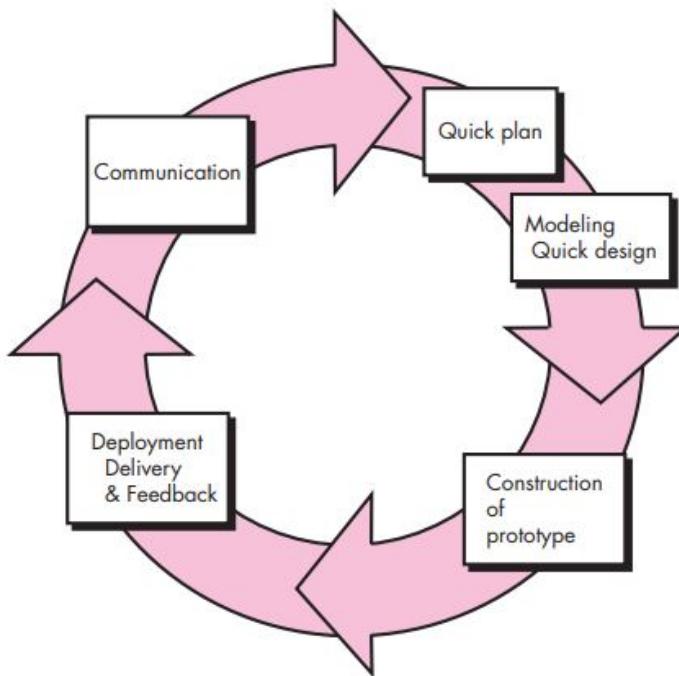
- Requirement gathering & Analysis : Preliminary Project Plan, Software Requirement Specifications (SRS), Technical Requirement Specifications documents are created which serves as the input for next phase.
- Design : UML Diagrams, System Architecture, Detailed Design Specifications (DDS) are created which serves as the input for next phase.
- Implementation and Coding : Working software which serves as the input for the next phase.

- Testing : Test Summary Report, Test results, QA plan, Revised bugs list, User Acceptance test are submitted which serves as the input for the next phase.
- Deployment : Deployed software, reviews and Data which serves as the input for the next phase.
- Documentation : An user guide and manual with the working procedure of the application along with supporting documents.

## 2.2 Project Organization

### 2.2.1 Software Process Model

We have selected Prototyping Process Model for this Application. Prototype methodology is defined as a Software Development model in which a prototype is built, tested, and then reworked when needed until an acceptable prototype is achieved. It also creates a base to produce the final system. Our Application is a simple working system implementing only a few basic features when built and then is deliverable to the customer. Then, thereafter, many successive versions or prototypes can be created and delivered to the customer until the desired prototype is derived. Software prototyping model works best in this scenario as the project's requirement may vary according to additional needs of the client. It is an iterative, trial, and error method which take place between the developer and the client to achieve the best possible results for the given problem definition.



**Figure 2.1:** Prototyping Model

## **2.2.2 Roles and Responsibilities**

- Project Manager - Prem Mody, Praneeta Desai
  - Description - Project Manager is responsible for the timely execution and completion of the project. They will work with all the group members and will see that every group member is performing his/her task. They can schedule group meetings to look over the development of the project.
- Developer - Prem Mody, Praneeta Desai
  - Description - Developer will code for applications and programs for backend processing systems to build a working project as proposed by the manager and team. Once the core of the software is developed, the software is passed on to the next Team member that is to the Tester.
- Designer - Prem Mody, Praneeta Desai
  - Description - Designer deals with the look and feel of the software. Designer's task will be to work hand-in-hand with the developer and help him with creative styling ideas, improving frameworks to make the project more user-friendly.
- Tester - Prem Mody, Praneeta Desai
  - Description - Tester's role will be to perform checks on the services provided by the software, to see if they are functioning properly or are bugged for a given condition.
- Analyst - Prem Mody, Praneeta Desai
  - Description - Project analyst is responsible for managing the development of project through special research, data analysis, and data collection to facilitate strategic decision-making.

## **2.2.3 Tools and Techniques**

For the development of the product following tools will be used.

- The front-end of the web application is developed using HTML / Bootstrap CSS framework.
- Django framework following the model-template-views architectural pattern is used as base for the application.
- Python is used for back-end development.
- SQLite will be used as the database for storage of application data.
- Visual Studio IDE / Pycharm / Sublime Text will be used for developing the application.

## 2.3 Project Management Plan

### 2.3.1 Tasks

#### 2.3.1.1 Requirement Gathering and Analysis

**Description** Requirement Analysis would be done to know the exact expectations of the client from the product. The functionalities and working of the product would also be clear by doing sufficient and effective requirement analysis.

**Deliverable and Milestones** Final Version of SRS and SPMP

**Resources Needed** For effective requirements analysis, multiple meetings would have to be conducted with the stakeholders. Brainstorming sessions of Joint discussions must be organised for effective communication and information gathering.

#### Dependencies and Constraints

- Project Scope - involves the specific goals, deliverables and tasks that define the boundaries of the project.
- Project Schedule - specifies the timeline according to which those components will be delivered.
- Cost - involves the financial limitation of resources.
- Client Dependency - Timings for the meetings must be considered according to the clients comfort.

#### Risks and Contingencies

- Scope is ill defined - The general risk of an error or omission in scope definition.
- Unrealistic Schedule.
- Cost forecasts are inaccurate - Inaccurate cost estimates and forecasts.

#### 2.3.1.2 Design

**Description** In this task, we focus on developing the UI Designing which plays an important part in how the user will be interacting with the product software and also designing the UML diagrams which defines how the product will be created to capture the system's functionality and requirements along with its dynamic behaviour.

#### Deliverable and Milestones

- User Interface Designs
- UML Diagrams
- Final Version of SDD

**Resources Needed** Star UML is required for designing the UML Diagrams and Bootstrap / HTML is required for designing the UI.

### Dependencies and Constraints

- Clear, complete, unambiguous understanding of requirement.
- Complete UML structure.

### Risks and Contingencies

- Unclear Requirements - Leads to erroneous codes.
- Gold Plating - Adding extra functionalities to the system which is not originally defined in the project scope.

#### 2.3.1.3 Implementation

**Description** Coding is the third phase of software development. Detailed design specifications are used as the input by developers to build the software product. The main focus of this phase is development. Entire design will be broken into modules and developers will work on individual modules, then they will integrate the separate modules into one system finally.

**Deliverable and Milestones** Final prototype of the working modules.

**Resources Needed** Visual Studio IDE / Pycharm /Sublime Text

### Dependencies and Constraints

- Proper Choice of Programming Language
- Feasible Project Scope

### Risks and Contingencies

- Insufficient resources
- Unclear Project Scope
- Complicated Design

#### 2.3.1.4 Testing

**Description** Once the design and final software is developed, the application goes for testing. Testing is based on different criteria related to efficiency, bugs, performance, response time, correct functionality, etc.

**Deliverable and Milestones** Final Version of STD

**Resources Needed** Web Testing Framework and Tools

## **Dependencies and Constraints**

- Proper knowledge of using the testing tool.

## **Risks and Contingencies**

- Unavailability of test environment.
- Delay in fixing defects by development team.
- Major changes in the SRS which invalidates the test cases and requires changes in the test case.

### **2.3.1.5 Deployment**

**Description** The deployment phase is the final phase of the software development life cycle (SDLC). After the project team tests the product and the product passes each testing phase, the product is ready to be deployed.

**Deliverable and Milestones** Ready and tested Modules

**Resources Needed** Free/Shared hosting service

## **Dependencies and Constraints**

- Nominal cost of hosting service.
- All the requirements are user friendly.

## **Risks and Contingencies**

- Procedures to deploy the project fails.
- The changes need to be backed out.

### **2.3.2 Assignments**

Task 1 - Requirement Analysis - Prem, Praneeta

Task 2 - Software Requirement Specification - Prem

Task 3 - Software Project Management Plan - Prem

Task 4 - Designing - Prem, Praneeta

Task 5 - Coding - Prem, Praneeta

Sub-task 1 - UI Design - Prem, Praneeta

Sub-task 2 - Chatbot - Praneeta

Sub-task 3 - Sentiment Analysis - Prem

Sub-task 4 - Admin Panel - Prem, Praneeta

Sub-task 5 - Backend Development - Prem, Praneeta

Task 6 - Testing - Praneeta

Task 7 - Analysis - Praneeta

## **CHAPTER NO. 3**

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### ***Software Requirements Specification***

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## **3.1 Introduction**

### **3.1.1 Product Overview**

Internal Classifieds is a web based portal that provides an easy way to sell products to a large customer base online. It must be available to audience wanting to sell or purchase products from another user, where the goods may be new, refurbished or pre-owned such as cars, furniture, electronics, etc. Being a web-based project, this application should be able to provide options for users to post, browse, buy and sell various products. It should also allow users to post their products in various categories. There should be an option to ask questions and reply should be given by product owner who posted a particular ad. There should be an admin user to approve/reject any posting on the portal. It must have a responsive UI design and should be a scalable solution.

The purpose of this SRS document is to provide a detailed overview of our software application, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. The application works on web based platforms on various OS and is to be created using Django Framework, Python and a few supporting technologies. SRS document is created to list the intended audience and provides suggestions for the same. This document is mainly for both developers and project manager to determine the procedure in the creation of further phases of the application and determine a road map or work flow for the same.

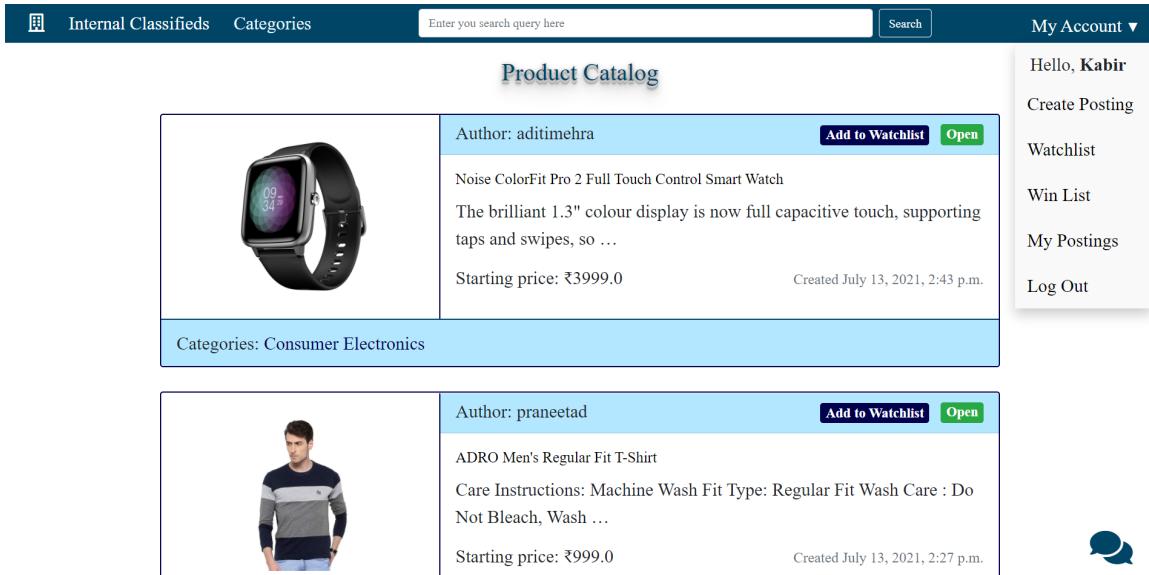
## **3.2 Specific Requirements**

This section of the SRS contains all of the requirements sufficient to enable the developer and project manager to understand and check the original system requirements. It also enables the designer to design a system to satisfy those requirements, and tester to test that the system satisfies those requirements. Throughout this section, every stated requirement should be externally perceivable by users, or other external systems. This ensures that all features are testable. The basic requirements of this project is to gather all the useful information needed and use the data acquired from the system can be used to generate reports and provide insights for improvement.

### 3.2.1 External Interface Requirements

#### 3.2.1.1 User Interfaces

The First Screen of the Application shows login interface for the user (visitor and logged in) and administrator. According to the user type, next dashboard is loaded and functionalities are provided.



**Figure 3.1:** Internal Classifieds - Customer Dashboard

**The customer module includes various sub-modules described underneath:**

- **Chatbot**

Customers can engage with the chatbot that will guide and provide information to them. He can also enquire regarding various buyer FAQs, seller FAQs, general FAQs, etc.

- **Postings**

Customers can post, browse, buy and sell various products through our portal. The listing ad creator can choose to block comments on their postings.

- **Product Categorization**

It allows customers to post their products in various categories.

- **Mail Alerts**

Customers must receive mail alerts on approval/rejection of their postings. Also, an email should be sent to the user who has listed the posting when any comment or question is posted on their ad.

- **Hide / Show / Close a Posting**

Customers can hide/show/close their product's listing through our portal.

- **Search Product**

Customers can search for products through our portal.

- **Bookmark a Posting**

Customers can bookmark their favourite products on our portal through the catalogue.

- **Win List**

All the bidding winners receive the notification of the won bets or purchases in their win list section.

- **Sentiment Analysis**

All the user posted comments, go through sentiment analyser for better review and updation of product details.

- **My Postings**

User should be able to view their own postings.

The screenshot shows the Admin Dashboard of the Internal Classifieds portal. At the top, there is a navigation bar with links for 'Internal Classifieds', 'Categories', a search bar, and a 'My Account' dropdown. The main area is titled 'Product Catalog' and displays two product listings:

- Smartwatch Listing:** Author: aditimehra. Product: Noise ColorFit Pro 2 Full Touch Control Smart Watch. Description: The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ... Starting price: ₹3999.0. Created: July 13, 2021, 2:43 p.m. Actions: Add to Watchlist (blue button), Open (green button).
- T-Shirt Listing:** Author: praneetad. Product: ADRO Men's Regular Fit T-Shirt. Description: Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ... Starting price: ₹999.0. Created: July 13, 2021, 2:27 p.m. Actions: Remove from Watchlist (red button), Open (green button).

A sidebar on the right contains a 'Watchlist' section with a count of 1, and other links: 'Hello, Prem', 'Create Posting', 'Approvals (Pending)', 'Delete Postings', 'Watchlist (1)', 'Win List', 'My Postings', and 'Log Out'. A blue speech bubble icon is located at the bottom right.

**Figure 3.2:** Internal Classifieds - Admin Dashboard

**The Administrator module includes various sub-modules described underneath:**

- **Chatbot**

Customers can engage with the chatbot that will guide and provide information to them. He can also enquire regarding various buyer FAQs, seller FAQs, general FAQs, etc.

- **Postings**

Customers can post, browse, buy and sell various products through our portal. The listing ad creator can choose to block comments on their postings.

- **Product Categorization**

It allows customers to post their products in various categories.

- **Approval Management**

All the posts created by a customer goes through an admin approval process.

- **Inventory Management**

All the posts created by a customer have admin deletion rights.

- **Mail Alerts**

Customers must receive mail alerts on approval/rejection of their postings. Also, an email should be sent to the user who has listed the posting when any comment or question is posted on their ad.

- **Hide / Show / Close a Posting**

Customers can hide/show/close their product's listing through our portal.

- **Search Product**

Customers can search for products though our portal.

- **Bookmark a Posting**

Customers can bookmark their favourite products on our portal through the catalogue.

- **Win List**

All the bidding winners receive the notification of the won bets or purchases in their win list section.

- **Sentiment Analysis**

All the user posted comments, go through sentiment analyser for better review and updation of product details.

- **My Postings**

User should be able to view their own postings.

- **Admin Panel**

The Administrator should be able to approve/reject any posting. He/ She should also be able to manage listings on portal to remove posts/block comments on particular postings.

This section gives a slight idea of all the aspects of optimizing the interface according to the user who must use the system. This simply comprises a list of functionalities on how the system will appear to the user.

### **3.2.1.2 Software Interfaces**

The software interface follows the Model-View-Template (MVT) model for rendering and modeling data objects. The chosen operating system is Windows for its best support and user-friendliness. The interface must be able to connect to a database to store records of students, faculty, and various other data entities. The interface is to be created using Django Framework, Python and a few supporting technologies.

### **3.2.1.3 Communications Protocols**

This project supports all types of web browsers. Communication requires the Internet Protocol (IPv4) and it will follow HTTP.

### **3.2.2 Software Product Features**

- Customers can engage with the chatbot that will guide and provide information to them as customer support.
- User must have an option to buy and sell various products.
- All products should be categorized.
- User should have an option to ask question on postings and an email should be sent to the user who has listed the posting.
- There should be mail alerts on approval/rejection of any posting.
- Users should have option to hide/show/close the posting.
- Search Feature based Results must be available to the user.
- User should be able to view their own postings.
- There should be option to bookmark/favorite any posting for users browsing the catalogue.
- User must be able to view their past wins or purchases.
- Users must be able to quote a price on any product.
- Sentimental Analysis on Comments for review and updation of postings.
- User must be allowed to block comments on particular postings.
- Admin should be able to approve/reject any posting.
- All posts should go through approval process.
- Admin should also be able to manage listings on portal to remove posts.
- Users should be able to list products, uploading images, details about product.

#### **3.2.2.1 Functional Requirements**

- **Customer:**

The functionality of the module is divided into further sub-modules namely:

1. Chatbot
2. Postings
3. Product Categorization
4. Mail Alerts

5. Hide / Show / Close a Posting
6. Search Product
7. Bookmark a Posting
8. Win List
9. Sentiment Analysis
10. My Postings

- **Admin:**

The functionality of the module is divided into further sub-modules namely:

1. Chatbot
2. Postings
3. Product Categorization
4. Mail Alerts
5. Hide / Show / Close a Posting
6. Search Product
7. Bookmark a Posting
8. Win List
9. Sentiment Analysis
10. Inventory Management
11. Admin Panel
12. Approval Management
13. My Postings

### **3.2.3 Software System Attributes (Non - Functional Requirements)**

#### **3.2.3.1 Availability**

The application must provide an all round availability so that the users can maintain and track the information on a regular basis.

#### **3.2.3.2 Correctness**

The information must be correct to generate accurate reports to provide insights for improvement.

#### **3.2.3.3 Performance**

The system should be able to generate the correct and corresponding output according to given input data.

#### **3.2.3.4 Integrity**

Maintenance and assurance of accuracy and consistency of the data resulting in most precise reports and analysis.

## **CHAPTER NO. 4**

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### ***Software Design Description***

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#### **4.1 Introduction**

##### **4.1.1 Design Overview**

Internal Classifieds is a web based portal that provides an easy way to sell products to a large customer base online. It must be available to audience wanting to sell or purchase products from another user, where the goods may be new, refurbished or pre-owned such as cars, furniture, electronics, etc. Being a web-based project, this application should be able to provide options for users to post, browse, buy and sell various products. It should also allow users to post their products in various categories. There should be an option to ask questions and reply should be given by product owner who posted a particular ad. There should be an admin user to approve/reject any posting on the portal. It must have a responsive UI design and should be a scalable solution.

##### **4.1.2 Requirement Traceability Matrix**

Features / Modules	User	Authentication	Database
Login	Y	Y	Y
Product Catalog	Y		Y
Search Results	Y		Y
Product Categorization	Y	Y	Y
Posting Creation	Y	Y	Y
Admin Approval for Posting	Y	Y	Y
Admin Post Removal	Y	Y	Y
Mail Alerts	Y	Y	Y
Product Bookmarking	Y	Y	Y
Win List	Y	Y	Y
My Postings	Y	Y	Y
Show / Hide / Close Postings	Y	Y	Y
Chatbot for Customer Support	Y		
Sentimental Analysis for User Comments	Y	Y	Y

**Table 4.1:** Requirement Traceability Matrix

## 4.2 System Architectural Design

### 4.2.1 Chosen System Architecture

The chosen system architecture for this project is MVT. MVT is a software design pattern for developing a web application. MVT Structure consists of three parts namely Model, View and Template. Model acts as the interface of the data. It is responsible for maintaining data. It is the logical data structure behind the entire application and is represented by a database (generally relational databases such as MySQL, PostgresSQL). The View is the user interface what we see in our browser when we render a website. It is represented by HTML/CSS/Javascript and Jinja files. A template consists of static parts of the desired HTML output as well as some special syntax describing how dynamic content will be inserted.

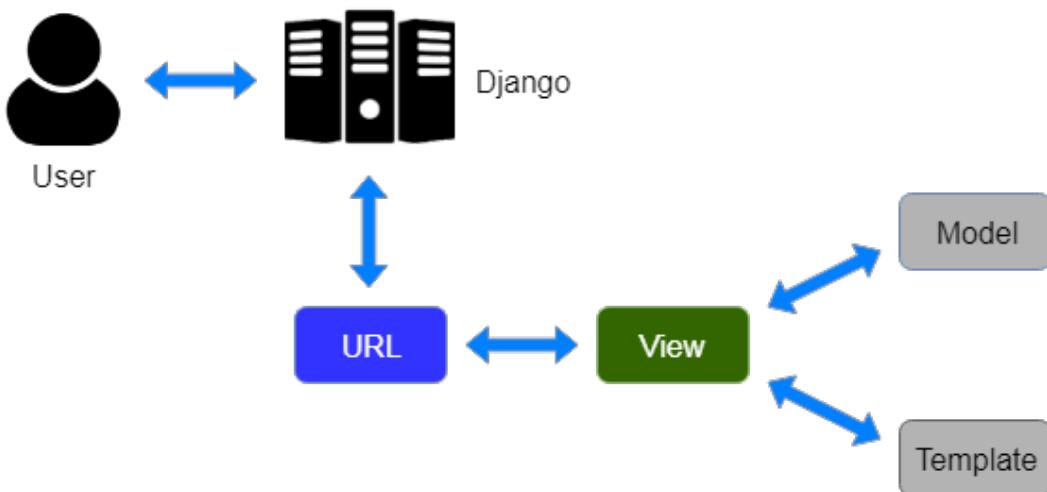


Figure 4.1: Model View Template (MVT)

### 4.2.2 Discussion Of Alternate Design

The alternative options were Layered Architecture, Data-flow Architecture, Client Server Architecture, Data-centred Architecture and MVC Architecture.

Layered architecture is used at system level. Its used in any type of editors like Notepad, Sublime Text, etc.

Data-flow architecture is for android based projects. It is suitable for applications that involve a well-defined series of independent data transformations on orderly defined input and output such as compilers and business data processing applications.

Because of being more vulnerable to failure and data replication or duplication, Data-centred architecture was not preferred.

In client server architecture, if any part of the network fails a lot of disruption can occur. Also, the server can get too expensive to purchase. Therefore even this architecture was not suitable for our project.

MVC is a software design pattern that is used to implement user interfaces and gives emphasis on separating data representation from the components which interact and process the data, similar to MVT but latter is more efficient for Django Framework.

### **4.2.3 System Interface Description**

#### **4.2.3.1 User Interface**

The First Screen of the Application shows login interface for the user. According to the user type, next dashboard is loaded and functionalities are provided. Each module has its own specific sub-modules providing various different functionalities.

#### **4.2.3.2 Software Interface**

The software interface follows the Model-View-Template (MVT) model for rendering and modeling data objects. The chosen operating system is Windows for its best support and user-friendliness. The interface must be able to connect to a database to store records of students, faculty, and various other data entities. The interface is to be created using Django Framework, Python and a few supporting technologies.

## **4.3 Detailed Description of Components**

### **4.3.1 Component 1: User**

<b>Responsibility</b>	To access their respective dashboards and functionalities
<b>Constraints</b>	Access rights restriction depending on type of user
<b>Composition</b>	Internet, access to application with valid credentials
<b>Interactions</b>	User is granted access

**Table 4.2:** Component 1: User

### **4.3.2 Component 2: Authentication**

<b>Responsibility</b>	Authorize the authenticity of the user having valid credentials
<b>Constraints</b>	User must enter valid input
<b>Composition</b>	Internet, access to application with valid credentials
<b>Interactions</b>	Authorized access to application is provided

**Table 4.3:** Component 2: Authentication

### 4.3.3 Component 3: Database

Responsibility	User authentication and storage of user data security
Constraints	Enforce proper data type values
Composition	SQLite and server side scripting language such as Python
Interactions	It interacts with the system for user data

Table 4.4: Component 3: Database

## 4.4 User Interface Design

### 4.4.1 Description of User Interface

#### 4.4.1.1 Screen Images

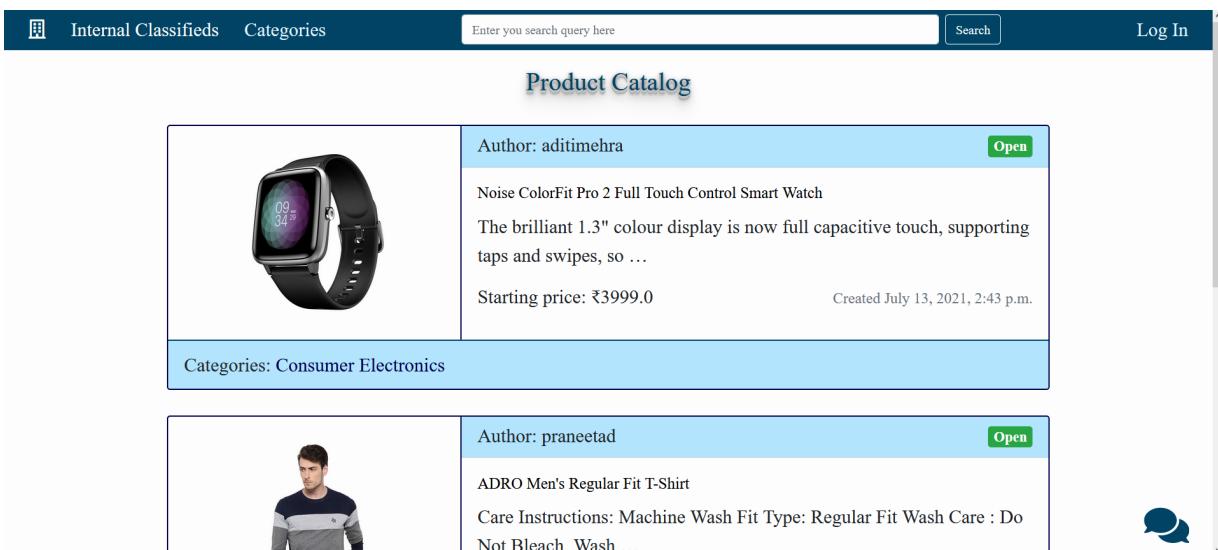


Figure 4.2: Internal Classifieds - Visitor View

The First Screen of the application shows the portal as it is visible for the non-logged in users (visitors). The visitors can view the ads listed in the catalogue but can't access any other features. For using the features such as bookmarking, quotations, post creation, etc, they need to register and login to the portal by creating a user account. After login, according to the user type, next dashboard is loaded and functionalities are provided to the logged-in users.

The screenshot shows a web-based internal classifieds platform. At the top, there is a header with links for "Internal Classifieds" and "Categories", a search bar with placeholder text "Enter your search query here", and a "Search" button. To the right of the search bar is a "My Account" dropdown menu with options: "Hello, Aditi", "Create Posting", "Watchlist", "Win List", "My Postings", and "Log Out". Below the header, the main content area is titled "Product Catalog". It displays two product listings. The first listing is for a "Noise ColorFit Pro 2 Full Touch Control Smart Watch", showing an image of the watch, the author "aditimehra", and a brief description: "The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ...". It also shows the starting price of ₹3999.0 and the creation date of "Created July 13, 2021, 2:43 p.m.". The second listing is for an "ADRO Men's Regular Fit T-Shirt", showing an image of a person wearing the shirt, the author "praneetad", and a brief description: "Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...". Both listings have "Add to Watchlist" and "Open" buttons. Below the first listing, it says "Categories: Consumer Electronics". On the right side of the page, there is a small icon of a speech bubble.

**Figure 4.3:** Internal Classifieds - Customer View

**The customer view provides various functionalities such as:**

- **Chatbot**

Customers can engage with the chatbot that will guide and provide information to them. He can also enquire regarding various buyer FAQs, seller FAQs, general FAQs, etc.

- **Postings**

Customers can post, browse, buy and sell various products through our portal. The listing ad creator can choose to block comments on their postings.

- **Product Categorization**

It allows customers to post their products in various categories.

- **Mail Alerts**

Customers must receive mail alerts on approval/rejection of their postings. Also, an email should be sent to the user who has listed the posting when any comment or question is posted on their ad.

- **Hide / Show / Close a Posting**

Customers can hide/show/close their product's listing through our portal.

- **Search Product**

Customers can search for products through our portal.

- **Bookmark a Posting**

Customers can bookmark their favourite products on our portal through the catalogue.

- **Win List**

All the bidding winners receive the notification of the won bets or purchases in their win list section.

- **Sentiment Analysis**

All the user posted comments, go through sentiment analyser for better review and updation of product details.

- **My Postings**

User should be able to view their own postings.

Product Catalog	
	Author: aditimehra <b>Noise ColorFit Pro 2 Full Touch Control Smart Watch</b> The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ... Starting price: ₹3999.0 <small>Created July 13, 2021, 2:43 p.m.</small>
Categories: Consumer Electronics	
	Author: praneetad <b>ADRO Men's Regular Fit T-Shirt</b> Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...

**Figure 4.4:** Internal Classifieds - Admin View

**The admin view provides various functionalities such as:**

- **Chatbot**

Customers can engage with the chatbot that will guide and provide information to them. He can also enquire regarding various buyer FAQs, seller FAQs, general FAQs, etc.

- **Postings**

Customers can post, browse, buy and sell various products through our portal. The listing ad creator can choose to block comments on their postings.

- **Product Categorization**

It allows customers to post their products in various categories.

- **Approval Management**

All the posts created by a customer goes through an admin approval process.

- **Inventory Management**

All the posts created by a customer have admin deletion rights.

- **Mail Alerts**

Customers must receive mail alerts on approval/rejection of their postings. Also, an email should be sent to the user who has listed the posting when any comment or question is posted on their ad.

- **Hide / Show / Close a Posting**

Customers can hide/show/close their product's listing through our portal.

- **Search Product**

Customers can search for products though our portal.

- **Bookmark a Posting**

Customers can bookmark their favourite products on our portal through the catalogue.

- **Win List**

All the bidding winners receive the notification of the won bets or purchases in their win list section.

- **Sentiment Analysis**

All the user posted comments, go through sentiment analyser for better review and updation of product details.

- **My Postings**

User should be able to view their own postings.

- **Admin Panel**

The Administrator should be able to approve/reject any posting. He/ She should also be able to manage listings on portal to remove posts/block comments on particular postings.

#### **4.4.1.2 Objects and Actions**

- **Register:** User can create account by entering their details for accessing various functionalities provided by the portal.

- **Login/Logout:** Users can Login/Logout of the system using their credentials with respect to their roles (Admin or Customer).

- **Dashboard:** According to the user type, the next dashboard is loaded and functionalities are provided to the users.

- **Customer**

- Chatbot
- Postings
- Product Categorization
- Mail Alerts
- Hide / Show / Close a Posting
- Search Product
- Bookmark a Posting
- Win List
- Sentiment Analysis
- My Postings

- **Admin**

- Chatbot
- Postings
- Product Categorization
- Mail Alerts
- Hide / Show / Close a Posting
- Search Product
- Bookmark a Posting
- Win List
- Sentiment Analysis
- Inventory Management
- Admin Panel
- Approval Management
- My Postings

# **CHAPTER NO. 5**

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## ***Software Test Document***

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### **5.1 Introduction**

#### **5.1.1 System Overview**

Internal Classifieds is a web based portal that provides an easy way to sell products to a large customer base online. It must be available to audience wanting to sell or purchase products from another user, where the goods may be new, refurbished or pre-owned such as cars, furniture, electronics, etc. Being a web-based project, this application should be able to provide options for users to post, browse, buy and sell various products. It should also allow users to post their products in various categories. There should be an option to ask questions and reply should be given by product owner who posted a particular ad. There should be an admin user to approve/reject any posting on the portal. It must have a responsive UI design and should be a scalable solution.

#### **5.1.2 Test Approach**

##### **5.1.2.1 Testing Methods**

Black-box testing is a method of software testing that examines the functionality of an application without peering into its internal structures or workings. This method of test can be applied virtually to every level of software testing: unit, integration, system and acceptance. We are mainly using this type of testing to make sure that the application created is usable for the end client without any technical glitches.

Other Types of Testing performed by us include:

- **Unit Testing:** Individual Modules are tested to check their functionality is being performed appropriately. This is done in parallel with the development phase.
- **Integration Testing:** Integration Testing is performed to expose defects in the interfaces and in the interactions between integrated components or systems.
- **System Testing:** System testing confirms all system elements and performance are tested entirely.
- **Compatibility Testing:** Compatibility testing to check whether your software is capable of running on different hardware, operating systems, applications, network environments or Mobile devices.

- **Usability Testing:** The Data must be correct. The user interface should be easily accessible and content must be correct.

### 5.1.2.2 Testing Strategies

Alpha testing is a type of acceptance testing that is performed to identify all possible issues/bugs before releasing the software to clients or the end users. The focus of this testing is to simulate real users by using a black box and white box techniques. The aim is to carry out the tasks that a typical user might perform. Alpha testing is carried out in a lab environment and usually, the testers are internal testers of the organization. It is done early on, near the end of the development of the software, and before beta testing.

## 5.2 Test Plan

The application will be tested as per the completion of the given modules.

Sr No.	Deliverable Name	Author	Reviewer
1	Software Testing Document	Praneeta Desai	Project Manager
2	Test Plan	Praneeta Desai	Project Manager
3	Functional Test Cases	Praneeta Desai	Developer
4	Logging Defects	Test Team	Test Lead

**Table 5.1:** Test Plan

### 5.2.1 Features to be Tested

Software modules that need to be tested are as follows:

- Registration: TC-1
- Login Authentication: TC-2
- Product Catalog: TC-3
- Search Results: TC-4
- Product Categorization: TC-5
- Posting Creation: TC-6
- Admin Approval for Posting: TC-7
- Admin Post Removal: TC-8
- Mail Alerts: TC-9
- Product Bookmarking: TC-10
- Win List: TC-11
- My Postings: TC-12
- Show/Hide/Close Postings: TC-13
- Chatbot for Customer Support: TC-14
- Sentimental Analysis for User Comments: TC-15

### 5.2.2 Features not to be Tested (Partially Tested)

Features that need not be tested include Security, Performance Issues and Response Time.

### 5.2.3 Testing Tools and Environment

As soon as the development is completed for individual modules, the testers are to be ready with the test cases and start with its execution. Manual approach for creating the software will be applied. Each Module is developed separately using HTML, CSS, Bootstrap, Python and Django as its developing language and framework along with additional APIs and requirements as and when required. This developed application must be integrated together using version control software. For manual testing, Tester creates different environments and solves the issues using various manual as well as automated tools available for Python and Django.

## 5.3 Test Cases

### 5.3.1 Registration: TC-1

**Purpose:** To create a user with valid personal information.

**Inputs:** Username, First Name, Last Name, Email and Password are taken as form inputs.

**Expected Outputs & Pass/Fail criteria:** Input by the user will be validated. A user account should be created or in case of invalid information, an error message should be displayed.

**Constraints:** A user should have all the required information.

#### Test Case Implementation:

User input is validated. Due to invalid information, an error message is displayed on the screen. User must enter all the required information in the expected format to create an account.

The screenshot shows a registration form on a website. At the top, there is a navigation bar with links for 'Internal Classifieds' and 'Categories', a search bar with placeholder text 'Enter your search query here', and a 'Search' button. On the right side of the navigation bar is a 'Log In' button. Below the navigation bar is a red rectangular box containing the text 'Join Us Today'. The main form area contains several input fields and validation messages. One message says 'Atleast 6 Characters.' and another says 'Atleast One Uppercase | Atleast One Lowercase | Atleast One Special Character | Atleast One Digit.'. The form fields include 'TestFail' (username), 'Test' (first name), 'Fail' (last name), 'test@gmail' (email), and two password fields, both containing '\*\*\*\*'. At the bottom of the form is a blue 'Register' button.

**Figure 5.1:** Registration Fail: TC-1

User input is validated. Due to valid information provided, a user account is created.

The screenshot shows a registration form on a website. At the top, there is a navigation bar with links for 'Internal Classifieds' and 'Categories'. A search bar contains the placeholder 'Enter your search query here' with a 'Search' button. On the right side of the header is a 'Log In' button. Below the header, a 'Join Us Today' button is visible. The main form area contains six input fields: 'shreyprakash', 'Shrey', 'Prakash', 'shrey.prakash@gmail.com', '•••••', and '•••••'. Below these fields is a 'Register' button. A link 'Already have an account? [Login Now.](#)' is located just below the registration button.

**Figure 5.2:** Registration: TC-1

The screenshot shows a product catalog page. At the top, there is a navigation bar with links for 'Internal Classifieds' and 'Categories', a search bar, and a 'My Account' dropdown menu. The dropdown menu shows the user 'Hello, Shrey' and links for 'Create Posting', 'Watchlist', 'Win List', 'My Postings', and 'Log Out'. Below the navigation is a 'Product Catalog' heading. The page displays two product items in a grid format. The first item is a 'Noise ColorFit Pro 2 Full Touch Control Smart Watch' with a black strap, listed by author 'aditimehra'. It has an 'Add to Watchlist' button and an 'Open' button. The second item is an 'ADRO Men's Regular Fit T-Shirt' with a grey and black striped pattern, listed by author 'praneetad'. It also has an 'Add to Watchlist' button and an 'Open' button. Both items show their starting price, creation date, and a brief description. A small speech bubble icon is located on the right side of the page.

**Figure 5.3:** Registration Success: TC-1

### 5.3.2 Login Authentication: TC-2

**Purpose:** To authenticate a user with validate credentials.

**Inputs:** Username and Password are taken as form inputs.

**Expected Outputs & Pass/Fail criteria:** Input by the user will be validated. The respective dashboard should be displayed or in case of invalid credentials, an error message should be displayed.

**Constraints:** A user account should be created before they can login.

### Test Case Implementation:

User input is validated. Due to invalid credentials, an error message is displayed on the screen.  
User must login with registered valid credentials to be able to view the dashboard.

The screenshot shows a login interface. At the top, there is a dark blue header bar with a search bar containing the placeholder "Enter your search query here" and a "Search" button. On the right side of the header is a "Log In" button. Below the header, the main content area has a title "Welcome Back". A red rectangular box contains the error message "Invalid username and/or password.". The login form itself has two text input fields: one for the username containing "TestFail" and one for the password containing "\*\*\*\*". Below the inputs is a "Login" button. At the bottom of the form, there is a link "Don't have an account? [Register Now.](#)".

**Figure 5.4:** Login Fail: TC-2

User input is validated. Due to valid credentials, the respective dashboard is displayed.

The screenshot shows a successful login attempt. The layout is identical to Figure 5.4, featuring a dark blue header, a search bar, and a "Log In" button. The main content area displays a "Welcome Back" message. The login form shows the username "praneetad" and the password "\*\*\*\*\*". Below the form is a "Login" button. At the bottom, there is a link "Don't have an account? [Register Now.](#)".

**Figure 5.5:** Login: TC-2

The screenshot shows a web-based product catalog interface. At the top, there is a navigation bar with links for "Internal Classifieds" and "Categories", a search bar, and a "My Account" dropdown menu. The main content area is titled "Product Catalog". It displays two product items:

- Smartwatch Listing:** Author: aditimehra. Product: Noise ColorFit Pro 2 Full Touch Control Smart Watch. Description: The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ... Starting price: ₹3999.0. Created: July 13, 2021, 2:43 p.m.
- T-Shirt Listing:** Author: praneetad. Product: ADRO Men's Regular Fit T-Shirt. Description: Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...

The sidebar on the right contains the following options:

- Hello, Praneeta
- Create Posting
- Approvals (Pending)
- Delete Postings
- Watchlist (1)
- Win List
- My Postings
- Log Out

Figure 5.6: Login Success: TC-2

### 5.3.3 Product Catalog: TC-3

**Purpose:** To allow users to post, browse, buy and sell various products through our portal.

**Expected Outputs & Pass/Fail criteria:** The product catalog must be displayed to the user with all open listings.

**Constraints:** A listing should be created by any user and should be approved by the admin before they can be visible to other users.

#### Test Case Implementation:

This screenshot shows the same product catalog interface as Figure 5.6, but with a different visual style and some minor differences in text presentation. The two product items listed are:

- Smartwatch Listing:** Author: aditimehra. Product: Noise ColorFit Pro 2 Full Touch Control Smart Watch. Description: The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ... Starting price: ₹3999.0. Created: July 13, 2021, 2:43 p.m.
- T-Shirt Listing:** Author: praneetad. Product: ADRO Men's Regular Fit T-Shirt. Description: Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...

Figure 5.7: Product Catalog: TC-3

### 5.3.4 Search Results: TC-4

**Purpose:** To allow users to search for a particular product based on a keyword.

**Inputs:** Keyword is to be searched in the navigation bar.

**Expected Outputs & Pass/Fail criteria:** The products matching the search query must be displayed to the user.

**Constraints:** A listing should be available that contains the searched keyword.

#### Test Case Implementation:

The screenshot shows a search results page with a header containing 'Internal Classifieds', 'Categories', a search bar with 'Dress' typed in, and 'My Account'. Below the header, the title 'Search Results' is centered. Two product cards are displayed. The first card features a red dress with a high-low hem and a floral pattern. The second card features a black dress with a similar floral pattern. Both cards show details such as author ('praneetad'), product name, care instructions, starting price (₹1200.0), creation date ('Created July 13, 2021, 2:25 p.m.'), and categories ('Clothing, Shoes & Accessories').

**Figure 5.8:** Search Results: TC-4

### 5.3.5 Product Categorization: TC-5

**Purpose:** To view the different categories present on the portal.

**Inputs:** Click on 'Categories' from the Navigation bar.

**Expected Outputs & Pass/Fail criteria:** A list of categories available on the portal must be displayed.

**Constraints:** Categories must be created by the administrator.

#### Test Case Implementation:

Pagination at the bottom of the page can be used to view various other categories present in the portal. This may be used to search products based on category.

The screenshot shows a list of product categories on a website. The categories and their counts are:

- Antiques (0)
- Books (3)
- Business & Industrial (0)
- Clothing, Shoes & Accessories (4)
- Collectibles (0)

Below the list is a navigation bar with links: «, 1, 2, 3, ».

**Figure 5.9:** Product Categorization: TC-5

### 5.3.6 Posting Creation: TC-6

**Purpose:** To allow the user to create new postings with appropriate information.

**Inputs:** Appropriate data regarding the product is taken as form inputs.

**Expected Outputs & Pass/Fail criteria:** If posting approved by the admin, the listing is created.

**Constraints:** Admin approval is required before the posting is visible to other users.

#### Test Case Implementation:

The screenshot shows a posting creation form. The product details are:

- Name: QUEEN ELLIE Women's Western High Low Piece Red Dress
- Image URL: https://m.media-amazon.com/images/I/61ypNMyv9I

The product description includes:

- Care Instructions: Dry Clean Only
- Fabric: 95% Polyester, 5% Spandex
- Style: A-Line
- High-Low Pattern
- OCCASIONS: Fit and flared, perfect to be a little cocktail dress for party or wedding event. It is also suitable for night clubbing, dating, or prom occasions as an elegant dress, a unique party dress

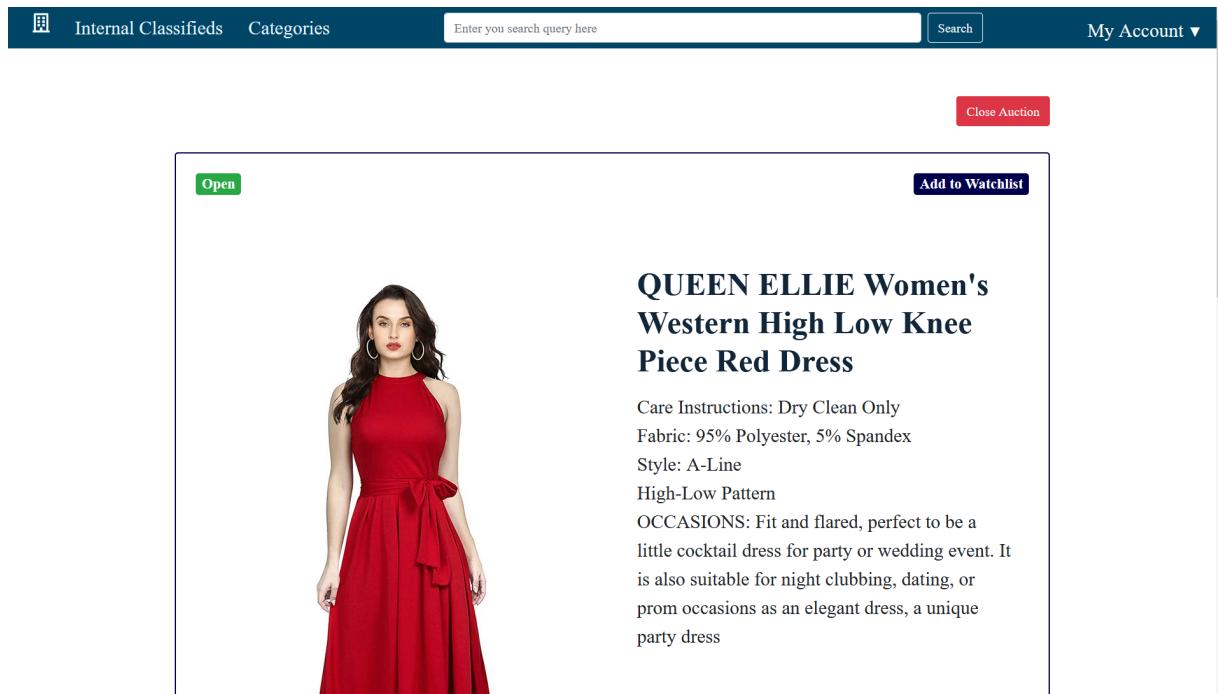
The file input field contains: 1200.

The category dropdown menu shows:

- Antiques
- Books
- Business & Industrial
- Clothing, Shoes & Accessories (selected)
- Collectibles

At the bottom, there is a checkbox for disabling comments and a "Submit Form" button.

**Figure 5.10:** Posting Form: TC-6



**Figure 5.11:** Posting Creation: TC-6

### 5.3.7 Admin Approval for Posting: TC-7

**Purpose:** To verify and approve product details in the posting created by the user.

**Expected Outputs & Pass/Fail criteria:** The posting, if approved, must be visible to all the users. If rejected, the posting must be removed from the portal. The author must receive an email specifying the status of the posting.

**Constraints:** The user must be an admin for being able to approval or reject postings.

#### Test Case Implementation:

Admin Verification	
	Author: praneetad  QUEEN ELLIE Women's Western High Low Knee Piece Red Dress Care Instructions: Dry Clean Only Fabric: 95% Polyester, 5% Spandex Style: A-Line High-Low Pattern OCCASIONS: ... Starting price: ₹1200.0
	<input type="button" value="Accept"/> <input type="button" value="Reject"/>
Categories: Clothing, Shoes & Accessories	

**Figure 5.12:** Admin Approval for Posting: TC-7

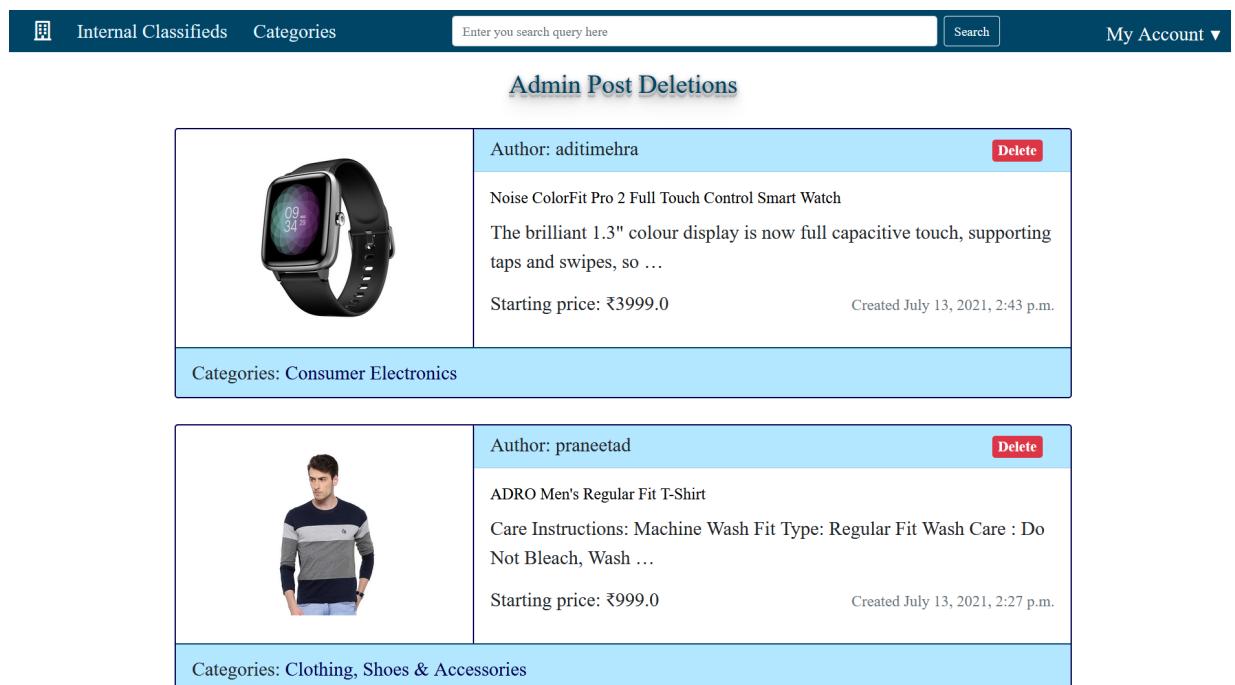
### 5.3.8 Admin Post Removal: TC-8

**Purpose:** To allow removal of postings by users in case of any issues.

**Expected Outputs & Pass/Fail criteria:** The required posting must be deleted by the admin from the product catalogue.

**Constraints:** The user must be an admin for being able to delete postings of other users.

#### Test Case Implementation:



The screenshot shows a web interface for managing posts. At the top, there is a navigation bar with links for 'Internal Classifieds' and 'Categories', a search bar containing 'Enter your search query here', and a 'Search' button. On the right, there is a 'My Account' dropdown menu. Below the navigation bar, the title 'Admin Post Deletions' is centered. Two product posts are listed in a table format:

	<p>Author: aditimehra</p> <p>Noise ColorFit Pro 2 Full Touch Control Smart Watch</p> <p>The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ...</p> <p>Starting price: ₹3999.0</p> <p>Created July 13, 2021, 2:43 p.m.</p>	<a href="#">Delete</a>
	<p>Author: praneetad</p> <p>ADRO Men's Regular Fit T-Shirt</p> <p>Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...</p> <p>Starting price: ₹999.0</p> <p>Created July 13, 2021, 2:27 p.m.</p>	<a href="#">Delete</a>

Below each post, there is a 'Categories' section. The first post is categorized under 'Consumer Electronics', and the second post is categorized under 'Clothing, Shoes & Accessories'.

**Figure 5.13:** Admin Post Removal: TC-8

### 5.3.9 Mail Alerts: TC-9

**Purpose:** To send automated emails to users on approval, rejection and comments on postings.

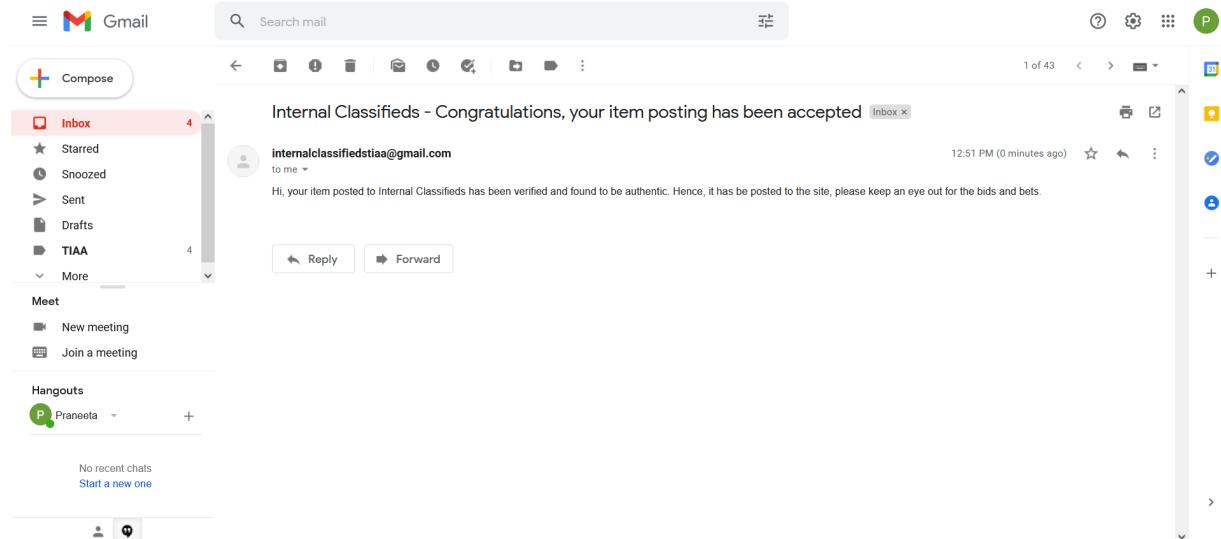
**Inputs:** User emails must be fetched from database as per requirement.

**Expected Outputs & Pass/Fail criteria:** Email must be delivered to correct user at correct instance.

**Constraints:** User email must be available.

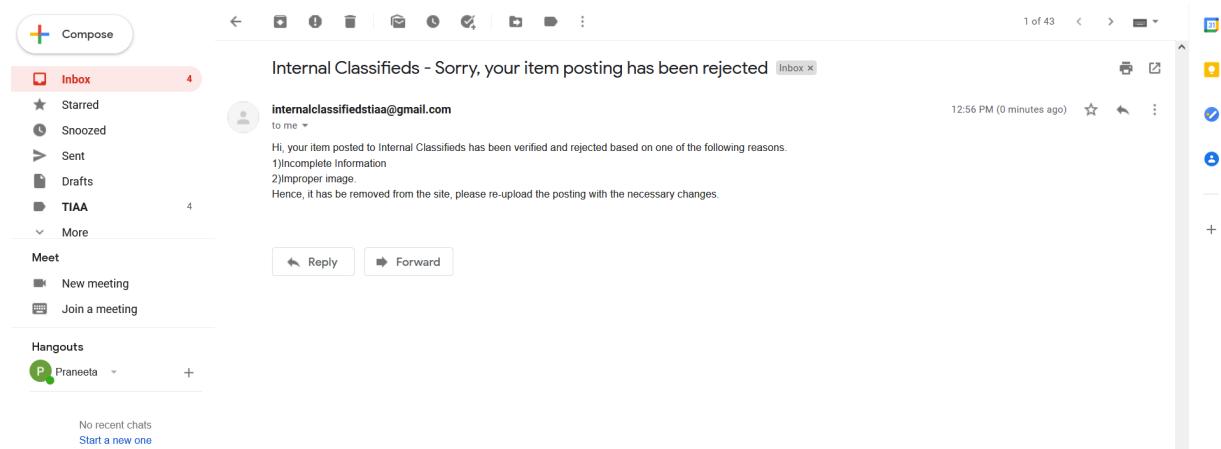
## Test Case Implementation:

When posting is approved:



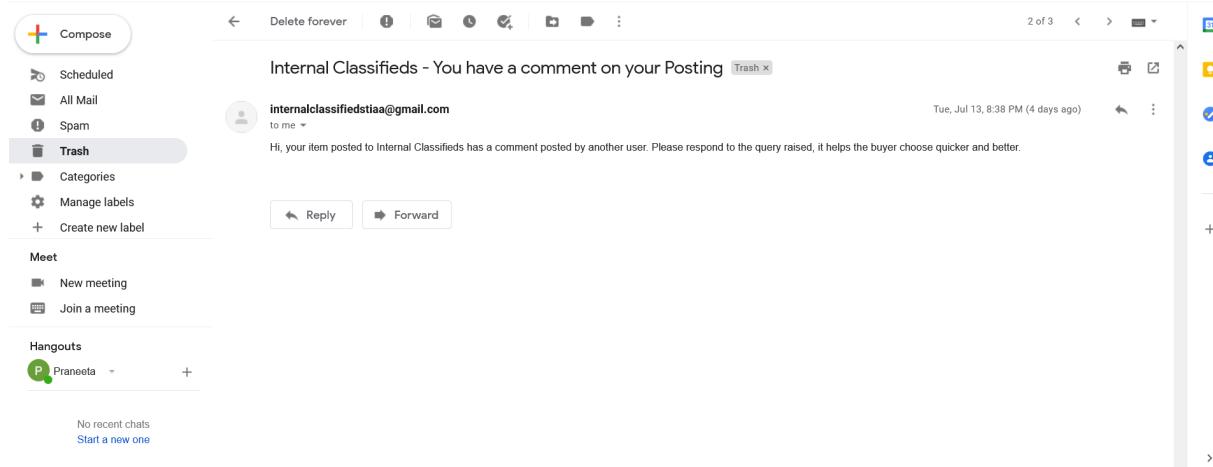
**Figure 5.14:** Email on Approval: TC-9

When posting is rejected:



**Figure 5.15:** Email on Rejection: TC-9

When another user comments on Posting:



**Figure 5.16:** Email on Comment: TC-9

### 5.3.10 Product Bookmarking: TC-10

**Purpose:** To allow users to bookmark their favourite products on the portal.

**Expected Outputs & Pass/Fail criteria:** The product must be added to the bookmark section of My account for that particular user.

**Constraints:** A user must be logged in.

#### Test Case Implementation:

A screenshot of a web-based application for product bookmarking. At the top, there's a navigation bar with 'Internal Classifieds', 'Categories', a search bar ('Enter your search query here'), and 'My Account ▾'. Below the navigation is a section titled 'Bookmarks'. It displays a card for a 'Noise ColorFit Pro 2 Full Touch Control Smart Watch'. The card includes a thumbnail image of the watch, the author's name 'aditimehra', a 'Remove from Watchlist' button, an 'Open' button, a product description ('The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ...'), the starting price ('Starting price: ₹3999.0'), and the creation date ('Created July 13, 2021, 2:43 p.m.'). At the bottom of the card, it says 'Categories: Consumer Electronics'.

**Figure 5.17:** Product Bookmarking: TC-10

### 5.3.11 Win List: TC-11

**Purpose:** To display the purchases or won auctions of the user.

**Inputs:** Highest Bidding on that product must be done by the particular user.

**Expected Outputs & Pass/Fail criteria:** The product listing must be closed and displayed in the win list of the winner user.

**Constraints:** A user must be logged in.

#### Test Case Implementation:

The screenshot shows a user interface for a classifieds website. At the top, there's a dark navigation bar with links for 'Internal Classifieds' and 'Categories', a search bar containing 'Enter your search query here', and a 'Search' button. To the right is a 'My Account' dropdown menu. Below the header, the page title is 'Win List'. A single item is listed in a card format. The card features a thumbnail image of a black smartwatch with a purple digital dial. To the right of the image, the author is listed as 'aditimehra' and there is a yellow rectangular button with the word 'Closed' in white. Below the author's name, the product is identified as 'Noise ColorFit Pro 2 Full Touch Control Smart Watch'. A brief description follows: 'The brilliant 1.3" colour display is now full capacitive touch, supporting taps and swipes, so ...'. Underneath this, the 'Starting price' is given as '₹3999.0' and the 'Created' timestamp is 'July 13, 2021, 2:43 p.m.'. At the very bottom of the card, there are two lines of text: 'Categories: Consumer Electronics' and 'Author Contact Details: praneeta213@gmail.com'.

**Figure 5.18:** Win List: TC-11

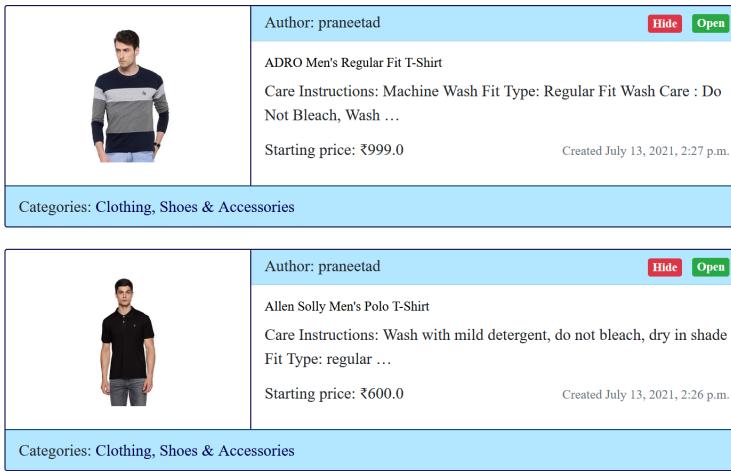
### 5.3.12 My Postings: TC-12

**Purpose:** To display the postings of the user.

**Expected Outputs & Pass/Fail criteria:** The postings of the logged in user must be visible and displayed for hiding, showing or closing the posting.

**Constraints:** A user must be logged in.

### Test Case Implementation:



The screenshot shows a user interface for managing postings. At the top, there is a navigation bar with links for 'Internal Classifieds' and 'Categories', a search bar containing 'Enter your search query here', and a 'Search' button. On the right, there is a 'My Account' dropdown menu. Below the navigation bar, the title 'My Postings' is centered. Two posting cards are displayed.

**Posting 1:**  
Author: praneetad  
ADRO Men's Regular Fit T-Shirt  
Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...  
Starting price: ₹999.0  
Created July 13, 2021, 2:27 p.m.  
Categories: Clothing, Shoes & Accessories

**Posting 2:**  
Author: praneetad  
Allen Solly Men's Polo T-Shirt  
Care Instructions: Wash with mild detergent, do not bleach, dry in shade Fit Type: regular ...  
Starting price: ₹600.0  
Created July 13, 2021, 2:26 p.m.  
Categories: Clothing, Shoes & Accessories

**Figure 5.19: My Postings: TC-12**

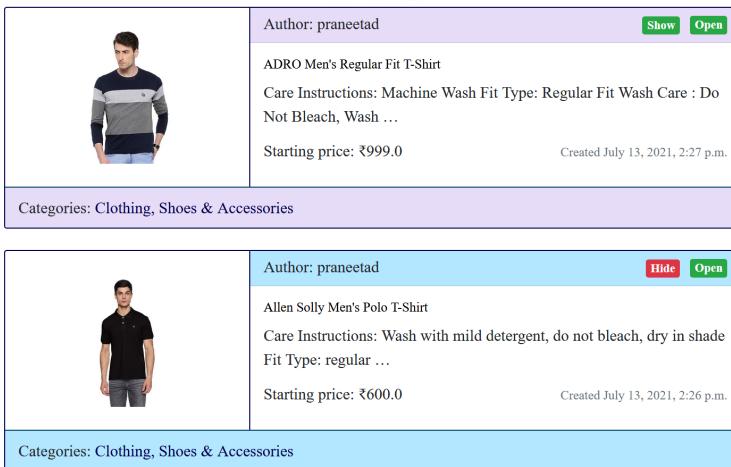
### 5.3.13 Show/Hide/Close Postings: TC-13

**Purpose:** To allow the user for having option to hide/show/close the posting.

**Expected Outputs & Pass/Fail criteria:** The posting must be hidden, shown or closed.

**Constraints:** A user must be logged in.

### Test Case Implementation:



This screenshot shows the same 'My Postings' interface as Figure 5.19, but with different visibility settings for the posts.

**Posting 1:**  
Author: praneetad  
ADRO Men's Regular Fit T-Shirt  
Care Instructions: Machine Wash Fit Type: Regular Fit Wash Care : Do Not Bleach, Wash ...  
Starting price: ₹999.0  
Created July 13, 2021, 2:27 p.m.  
Categories: Clothing, Shoes & Accessories

**Posting 2:**  
Author: praneetad  
Allen Solly Men's Polo T-Shirt  
Care Instructions: Wash with mild detergent, do not bleach, dry in shade Fit Type: regular ...  
Starting price: ₹600.0  
Created July 13, 2021, 2:26 p.m.  
Categories: Clothing, Shoes & Accessories

**Figure 5.20: Show/Hide/Close Postings: TC-13**

### 5.3.14 Chatbot for Customer Support:TC-14

**Purpose:** To provide customer support via chatbot.

**Inputs:** Select the appropriate option for query.

**Expected Outputs & Pass/Fail criteria:** Enquiry details regarding Buyer FAQs, Seller FAQs and General FAQs..

**Constraints:** Chatbot has a set flow which must be followed by the user for response.

#### Test Case Implementation:

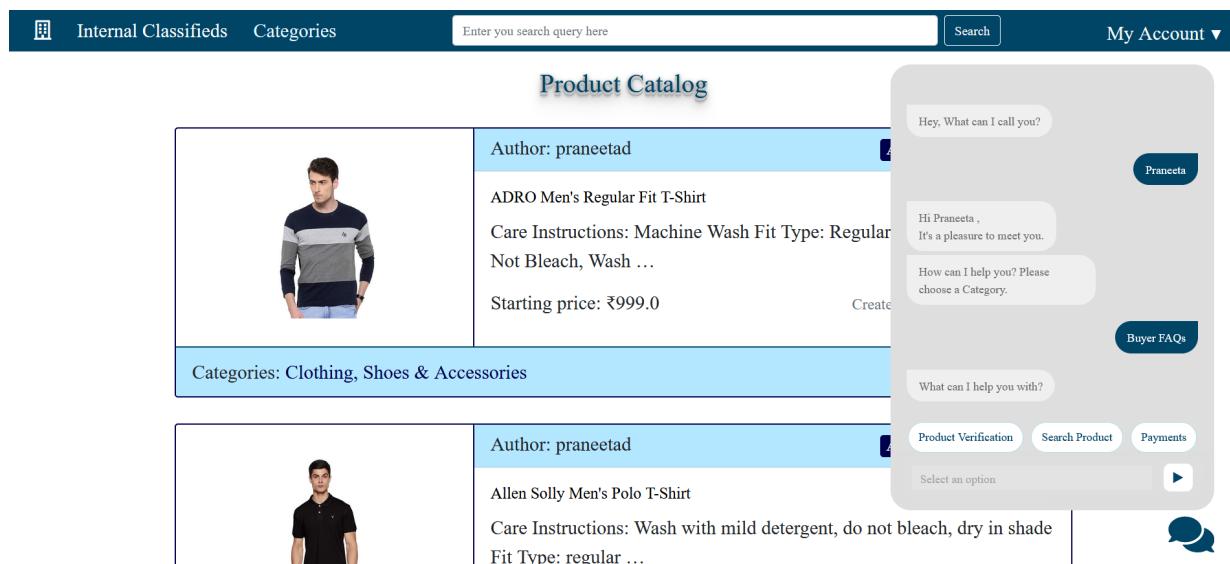


Figure 5.21: Chatbot for Customer Support:TC-14

### 5.3.15 Sentimental Analysis for User Comments: TC-15

**Purpose:** To apply sentimental analysis on comments for better review and updation of product details.

**Inputs:** Comment must be posted on product listings.

**Expected Outputs & Pass/Fail criteria:** The sentiment of the posted comment must be displayed next to it in the form of positive, neutral or negative comment.

**Constraints:** A comment must be posted for analysis.

## Test Case Implementation:

Comment by: praneetad	Smart Bot Analysis
<p>It's a great book and I shall recommend it to my friends</p> <p>— July 17, 2021, 7:45 a.m.</p>	Positive Feedback
Comment by: praneetad	Smart Bot Analysis
<p>This author shared lessons that I wish I'd learnt earlier - but rather than regret; it provided me comfort.</p> <p>— July 17, 2021, 7:45 a.m.</p>	Neutral Feedback

**Figure 5.22:** Sentimental Analysis for User Comments: TC-15

## **CHAPTER NO. 6**

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### ***Conclusion***

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While working on the phase 1 of our project, we observed the project overview, the project flow and modules involved in it. We designed the plan of action for the project and designed the specifications and requirements applicable in this project. We had an overview of the Requirements Analysis, Management Plan and Testing Requirements as well as the implementation overview of the same. Also, we identified what features are necessary in this project for the same. We got a clear idea about various methodologies and strategies and how they should be implemented. We analysed and identified the requirements with the intended configuration.

In Phase 2, We were able to implement a working prototype that acts as a solution to our defined problem statement. This system is now capable of providing a portal that can be used by audience wanting to sell or purchase products from another user, where the products may be new, refurbished or pre-owned. It has a responsive UI design and is a scalable solution.