**Software Engineering - A4 TP 3**

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2.d. We chose as software an e-commerce of sunglasses. The goal is to create a brand with different collections on specific themes, then sell our pieces and spread the project internationally. There will be a web development part, a design part for the site, and of course the creation of pieces and collections, and communication using social networks.

3. We have chosen for each of our sprint a duration of 2 weeks.

4. We have divided our project into epic stories and user stories (2 examples of epic stories below):

|  |  |  |
| --- | --- | --- |
| Epic Story | **Product Management** | **User Account Management** |
| User Story 1 | As an administrator, I want to be able to add new products to the website, including product details and images | As a user, I want to edit my profile information, including my address and contact details |
| User Story 2 | As an administrator, I want to be able to add new products to the website, including product details and images | As a user, I want to view my order history and track the status of my orders |
| User Story 3 | As a shopper, I want to be able to search for products by category, name, and price range | As a user, I want to be able to leave product reviews and ratings |

Une image contenant texte, capture d’écran, Police, Système d’exploitation

Description générée automatiquement5. Using Jira, create accounts, one member of the team can create the project page, then add share the project with the other members:

6. We define roles of each person of the team: Lisa = Designer, David = Developer, Mathys = Developer

We create 3 Sprint table that contains several tickets per person, with about 16 points per person per sprint lasting two weeks.

Une image contenant texte, logiciel, Icône d’ordinateur, Page web

Description générée automatiquement

7. On Jira, we use “Easy Agile TeamRhythm” for story mapping in our Jira project :

Une image contenant texte, logiciel, Icône d’ordinateur, Page web

Description générée automatiquement

Une image contenant texte, capture d’écran, diagramme

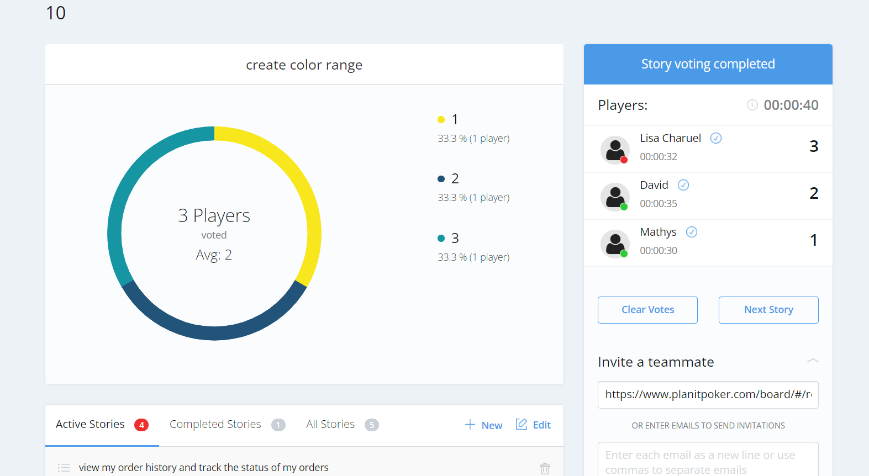
Description générée automatiquement8. In order to practice the retrospective, you can use tools like this: <https://metroretro.io/> :

Une image contenant texte, Police, logiciel, nombre

Description générée automatiquement

9. In order to do user story estimation, you can use the poker planning exercise using free online tools like this one : <https://www.planitpoker.com/> :

Une image contenant texte, capture d’écran, logiciel, Icône d’ordinateur

Description générée automatiquement

10.a.i)

**Business Requirement Document (BRD) for Sunglasses Project**

**Executive Summary:**

The purpose of this document is to outline the business requirements for the development and launch of an online sunglasses retail platform. The platform aims to offer a wide range of sunglasses to customers and provide a seamless shopping experience. This project is essential for establishing a strong online presence in the sunglasses market and expanding our customer base.

**Project Objectives :**

1. Develop a fully functional e-commerce platform for selling sunglasses.
2. Increase sales and revenue through an online presence.
3. Expand the customer base by reaching a global audience.
4. Establish a recognizable brand in the sunglasses market.
5. Provide a user-friendly and secure shopping experience.

**Project Scope/Perimeter:**

Project requirements:

* Development of a user-friendly e-commerce website.
* A product catalog showcasing a variety of sunglasses.
* User registration and authentication.
* Shopping cart, checkout, and payment functionality.
* User profiles and order history.
* Product reviews and ratings.
* Administrative dashboard for product and order management.
* Security measures to protect customer data and transactions.

Calendar:

1. Project Initiation (2 weeks)
2. Design and Planning (4 weeks)
3. Development (10 weeks)
4. Testing and Quality Assurance (4 weeks)
5. Content Creation (6 weeks)
6. Marketing and Launch Preparation (8 weeks)
7. Soft Launch and User Testing (2 weeks)
8. Final Testing and Refinements (4 weeks)
9. Full Launch (1 week)

Budget :

* Development and Technology: $20,000 - $50,000
* Marketing and Advertising: $10,000 - $30,000
* Content Creation: $5,000 - $10,000
* Salaries and Team Costs: $30,000 - $60,000
* Miscellaneous Expenses: $2,000 - $5,000
* Contingency: 10% - 15% of the total budget

**Business Requirements:**

1. User Registration and Authentication:
   * Users can create accounts and log in securely.
   * Password reset and recovery functionality.
2. Product Catalog:
   * Display sunglasses with detailed descriptions.
   * Filter and search functionality.
   * Display prices, available sizes, colors, and other product details.
   * Multiple high-quality images per product.
3. Shopping Cart:
   * Users can add and remove items.
   * Calculate the total price.
   * Show recommended products.
4. Checkout and Payment:
   * Secure payment options (credit card, PayPal, etc.).
   * Shipping options and costs.
   * Order confirmation emails.
5. User Profiles:
   * Users can view order history, save shipping addresses, and manage personal information.
6. Reviews and Ratings:
   * Allow users to leave product reviews and ratings.
   * Moderate and manage reviews.
7. Admin Dashboard:
   * Manage product listings.
   * View and manage orders.
   * Monitor user activity and analytics.
   * Manage customer support requests.
8. Responsive Design:
   * Ensure the platform is accessible on various devices and screen sizes.
9. Security and Privacy:
   * Implement SSL for secure transactions.
   * Comply with data protection regulations.

**Key Stakeholders:**

* Project Manager: Lisa Charuel
* Development Team: David Bettane, Mathys Bronnec, Lisa Charuel
* Customers: The end-users who will purchase sunglasses on the platform.

**Project Constraints:**

* Budget: The project budget is limited to $150000.
* Timeline: The project is scheduled for completion by summer 2024.

**Cost-Benefit Analysis:**

A detailed cost-benefit analysis will be provided separately and will include expected costs, revenue projections, and return on investment (ROI) estimates.

10.a.ii)

**Benchmark**

Oakley : <https://www.oakley.com/fr-fr?cid=PM-SGA_000000-1.FR-Oakley-FR-B-Core-Exact_Core_oakley&s_kwcid=AL!16196!3!583522740885!e!!g!!oakley!304634478!22080447558&promo=extra10&ds_rl=1293102&ds_rl=1293102&gclid=CjwKCAjwysipBhBXEiwApJOcu9gkQQQpBzRqVeNZmkZnUPr5K9i15_Cx8SASSzdiZohgvZUhCHkUdhoCaEsQAvD_BwE&gclsrc=aw.ds>

Une image contenant texte, capture d’écran, Logiciel multimédia, Jeu PC

Description générée automatiquement

|  |  |
| --- | --- |
| Strong points | Weaknesses |
| * Imaging * Mobile adaptability * Offer range * Social recommendation | * Readability (overloaded) * Pop-up |

Rudy Project : [https://www.rudyproject.com/fr/fr-fr/?init=yes&gad=1&\_gl=1\*zvq4kd\*\_up\*MQ..&gclid=CjwKCAjwysipBhBXEiwApJOcu99vYJ-HyS\_o9ou\_Lnnozot8lvb3sh\_u0X0cVlu4MikNT089IcS2nxoCqyAQAvD\_BwE#/](https://www.rudyproject.com/fr/fr-fr/?init=yes&gad=1&_gl=1*zvq4kd*_up*MQ..&gclid=CjwKCAjwysipBhBXEiwApJOcu99vYJ-HyS_o9ou_Lnnozot8lvb3sh_u0X0cVlu4MikNT089IcS2nxoCqyAQAvD_BwE#/)

Une image contenant casque, Équipement de protection individuelle, Casque de vélo, lunettes

Description générée automatiquement

|  |  |
| --- | --- |
| Strong points | Weaknesses |
| * Languages * Readability * Purchasing system * Intuitive | * Pop-up |

Smith Optics: <https://www.smithoptics.com/fr_FR/>

Une image contenant neige, skier, sport, capture d’écran

Description générée automatiquement

|  |  |
| --- | --- |
| Strong points | Weaknesses |
| * Languages * Readibility * Esthetics | * Animation * Browsing |

**Marketing:**

**Main Target:**

|  |  |
| --- | --- |
| Socio-demographic characteristics | Characteristics behavioral |
| * Origin: everyone * Age: everyone * Salary: everyone * Sports equipment budget: 50 euros | * Archetype: sporty men/women * Motivations: need to equip to practice in better conditions * Selection criteria: efficiency, esthetics and comfort |

**International:**

If we want to be known at first in the USA and main countries in Europe, we need the site to be translated into English, French, Spanish and German.

**Referencing:**

Le site respecte les 80 bonnes pratiques SEO du référentiel OPQUAST (<https://checklists.opquast.com/fr/assurance-qualite-web/>)

10.b.i)

**Software Requirement Specification (SRS) for Sunglasses Project**

**Introduction:**

In the ever-evolving world of sports and active lifestyles, optimizing performance and safeguarding vision is paramount. Our project is dedicated to introducing a premium line of sports glasses designed to meet the unique needs of athletes and enthusiasts alike.

**Scope of the Product:**

Our sports glasses cater to a diverse range of sporting activities, including but not limited to cycling, running, skiing, and water sports. The focus is on enhancing visual clarity, protecting the eyes, and ensuring comfort during high-intensity performance.

**List of Product Benefits and Objectives:**

Enhanced Vision: These sports glasses provide crystal-clear optics, reducing glare and distortion, allowing wearers to focus on their sport without distraction.

Safety: Protection against impact, UV rays, and environmental elements is a fundamental objective, safeguarding both eye health and overall well-being.

Comfort: Ergonomically designed for a secure fit and minimal slippage, ensuring the glasses stay in place even during vigorous activities.

Style: Aesthetic appeal is not overlooked, as we believe in complementing high performance with a touch of personal style.

**Value of the Product:**

Our sports glasses not only offer an edge in sports performance but also contribute to overall health and safety. They are not just an accessory; they are an essential gear for athletes and sports enthusiasts.

**What Will It Do?**

These sports glasses will empower individuals to push their limits, minimize the risk of injury, and experience sports in a new dimension of visual clarity and comfort.

**Target Audience:**

Our target audience includes athletes, sports enthusiasts, and anyone who desires top-tier eye protection and clarity during physical activities. From professionals to weekend warriors, our products cater to all.

**Intended Use:**

The intended use of these sports glasses is for sports and outdoor activities where clear vision, eye protection, and comfort are of utmost importance. Whether you're scaling mountains, speeding down slopes, or enjoying a leisurely jog, our glasses have you covered.

**Definitions and Acronyms:**

UV: Ultraviolet

OEM: Original Equipment Manufacturer

**Table of Contents:**

* Introduction
* Functional requirments
* Non-functional requirments
* External interface requirments

**Functional requirments :**

**User Registration and Authentication:**

Users should be able to create accounts and log in securely.

User profiles should store information, including preferences and purchase history.

**Product Catalog:**

Display a catalog of sports glasses, categorized by sport, brand, and style.

Include detailed product information, such as specifications, price, and availability.

**Search and Filter:**

Implement search functionality, allowing users to find products based on keywords.

Include filtering options, such as sport type, price range, and brand.

**Shopping Cart:**

Enable users to add and remove items from their shopping cart.

Display a summary of selected products, including quantities and total costs.

**Checkout and Payment:**

Provide a secure and user-friendly checkout process.

Support various payment options, including credit cards, PayPal, and other relevant methods.

**Order Management:**

Allow users to view their order history and track the status of their orders.

Send order confirmation and shipping updates via email or notifications.

**User Reviews and Ratings:**

Enable users to leave reviews and ratings for products.

Display average ratings and comments to help others make informed decisions.

**Product Recommendations:**

Implement a recommendation system that suggests related products based on user preferences and purchase history.

**Inventory Management:**

Ensure real-time updates on product availability.

Remove products from the catalog when they are out of stock.

**User Support and Contact:**

Provide a means for users to contact customer support for inquiries, issues, or returns.

Offer a comprehensive FAQ section for common queries.

**Admin Panel:**

Include an admin panel to manage product listings, user accounts, and orders.

Grant administrative privileges to authorized personnel.

**Security:**

Implement robust security measures to protect user data and payment information.

Use encryption protocols for secure data transmission.

**Responsive Design:**

Ensure that the system is accessible and user-friendly on various devices, including desktop, mobile, and tablets.

**Multi-language Support:**

Provide support for multiple languages to cater to a global customer base.

**Integration with Payment Gateways:**

Integrate with payment gateways to facilitate secure and convenient transactions.

**Notification System:**

Implement a notification system to alert users about order confirmations, shipping updates, and promotions.

**Return and Refund Process:**

Define a clear return and refund process for users who receive damaged or unsatisfactory products.

**Warranty Information:**

Display warranty details for each product and provide guidelines for warranty claims.

**Social Media Integration:**

Include social media sharing options to encourage users to share their favorite products with their networks.

**Reporting and Analytics:**

Incorporate reporting and analytics tools to monitor sales, user behavior, and inventory levels.

**Non-functional requirments:**

**Security:**

Ensure that user data, including personal information and payment details, is encrypted and stored securely.

Implement measures to protect against common web security threats such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF)

**Capacity:**

The system should be able to handle a large number of concurrent users, especially during peak shopping seasons or promotional events.

Ensure that the system can support a growing product catalog without performance degradation.

**Compatibility:**

The platform should be compatible with various web browsers (e.g., Chrome, Firefox, Safari) and device types (desktop, mobile, tablet)

Ensure compatibility with different operating systems.

**Reliability and Availability:**

Maintain a high level of system availability, with minimal downtime for maintenance or updates.

Implement backup and disaster recovery procedures to ensure data integrity and availability in case of unforeseen issues.

**Scalability:**

The system should be able to scale horizontally to accommodate increased traffic and growing data volumes.

Ensure that the infrastructure can adapt to changes in demand and usage.

**Maintainability:**

Design the system with modularity and well-documented code to facilitate future maintenance and updates.

Implement version control and change management processes to track and manage system changes effectively.

**Usability:**

Ensure a user-friendly and intuitive interface to make the shopping experience easy and efficient.

Conduct user testing and gather feedback to continuously improve usability.

Provide clear and comprehensive user documentation to assist customers in using the platform.

**External interface requirments:**

**User Interfaces:**

- Web Interface

- Mobile Application

- User Accounts

**Hardware Interfaces:**

- Payment Devices

- Barcode Scanners

**Software Interfaces:**

- Payment Gateways

- Inventory Management System

- Customer Relationship Management Software

**Communication Interfaces:**

- APIs for External Services

- Email Services

- Social Media Platforms

- Live Chat and Support

- Notification Services

10.b.ii)

**Functional specifications**

Functional perimeter

Objective

Functionality

Impact

Actor

Google Plus referencing

Browse the catalog of glasses, online

Social networks

Order

New customer

Client

Company staff

Increase turnover

Pictures

Learn about the company

Contact

Order online

Re-order online

Yield management

Back office

Edit the website

Front office

|  |  |
| --- | --- |
| **Functionality** | **Associated constraints** |
| Order online | Filters |
| Contact form | Anti-spam |
| Photo gallery | Controllable |
| Newsletter registration | No constraint |
| Language change | Always on screen |
| Social networks | No constraint |

Back office

|  |  |
| --- | --- |
| **Functionality** | **Associated constraints** |
| Content management | Restriction according to roles |
| Price management | Payment system |
| Order management | Real-time view of orders made |

Arborescence

**Level 0**

Home page/ About the company

**Level 1**

**Level 3**

**Level 2**

Confirmation

Order and payment

Glasses for cycling

Glasses for hiking

Glasses for skiing

Best seller sunglasses

Collections

Research

Contact

Legal notice