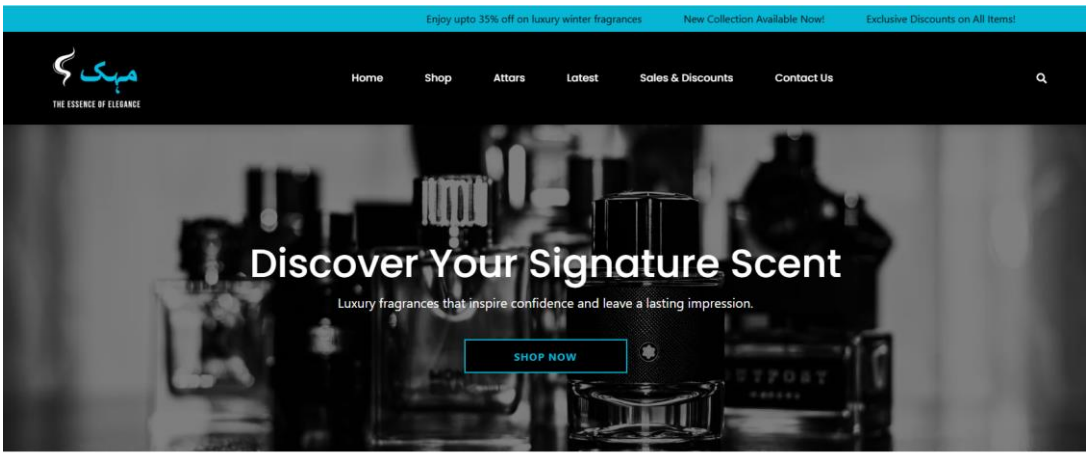
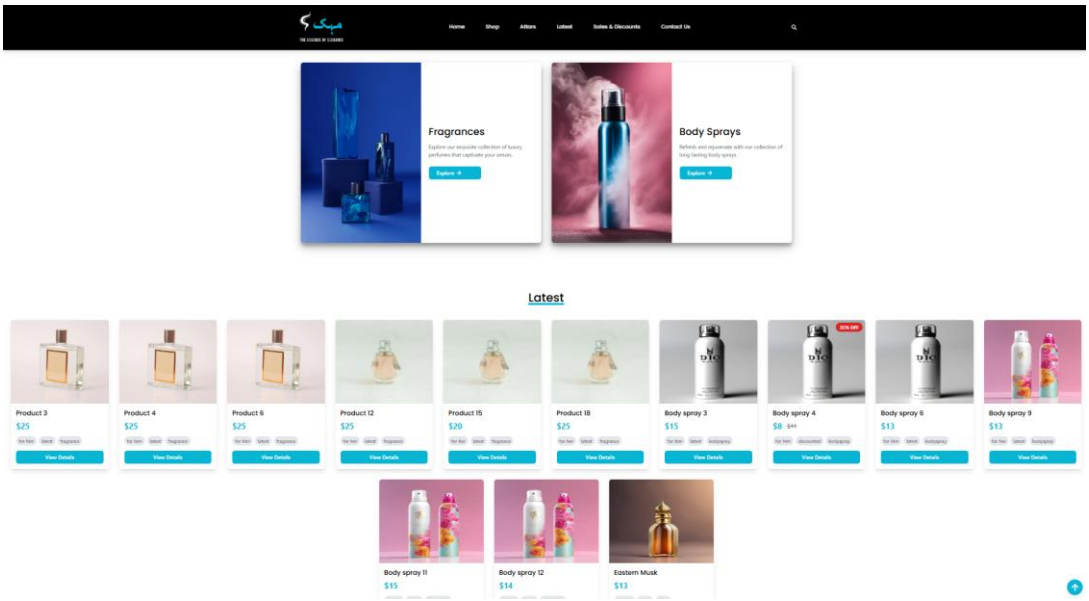
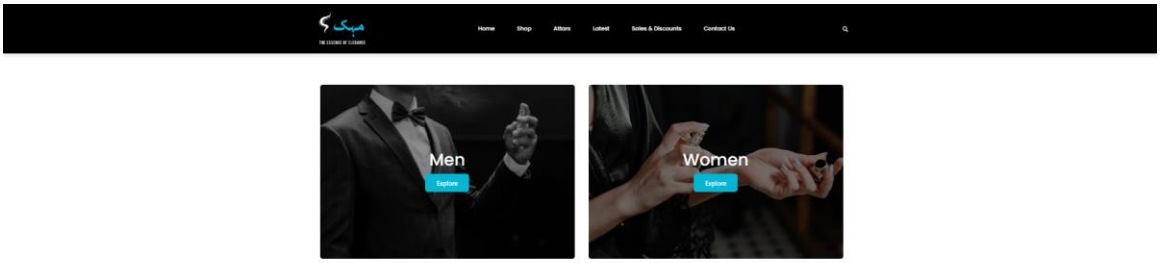
Day 5 - Testing and Backend Refinement – “ مہک ”

1. Functional Deliverables:

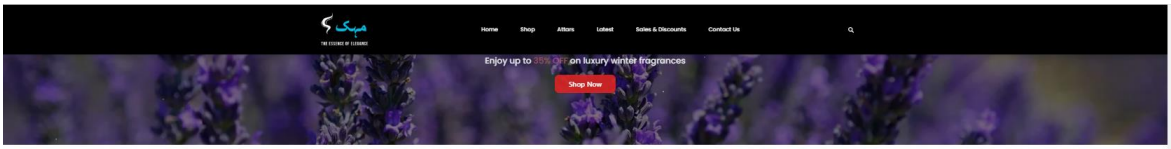
Desktop



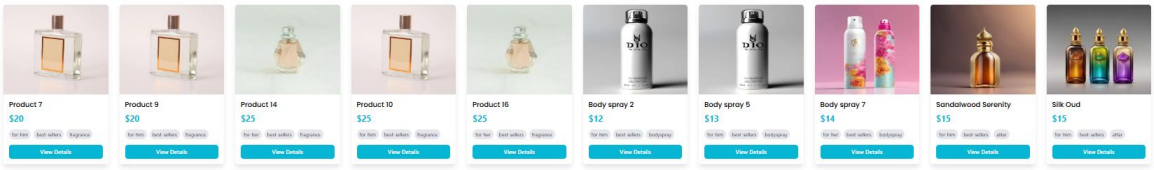


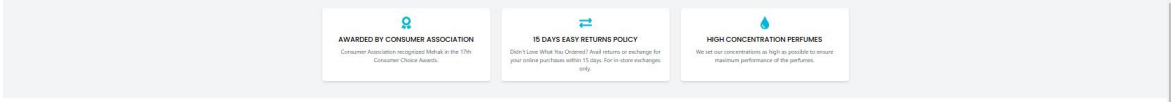


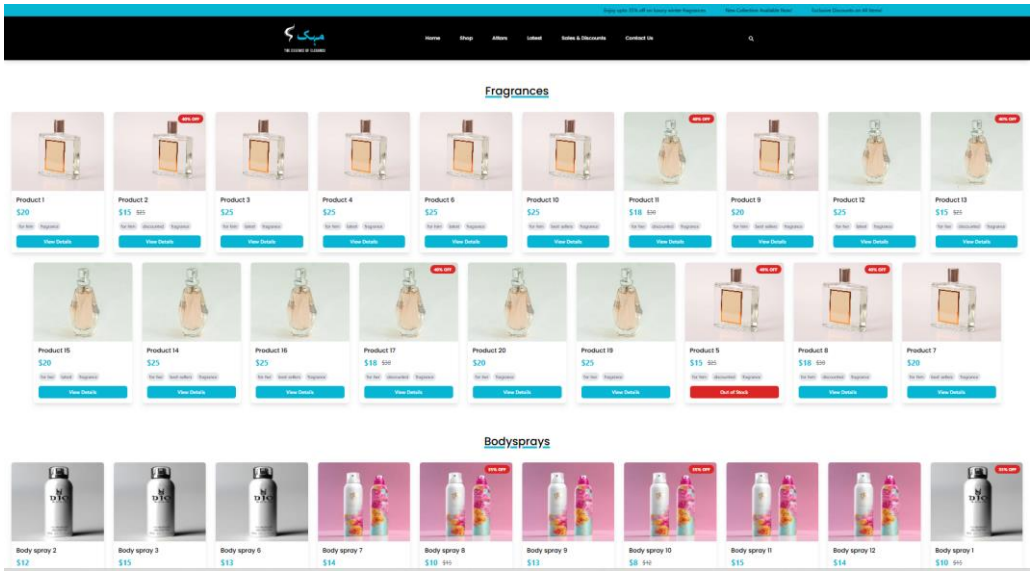
Best Sellers

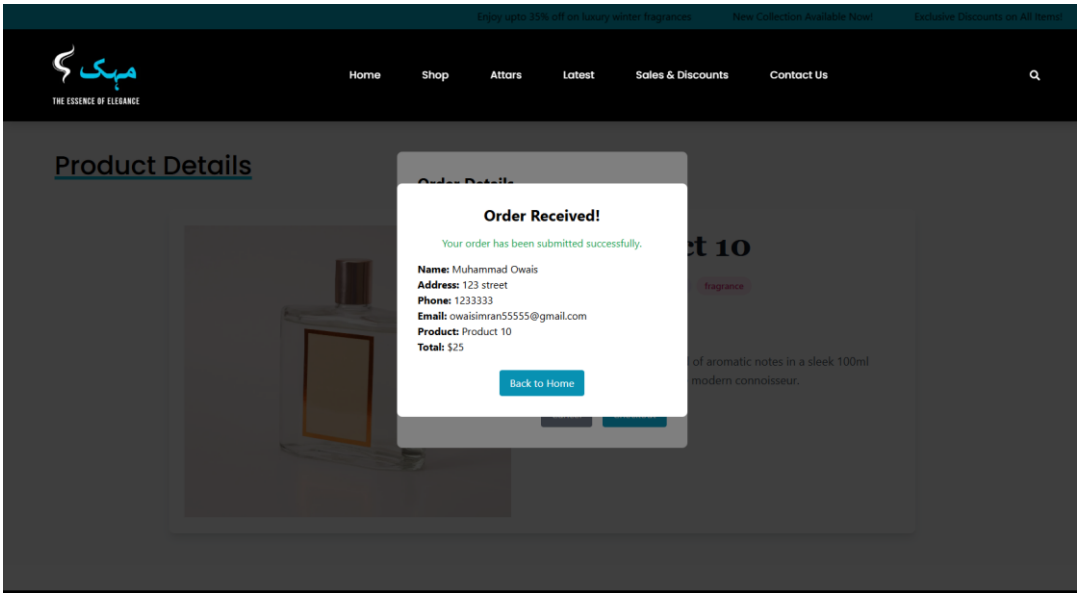


Best Sellers

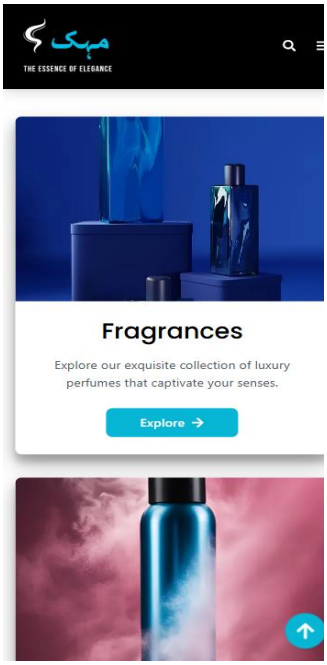


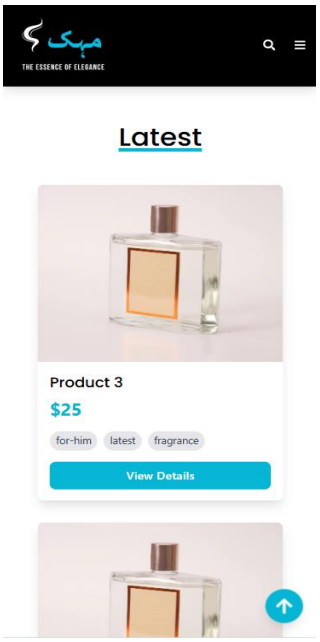


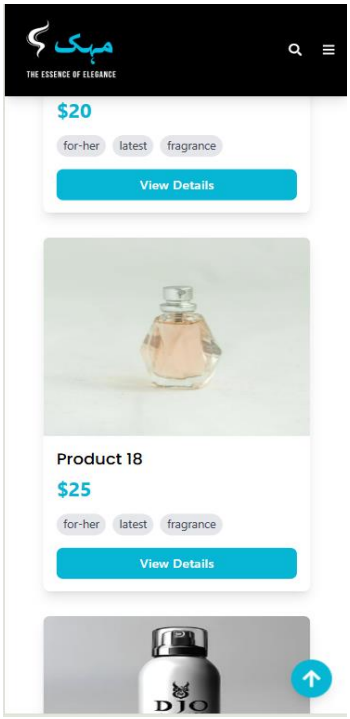

Fragrances
Bodysprays

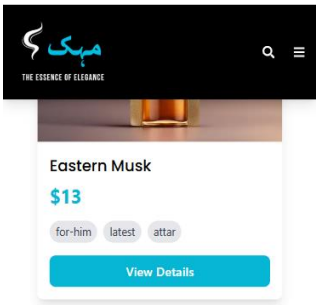

THE ESSENCE OF ELEGANCE
Home
Shop
Attars
Latest
Sales & Discounts
Contact Us
Product Details
Order Received!
Your order has been submitted successfully.
Name: Muhammad Owais
Address: 123 street
Phone: 1233333
Email: owaisimran55555@gmail.com
Product: Product 10
Total: $25
Back to Home

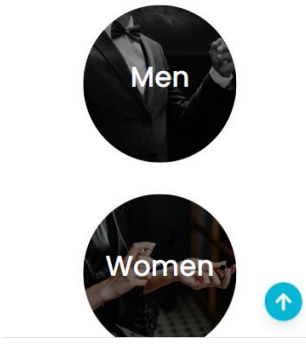
Mobile


مہک
THE ESSENCE OF ELEGANCE
Fragrances
Explore our exquisite collection of luxury perfumes that captivate your senses.
Explore


مہک
THE ESSENCE OF ELEGANCE
Latest
Product 3
$25
for-him
latest
fragrance
View Details

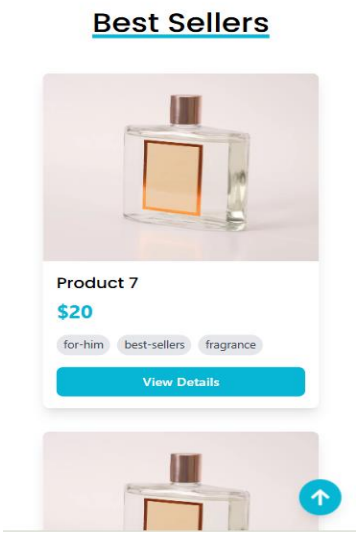

مہک
THE ESSENCE OF ELEGANCE
$20
for-her
latest
fragrance
View Details
Product 18
$25
for-her
latest
fragrance
View Details
DJO

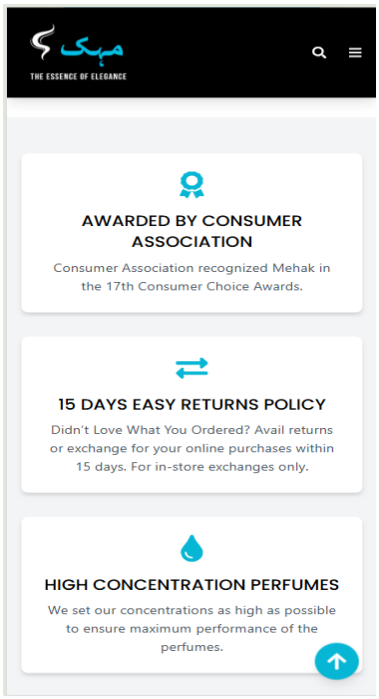

مہک
THE ESSENCE OF ELEGANCE
Eastern Musk
$13
for-him
latest
attar
View Details

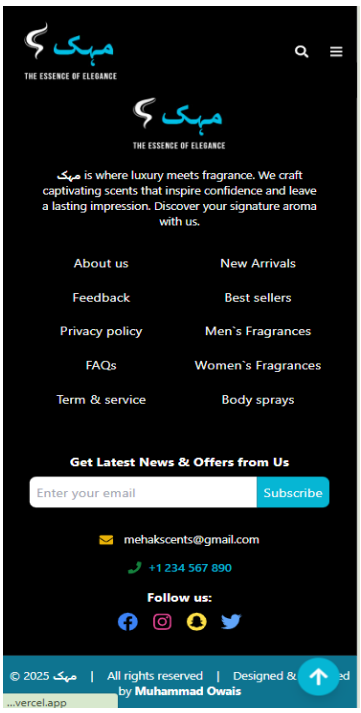

Men
Women

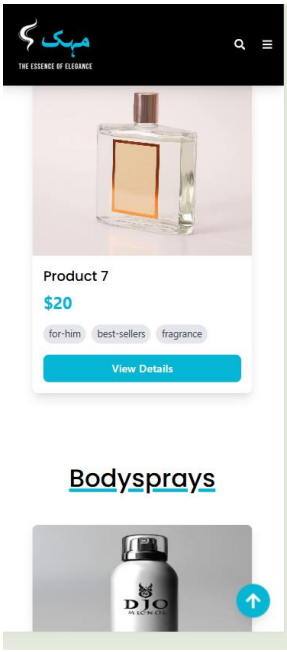
THE ESSENCE OF ELEGANCE
Winter Blowout
Enjoy up to 35% OFF on luxury winter fragrances
Shop Now
Best Sellers

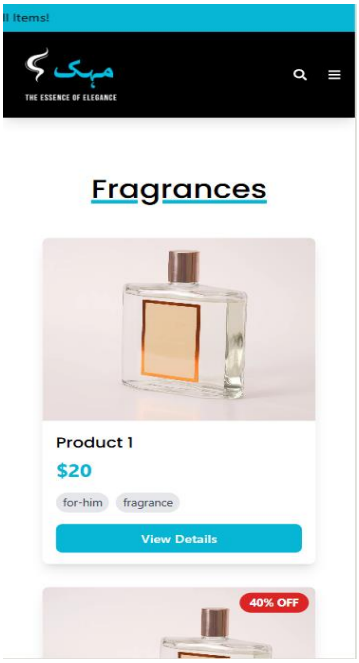
THE ESSENCE OF ELEGANCE

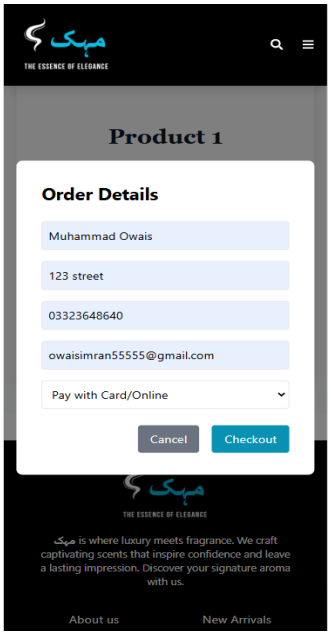

Best Sellers
Product 7
$20
for-him
best-sellers
fragrance
View Details

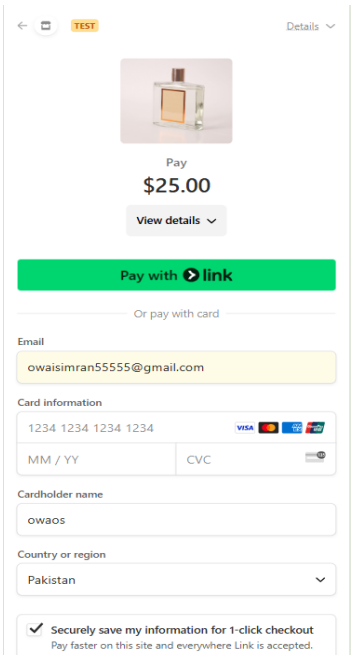

مہک
THE ESSENCE OF ELEGANCE
AWARDED BY CONSUMER ASSOCIATION
Consumer Association recognized Mehak in the 17th Consumer Choice Awards.
15 DAYS EASY RETURNS POLICY
Didn't Love What You Ordered? Avail returns or exchange for your online purchases within 15 days. For in-store exchanges only.
HIGH CONCENTRATION PERFUMES
We set our concentrations as high as possible to ensure maximum performance of the perfumes.


مہک
THE ESSENCE OF ELEGANCE
مہک
THE ESSENCE OF ELEGANCE
مہک is where luxury meets fragrance. We craft captivating scents that inspire confidence and leave a lasting impression. Discover your signature aroma with us.
About us
New Arrivals
Feedback
Best sellers
Privacy policy
Men`s Fragrances
FAQs
Women`s Fragrances
Term & service
Body sprays
Get Latest News & Offers from Us
Enter your email
Subscribe
mehakscents@gmail.com
+1 234 567 890
Follow us:
© 2025 مہک | All rights reserved | Designed &
by Muhammad Owais
...vercel.app


THE ESSENCE OF ELEGANCE
Product 7
$20
for-him
best-sellers
fragrance
View Details
Bodysprays
DJO

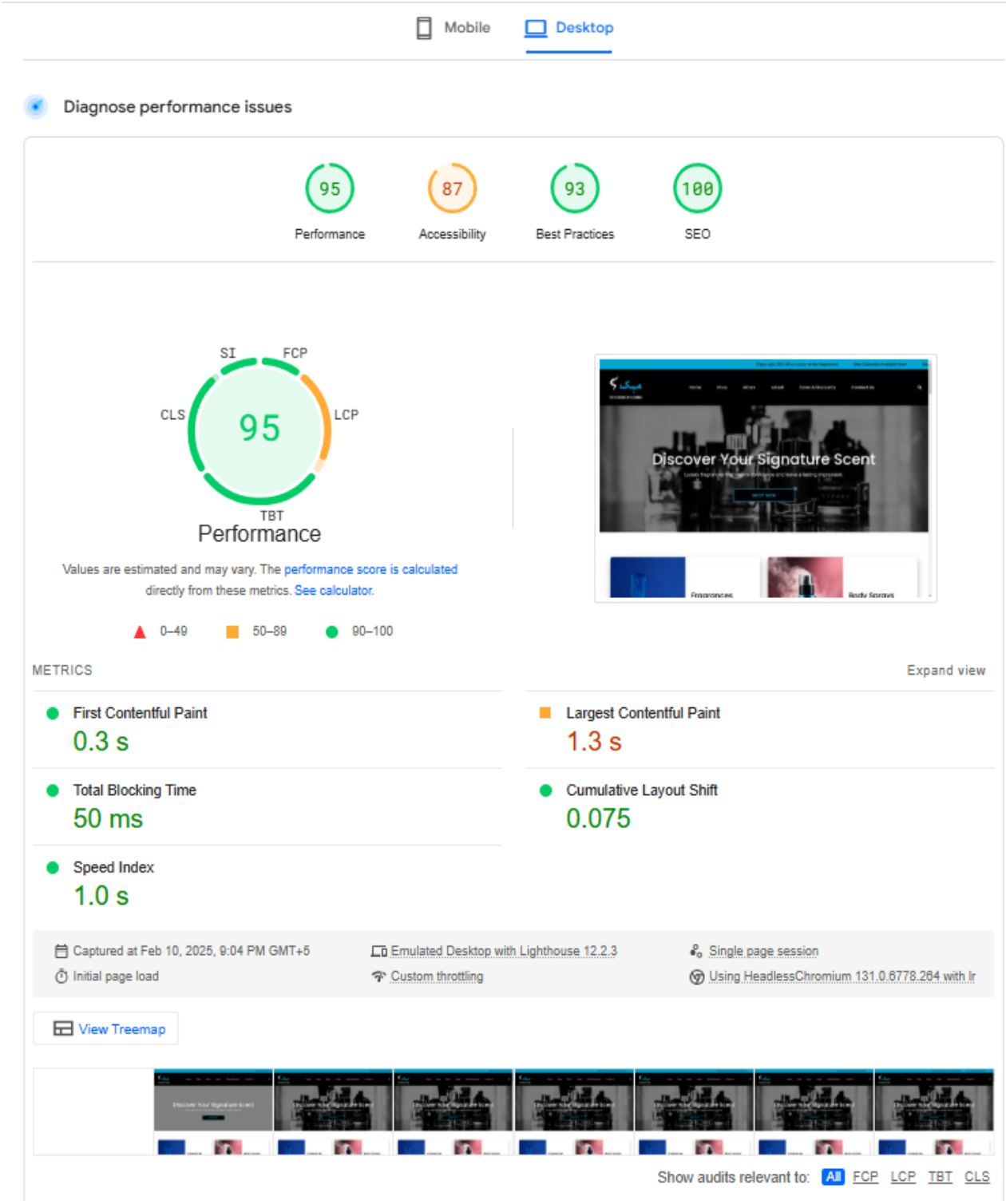

Items!
THE ESSENCE OF ELEGANCE
Fragrances
Product 1
$20
for-him
fragrance
View Details
40% OFF





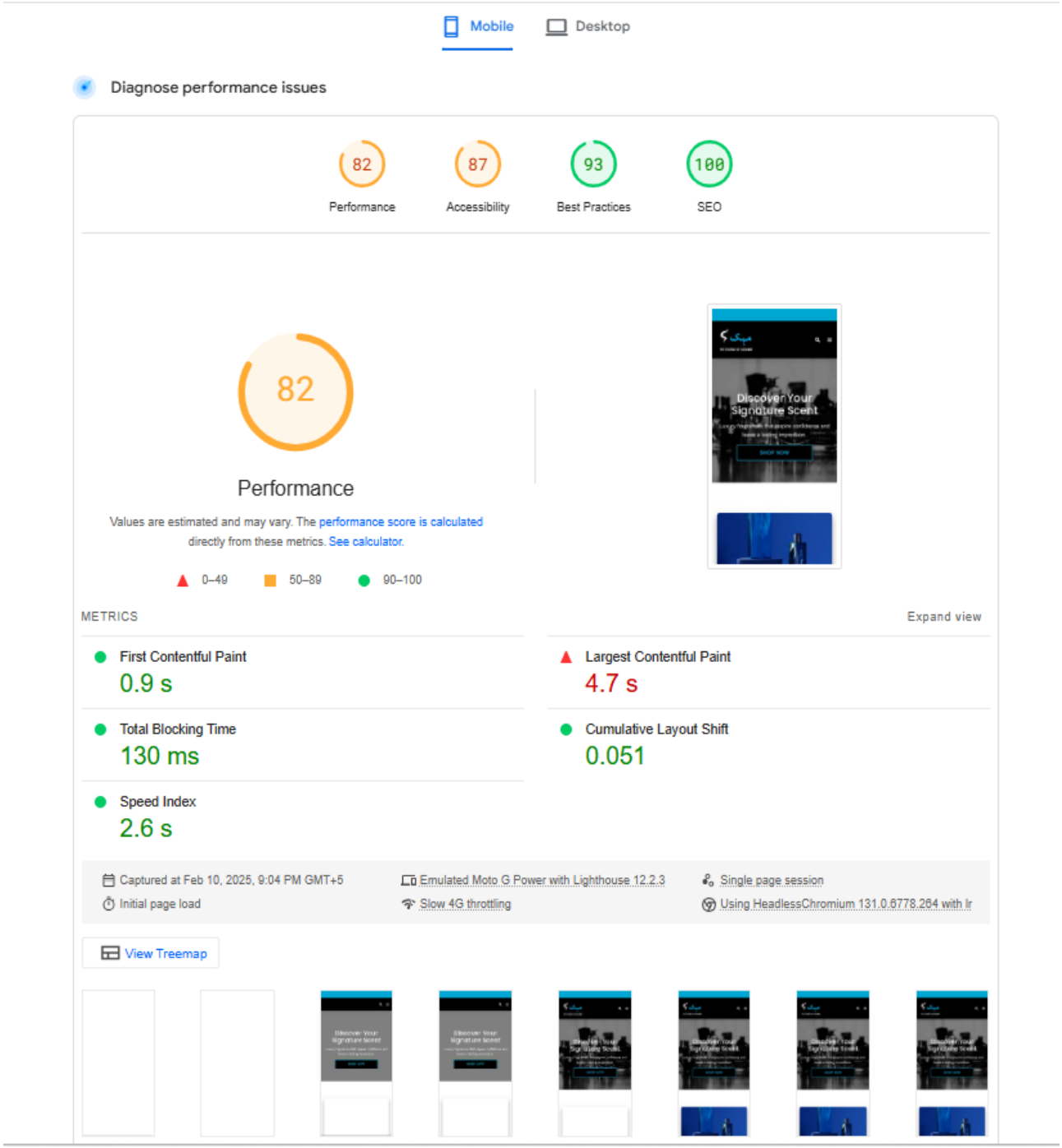
Logs or reports

(Lighthouse) - **Desktop**



Logs or reports

(Lighthouse) **– Mobile**



(. Csv file) and also

Attached separately

Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	Assigned	Remarks
TC001	Validate product listing page	Open product page > Verify products	Products displayed correctly	Products displayed correctly	Passed	High	You	No issues found
TC002	Test API error handling	Discover API > Refresh page	Show finished UI without error message	Show finished UI without error message	Passed	Medium	You	Fetching is perfect
TC003	Ensure responsiveness on mobile	Resize browser window > Check layout	Responsive layout working as intended	Responsive layout working as intended	Passed	High	You	Test successful
TC004	Validate checkout process	Add product to cart > Proceed to checkout > Complete payment	Order placed successfully	Order placed successfully	Passed	Medium	You	No issues found
TC005	Test search functionality	Enter search term > Verify results	Relevant products displayed	Relevant products displayed	Passed	High	You	Works as expected

Mehak eCommerce Store - Testing and Optimization Report

1. Test Cases Executed and Their Results

The following test cases were executed to ensure the functionality, responsiveness, and reliability of the Mehak eCommerce store. All test cases were successfully passed.

Test Case ID	Test Case Description	Status	Remarks
TC001	Validate product listing page	Passed	Products displayed correctly.
TC002	Test API error handling	Passed	Fetching is perfect; no errors.
TC003	Ensure responsiveness on mobile	Passed	Responsive layout works as intended.
TC004	Validate checkout process	Passed	Order placed successfully.
TC005	Test search functionality	Passed	Relevant products displayed.

---

2. Performance Optimization Steps Taken

To ensure the Mehak eCommerce store delivers a fast and seamless user experience, the following performance optimization steps were implemented:

1. **Lazy Loading for Images**:
   - Images are loaded only when they come into the viewport, reducing initial page load time.
2. **Minification of CSS and JavaScript**:
   - All CSS and JavaScript files were minified to reduce file sizes and improve load times.
3. **Content Delivery Network (CDN)**:
   - Static assets (images, CSS, JS) are served via a CDN to ensure faster delivery to users globally.
4. **Caching Mechanisms**:
   - Implemented browser caching and server-side caching to reduce load times for returning users.
5. **Database Query Optimization**:

- Optimized database queries to reduce response times for product listings and search results.

---

3. Security Measures Implemented

To protect the Mehak eCommerce store and its users, the following security measures were implemented:

1. **HTTPS Encryption**:
   - Enabled HTTPS to ensure secure communication between the user's browser and the server.
2. **Input Sanitization**:
   - All user inputs (e.g., search terms, form submissions) are sanitized to prevent SQL injection and XSS attacks.
3. **Secure Authentication**:
   - Implemented secure password hashing and multi-factor authentication (MFA) for admin accounts.
4. **Regular Security Audits**:
   - Conducted regular security audits to identify and fix vulnerabilities.
5. **Rate Limiting**:
   - Implemented rate limiting on API endpoints to prevent brute-force attacks.

---

4. Challenges Faced and Resolutions Applied

During the development and testing of the Mehak eCommerce store, the following challenges were encountered and resolved:

1. **Challenge: Slow API Response Time**
   - **Issue**: The initial API response time was slow, affecting the user experience.
   - **Resolution**: Optimized database queries and implemented caching mechanisms to reduce response times.
2. **Challenge: Mobile Responsiveness Issues**
   - **Issue**: The layout was not rendering correctly on certain mobile devices.
   - **Resolution**: Adjusted CSS media queries and tested the layout on multiple devices to ensure responsiveness.
3. **Challenge: Checkout Process Failure**
   - **Issue**: The checkout process occasionally failed due to payment gateway timeouts.
   - **Resolution**: Integrated a more reliable payment gateway and added retry logic for failed transactions.

4. **Challenge: Search Functionality Inefficiency**
    - **Issue**: The search functionality was slow and sometimes returned irrelevant results.
    - **Resolution**: Optimized the search algorithm and indexed the database for faster and more accurate results.
5. **Challenge: Security Vulnerabilities**
    - **Issue**: Initial security audits revealed potential vulnerabilities in user input handling.
    - **Resolution**: Implemented input sanitization and validation to prevent common attacks like SQL injection and XSS.