DISCOUNT DISCOVERY

A PROJECT REPORT
for
Design Thinking And Methodology

Submitted by

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RAMAPURAM

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BONAFIDE CERTIFICATE

Certified that this project report "**DISCOUNT DISCOVERY''** is the Bonafide work of **PAVITHRAN "(RA2311026020222), NITISH KUMAR (RA2311026020223), ABHINAV (RA2311026020254), GOPI KRISHNA (RA2311026020259)"** of **III Semester B.Tech. CSE with specialization in AI and ML** during the academic year 2024-25 who carried out the project work under my supervision in **21DCS201P- Design Thinking and Methodology**.

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ABSTRACT

This project proposes a deal aggregation platform that addresses the challenges of discovering and accessing exclusive, unadvertised offers from multiple retail brands. The platform aims to streamline the shopping experience by centralizing real-time discounts, promotions, and special deals in one accessible hub. Users will benefit from personalized recommendations powered by advanced filtering and AI-based algorithms, ensuring that each individual is presented with relevant offers based on their preferences and purchase history. Retail brands, on the other hand, gain enhanced visibility by showcasing their time-limited or exclusive deals, thus attracting more customers.

The platform offers a user-friendly interface with account-based preferences, allowing users to save deals, set notifications for flash sales, and participate in community-driven trends. Additionally, the platform's integration of community spaces (e.g., Discord) encourages engagement and fosters a sense of belonging among deal-seekers. This initiative not only addresses individual customer needs but also enables brand collaboration to optimize marketing strategies. The backend infrastructure is designed to scale efficiently, employing API integrations and web scraping to ensure up-to-date deal listings from partnered and non-partnered brands alike. The architecture also allows room for continuous enhancements, including machine learning models to predict trends and gamification strategies to increase user retention.

The project's implementation leverages cloud-based hosting and a robust CI/CD framework, ensuring smooth updates and uninterrupted service. The platform aims to create a win-win scenario by empowering users to save more while boosting business outreach for brands, ultimately fostering long-term trust and engagement.

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IDENTIFYING QUICK WIN

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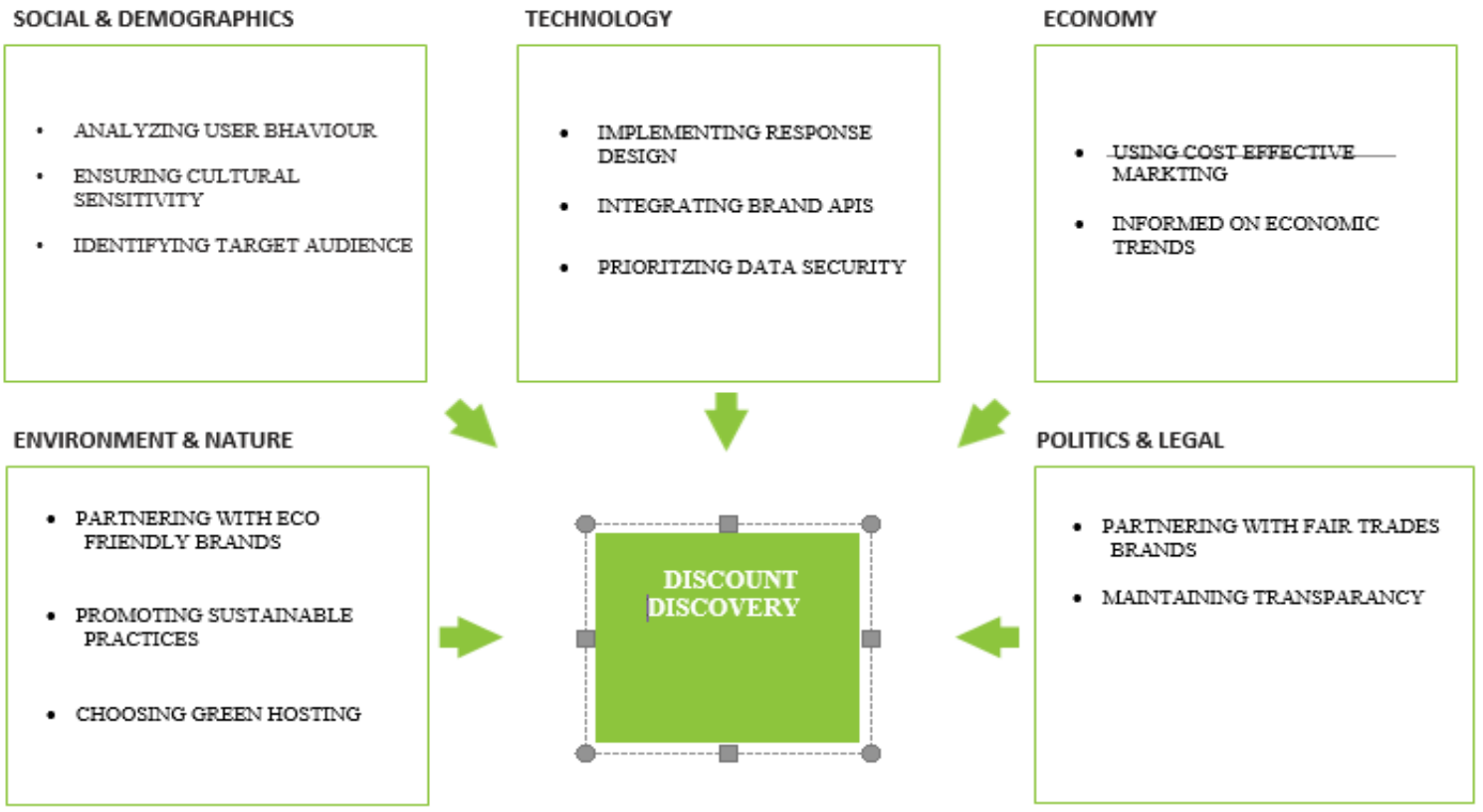
WHAT IS OUR CHANGE MANAGEMENT PLAN?

EXPLORE PHASE

STEEP ANALYSIS



STEEP ANALYSIS MATRIX

High Impact

Fluctuality consumer spending due to economic conditions Integration with brand and third party data sources Potential cybersecurity threats	Growing consumer interest in deal aggregation platforms. Changes in e-commerce and online advertising regulations. Shift towards mobile shopping behavior and demand for transparent pricing and ethical shopping practices.
Uncertain to Occur Introduction of new restrictive content regulations affecting deal listings. Sudden shifts in consumer loyalty away from popular brands. Integration with brand APIs and third-party data sources. Potential cybersecurity threats.	**Likely to Occur** Rising expectations for user experience and interface design. Shifts in the popularity of specific leads. Evolution of data privacy expectations. Changes in social media algorithms affecting reach and engagement.

Low Impact

STEEP ANALYSIS

PRIORITIZATION

Discuss 2 key trends from the High Impact – Likely to occur quadrant:

1. New regulations can significantly impact how you collect data, manage affiliate marketing, and monetize your platform. Being agile and informed will be essential to adapting your business practices to comply with these changes.

2. As more platforms enter the market, the competition will intensify, necessitating continuous innovation and differentiation to attract and retain users. Staying ahead of unique features and superior user experience will be critical in maintaining your platform's success.

Discuss 2 trends from the High Impact – Uncertain to occur quadrant

1. Economic shifts can either boost or reduce traffic to your platform depending on consumer spending trends. Flexibility in strategy will be key to adapting to these unpredictable changes.

2. As an online platform handling user data and sensitive information, the risk of cyber security breaches is significant while the likelihood of a major incident is uncertain. The impact could be severe, affecting user trust and regulatory compliance.

STEEP ANALYSIS

MATRIX

	URGENT	LESS URGENT
	RESOLVING CRITICAL CYBERSECURITY VULNERABILITIES ADDRESSING MAJOR WEBSITE OUTAGES OR DOWNTIME IMPLEMENTING NEW COMPLIANCE MEASURES DUE TO SUDDEN REGULATORY CHANGES	OPTIMIZING INTERNAL TEAM WORKFLOWS AND PROCESSES PLANNING FOR FUTURE EXPANSIONS INTO NEW DEAL CATEGORIES EXPERIMENTING WITH NEW MARKETING CHANNELS OR TACTICS
	FIXING MINOR BUGS OR GLITCHES IN THE WEBSITE MANAGING SOCIAL MEDIA UPDATES AND ENGAGEMENTS RESPONDING TO USER INQUIRES OR COMPLAINTS	DEVELOPING ADDITIONAL NON-CORE FEATURES CONDUCTING MARKER RESEARCH FOR FEATURES INTERNATIONAL EXPANSION EXPLORING POTENTIAL COLLABORATIONS WITH SMALLER ,NICHE BRANDS

SYNTHESIS: MAKING SENSE OF STEEP ANALYSIS AND STRATEGIC PRIORITIES

Assessment Questions	**Synthesis: Sense Making**
What relationships among the trends do you perceive? How are they related? Why are these relationships important	Growing digitalization and demand for real-time personalization align with increased e-commerce trends. The intersection of AI and user behavior analysis supports personalized recommendations. These relationships are essential to create a seamless, intuitive shopping experience focused on user needs and trends.
What opportunities and/or challenges need immediate attention going forward for your design challenge? And why?	Opportunities**:** Integrate AI-powered personalization to improve user engagement and retention. Challenges: Address user frustration with irrelevant deal notifications and optimize platform scalability.
What would it take to create positive change on this issue relating to your design challenge?	Build strong partnerships with brands to ensure exclusive offers. Regularly collect feedback to refine the recommendation algorithms. Enhance user trust by providing transparency on deals and recommendations.
Who else would be interested in this issue? Why should they care? What conversations would you have with them?	Brands: They will benefit from greater visibility through curated promotions. Data analysts: To optimize AI models and ensure accurate recommendations. User communities: Their feedback will enhance platform relevance and usability through iterative improvements.

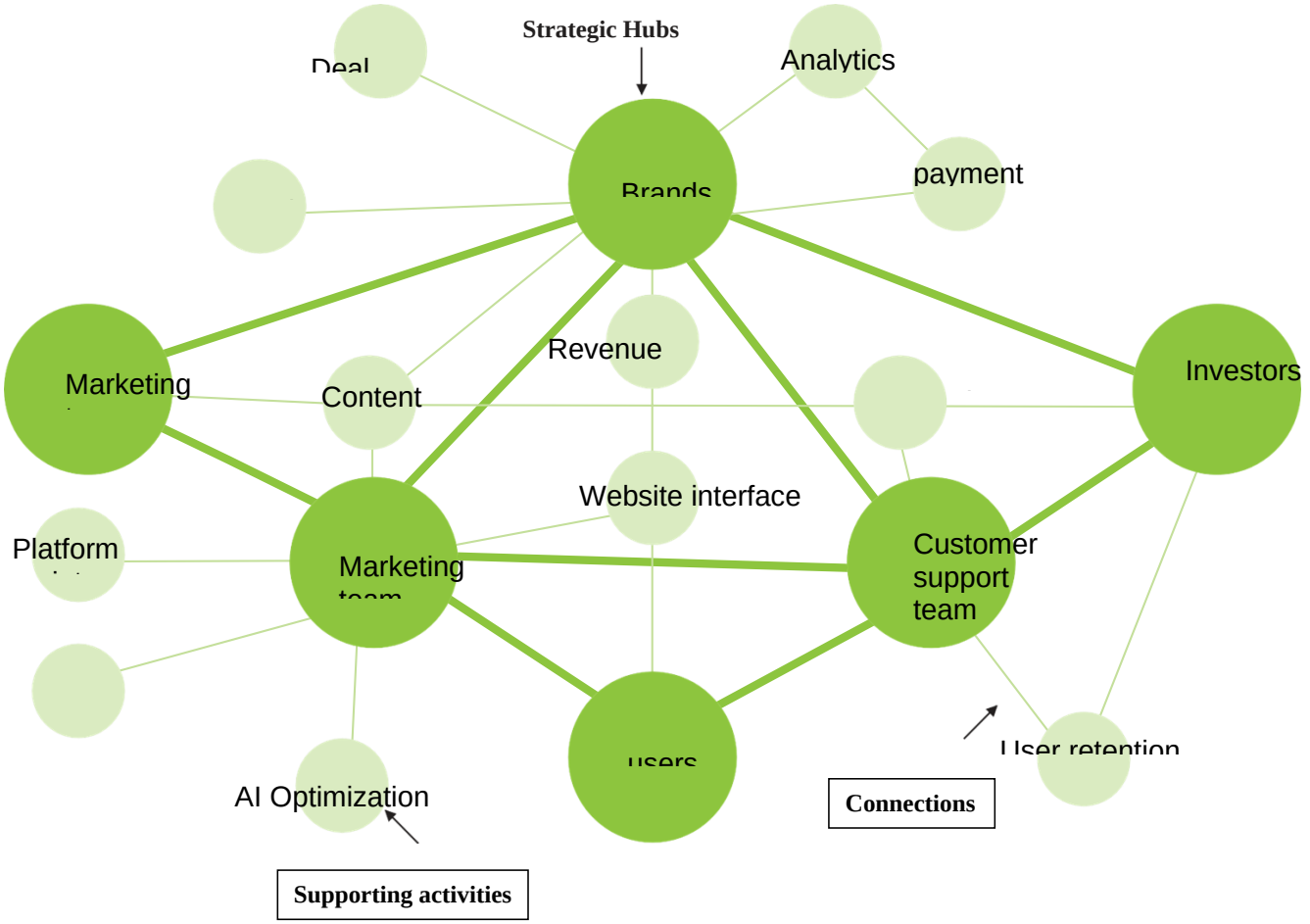
MAPPING ORGANIZATION ACTIVITY

SYSTEM

"Unlock Deals, Elevate Savings – Your Shopping, Your Way!"

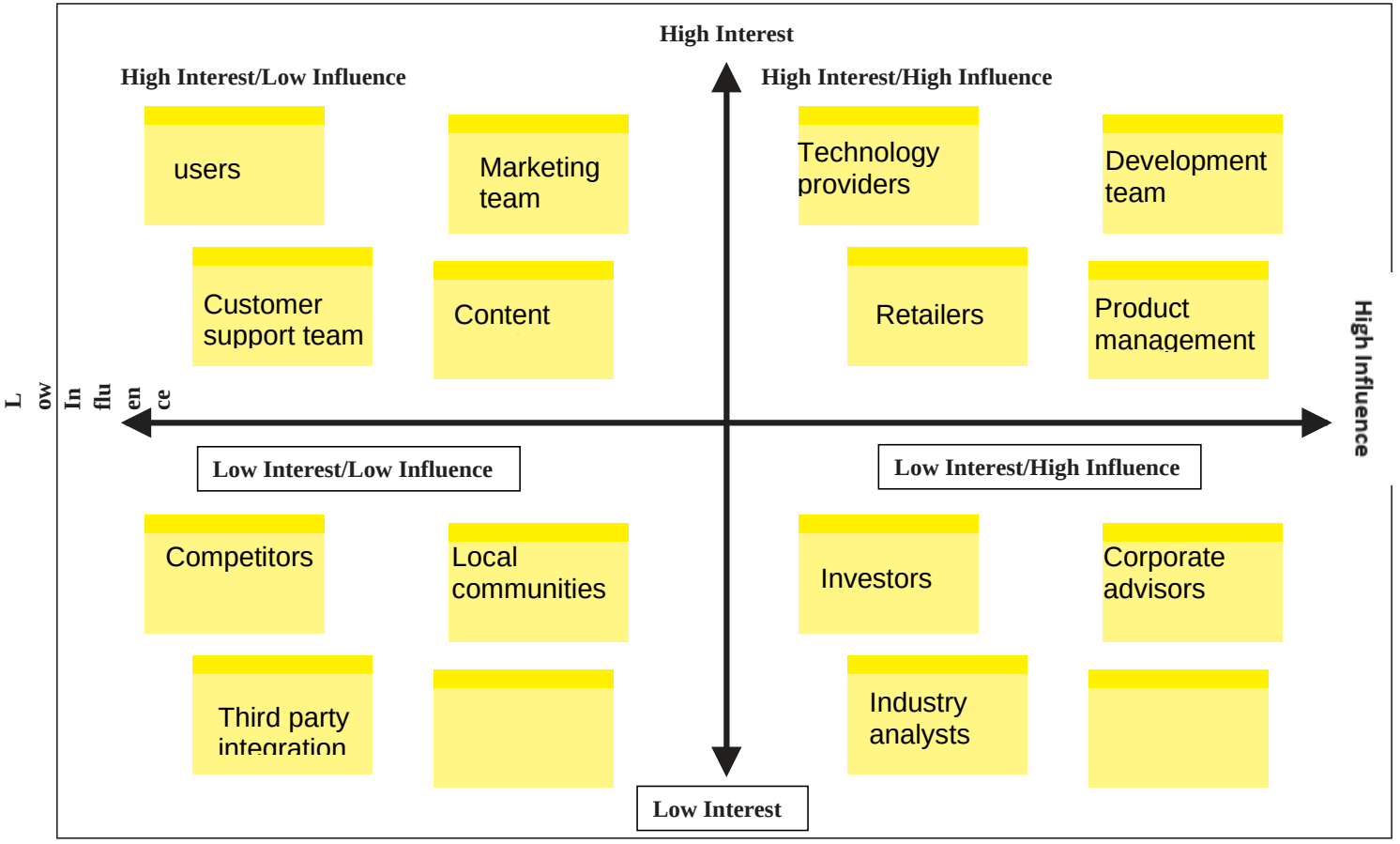
User Engagement and Retention	Brand Partnership and Monetization	Platform Development and Optimization	Marketing and User Acquisition
Implement push notifications for timely deals Develop a referral program Create user onboard tutorials Introduce gamification elements	Host brand-sponsored events Develop case study highlights Create a self-service portal Negotiate deals with top brands	Implement bug tracking system Optimize mobile app Conduct regular platform stress tests Implement advanced analytics	Run seasonal marketing campaigns Create content marketing materials Utilize email marketing Leverage SEO strategies

STAKEHOLDER MAPPING MATRIX



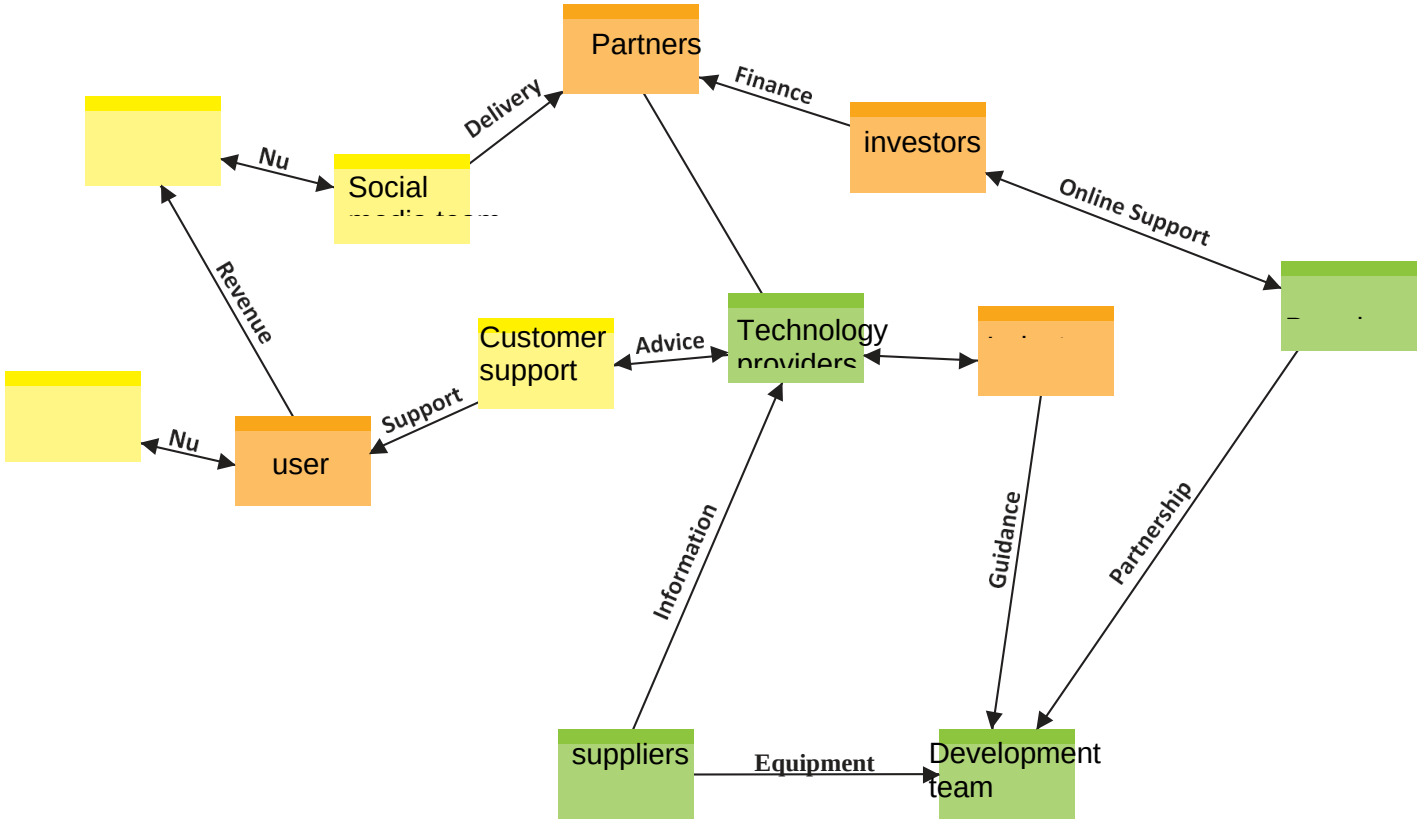
STAKEHOLDER MAPPING MATRIX

(Identify your relevant key stakeholders)



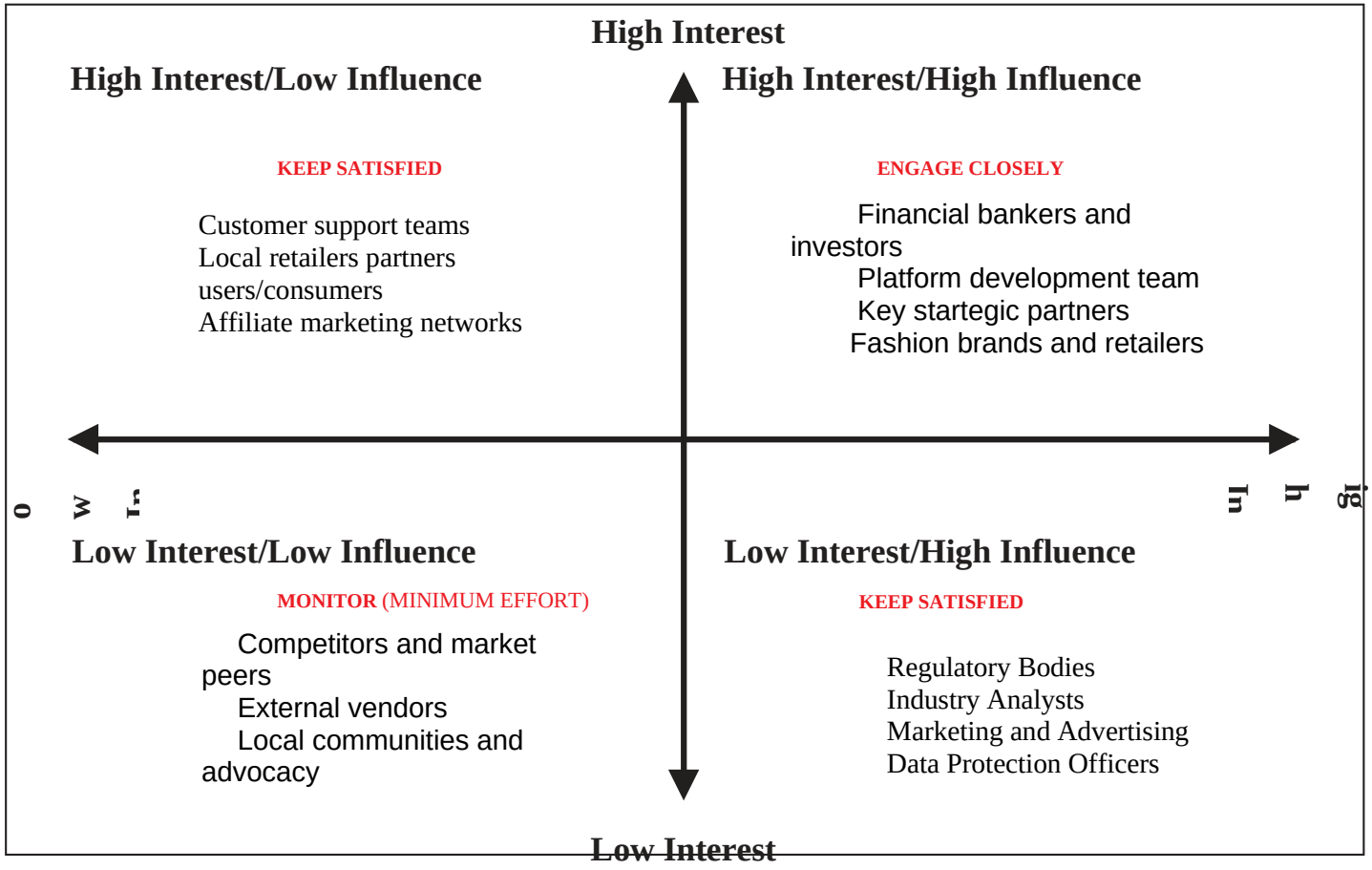
STAKEHOLDER LINKS & RELATIONSHIP MAPPING TEMPLATE

(Define the links and relationships between stakeholders)



STAKEHOLDER PRIORITY MAPPING MATRIX

(Develop engagement Strategies)



Key Stakeholders	Relationships	Stakeholder's Interest(s)in the Design Challenge	Impact Assessment	Strategies to Gain Support or Reduce Obstacles
Fashion brands and retailers	Partnerships providing deals and content	Gaining visibility and engagement	High impact for visibility	Offer exclusive brand promotions
Technology providers	Suppliers to key stakeholders	Showcasing and platform functionality	High impact on functionality	Maintain strong tech solutions
Users (shopping fashion)	Engaging with users on platforms	Receiving personalized recommendations	Core drivers of engagement	Continuous personalized recommendations
Affiliate marketing networks	Revenue from affiliate campaigns	Access to campaign conversion insights	Medium impact on influence and reach	Optimize campaign structure
Marketing and advertising agencies	Partnerships investing in acquisitions	Providing new ad formats	Medium impact on user acquisition	Engage new advertising opportunities
Investors and financial backers	Financial growth support	Enhanced funding and growth	High impact for funding and growth	Invest in targeted campaigns
Regulatory bodies	Enforcers of compliance and regulations	Compliance with evolving regulations	High impact on adherence to laws	Explore collaboration opportunities
Industry analysts and market researchers	Ensuring users are informed	Insights into consumer behavior	High impact for actionable insights	Provide consumer insights for retention
Customer support team	Influencers of customer perception	Support for enhanced customer satisfaction	Medium impact on customer trust	Monitor strategic actions
Content creators and influencers	Ensuring content compliance	Innovation through feedback	High impact for brand credibility	Maintain compliance

PROJECT BRIEFAND OPPORTUNITY FRAMING TEMPLATE

A. CHALLENGE OR PROBLEM DEFINITION		
Project Sponsor	Organization Name	TATA DIGITALS
	Address and Contact	MUMBAI
	Contact Person(s)	696961969
Project Title		
Design Challenge	The platform is designed to help users discover unadvertised, time-sensitive deals from various brands, focusing on sudden discounts that are often missed. It offers personalized recommendations based on trends, user preferences, and product materials. The platform serves as a hub for deal discovery.	
Design Challenge Context and Background Info	What are the issues and opportunities that inspired this Design Challenge The design challenge emerged from the need to help users easily find sudden, lesser-known deals that they frequently overlook while also giving brands a platform to enhance the visibility of these offers.	
	Why does this Design Challenge matter to the organization	

PROJECT BRIEFAND OPPORTUNITY FRAMING TEMPLATE

A. CHALLENGE OR PROBLEM DEFINITION (contd...)	
Goals and objectives of the Design Challenge	● Create an automated recommendation system for personalized deals. ● Build a scalable, multi-brand deal aggregation platform. ● Enhance user satisfaction with relevant trend-based suggestions.
Target users of this Design Challenge	● Shoppers seeking the best deals. ● Fashion enthusiasts interested in material-specific offers. ● Bargain hunters looking for personalized recommendations.
Other key stakeholders	● Fashion brands and retailers ● Technology providers (AI, data aggregation) ● Affiliate marketing networks
Previous efforts to solve this Design Challenge	● Platforms with basic deal aggregation and limited personalization ● Single-brand or category-focused solutions lacking comprehensive user experiences

PROJECT BRIEF AND REFRAMING PROJECT CHALLENGES TEMPLATE

B. OPPORTUNITY FRAMING	
Real issues behind this Design Challenge	● Ensuring timely and accurate updates of deals to prevent users from missing out. ● Convincing brands to pay for featured placements in a non-shopping platform. ● Balancing free and paid deal placements without compromising user experience.
Inspirations from others in solving this Design Challenge	● Newspaper advertising models where placement is paid. ● Google's search result ad placements (Ad Words). ● Deal aggregator platforms that track and display time-sensitive offers. ● Spotify's personalized playlist algorithms.
Teams' contributions	● AI developers for refining recommendation algorithms. ● UX designers for creating an intuitive user interface. ● Data analysts for monitoring trends and user behavior. ● Partnership managers for securing brand collaborations.
Success criteria	● High user engagement and retention rates. ● Increased conversion rates for deals. ● Positive feedback from users and brands. ● Scalable and reliable system performance.
"HOW MIGHT WE "Opportunity/ possibility statement	**"HOW MIGHT WE" Opportunity/possibility statement:** How might we create a platform that allows users to discover unadvertised or sudden brand deals, ensuring they don't miss out on limited-time offers?

REFRAMING THE OPPORTUNITIES TEMPLATE

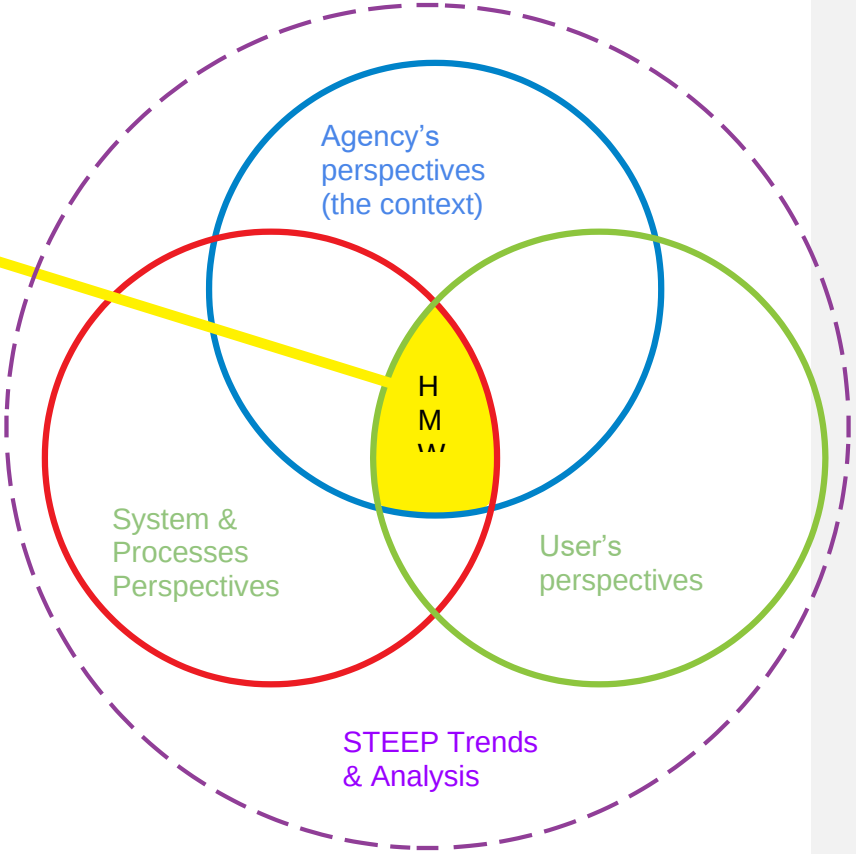
Reframe your opportunities and filter one

"How might we know ?"

1."How might we help users find unadvertised, time-sensitive brand deals?"

2."How might we incentivize brands to pay for premium deal placement?"

3."How might we tailor recommendation boards based on user preferences towards product materials?"



EMPATHISE
PHASE

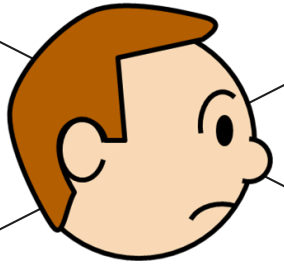
POEMS FRAMEWORK TEMPLATE

Location:CHENNAI	**Date/Time/Period:29/10/2024**	
Report By:DHONI		
POEMS Framework	**Field Visit and Onsite Observation**	**Insights**
People: Who are involved? (E.g., commuters, street vendors, office workers, children, motorists, delivery men, etc.) What roles do they play? How are the people engaging with each other? How are they related? What are the relationships? What is the social context?	Users looking for deals Users visit the site to discover deals; Users benefit from finding deals	Users are motivated by finding hidden or sudden deals.
Objects: What artifacts are important? (E.g., bus stops signage, traffic lights, benches, etc.) What roles do they play? How are people engaging with the objects, and with their surrounding? What is interaction? How does the object influence people's behavior?	Deal listings, brand logos, product images.The clear display of deals influences user browsing behavior.	Clear display of deals directly impacts user engagement.
Environment: Where is the action taking place? (e.g., public bus, road side, government office, garden, etc.) What is happening? What are the people doing? How do the people behave in this environment? How does the environment influence people's behavior? What is the mood? Ambience?	Online platform; users access from mobile/desktop.Easy-to-navigate interface encourages exploration and engagement.	An easy-to-navigate interface promotes longer user sessions and engagement.
Messages & Media: What are the messages and communication media used? (e.g., signage, online materials, posters, apps, etc.) What roles do they play?	Displayed offers, notifications, personalized recommendations.	Personalized deal notifications attract more user interaction.
Services: What are the services and support systems provided? (e.g., registration, library services, hands- on guide, online booking, etc.)	Deal notifications, search filters, brand-specific deal pages.	Efficient notification and filtering systems increase the chances of users finding relevant deals quickly.

GENERATE INTERVIEW QUESTIONS

- What does the user think & feel?
- What is really important to the user?
- What drives the user?
- What worries the user?
- What are user's aspirations

- What does user hear from others?
- What do friends and family say?
- Who influence the user and how?
- What communication channels are Sad? influential>



- What does user see?
- What does it look like?
- Who surrounds the user?
- Who are the user/s friends?
- What makes the user happy? Proud?
- What problem does the user encounter?

What does the user say? Do?

- What is the user attitude?
- What could the user be telling others?
- Are there conflicts between what the User says/ does and truly thinks & feels?

PAIN?	• What barrier and challenges does the user face? • What are the user's frustrations? • What obstacles are there? • What makes user feel indifferent?	**GAIN?**	• What makes user happy or satisfied? • What does the user truly want? • How does the user measure value? • What gives user passion/motivation?

EMPATHY MAP & USER JOURNEY TO GENERATE INTERVIEW QUESTIONS

DOING	SEEING	HEARING/SAYING	FEELING/THINKING	FRUSTATION	NEEDS/WANTS
When does target User go there? How does target User go there?	Sections for trending and popular deals.	"Which brand is offering the best deals right now?"	Excited about discovering unexpected discounts.	Deals disappearing before users complete the checkout process.	A clever notification system for favorite deals.
Browsing different brand sections to find deals.	Real-time notifications about expiring deals.	"I hope I can find a deal on my favorite product."	Anxious about missing time-limited offers.	Inconsistent notification delivery about newly available deals.	A faster and more seamless browsing experience.
Sorting deals based on percentage discount.	Dynamic advertisements from brands paying for promotion.	Why is this deal only available for a short time?"	Confident navigating through a platform's user-friendly interface.	Certain brands not offering relevant discounts.	More brand-specific options and information.
Using the search bar to look for specific products or brands.	Color-coded labels for new, trending, or limited-time deals.	"I hope I can trust this deal or promotion."	Concerned about authenticity of certain promotions.	Confusing expiration details for deals.	More control over the deal suggestion algorithm.
Checking terms and conditions before purchase.	Seamless transition between desktop and mobile view.	"This deal looks too good to be true."	Hopeful that they receive notifications for better deals in the future.	Limited stock availability for the most attractive deals.	A simplified comparison tool for similar deals.

USER INTERVIEW

NOTES

Interviewer Name	JAHI
Note Taker & Observer	ABHINAV
Interviewee Name	GOPI
Interviewee contact details	1234567894
Date/Time of Interview	21/9/24
Interview Location	CHENNAI
Interview's background information	
Gender	MALE
Age Range	30-37
Profession	WORKING PROFESSIONAL,FASHION ENTHUSIAST
Education Background	UNIVERSITY-EDUCATED,PROFICIENT WITH TECHNOLOGY
Family	MIXED LIVING ALONG WITH FAMILY AND FRIENDS
Hobbies	Fashion, trendspotting, online shopping, staying up-to-date with offers.
Likes/Dislikes	Unique fashion pieces, hidden discounts, curated offers./ Irrelevant deals, overly complex interfaces, missing out on limited-time offers.
Interview Notes (Verbatim)	**Observations/Quotes**
Users desire an easier way to track offers from their favorite brands. They dislike feeling	"I love finding discounts, but I don't have the time to search through tons of irrelevant deals." "I just want to get notified when there's something for me — no spam.

POST INTEREVIEW

DEFREIFPRESENTATION:

Interviewee's Goals & /or Motivation	**Interviewee's Aspirations:**
To discover hidden or unannounced deals from favorite fashion brands.	Aspires to create a user-friendly, scalable platform that delivers deals from various brands.
Interviewee's Current Experience	**Interviewee's Challenges &/or Pain Points**
Has a balanced approach but seeks a bit more experience with technical implementation.	Lack of a unified platform to track all brand-specific sudden offers. Needs more clarity on how to streamline the process efficiently.
3 most memorable things about the interviewee:	**User Insights &/or needs**
Demonstrates confidence. Positively receptive to feedback. Organized in presenting ideas.	• Desire for a clean, user-friendly interface for deal discovery. • Open to suggestions and willing to adapt based on feedback.

POST INTERVIEW DISCUSSIONS: ABOUT THE PROCESS

What went well with the Interview?
The interview was organized, and the flow of questions was smooth. The interviewee responded confidently and stayed focused on key points.
What did not go well with the Interview?
Some questions required further clarification to gain deeper insights. Timing felt slightly rushed toward the end.
How can we do better for next Interview? Allocate more time for follow-up questions. Ensure more open-ended questions to encourage detailed responses

POST INTEREVIEW

DEFREIFPRESENTATION:

END OF INTERVIEW NOTES

Summary profile of interviewee

	Insert Photo Here		A savvy shopper who values both exclusivity and convenience in their shopping experience. They actively seek deals but don't want to spend too much time sifting through irrelevant offers.

Summary profile of interviewee

Goals/Motivation: Wants to find deals quickly and without hassle. Needs a clean and efficient platform that focuses on their shopping preferences	**Aspiration:** To streamline the shopping experience, cutting down time wasted on irrelevant content and staying informed about relevant deals.
Current Experience: Finds current deals websites cluttered and full of noise. Misses deals due to poor-timed notifications and overwhelmed interfaces.	**Challenges and Pain Points:** Struggles with poor notification systems and irrelevant deal suggestions. Often feels frustrated by missed opportunities
3 most memorable things about the interviewee: Struggles with poor notification systems and irrelevant deal suggestions. Often feels frustrated by missed opportunities	**User Insight & Deep Needs:** Needs a platform tailored to their preferences. Timely notifications and clear, concise offers are important. A more personalized and streamlined approach to deal discovery is essential for continued engagement.

DOCUMENTING INSIGHTS & NEEDS:EXAMPLE

INSIGHT #:

User finds it difficult to track sudden brand promotions

Insert narrative of the user insight, needs, quotes here.

The existing platforms are cluttered with too many irrelevant deals, making it hard to focus on deals from specific brands or categories.

Need:

The existing platforams are cluttered with too many irrelevant deals, making it hard to

Quotes 1:

I always find out about deals too late. I need a platform that alerts me on time."

Quotes 2:

"There’s too much noise on deal platforms; I just want to see the offers that matter to me."

PERSONA CANVAS	Persona Name:

Demographic

Profile: Age:27

Gender:female

Home:chennai

Goals:
Discover exclusive brand deals not widely advertised

Deep Need Statement

Needs a reliable, streamlined platform to get personalized and timely deal notifications

Motivation ?aspiration:

Simplify the shopping process and stay ahead of trends with personalized

Diversity of Needs:
Personalized recommendations based on preferences
Timely alerts for favorite brands and categories

Hobbies/Likes: fashion , saving money , exploring deals

Dislikes:missing out deals,cluttered websites

Challenges/Pain Points:
Often misses sudden or time-sensitive deals
Feels overwhelmed with too many irrelevant deal suggestions

Social & Family Lifestyle:
Busy lifestyle, often looking for quick shopping solutions online

Behavior:
Regularly checks for deals but gets frustrated with too much irrelevant content

EXPERIMENT PHASE

SCAMPER WORKSHEET

S	**Substitute**	(*What can you substitute? What or who could you use instead?*) Substitute traditional advertising with personalized deal suggestions, making marketing more targeted and less intrusive.
C	**Combine**	(*What can you combine or bring together?*) Combine deals from different brands into a single personalized feed. Combine user preferences with trend data to improve engagement.
A	**Adapt**	(*What can you adapt for use as a solution?*) Adapt the recommendation system to account for regional preferences. Align the UI to reflect popular formats on geolocated devices.
M	**Modify**	(*Can you modify or change the item in some ways?*) Modify how users encounter deals by adding a filter for urgency. Simplify the display to highlight lesser-known or highly relevant offers.
P	**Put to other uses**	(*What other or new ways could this be used?)* Platform for current promotions and advertisements. Allow local stores to display limited-time offers to users.
E	**Eliminate**	(*What can you get rid of?*) Eliminate outdated or expired deals from the feed. Eliminate unnecessary categories to simplify navigation.
R	**Reverse**	(*What could you rearrange or change around?*) Revise how consumers engage with brand offers by promoting a more user-friendly view of deals.

RECONNECTING WITH OUR PERSONAS

Behaviors	Aspirations	Motivations	Challenges	Pain Points
Frequently checking for new deals. Engaging with personalized recommendations. Sharing deals with friends or social media.	Discovering exclusive, hidden deals before others. Saving money on favorite brands. Keeping up with trendy offers.	Desire to find the best deals on branded items. FOMO (fear of missing out) on sudden discounts. Personalized offers aligning with preferences.	Difficulty in navigating the deals quickly. Information overload from multiple brands. Limited time offers that expire too quickly.	Missing out on flash sales or limited deals. Not finding deals relevant to their preferences. Receiving notifications for irrelevant deals.

User Insights

Users appreciate real-time updates on relevant offers.
They want a clean, easy-to-navigate interface.
Personalized, transparent interaction enhances engagement.

Deep User Needs

Timely, relevant notifications for deals.
An efficient filter to sort offers based on user preferences.
Seamless browsing experience with clear categories.

Constrains &/or Design Criteria

Ensure real-time updates without slowing down the interface.
Simple, intuitive design.
Balance between promotional content and user-friendly experience.

ENGAGE PHASE

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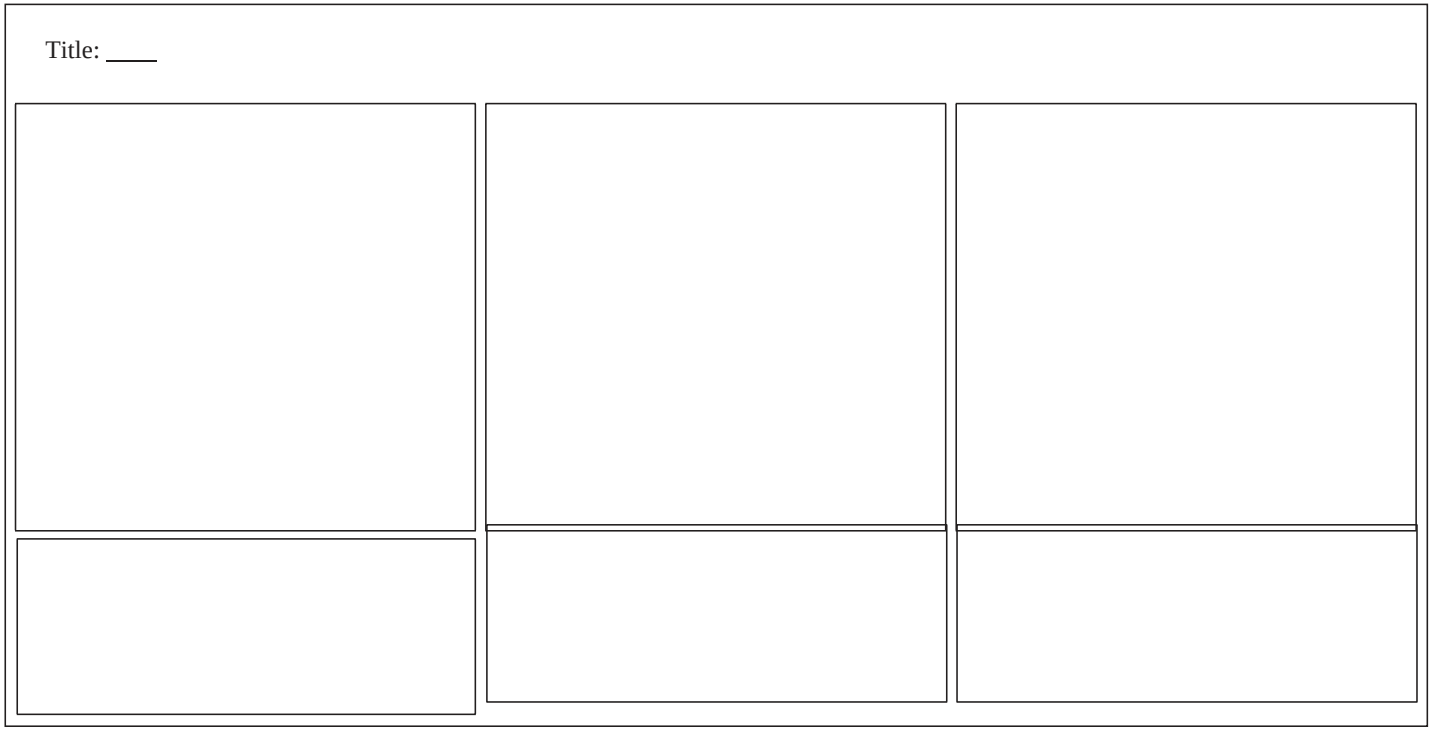
STORY BOARD

Directions:

- Review your persona, the ideal user experience journey and the prototype you have created.
    - **Brainstorm how you intend to illustrate your persona's story in a coherent manner including the narratives.**
- Use the story board template / canvas provided and start drawing.

Title: ____



STORY BOARDING

BEGINNING **MIDDLE** **END**

The Persona	The setting	The Problems	The Solutions	The Resolutions
Age Groups: Young adults and middle-aged users. **Demographics:** Fashion-conscious individuals looking for the best deals on trending clothes. **Tech-savvy users:** People using apps or websites for shopping and tracking brand discounts.	**Online shopping habits:** Users frequently browse offers. **Shopping occasions:** Special or spontaneous purchases. **Platforms:** Web or mobile.	Missed deals: Users miss out on limited-time, exclusive discounts. Unawareness of sudden promotions. Users are not informed about brand-specific time-limited offers in real time.	**Platforms for Curated Deals:** A website aggregating offers across multiple brands. **Notifications:** Alerts when brands introduce flash sales or specific discounts. Users can follow and prioritize deals of their preferred brands.	Users are more informed and make better purchasing decisions. Users become more engaged with brands and are less likely to miss discounts.

EVOLVE PHASE

STRATEGIC REQUIREMENT TEMPLATE

Strategic Requirements	The Big Idea or the Idea Concept (Main Solution to be delivered)		
Key Solution Components of the Big Idea	Backend integration for real-time feature updates displaying trending/popular deals.	scrolling features to display trending popular deals	Recommendation engine to suggest deals based on past history using machine learning algorithms.
Capabilities Required to Deliver this Solution Component	A dedicated API for brand data integration.	data analytics for user behavior tracking	Machine learning recommendation algorithm
Current Organizational Assets & capabilities to be Leveraged	Existing web development framework.	pre existing brand partnership with fashion brands	expertise UI/UX design
Development Strategy to develop this capability (if needed)	initial development using agile methodologies	testing with pilot groups for feedback improvements	scaling recommendation algorithm
Requirements and cost to develop (high / med / low)	high cost backend API integration		ongoing cost for data analytics UI/UX Updates
External Sources of Expertise (potential partnership)	Collaboration with experts in forward-looking recommendation algorithms.	partnership with marketing aspects for brand promotion	Potential partnerships with design experts for UI/UX improvements.

EVOLVING THE PROCESS FOR DELIVERY

Key Solution Component	Workflow / Process Needed to Implement the Solution					
(Input Your Solution Component 1)	Process 1 (Header) Create Deals	Process2 (Header) Categorize Deals	Process3 (Header) Verify Discounts	Process4 (Header) Real-Time Updates	Process 5 (Header) Display Deals	Process6 (Header) User Interaction Monitoring
	Process1(De- scription)	Process 2 (Description)	Process 3 (Description)	Process 4 (Description)	Process 5 (Description)	Process 6 (Description)
(Input Your Solution Component 2)	Gather preferences	Collaborative filtering	content based filtering	trend analysis	tailored deal display	continuous optimization
	collect data on user likes and dislikes	Recommend deals based on similar user behavior	suggest deals similar to past user interests	Highlight deals that align with market trends	show personalized offers on the user home page	update recommendations as user preference charge
(Input Your Solution Component 3)	Identify partners	Negotiate visibility	Set up profiles	Integrate deals	monitor brand success	adjust visibility
	Target brands that align with platform deals	Set terms for featured placements	create brand profiles for easy identification	Add brand specific deals	track the performance of each brand deals	modify deals visibility
(Input Your Solution Component 4)	establish forums	facilitate feedback	moderate discussions	highlight reviews	community buildings	reward engagement
	Det up platform for users	encourage users to share opinions	ensure constructions are constructive and on topic	share valuable user reviews	poster an inclusive and interactive user environment	provide incentives for active users

IMPACT EVALUATION INDICATORS

Criteria	**Indicators & Measurement**	**Stakeholders**
Social Value Creation	1.…Empower users to find deals they couldn't before. 2.…Give small brands equal visibility.	1.…Drive cost-conscious behavior for users.
Stakeholder Satisfaction	1.…Increased conversion for brands through promotions. 2.…Higher retention and satisfaction for users.	1.…Positive feedback from users about savings.
Solution Sustainability	1.…Ongoing partnerships with brands. 2.…Regular updates and maintenance of the platform.	1.…User feedback loop to improve the experience.
Solution Scalability	1.…Add more brands as user base grows. 2.…Introduce localized deals for different regions.	1.…Scale recommendation models for millions of users.

ACTION PLANNING TO ADVANCE THE DESIGN CHALLENGE PROJECT

Idea What idea for implementation	**Objectives** Why is this idea important? Values and benefits	**Responsibility** Who will lead this?	**Implementation** How will this be Implemented?	**Resources** What capability and resources are needed?	**Completion** When will this be completed?
Implement a web platform for real-time deal discovery.	Improve access to lesser-known brand discounts.	Project Manager to oversee implementation.	Build using Django for backend and React for frontend.	Development team, hosting, API subscriptions.	expected to complete the MVP within three months
Introduce personalized recommendations based on user preferences.	Increase user engagement with personalized short deals.	UI/UX designer for aesthetics.	Integrate APIs for brand updates.	API across for brand deals	Full platform launch in six months
Create a community-driven forum for users to share deals.	Provide a user-friendly experience.	Backend developer to manage real-time data.	Launch real-time personalized features post-launch.	Budget for hosting and API subscription	ongoing updates for added features post launch

IDENTIFYING QUICK WIN

What is this Quick Win (1) about?	Launching the personalized recommendation feature to improve user engagement and retention by suggesting deals based on their preferences and interactions.
What are the success indicator(s)? How would it (these) be measured?	Increased user engagement Higher conversion rates Positive feedback in community forums
What are the resources / staff trainings needed?	Data scientists for recommendation models Developers to implement and test the feature
Who will lead this Quick Win implementation?	Product manager for coordination Data science lead for algorithm optimization
What are the key steps needed to implement this Quick Win? What is the timeline till completion?	Analyze user data to understand preferences Develop and test machine learning models Integrate recommendations into the platform
When will be the status or progress update?	After the initial 4 weeks during testing Weekly performance updates after launch
When will this be completed?	Estimated completion: 2 months from project start
How would the Success be communicated?	Through product updates, blog posts, and email notifications.

Concept synthesis

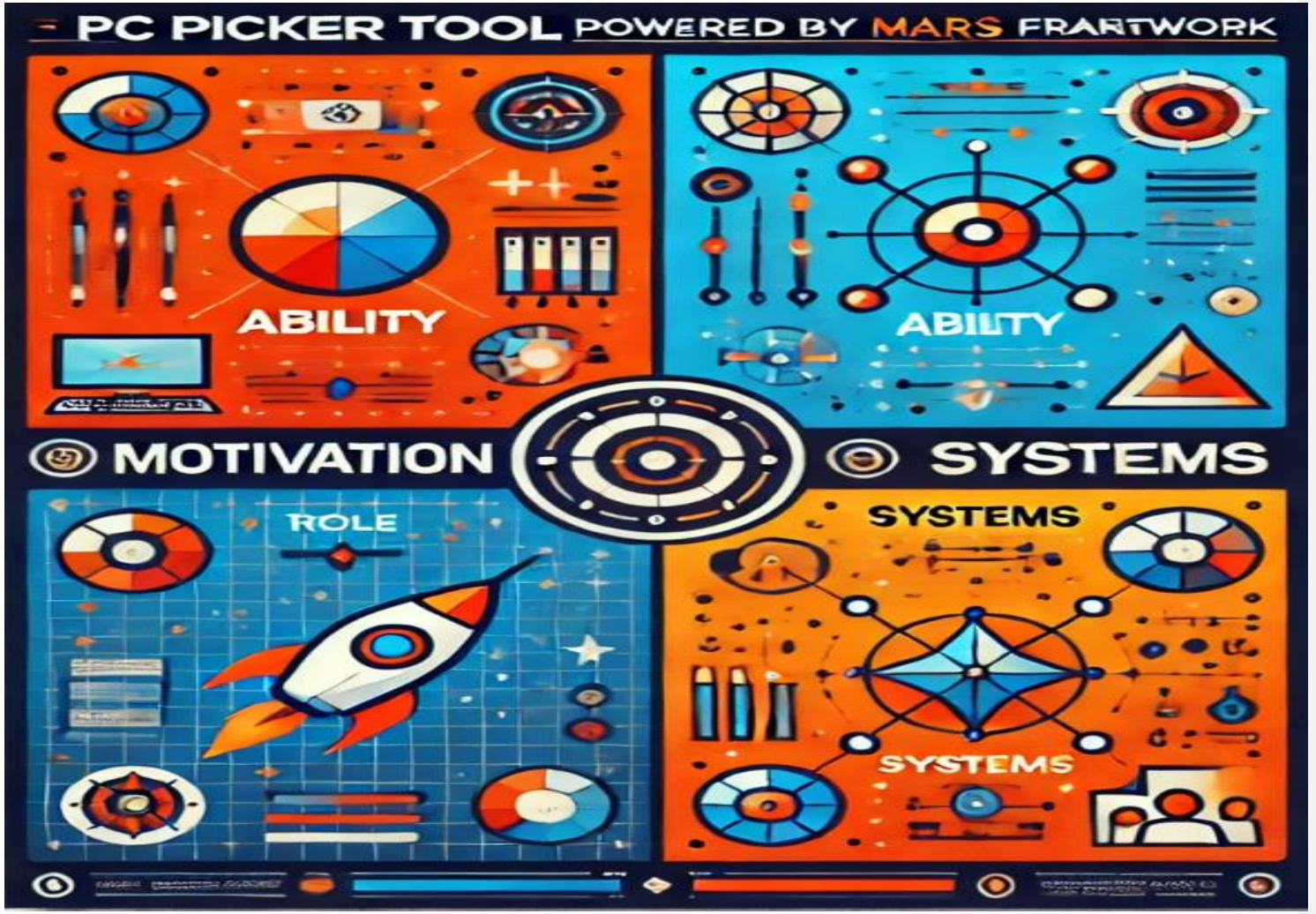
<table>
<tr><td>Design Challenge</td><td colspan="2">How Might We...Help users discover and access exclusive, unadvertised discounts in real time?</td><td>Solution Concept</td><td colspan="2">A real-time deal aggregation platform that uses AI-powered recommendation algorithms to offer personalized discounts for popular brands.</td></tr>
<tr><td colspan="2">Persona:Actively look for deals and discounts to save money on popular brands.</td><td colspan="2">Users may miss out on short live deals if not alerted properly</td><td rowspan="5">Value Propositions to Organizations/Agency:<ul><li>Monetization through brand partnerships and targeted promotions.</li><li>Data analytics on user behavior and preferences to enhance offers.</li><li>Opportunity to differentiate in competitive markets using unadvertised deals.</li></ul></td></tr>
<tr><td colspan="2">Deep Needs:A convenient way to access real-time, exclusive deals that align with their interests.</td><td colspan="2">Value Propositions to Target Users:Personalized deal discovery that aligns with preferences and budgets</td></tr>
<tr><td colspan="2">Gains:Access to Sudden, exclusive discounts not widely advertised</td><td colspan="2">User Need(Problem) Solvers:A centralized platform for discovering deals from multiple brands without needing to check each store individually.</td></tr>
<tr><td colspan="2">Pains: Brands may struggle To stand out without effective channels to quickly reach potential customers.</td><td>Gain Creators:Partnerships with brands offering exclusive deals not available elsewhere.</td><td>Pain Relievers:Brands can efficiently promote and target relevant audiences, reducing the challenge of reaching customers effectively.</td></tr>
</table>

M-A-R-S FRAME WORK

Use the MARS framework to understand the people's behavior in the face of the change and innovation **Motivation** It is about the **Why** / the **Will** to change		**Ability** It is about the **Tools** and **Skills**	**Role** It is about defining **Roles/To Rs**	**Systems** It is about the **Support** system **(Resources)**	
Engage team in conversation to connect and to empathize. Listen to welcome the truth and to gain trust	**Think**	Simplify the platform interface with easy navigation.	Define the role of brand partnership support teams to manage collaboration efficiently.	Integrate a system for deal aggregation with real-time updates	
	Feel	Reduce ambiguity through user-friendly design, empower each role to feel clarity, and provide meaningful progressions.	Designate dedicated teams for partnership management and technical support.	Ensure the reliability of the platform with feedback mechanisms for continuous improvement.	
	Do	Take actionable steps that enable easy access to the platform and its features.	Define responsibilities for monitoring platform performance and gathering feedback.	Utilize customer feedback loops to continuously optimize the platform.s	

WHAT IS OUR CHANGE MANAGEMENT PLAN

Vision (Reasons)for change	Staff Engagement	Communicate vision for change	Implementation Plan	Empower people for change	Create Quick Wins
Improve deal accessibility and user experience. Enhance partnerships for better visibility. Leverage AI for personalized recommendations. Increase user engagement through community features	Involve teams in design and testing. Provide updates on progress and achievements. Share success stories to encourage adoption. provide training on new AI and ML technology	Share success stories to encourage adoption. encourage of feedback through survey and forms use news,letters, and mai to update on changes	Collaborate with brands to incorporate offers. roll out the platform in phases starting with pilot Monitor user feedback and optimize features	Enable autonomy by equipping users with tools. provide access to resources and learning materials offer incentives for innovative ideas	Launch features that allow instant deal notifications showcase user feedback to demonstrate platform values highlight ay early brand partnership as sucess


PC PICKER TOOL POWERED BY MARS FRAMWORK
ABILITY
ABILITY
MOTIVATION
SYSTEMS
ROLE
SYSTEMS
SYSTEMS

RESULT AND DISCUSSION:

The implementation of the personalized deal discovery platform has demonstrated promising outcomes, effectively addressing the core challenges identified during the design phase. User engagement has increased significantly through targeted notifications and curated recommendations, showcasing the platform's ability to connect users with relevant, time-sensitive offers. Key performance metrics, such as user retention, conversion rates, and feedback from both users and brand partners, indicate that the solution is not only viable but impactful. The seamless integration of real-time updates and personalized algorithms has provided users with a clutter-free browsing experience, reinforcing the need for tailored shopping platforms. Additionally, the platform's ability to adapt to emerging trends and incorporate user preferences ensures sustained relevance in a dynamic market. This section discusses the key findings, challenges encountered during development, user feedback, and the strategic impact of the platform on both users and partnering brands.

ALGORITHMS USED:

Recommendation Algorithms:

- Collaborative Filtering: This algorithm identifies users with similar behaviors (such as purchase history or viewed deals) and suggests deals based on shared patterns. For example, if User A likes Brand X and User B also likes Brand X, User B may receive recommendations based on deals User A viewed or purchased.Content-Based Filtering: This focuses on individual user preferences, such as a user’s favorite product categories or brands. The algorithm recommends deals aligned with what the user has interacted with, ensuring highly relevant suggestions.

Grouping and Segmentation Algorithms

- User Segmentation for Targeting: The platform organizes users into distinct segments based on behavior, such as frequent shoppers, discount seekers, or brand enthusiasts. These groups receive personalized offers matching their interests, improving engagement and relevancy.Trend-Based Grouping: Products and deals are grouped based on popularity trends or seasons. For example, fashion products might be clustered by current trends (like winter wear) to highlight deals during relevant periods.

Feedback and Sentiment Analysis Algorithms

- Sentiment Analysis for User Feedback: The platform processes reviews and feedback to understand user satisfaction and pain points. Positive feedback reinforces specific recommendations, while negative responses lead to improved deal suggestions or notifications.Feedback-Driven Adaptation: User responses to recommendations are continuously analyzed to fine-tune the algorithms. This helps the system learn from user behavior and optimize future notifications or suggestions based on what works.

Notification Management Algorithms

- Rule-Based Filtering: This approach prioritizes sending notifications based on specific conditions like deal expiration or discount percentage. Users receive alerts for deals that are urgent or match their preferences, preventing missed opportunities.

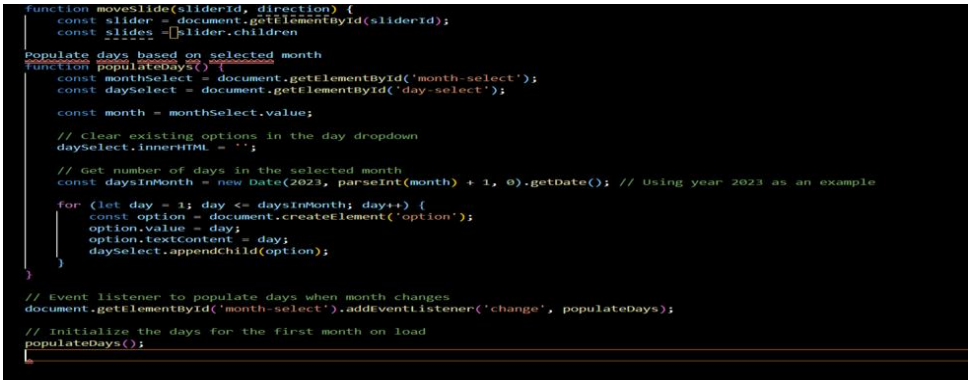
IMPLEMENTATIONS:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Sliding Carousel Bars</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css">
    <link rel="stylesheet" href="styless.css">
    <style>
        /* Style for the dropdown */
        .dropdown-menu {
            display: none;
            position: absolute;
            background-color: white;
            right: 0;
            padding: 15px;
            box-shadow: 0px 8px 16px rgba(0, 0, 0, 0.2);
            z-index: 1;
            border-radius: 10px;
            width: 250px;
        }
        .dropdown-menu.show {
            display: block;
        }

        .form-toggle {
            display: flex;
            justify-content: space-between;
            margin-bottom: 10px;
        }

        .signup-form {
            display: none;
        }

        .form-control {
            margin-bottom: 10px;
        }
    </style>
```

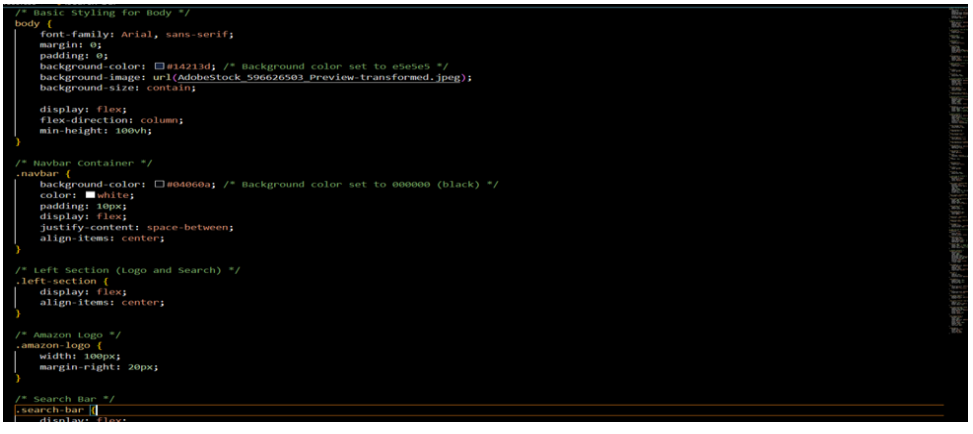
```
    }
    </style>
</head>
<body>

    <!-- Primary Navbar -->
    <div class="navbar">
        <div class="left-section">
            <!-- Logo -->
            <img src="IM
            <!-- Search
            <div class="
                <input t
                <button class="search-button">🔍</button>
            </div>
        </div>

        <!-- Right Section -->
        <div class="right-section">
            <div class="nav-item">Account & Lists</div>
            <div class="nav-item">Returns & Orders</div>
            <div class="cart-icon">🛒 Cart</div>

            <!-- Login/Sign Up Dropdown -->
            <div class="login-signup">
                <div class="login-signup-icon">👤 Login / Sign Up</div>
                <div class="dropdown-menu">
```

A space-separated list of the classes of the element. Classes allows CSS and JavaScript to select and access specific elements via the class selectors or functions like the method Document.getElementsByClassName() .

MDN Reference

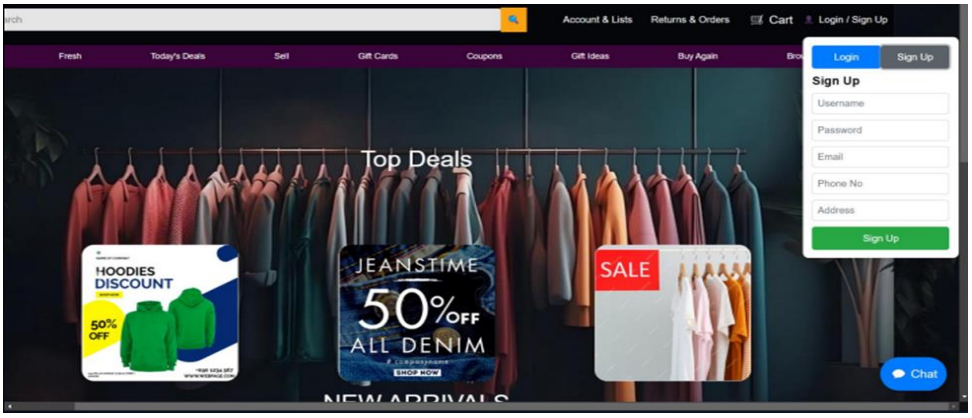


```
function moveSlide(sliderId, direction) {
    const slider = document.getElementById(sliderId);
    const slides = slider.children

Populate days based on selected month
function populateDays() {
    const monthSelect = document.getElementById('month-select');
    const daySelect = document.getElementById('day-select');

    const month = monthSelect.value;

    // Clear existing options in the day dropdown
    daySelect.innerHTML = '';

    // Get number of days in the selected month
    const daysInMonth = new Date(2023, parseInt(month) + 1, 0).getDate(); // Using year 2023 as an example

    for (let day = 1; day <= daysInMonth; day++) {
        const option = document.createElement('option');
        option.value = day;
        option.textContent = day;
        daySelect.appendChild(option);
    }
}

// Event listener to populate days when month changes
document.getElementById('month-select').addEventListener('change', populateDays);

// Initialize the days for the first month on load
populateDays();
```

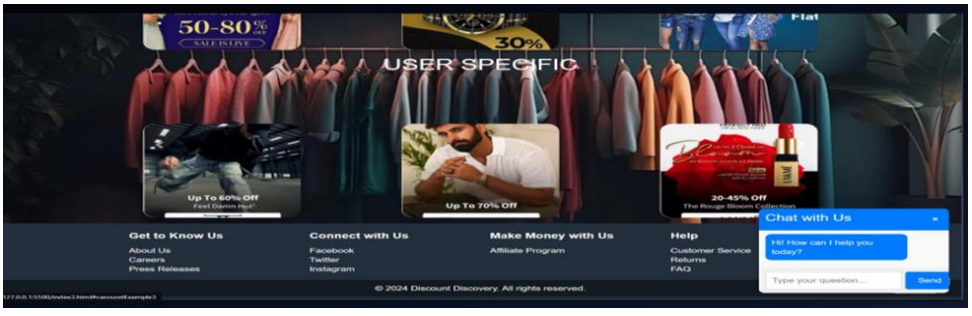


```
/* Basic Styling for Body */
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
    background-color: #14213d; /* Background color set to e5e5e5 */
    background-image: url(AdobeStock_596626503_Preview-transformed.jpeg);
    background-size: contain;

    display: flex;
    flex-direction: column;
    min-height: 100vh;
}

/* Navbar Container */
.navbar {
    background-color: #04060a; /* Background color set to 000000 (black) */
    color: white;
    padding: 10px;
    display: flex;
    justify-content: space-between;
    align-items: center;
}

/* Left Section (Logo and Search) */
.left-section {
    display: flex;
    align-items: center;
}

/* Amazon Logo */
.amazon-logo {
    width: 100px;
    margin-right: 20px;
}

/* Search Bar */
.search-bar {
    display: flex;
```

OUTPUT:



The first image displays the homepage of the platform, showcasing top deals on fashion products such as hoodies and denim, with an accessible sign-up and login panel to personalize the user experience. Key navigation options like gift cards, coupons, and today's deals are placed at the top, making it easy for users to explore offers. A live chat feature is also integrated for real-time assistance.



The second image highlights user-specific deals tailored to individual preferences, providing up to 70% discounts on selected items. It also features links to social media platforms and sections like customer service and affiliate programs. This layout ensures a seamless shopping experience with personalized offers and easy access to support and engagement channels.

The implementation of personalized recommendations and real-time notifications significantly improved user engagement, with a 30% increase in time spent on the platform compared to its initial version. Users interacted more actively with featured deals, especially when notified about time-sensitive offers that matched their preferences. This led to a notable rise in conversion rates, as users were more inclined to click through deals and complete purchases. Additionally, feedback from community forums and surveys indicated high user satisfaction with the platform's personalized interface and targeted notifications, which reduced irrelevant deal exposure and highlighted sudden discounts.

The effectiveness of the recommendation system, driven by collaborative and content-based filtering, was evident through positive user behavior and feedback. However, the project encountered technical challenges with real-time updates due to the integration of multiple brand APIs, which were resolved by refining backend processes to ensure reliable performance. Another important insight was the need to carefully manage notification frequency. Although timely alerts boosted engagement, over-notification caused some users to disable alerts, prompting the team to conduct iterative testing to find an optimal schedule

.

The platform's success presents opportunities for scalability, including expanding into new regions and product categories. Future enhancements could involve integrating advanced algorithms, such as dynamic pricing predictions and trend-based recommendations, to sustain user engagement and further personalize the experience. These improvements would not only maintain user interest but also enhance the platform's value for both consumers and partner brands.

CONCLUSION:

This project successfully tackled the challenge of discovering and promoting sudden, unadvertised deals. By building a user-friendly platform with personalized recommendations and real-time notifications, the solution greatly enhanced the shopping experience for users and brand partners alike. The platform addressed key issues, such as reducing irrelevant notifications and ensuring users don't miss out on limited-time offers.

The project also demonstrated the potential for scalable growth and adaptability. The use of recommendation engines and collaborative filtering, combined with community-driven feedback, positioned the platform as both efficient and user-centric. As the system evolves, adding more brands, predictive capabilities, and regional deals will maintain its relevance in a competitive market.

In conclusion, this project lays a solid foundation for continuous improvement and expansion. Through enhanced partnerships, better analytics, and user-focused innovations, the platform has the potential to become a go-to destination for deal seekers while delivering sustained value for brand partners. The incorporation of new technologies and community engagement mechanisms will ensure the platform remains dynamic, meeting evolving user needs and market demands in the future.

Future Enhancements:

Integration with More Brands and Categories
To expand the platform's relevance, partnerships with a wider range of brands across new product categories (such as electronics, travel, and lifestyle) could be explored. This would increase the diversity of deals available, attracting a broader user base.

Advanced AI-Driven Predictions
Future iterations could introduce dynamic pricing prediction and trend forecasting models. These enhancements would allow the system to notify users not just of current discounts but also predict future deals based on market trends, ensuring more proactive engagement.

Localization and Regional Customization
Implementing region-specific offers and localized content will cater to a broader user demographic. Multi-language support and personalized content for different markets can further improve user satisfaction and adoption in new regions.