GET EASILY

Submitted in partial fulfilment of the

Requirements for the award of the Degree of

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

By

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Roll Number (14)

Under the esteemed guidance of

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DEPARTMENT OF INFORMATION TECHNOLOGY

KLE SOCIETY'S SCIENCE AND COMMERCE COLLEGE

(Affiliated to University of Mumbai)

KALAMBOLI, 410 218

MAHARASHTRA

2023-2024

PROFORMA FOR THE APPROVAL PROJECT PROPOSAL

PNRNo: Roll no: 2021TT14

1. Name of the Student:- Jagdish Dnyandev Kate

2. Title of the Project:- **GET EASILY**

3. Name of the Guide:- Asst. Prof.Swapnali Kadge

4. Teaching experience of the Guide :-

5. Is this your first submission? Yes No

Signature Of The Student Signature Of The Guide

Date:…… Date:……

Signature Of The Coordinator

Date:

KLE SOCIETY'S SCIENCE AND COMMERCE COLLEGE

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DEPARTMENT OF INFORMATION TECHNOLOGY

This is to certify that the project entitled, **"Get easily "** , is bonafide work of **JAGDISH KATE** bearing Seat. No: (14) submitted in partial fulfilment of the requirements for the award of degree of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai for the academic year 2023 –24 .

Internal Guide **Coordinator**

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ABSTRACT

In the rapid growth of online shopping and the abundance of choices available on various e-commerce websites, consumers often face the challenge of selecting the best deals and discounts across multiple platforms. To address this issue, we propose a personalized recommender system designed to assist users in identifying recommended discounts on e-commerce websites such as Amazon, Flipkart, and Snapdeal.

The user interface of the system provides an intuitive and user-friendly experience. Users can input their preferences and browse through the recommended discounts, compare prices, and explore similar products. The system also allows users to provide feedback on the accuracy and relevance of the recommendations, contributing to its ongoing improvement.

ACKNOWLEDGEMENT

It gives us immense pleasure to present this project report. We wish to express our sincere thanks to all those who helped us in making this project a reality.

Firstly, we would like to express our sincere thanks to our Vice-Principal Dr. usha karunakaran, Science Coordinator Dr. Prakash Bhadane, Head of Department Asst. Prof.Swapnali Kadge

We thank our Project guide for her valuable guidance and paved the way for a better understanding of the technologies that we used in developing this system. We would also like to thank the entire teaching and non-teaching staff of the Information Technology Department for extending the lab facilities for the project.

We are especially thankful to those who helped us directly-indirectly in completion if this works successfully.

DECLARATION

I hereby declare that the project entitled, "**Get Easily** " done at **KLE Society's Science and Commerce College , Kalamboli** has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in partial fulfilment of the requirements for the award of degree of **BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)** to be submitted as final semester project as part of our curriculum.

Name and Signature of the Student

TABLE OF CONTENTS

Contents

TABLE OF FIGURE

Chapter 1

Introduction

1.1 **BACKGROUND**

In the rapid growth of online shopping and the abundance of choices available on various e-commerce websites, consumers often face the challenge of selecting the best deals and discounts across multiple platforms. To address this issue, we propose a personalized recommender system designed to assist users in identifying recommended discounts on e-commerce websites such as Amazon, Flipkart, and Snapdeal.

The user interface of the system provides an intuitive and user-friendly experience. Users can input their preferences and browse through the recommended discounts, compare prices, and explore similar products. The system also allows users to provide feedback on the accuracy and relevance of the recommendations, contributing to its ongoing improvement.

1.2 OBJECTIVES

The aims of creating this website

1. Develop a personalized recommender system for e-commerce websites.
2. Create user-friendly interfaces for seamless integration.
3. Enable feedback for continuous system improvement.
4. Optimize the system for recommending the best discounts.
5. Ensure scalability, performance, security, and privacy.
6. Document the system for knowledge transfer and maintenance.

1.3 PURPOSE, SCOPE AND APPLICABILITY

1.3.1 Purpose

The rapid expansion of e-commerce has given consumers an overwhelming number of choices, making it challenging to identify the best discounts and deals on various platforms. As a result,

there is a growing need for a solution that streamlines the shopping experience for users of e-commerce websites such as Amazon, Flipkart, and Snapdeal.

1.3.2 Scope

- personalization features,
- feedback mechanisms & performance optimization
- data security
- scalability, testing, documentation, and continuous improvement processes,
- all with a focus on enhancing the online shopping experience across various platforms.

1.3.3 Applicability:

- Our Get easily has a user friendly interface.
- You can save time.
- This application will maintain all the information of discount of product etc.
- It is easy to Access users Reviews.

Chapter 2

Survey of Technologies

2.1 EXISTING SYSTEM

In the existing system, e-commerce websites primarily use generic recommendation algorithms that lack personalization and do not provide an efficient way for users to find the best discounts. User feedback and user-friendly interfaces are often missing. This project aims to address these limitations with a personalized recommender system.

2.2 PROPOSED SYSTEM

The proposed system aims to offer personalized discounts, a user-friendly interface, and a feedback mechanism to help users find the best deals on e-commerce websites, enhancing the online shopping experience.

2.3 HARDWARE REQUIREMENTS

- RAM – 8.00 GB minimum
- System Type – 64 bit Operating System
- Processor version minimum – Intel core i5
- Processor speed – 2GHZ or higher
- Hard disk – high

2.4 SOFTWARE REQUIREMENTS

- Operating system : Windows XP/7 and Above.

- Data Base : MYSQL , Python flask , API .

- Front End : Ract.js , html and css .

- IDE : VS CODE , Notepad

2.5 JUSTIFICATION OF SELECTION OF TECHNOLOGY

For developing the application we can use the React.js and API . The application is a computer software that interacts with the user through the interface and provides the discount of the individual using API . Thus React.js framework provides better integrity of the modules.

Given below are a few reasons why we choose the React.js of building this system.

- React.js creates interactive user interfaces.
- It ensures fast website performance.
- Reusable components simplify development.
- It has a vast ecosystem and community support.
- React adapts to website scalability.
- It's easy for developers to learn and adopt.

Chapter 3

Requirements and Analysis

3.1 PROBLEM DEFINITION

The issue at stake is the obscene amount of options and information that customers must navigate when traversing the huge internet buying world. The abundance of e-commerce platforms, the volume of data, and the absence of individualized suggestions define this challenge. The project's goal is to create a customized recommender system for websites like Amazon, Flipkart, and Snapdeal in order to address this problem. Through a user-friendly interface, the system enables users to enter preferences, investigate suggested discounts, compare pricing, and find related products. User input is also welcomed in order to improve recommendations' relevance and accuracy over time, which will ultimately make it easier for consumers to make informed online shopping decisions.

3.2 REQUIREMENTS SPECIFICATION

The system has to work with the main e-commerce platforms, allow for the construction of user profiles with customized preferences, make use of a powerful recommendation engine, and have an intuitive, responsive user interface for quick input and display of suggested savings. It should also have tools for searching and comparing, provide a mechanism for user feedback, assure strict data privacy and security, and be built for scalability and excellent speed. Legal compliance, assistance, and adequate documentation are necessary. User input should be routinely included into the system, which should also maintain data backup and recovery procedures, reduce expenses, and be flexible enough to respond to shifting e-commerce trends and user behavior .

The detailed descriptions of the objectives are as follows:

- Develop a personalized recommender system for e-commerce websites.
- Create user-friendly interfaces for seamless integration.
- Enable feedback for continuous system improvement.
- Optimize the system for recommending the best discounts.
- Ensure scalability, performance, security, and privacy.
- Document the system for knowledge transfer and maintenance.

3.3 PLANNING AND SCHEDULING

3.3.1:- Project Plan:

1. **Gantt Chart**

Gantt Charts (G) are useful tools for analysing and scheduling complex projects. They:

Help in planning out the tasks that need to be accomplished. Give a base for scheduling when these tasks will be carried out.

Allow to plan the allocation of possessions needed to complete the project, and help you to work out the serious route for a project where you must complete it by a particular date. When a project is underway, Gantt Charts help to monitor whether the project is on agenda. The main objective of a Gantt chart is to assess how long a project should take and to establish the order in which tasks need to be carried out by the end of the project.

Task Name	Duration	Start	Finish	Predecessors
Project topic Inception	6 days	Mon 03/07/23	Sat 08/07/23	
Preparing SRS	10 days	Mon 17/07/23	Fri 28/07/23	1
Requirement Analysis	20 days	Mon 31/07/23	Sat 19/08/23	2
UML Diagram	20 days	Mon 21/08/23	Sat 09/09/23	3
Feasibility Study	6 days	Mon 11/09/23	Sat 16/09/23	4
System Design and Planning	14 days	Mon 18/09/23	Tue 03/10/23	5
Coding and Implementation	65 days	Mon 09/10/23	Fri 29/12/23	6
Unit/Functional Testing	5 days	Mon 01/01/24	Sat 06/01/24	7
Integration/Validation	10 days	Mon 08/01/24	Thu 18/01/24	8
System Testing	15 days	Mon 22/01/24	Tue 06/02/24	9

1. **PERT Chart**

A PERT chart is a product organisation tool used to schedule, Organise and synchronise within a project. PERT stands for Program Evaluation Review Technique

A PERT chart presents a graphic design of a project as a network diagram consisting of numbered nodes representing actions. Or milestones in the projects associated by considered paths (Directional lines) representing tasks in the projects. The direction of the arrow on the lines specifies the classification of tasks. PERT charts are superior to Gantt charts because they more clearly identify task dependencies; however, the PERT chart is often more stimulating to interrupt. As such, project executives recurrently employ both methodologies.

3.3.2: System Planning Model

3.3.2.1 Process Model

The model of the incremental development process provides a learning experience based on the analysis of each intermediate product, the design and the requirements are modified in incremental series and provides a system for users that meet the changing needs of the customer with an improved design based on feedback and learning. This process contains eight main steps:

1. Analysis of the domain

2. Definition of the requirements.

3. Software architecture

4. Risk analysis

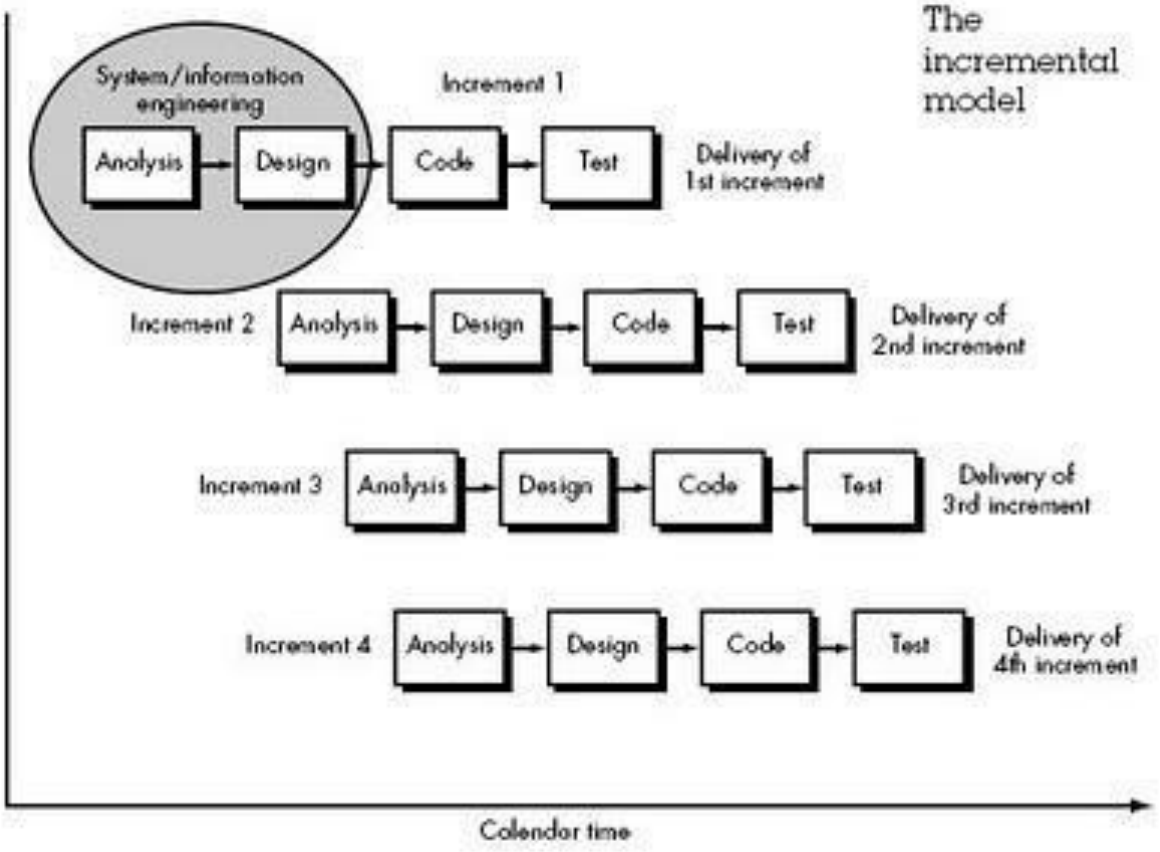
5. Prototype

6. Proof of suit and development of the environment.

7. Integration with incremental precedents.

8. Incremental release.

The incremental model solves many problems associated with the cascade model. With the Incremental model, the project is divided into small parts. This allows the development team to demonstrate the results previously in the process and get valuable feedback from system users. Each progressive increment is really a cascade method with ballroom dancing feedback. It provides important data for the planning of the following section. in a very variant of this model, the software system merchandise made at the top of every section will like a shot enter production as progressive versions.



Advantages of the incremental model

• Encoding is faster.

• The test is faster than the water fall process.

• The process is increasing at the design stage.

3.4 SOFTWARE AND HARDWARE REQUIREMENTS

3.3.1 Hardware Requirements

- RAM – 8.00 GB minimum
- System Type – 64 bit Operating System
- Processor version minimum – Intel core i5
- Processor speed – 2GHZ or higher
- Hard disk – high

3.3.2 Software Requirements

- Operating system : Windows XP/7 and Above.
- Data Base : MYSQL , python flask, API
- Front End : React.js , html ,css .
- IDE : VS CODE , Notepad

1. React.js :

React.js is an open-source JavaScript library for building user interfaces. It allows developers to create interactive and dynamic web applications by efficiently managing the rendering of components.

2. API :

An API, or Application Programming Interface, is a set of defined rules and protocols that allows different software applications to communicate and interact with each other. APIs enable the exchange of data and functionality, enabling developers to access and use services and resources from other programs, enhancing software interoperability and functionality.

3. Python flask :

Python Flask is a micro web framework used for developing web applications. It simplifies web development by providing essential tools and features while being lightweight and easy to use, making it suitable for building small to medium-sized web applications.

3.5 PRELIMINARY PRODUCT DESCRIPTION

The feasibility study concerns the feasibility of the system. The proposed system must be examined for its technical, economic and operational feasibility. This application has been inspected taking all these aspects into account. Many alternatives were found and the best of them was chosen, which is more suited to our needs. The following points must be kept in mind to choose a better alternative.

• Increased processing speed.

• Independence of the platform.

• Less memory requirements.

• Actual elimination of procedural errors.

• Rapid data recovery.

• Efficiency to store data.

• Ease of use.

The system will do the following:

Admin:

- Admin can Add/Edit/delete the data.
- Admin reply to the user query.
- Admin provides the best service to the user.

User:

- Users register in a web application as a name & mobile number.
- Select the query type and sub type of query
- Get to know updated information of a service.

3.6 CONCEPTUAL MODELS

- **Class Diagram**

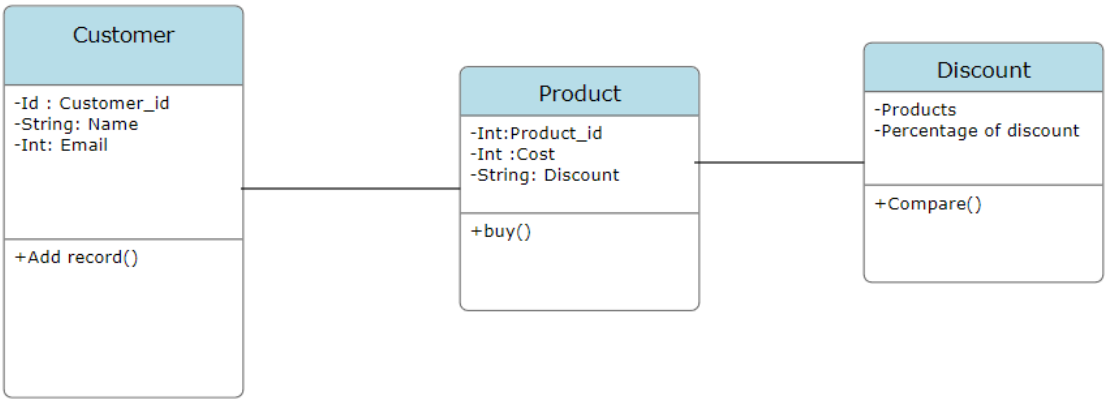


Figure 2: Class Diagram

- **ER-Diagram:**

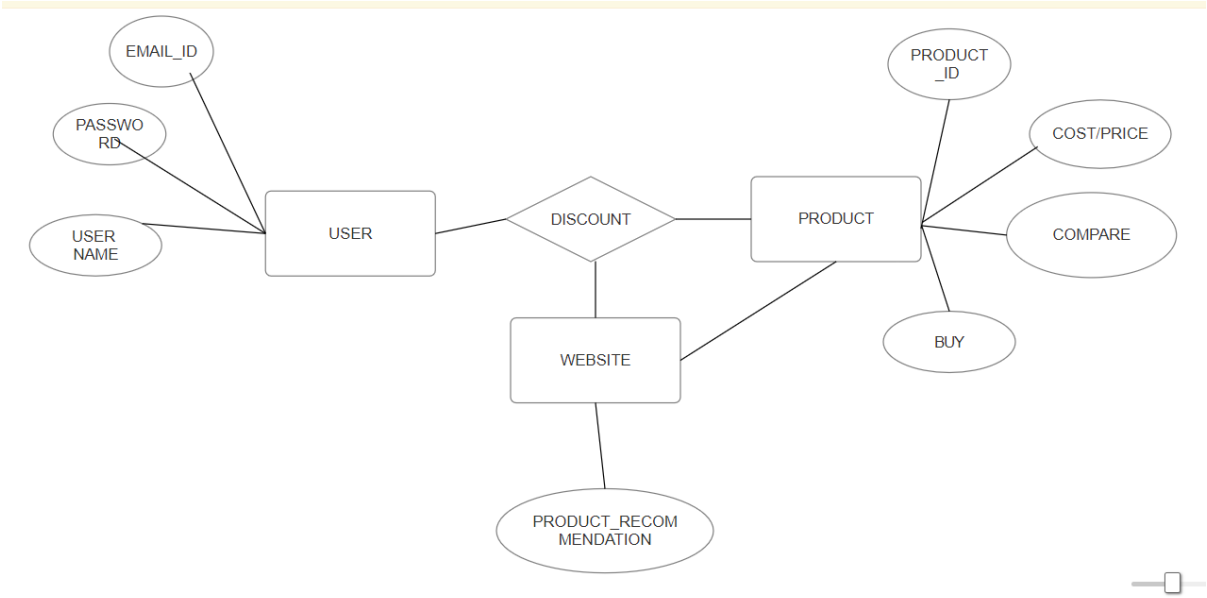


Figure 3: ER Diagram

ER Diagram:

A substance relations outline (ER) is a kind of flowchart that shows how "elements" are identified with individuals, items, or ideas inside a framework. ER plots are utilised all the more habitually to outline or troubleshoot social databases in the fields of programming designing, business data frameworks, instruction, and research. Otherwise called ERD or ER

models, they utilise a characterised set of images, for example, square shapes, precious stones, ovals, and association lines to speak to the interconnection of substances, connections, and related characteristics. They mirror the syntactic structure, with substances, for example, names and connections as verbs.The ER charts are identified with the information structure graphs (DSDs), which centre around the connections of the components inside the elements instead of on the connections between the elements themselves. ER plots are regularly utilised related to information stream diagrams (DFDs), which outline a stream of data to procedures or frameworks.

Data flow diagram:

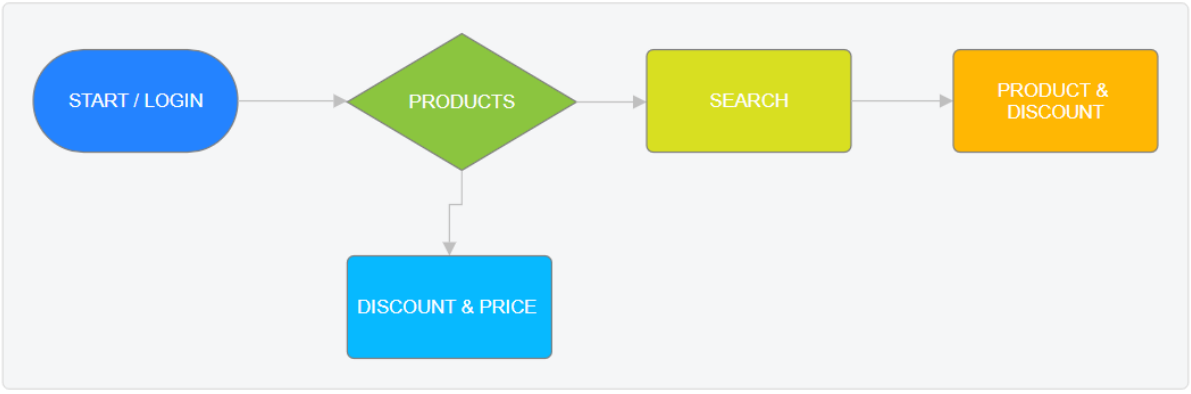


Figure 4: Data flow diagram:

Chapter 4

System Design

4.1 BASIC MODULES

User Preferences Input: Users are provided with an interface to input their preferences, such as product categories, desired price ranges, and any specific brands or features they prefer. These inputs guide the recommendation engine**.**

Recommendation Engine: At the core of the system, the recommendation engine employs collaborative filtering and machine learning algorithms. It analyzes user preferences and historical data to generate personalized discount recommendations. It continually refines its suggestions based on user interactions.

User Interface: The user interface offers an intuitive and user-friendly experience. It presents users with a visually appealing platform to explore, compare, and select recommended discounts. Real-time updates on new deals are also provided through this module.

Feedback System: Users have the opportunity to provide feedback on the accuracy and relevance of the recommendations. This feedback loop is integral to the system's ongoing improvement, allowing it to adapt and enhance its performance over time.

Database Management: To ensure the system's efficiency, a robust database management system is in place to store, organize, and update the collected data.

Security Measures: The system incorporates security measures to protect user data and ensure the integrity of the recommendations and the overall platform**.**