

**Feasibility Report**

**GROUP No.49**

**PROJECT: Static E-commerce website**

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**EXECUTIVE SUMMARY:**

The e-commerce Website designed to become the market leader in Web-based sales of Products. The company is located in Pakistan, Although many Internet companies have recently failed, the Internet is still poised to support e-commerce retailers. Most of the dotcoms failed because of access to capital with an unproven business model and no true revenue streams. We will overcome these problems with an easy to use website and an efficient distribution system.

**Suggested Deliverables:**

In the Ecommerce, the term deliverables refer to items that document phases of the Ecommerce design process. Most often, they are documents that are significant elements of a Ecommerce design that have reached certain milestones in the process. However, we also use the term deliverables as items needed that move the Ecommerce design process along and keep everyone on track. Not all of these documents are shared with the client but they are useful tools to provide feedback to the Ecommerce and to authorize approval to move to the next stage of the Ecommerce process

**Visibility :**

Visibility online is the overall presence of a brand or its products in the general consumer environment. A business can have a great ecommerce, but how are users expected to find it it's not visible? Search traffic can only direct so many unique visitors. Ecommerce platforms typically provide seo tools business owners still share a slice of responsibility when it comes to improving online visibility.

Why is it important?

Traffic isn't a direct correlation to bottom-line revenue, but a unique and successful  ecommerce will do well in turning visitors to buyers. The absence of new visitors will lead to no sales and a decline in profits.

There are a handful of reasons why online visibility is important:

It lets users find your site on their own

Unique visitors, or new daily visitors, are customers supporting your business

Online visibility helps with brand reputation, or how a business is perceived in the marketplace

Brand reputation helps a website stand out from its competition

**Risk Analysis:**When you operate an e-commerce website, there are probably a few things that are high on your list of priorities: functionality, usability, mobile friendliness and performance come to mind. But sometimes it can be difficult to know exactly which test cases you should spend your time and energy on. The key is understanding your application and your users. By performing a risk analysis of your e-commerce website to determine high priority areas, you can make more informed decisions when it comes ecommerce testing

**1. Popular Places**

They say that first impressions last the longest, and the same holds true for your e-commerce website. Evaluate which pages users are landing on first and which have the highest traffic by looking at your analytics. Set time aside during regression and visual testing to ensure they’re top notch in terms of performance, functionality, usability and design.

**2. Browsing**

There are probably a few basics that every consumer expects when shopping online. Some might include login, navigation, search, filters, product pages, etc. Consider how the buyer journey would be affected if each of these places was broken. How important is filtering on a page that has 10 items? Does that change if there are 1,000? By determining how critical each element is, you can better understand what to test first.

**3. Buyer Journey**

Going from “Add to Cart” to “Order Confirmed” includes many moving parts, and if one of those parts isn’t working, it may impact your customer’s ability to complete their purchase. What’s most critical in order for the visitor to buy, and what would prevent that if broken? Testing the different ways to pay — credit card vs. PayPal — may take priority over testing autofill for form fields, for example. Make a ranking of some of the test cases that come up during payment, and make sure the ones at the top are included in testing.

**4. Personas**

Depending on your application, you may have to consider different user states. Does someone have to log in to shop? What about to check out? Think about how the experience differs for new users compared to returning users, and account holders compared to guests. Not only do you have to test these different avenues, you have to think about the risk associated with those test cases. If an account is required, the process to create one may take on a higher priority.

**5. Privacy and Security**

Impressing your customers won’t do you much good if they don’t trust the security of your web application. Identify where personal (phone number, email address) or sensitive information (payment and password) is required. Whenever you’re storing this type of data, security testing should be of utmost importance so that leaks, hacks and breaches don’t ruin your brand's reputation.

**6. Sales and Promotions**

Do you have new pages made for a certain sale or repurposed pages you’re directing traffic to for a promotion? While the risk of these may be temporary and the tests are one-off, it’s important to keep an eye on the relevancy of your tests over time. Check often to make sure that regression tests are still relevant to meet requirements, and ensure that new tests are added as needed.

**7. Browsers and Devices**

Last but not least, you want to make sure that your website works across various browsers and devices during exploratory testing, in addition to when it undergoes a code change. Your users are visiting your site on a wide range of configurations, which means, you can focus on those instead of attempting to test them all.

There’s not enough time in the week to test every part of your web application. The good news is that planning and strategizing your testing means that you can target quality where it matters most. This way, your tests results will be more beneficial to your team and meaningful to the end user.

**Challenge & how to address these challenges:**

1. **An absence of online identity verification**

When a visitor goes to an e-commerce website and signs up, the portal is unaware of the customer, bar the information they entered. Whether the customer information is genuine or not remains questionable. Cash-On-Delivery (COD) purchases using an invalid or fake phone numbers or addresses can lead to huge revenue losses.

* So how can this be solved?

By taking the proper steps to verify the customer’s information.

First of all, look out for signs of suspicious activity. This could take the form of particularly high value or large orders, Identify fake phone numbers and email addresses, check whether zip codes match with the state/city. Send a verification link when a customer signs up, via text message or email, to validate the customer is genuine. With COD purchases, an automated call could even dial out to the customer, asking them to validate the delivery address.

1. **Delivering an omnichannel customer experience**

In today's world, customers can reach out through any number of touch-points. They may visit your website, contact your agent, leave a message on your social media page, shop from your store or contact you through a live chat or a messaging platform.

According to [ecomdash](https://www.ecomdash.com/advantages-omnichannel-selling/), ” Any business that isn’t moving toward an [omnichannel retailing strategy](https://www.ecomdash.com/omnichannel-retailing-strategy/) will likely be left behind by its online savvy competitors.”

**So how can this be addressed?**

Make sure to equip your team with the right technology.

Find out which channels are most important to your customers. Customer support staff should contact customers via their preferred channels, phone, email, live chat, video call, online help centers or in-app messaging. Integrate and optimize those channels, adding personalized messages and offering one-to-one interaction with live chat or video calling.

1. **Competitor Analysis**

In a competitive environment, others will offer the same products and services as you. Unless you have a strategy to differentiates yourself, it is difficult to survive.

So how can this be mitigated against?

Conduct thorough research into competitors.

Place emphasis on developing a strategy enabling you to shine brighter than your competitors. Use social media platforms and blogs for promoting products. Invest in promotional offers to help create more web presence and therefore more customers.

“Businesses with customer loyalty programs, on average, are 88% more profitable than those who do not.”

Carry out research, find which products are more in demand. Remove outdated items. Customer services that go above and beyond provide a route to staying ahead of your competitors.

**REQUIREMENT ANALYSIS: -**

This project aims to develop an online shopping for customers with the goal so that it is very easy to shop your loved things from an extensive number of online shopping sites available on the web. With the help of this you can carry out an online shopping from your home. Here is no compelling reason to go to the crowed stores or shopping centres during festival seasons. You simply require a PC or a laptop or a mobile phone and one important payment sending option to shop online. To get to this online shopping system all the customers will need to have an email and password to login and proceed your shopping. The login credentials for an online shopping system are under high security and nobody will have the capacity to crack it easily. Upon successful login the customers can purchase a wide range of things such as mobiles, books, apparel, jewellery, infant care, gifts, tools, etc. can be dispatched using online shopping system. Not just these, you can also purchase from outside nations by few clicks on your mouse. And of course, you will get your requested ordered items at your door step. It is simple. You will pick your favourite items from variety of online shopping sites looking at cost and quality. No need to go physical shops with this you will have more time to spend with your family. It Just need a computer and a payment making options like net banking, credit card, debit card or PayPal. Almost a wide range of things can be brought through online shopping system. You can purchase goods from foreign places from your bedroom and you will get your goods at your home. It is extremely secure. Customer service is accessible.

**REQUIREMENT SPECIFICATION: -**

**FUNCTIONAL REQUIREMENTS**: -

Registration: - A new user will have to register in the system by providing essential details in order to view the products in the system. The admin must accept a new user by unblocking him.

Login: - A user must login with his user name and password to the system after registration.

Add Products The shopping cart project contains different kind of products. The products can be classified into different categories by name. Admin can add new products into the existing system with all its details including an image.

View Products: - User can view the list of products based on their names after successful login. A detailed description of a particular product with product name, products details, product image, price can be viewed by users.

Delete Products: - Content Manager can delete the products based on the stock of that particular product.

Search products: -Content Manager will have a list view of all the existing products. He can also search for a particular product by name.

View Order: - User can view the Orders which is generated by the users. He can verify the details of the purchase.

Delete Order: - User can delete order from the orders list If they do not want to but it.

Add to cart: - The user can add the desired product into his cart by clicking add to cart option on the product. He can view his cart by clicking on the cart button. All products added by cart can be viewed.

**NON-FUNCTIONAL REQUIREMENTS**: -

i. EFFICIENCY REQUIREMENT: - When an online shopping cart Web application implemented customer can purchase product in an efficient manner.

ii. RELIABILITY REQUIREMENT: - The system should provide a reliable environment to both customers and owner. All orders should be reaching at the admin without any errors.

iii. USABILITY REQUIREMENT: - The Web application is designed for user friendly environment and ease of use.

iv. IMPLEMENTATION REQUIREMENT: - Implementation of the system using CSS , html and Gatsby in front end with just as back end and it will be used for CMS connectivity. And the database part is developed by GraphQl. Responsive web designing is used for making the website compatible for any type of screen.

v. DELIVERY REQUIREMENT: - The whole system is expected to be delivered in ­­\_\_\_ months of time with a weekly evaluation by the project guide.

**SOFTWARE AND HARDWARE REQUIREMENTS**: -

Hardware Requirements: - ➢ Operating System: - Windows 7 and above ➢ Processor: - Intel i3 or above ➢ Installed Memory (RAM): - Minimum 1 GB ➢ System Type: - 32-bit or 64-bit Operating System Software Requirements: - ➢ Front End: - HTML, CSS, JS, Bootstrap ➢ Back End: - Contentful Api.

**PRELIMINARY PRODUCT DESCRIPTION: -**

This project is a web-based shopping system for an existing shop. The project objective is to deliver the static E-Commerce Website based on Gatsby. E-Commerce Website is the process whereby consumers directly buy goods or products from a seller in real-time, over the Internet. It is a form of electronic commerce. This project is an attempt to provide the advantages of online shopping system to customers of a real shop. It helps buying the products in the shop anywhere through internet. Thus, the customer will get the service of E-Commerce Website and home delivery for that product.

**PROCESS TO BE FOLLOWED:-**

For this project, the team has decided to follow an iterative refinement approach that involves beginning with a user interface mockup and gradually adding functionality until all of the client’s requirements are met. The team chose this particular method due to the client’s concern over having a user interface that is easy to use and less cumbersome than the current method. The interface is required to be intuitive and simplistic in order to easily get users what they want. Another version is also required to act as an Content Management to manipulate the data and perform any necessary functions including modification of data. By using an iterative method, the team can quickly prototype a mockup user interface for the client to evaluate. If necessary and time permitting, redesign of the interface will occur based on client feedback. While the interface is being revised at each step of the iterative process detailed below, the team will be adding in the necessary software modules that will handle the central data repository, report generation, and other functionalities.

Below is the proposed outline of the iteration stages and milestones including what the team expects to have completed at each stage.

**Process Outline**

User testing throughout: At each milestone, the team will present the most current version of the software to the clients for their testing and evaluation. Although the software will not initially be fully complete during the early presentations, it will give the clients an approximation of the functionality of the final product.

**1st iteration**

Requirements Document The team will prepare a formal document that will detail the client’s requirements for the software. The client will categorize these requirements into required, desired, and optional features. After the document is approved by the client, the team will design the initial user interface for the client’s evaluation. Mockups: Simple User and Content management Interfaces To ensure that the interface designs meet with the client’s specifications, the team will develop a user level and an Content Manager level interface that will have all of the required data entry fields, but will be otherwise nonfunctional. User level interfaces will contain the proper products price, description, these interfaces will be simplistic in nature and may not contain all of the intended fields and functions that the clients propose.

**2nd iteration**

Design Document and Presentation A formal document will be prepared that details both the design of the system and the code behind it. In describing the design of the system, the hardware and software needed from the client will be specified. Details about the program design will cover internal functionality so that the client can maintain and modify the end product in the future. The team will also hold a forty-five minute presentation as a progress report for the client. As part of this progress report, the team will update its task schedules to ensure that the system will be satisfactorily complete by the end of the final iteration. Revised User and Content manager Interfaces Based on feedback from the client concerning the first iteration deliverables, the team will modify the design of the user and Content manager as needed. This modification will include more planned features and advanced abilities that will aid in diagnosing users’ interaction with the system. Again, during this iteration, the interface may not have all planned features, but will have all those required for this stage of development.

**3rd iteration**

Final Testing Period The team plans to reserve two weeks before the final presentation so that the client can test the product in its intended environment with real users and data. All functional requirements will have been met before this point; any changes hereafter will only cover small details, such as aspects of the user interface. Final Documentation and Presentation 5 Documentation for the final version of the product will be presented to the client so that the end product can be maintained and extended. This will include information on all required features, which will be fully implemented. The documentation will also cover any desired and optional features that have also been implemented. The team will also provide a demonstration of the system and training so that the client can understand how the user interface is intended to be used.

**Final System**

The final system will include all features that the team and the client have agreed on. Based on development progress heretofore, the final system may also include any functionality that the client has also determined as desired and/or optional.