

MCS-205 Project report

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1 Executive Summary

1.1 Objective

To build an ecommerce website for eyewear similar to [Lenskart](#) based on Django web framework.

This project has been developed in accordance of MCS-205 Ecommerce course guideline. In this project we have tried to analyze a pre existing ecommerce website [Lenskart](#) and tried to build a similar ecommerce website. [Lenskart](#) is an ecommerce website that primarily sells eyewear, we analyzed the site and figured different shortcomings that could be improved. We have build our similar website to sell eyewear products based on **Django** and have tried to make it efficient than [Lenskart](#) .

1.2 Mission and Vision

Mission

Wow customers by doing something that has never been done before in the eyewear industry. Our aim is to provide every Indian access to high-quality designer glasses without shelling out their pocket. We rocked our brains. We broke our backs to come up with a plan that will not just change the way this industry works, but also will completely sweep customer off their feet. It can only be achieved if we provide.

Vision

Our aim is to help drop this number marginally in the coming years, which can be achieved by providing high quality eyewear to millions of Indians at affordable prices and by extending our services to the remote corners of India. To be Earth's most customer-centric company, where customers can find and discover wide ranges of eyeglasses and sunglasses they might want to buy online.

1.3 Products and services

VARIETY

- *We let the numbers talk*

We have over 5000 styles of eyewear, which is 5 times more than that any retailer in India. From big brands like RayBan and Montana to the best in house brands.

- *An eye for an eye*

From sunglasses to reading glasses to contact lenses, we make everything that can help you see this beautiful world with more clarity.

- *We got the whole world*

Yes it is true make eyewear for men, women, kids, for all humans of the world.

- *All covered*

We have it all. Everyday basics. Everyday fashion. Evening wear. Not just that, we update our styles every year to keep up with fashion trends around the globe, taking inspiration from fashion capitals and the best designers of the world.

VALUE FOR MONEY

- *Not all good things in the world are expensive*

Our prices are lower than any of your local optician. Our customers can find the most attractive packages on contact lenses.

- *No middle man. No extra cost.*

No middleman simply means no middle ground. Our products come straight from the manufacturer, hence getting rid of all extra costs and burden.

- *One for everyone*

We have a wide variety of prices to suit all the customers.

14 DAY REFUND

All our product, including prescription lenses come with a 'no question ask' 14 days return policy.

1 YEAR WARRANTY

All our products come with 1 year warranty.

1.4 Market

The global eyewear market size was valued at USD 102.66 billion in 2015. The increasing dependence on electronic gadgets such as mobile phones, television, and computers has led to eyesight problems resulting in the purchase of more eyewear products. The rise in the number of optical deficiencies and growth in the elderly population is expected to augment the eyewear market growth. The increasing occurrence of myopia has led to an increased demand for the prescription-based eyeglasses. Changes in lifestyle and technological advancements have led to prolonged exposure to electronic devices that have caused strain on eyes. The need among the individuals to protect their eyes is expected to drive the eyewear demand globally. The rise in disposable income has resulted in the increased purchase of eyeglasses, especially spectacle frames and sunglasses, which are perceived as a fashion accessory. Consumers are likely to buy a new set of eyeglasses or replace the old ones. Furthermore, the growing preferences of luxury and branded sunglasses are contributing significantly to the eyewear demand. Consumers are exhibiting preferences towards the premium product segment and are willing to spend more on these products. Vendors have introduced innovative eyewear products to cater to various needs of the customers.

2 Products and services

2.1 Business model

Our business model is eCommerce. E-Commerce business model is an upgradation of the traditional brick-and-mortar business model. It focuses on selling products by creating a web-store on the internet. Although [Lenskart](#) is **Bricks and clicks** model, we are unable to provide physical presence to our stores so we have to stick with eCommerce model.

2.1.1 Competitive landscape

Our website provides different sorts of eyewear products which has quite a number of competitive companies like [Coolwinks](#), [LiveOptical](#) and [Lenskart](#) obviously is another one. All of these companies have strong online presence and a great advertisement team working 24/7 to reach a greater customer base. However, all such sites have one thing in common i.e. unclarity and non-transparency of products on their respective website. These sites contain so many products and different categories that for a simple user it becomes chaotic to find the best product. To lure customers some sites like [Lenskart](#) claim to have 3D online tryon but in reality these functions are terrible and do

not work properly. On top of this there is also higher price range for customers. Offline retailers do a better job than such sites in providing perfect products to customers in a suitable price range.

2.2 Revenue model

Our revenue model is Direct Sales Model. The direct sales model is the most commonly used revenue earning model adopted by the e-commerce companies. It involves setting up a store in an online marketplace or a self-owned website and shipping the goods as and when the money is paid by the customer. However, Online payment is not available at the moment but it will soon be facilitated.

3 Strategy and implementation summary

3.1 SWOT analysis

3.1.1 Strengths

- We are able to respond very quickly as we have no red tape, and no need for higher management approval.
- We are able to give really good customer care, as the current small amount of work means we have plenty of time to devote to customers.
- We can change direction quickly if we find that our marketing is not working.
- We have low overheads, so we can offer good value to customers.

3.1.2 Weakness

- Our company has little market presence or reputation.
- We have a small staff, with a shallow skills base in many areas.
- We are vulnerable to vital staff being sick or leaving.
- Our cash flow will be unreliable in the early stages.

3.1.3 Opportunities

- Our business sector is expanding, with many future opportunities for success.
- Local government wants to encourage local businesses.

- Millions of people in the country need reading glasses but do not have access to them, so we have opportunity to capture some portion of these people.

3.1.4 Threats

Security is vital but variable according to the functionality of the web application. Some companies might have a greater concern for multi-factor authentication than others. However, one cannot completely rule out attempted break-ins. Therefore, a good web security is always a must. Mass assignment is known to be a vulnerability when a web application's ORM(object-relational mapping) interface is exploited to change the certain type of information in the database, which in any case shouldn't be allowed to be changed by the user. These types of information include the session keys, cookie data, passwords, permissions, and admin access. Hijacking is to vehicles, as Clickjacking is to clicks. They are also known as "UI redress attacks", where the attacker renders a concealed layer on your website, in the hope of deceiving the client into clicking on to it, may it be a button, or link, which redirects it to another page, owned by another application, domain, or both. Framekillers are the solution to the problem of ClickJacking. They are written in JavaScript with the intended functionality of checking if the current window is the main window. The most important credential to authenticate and recognize a user is the password, which is why we need robust ways to store it in an encrypted way.

3.2 Marketing strategy

For most consumers, sunglasses do more than simply make it easier to see in bright light. They stand for something more, whether it's a sense of style, a commitment to health and safety, or the special duties customers perform that require eyewear to match. These customer needs can be valuable tools when deciding how to market your sunglasses. Many of us are taught at a young age to look people in the eyes. That learned behavior makes sunglasses the first accessory many people notice. Style, therefore, is a critical facet of sunglasses to emphasize in marketing. We should Make sure our advertising materials reflect people who epitomize the aspirations of our target market. If our customers think our sunglasses look cool and hip in your marketing materials, they'll be more inclined to picture how they would look wearing the same shades. Some sunglasses companies have found success by narrowly targeting their offerings to a specific audience. Marketing sunglasses to military pilots, for example, we can be successful if we can meet their unique requirements in a way that others can't. Stocking sunglasses specifically for outdoor sports enthusiasts or motorcyclists can also be lucrative, especially if we do much of our marketing over the Internet and social media. If a group thinks your sunglasses will work especially well for their needs, that sets us apart from the competition.

3.3 Long term plan

- Work on customer satisfaction and retention
- Listen to feedback and improve
- Build relationships with clients
- Keep them engaged with your brand post-purchase
- Provide at least good customer experience if not exceptional
- Stimulate repeat orders with tailored and relevant offers
- Make your site mobile-friendly
- Prioritize security
- Personalize the experience

3.4 Technical Specifications

We have three different web apps currently working right now. They are :-

1. *cart* - It manages a user cart information and multiple products can be added in cart before checking out.
2. *shop* - It provides main front page of the website where products are displayed and products can be viewed based on selected category.
3. *orders* - It manages orders of customers in database and used for maintaining records of pending and completed orders.

We have used Django cache session. Although we could have used client side cookies to store various data useful for our web app, but this leads to lot of security holes, making our web app more prone to web attacks. Thus for security reasons, we have used session framework of Django for cookies handling. Sessions are used to abstract the receiving and sending of cookies, data is saved on server side (like in database), and the client side cookie just has a session ID for identification. Sessions are also useful to avoid cases where the user browser is set to 'not accept' cookies. And caching these sessions help in reducing load to database which occurs if the user doesn't specifically log out, the database session row is never deleted.

We have also used Django context processors. By default, Django templates are enabled to have access to various variables. This eliminates the need to constantly declare widely used variables in every single Django view methods or as url extra options. These variables are made available through template context processors and are used for debugging, handling request, authentication logic etc. Django CSRF (Cross Site Request Forgeries) context processor is implicit and cannot be changed. CSRF context processor adds the `csrf_token` variable to all requests. This variable is used by the `{% csrf_token %}` template tag to protect against Cross Site Request Forgeries.

Since due to time-constraint and mongoDB was too complex for us to implement, we have used SQLite for maintaining databases.