Higher Nationals

Internal verification of assessment decisions – BTEC (RQF)

INTERNAL VERIFICATION – ASSESSMENT DECISIONS				
Programme title	BITEC Higher National Diploma in Computing			
Assessor	Mr. Madumal Udayanga	**Internal Verifier**	Mr .Lakindu Premachandra	
Unit(s)	**Unit 30 – Application Development**			
Assignment title	**Inventory Control Application for BAUHINIA**			
Student's name	Ranudi Gayathmie Kariyapperuma			
List which assessment criteria the Assessor has awarded.	**Pass**	**Merit**	**Distinction**	
INTERNAL VERIFIER CHECKLIST				
Do the assessment criteria awarded match those shown in the assignment brief?	Y/N			
Is the Pass/Merit/Distinction grade awarded justified by the assessor's comments on the student work?	Y/N			
Has the work been assessed accurately?	Y/N			
Is the feedback to the student: Give details: • Constructive? • Linked to relevant assessment criteria? • Identifying opportunities for improved performance? • Agreeing actions?	 Y/N Y/N Y/N Y/N			
Does the assessment decision need amending?	Y/N			
Assessor signature		**Date**		
Internal Verifier signature		**Date**		
Programme Leader signature (if required)		**Date**		

Confirm action completed			
Remedial action taken Give details:			
Assessor signature		**Date**	
Internal Verifier signature		**Date**	
Programme Leader signature (if required)		**Date**	

Higher Nationals - Summative Assignment Feedback Form

Student Name/ID	Ranudi Gayathmie Kariyapperuma - KIR/X-00104243		
Unit Title	**Unit 30 – Application Development**		
Assignment Number		**Assessor**	
Submission Date	24.11.2023	**Date Received 1st submission**	
Re-submission Date		**Date Received 2nd submission**	

Assessor Feedback:

LO1 Produce a Software Design Document by analysing a business-related problem and deduce an appropriate solution including a set of initial requirements

Pass, Merit & Distinction Descripts **P1** ☐ **P2** ☐ M1 ☐

LO2 Use design and development methodologies with tools and techniques associated with the creation of a business application

Pass, Merit & Distinction Descripts **P3** ☐ **M2** ☐ D1 ☐

LO3 Work individually and as part of a team to plan and produce a functional business application with support documentation

Pass, Merit & Distinction Descripts **P4** ☐ **P5** ☐ **M3** ☐ **M4** ☐ **D2** ☐

LO4 Evaluate the performance of a business application against its Software Design Document and initial requirements

Pass, Merit & Distinction Descripts **P6** ☐ **M5** ☐ **D3** ☐

Grade:	**Assessor Signature:**	**Date:**
Resubmission Feedback:		
Grade:	**Assessor Signature:**	**Date:**
Internal Verifier's Comments:		
Signature & Date:		

* Please note that grade decisions are provisional. They are only confirmed once internal and external moderation has taken place and grades decisions have been agreed at the assessment board.

Assignment Feedback

Formative Feedback: Assessor to Student			
Action Plan			
Summative feedback			
Feedback: Student to Assessor			
Assessor signature		**Date**	
Student signature		**Date**	

Pearson Higher Nationals in

Computing

Unit 30 – Application Development

General Guidelines

1. A Cover page or title page – You should always attach a title page to your assignment. Use previous page as your cover sheet and make sure all the details are accurately filled.
2. Attach this brief as the first section of your assignment.
3. All the assignments should be prepared using a word processing software.
4. All the assignments should be printed on A4 sized papers. Use single side printing.
5. Allow 1" for top, bottom , right margins and 1.25" for the left margin of each page.

Word Processing Rules

1. The font size should be **12** point, and should be in the style of **Time New Roman**.
2. **Use 1.5 line spacing**. Left justify all paragraphs.
3. Ensure that all the headings are consistent in terms of the font size and font style.
4. Use **footer function in the word processor to insert Your Name, Subject, Assignment No, and Page Number on each pag**e. This is useful if individual sheets become detached for any reason.
5. Use word processing application spell check and grammar check function to help editing your assignment.

Important Points:

1. It is strictly prohibited to use textboxes to add texts in the assignments, except for the compulsory information. eg: Figures, tables of comparison etc. Adding text boxes in the body except for the before mentioned compulsory information will result in rejection of your work.
2. Avoid using page borders in your assignment body.
3. Carefully check the hand in date and the instructions given in the assignment. Late submissions will not be accepted.
4. Ensure that you give yourself enough time to complete the assignment by the due date.
5. Excuses of any nature will not be accepted for failure to hand in the work on time.
6. You must take responsibility for managing your own time effectively.
7. If you are unable to hand in your assignment on time and have valid reasons such as illness, you may apply (in writing) for an extension.
8. Failure to achieve at least PASS criteria will result in a REFERRAL grade .
9. Non-submission of work without valid reasons will lead to an automatic RE FERRAL. You will then be asked to complete an alternative assignment.
10. If you use other people's work or ideas in your assignment, reference them properly using HARVARD referencing system to avoid plagiarism. You have to provide both in-text citation and a reference list.
11. If you are proven to be guilty of plagiarism or any academic misconduct, your grade could be reduced to A REFERRAL or at worst you could be expelled from the course

Student Declaration

I hereby, declare that I know what plagiarism entails, namely to use another's work and to present it as my own without attributing the sources in the correct form. I further understand what it means to copy another's work.

1. I know that plagiarism is a punishable offence because it constitutes theft.
2. I understand the plagiarism and copying policy of Edexcel UK.
3. I know what the consequences will be if I plagiarise or copy another's work in any of the assignments for this program.
4. I declare therefore that all work presented by me for every aspect of my program, will be my own, and where I have made use of another's work, I will attribute the source in the correct way.
5. I acknowledge that the attachment of this document signed or not, constitutes a binding agreement between myself and Edexcel UK.
6. I understand that my assignment will not be considered as submitted if this document is not attached to the assignment.

ranudigk@gmail.com

Student's Signature: **Date:** 24.11.2023

(*Provide E-mail ID*) **(*Provide Submission Date*)**

Higher National Diploma in Business

Assignment Brief

Student Name /ID Number	Ranudi Gayathmie Kariyapperuma - KIR/X-00104243
Unit Number and Title	**Unit 30: Application Development**
Academic Year	2021/22
Unit Tutor	Mr. Madumal Udayanga
Assignment Title	
Issue Date	20.10.2023
Submission Date	24.11.2023
IV Name & Date	

Submission format

The submission should be in the form of an individual written report. This should be written in a concise, formal business style using single spacing and font size 12. You are required to make use of headings, paragraphs and subsections as appropriate, and all work must be supported with research. You must provide in-text citations and the reference list using Harvard referencing system.

The recommended word count is 4,000–4,500 words excluding annexures..

Minimum word count – 4,000

Maximum word count – 4,500

Unit Learning Outcomes:

LO1 Produce a Software Design Document by analysing a business-related problem and deduce an appropriate solution including a set of initial requirements.

LO2 Use design and development methodologies with tools and techniques associated with the creation of a business application.

LO3 Work individually and as part of a team to plan and produce a functional business application with support documentation.

LO4 Evaluate the performance of a business application against its Software Design Document and initial requirements

Assignment Brief and Guidance:

BAUHINIA is a clothing brand in Sri Lanka, founded in 2018, which has come a long way, offering Sri Lankans with great designs of a variety of clothing. Currently, BAUHINIA is handling orders through social media networks such as Facebook and Instagram. Customers can message BAUHINIA requesting an item/s by sending the item code, size and required quantity. If the item is available, the customer is required to send the delivery address, contact number to confirm the order. The package with the required item/s will be delivered to the customer's doorstep within 3 to 5 working days, after which he/she must pay cash on delivery.

Over the years, BAUHINIA has grown steadily mainly due to its popularity over social media. However, they are finding it increasingly difficult to cope up with paperwork associated with inventory management due to the increased of number of orders through message requests. The Managing Director is frustrated by the problems associated with inventory management and has decided that BAUHINIA will consult a Software Development Company to automate the workflow of BAUHINIA Clothing.

AKL Software (AKL) is a software development consultant. AKL has purpose-built rooms for Facilitated Workshops and Agile software development projects. The Managing Director of BAUHINIA has decided to contract AKL for the development of the new order tracking system using an Agile development approach.

The new online solution will replace the old approach and is likely to include some of the following functionality:

- Customer Registration and sign-in : Allow customers to register free. At the time of registration, customers need to provide name, email address, delivery address, password and two working telephone numbers. Registered customers can sign-in using email address and password.
- Browse for products: through product catalog, check availability and add products to cart.
- Checkout products: Total amount to be paid will be shown. Customer will be redirected to confirm billing details: Name, delivery address, email address, two contact numbers. Payment method will be cash on delivery.
- Staff registration and sign-in.
- Create a daily report of orders that have been requested – carried out by the Production Manager.
- Create a daily report of product availability- carried out by Production Manager.
- Add new items to inventory, update existing item details – carried out by Inventory handling Clerk.
- Create a monthly Income report- carried out of chief Accountant.

The new online solution should have the following levels of access:

- Report only
- Update only
- Update and delete
- Complete system access

Activity 1

1.1 Produce a well-defined Problem definition statement supported by a set of user and System requirements for the above scenario. Identify areas (if any) of risk that might affect the successful completion of the application.

1.2 Produce a well-structured Software Design Document that defines a proposed solution for BAUHINIA by exploring and analyzing their business problem. Include relevant details on requirements, system analysis, system design. (propose a suitable language)

Activity 2

Investigate the use of software development tools and techniques for the chosen software solution. Compare the investigated tools and techniques and justify the chosen tools, technique and methodology that you may use for the development of an Inventory Control Application for BAUHINIA .

Activity 3

3.1 Create a presentation to review followings;

- Business application
- Problem definition statement
- Proposed solution
- Development strategy

Conduct a peer-review and identify opportunities that were not previously considered by interpreting the recorded feedback.

3.2 Develop a business application with support documentation, based on the Software Design Document produced in activity 1, along with supportive evidence for using the preferred tools, techniques and methodologies investigated in activity 2. Assess new ideas or possible improvements to the system developed while justifying the reasons for including/not including them in the application developed.

Activity 4

Conduct a critical review for the design, development, and testing stages of the Inventory Control application by analyzing the factors that influence its performance against the problem definition statement and initial requirements. Conclude the review by reflectively discussing the risks identified at the beginning and critically evaluating the strengths and weaknesses of the application developed. Identify and justify the opportunities for improvement and further development of the application you developed.

ACKKNOWLEDGEMENT

At last author would like to share the experience while doing the project. Author learns many new things about the networking topics. The best thing which author can share is that author developed more interest in this subject. This Project gave author experience of how to do an event .

A very special thanks to Mr. Madumal Udayanga .who teach us this subject and Author thanks for who helped author to do this kind of project. Thank you!

Regards,
The author,
Ranudi Kariyapperuma

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Problem Definition of Bahunia

"Social media sites like Facebook and Instagram are currently the main means of order management for BAUHINIA, a clothing business that is growing rapidly in Sri Lanka. The manual order processing has grown harder as the brand's popularity and reach have grown, creating difficulties for effective inventory control, order monitoring, and documentation.

The current system lacks an organized framework for inventory control, order processing, and customer management because it is dependent on message requests for orders. The volume of orders has increased the difficulty of keeping track of product availability, order status, and customer data management. This manual method is hard and error-prone, which makes it difficult for BAUHINIA to grow efficiently.

The Managing Director is aware of the shortcomings in the current method and is working to find a more automated and simplified solution. In order to provide a full online solution, BAUHINIA intends to work in partnership with AKL Software to overcome these problems. The proposed system should include features for staff administration, easy-to-use product browsing and selection, efficient checkout procedures, intuitive reporting, and client registration.

The system should also incorporate functions that make it easier to track orders on a daily basis, update inventories, and provide financial reports. Access levels that are matched to particular jobs inside the company will guarantee safe and effective system administration.

The main objective is to replace the manual, heavily reliant on social media order management system with an automated, user-friendly web platform. The objectives of this change are to maximize operational effectiveness, improve customer satisfaction, and allow BAUHINIA to grow sustainably in Sri Lanka's cutthroat apparel industry."

The Risks That Affects the Success of the BAUHINIA New System Completion

- Technical Challenges

A new system's development may run into a number of technical difficulties, such as the intricacy of combining disparate software components, making sure that the system is compatible with a variety of platforms, and dealing with unforeseen technological problems. These difficulties might cause schedule delays for the project or jeopardize its intended functionality. A thorough risk assessment and a backup plan for technological difficulties should be in place to reduce these risks. To find and fix technological problems early in the development cycle, strong testing techniques like unit testing, integration testing, and user acceptability testing will be essential.

Justification

BAUHINIA should use agile approaches in response to possible technical challenges that may arise during system development. This will allow for flexibility in the face of unforeseen obstacles and will need a significant investment of time and money during the rigorous testing and debugging stages. Working with seasoned technical advisers or consultants can offer priceless advice on resolving complex technical problems and guarantee a smooth development process all the while keeping a laser-like focus on meeting project milestones and goals.

- The Scope Creep

Extending the project scope beyond its initial needs is a significant risk that arises throughout project execution. This could happen as a result of new features being added or changing stakeholder needs. Excessive scope creep can result in overuse of resources, delays, and higher expenses. This risk can be reduced by putting in place stringent change control procedures, reviewing the scope on a regular basis, and consulting with stakeholders to prioritize features. Preventing unwarranted expansions requires carefully following the specified scope and setting explicit project goals.

Justification

BAUHINIA should set up a strong change management procedure that includes stakeholders in thorough scope appraisal and prioritization in order to reduce the danger of scope creep. This should include an organized system of change control procedures, stressing how important it is to keep an accurate and comprehensive project scope record. In order to prevent uncontrolled feature additions and to ensure consistency with the original project objectives and schedules, it will be essential to regularly examine and reevaluate the project goals.

- Limitations on Resources

Inadequate funding, technological infrastructure, or trained staff members could all pose serious obstacles to the project's advancement. Lack of these resources could result in subpar work, missed deadlines, or even project failure. Having backup plans, anticipating resource shortages, and carefully planning resources are all necessary to mitigate this risk. To avoid resource-related bottlenecks, regular monitoring and modifying resource allocation to match project demands will be crucial.

Justification

BAUHINIA must perform thorough and continuous resource evaluations at project beginning, continuously monitoring resource consumption throughout the development lifecycle, in anticipation of any shortages of resources. This entails distributing funds sensibly and effectively while retaining flexibility to deal with unanticipated shortages. Maintaining momentum and excellence in project execution may require considering outsourcing some duties or adding more personnel to the team. Creating thorough backup plans is essential to addressing unforeseen resource issues and guaranteeing continuous development.

- Privacy and Data Security Issues

Managing client data that is sensitive increases the possibility of privacy violations or data breaches, which could harm a brand's reputation and have legal repercussions. Strong data security mechanisms, including as access limits, encryption methods, and frequent security audits, should be put in place to reduce these threats. Respecting local data privacy laws and other data protection legislation, including the GDPR, is essential.

Furthermore, it is crucial to train staff members on the best practices for handling data and to make sure that data security safeguards are continuously monitored.

Justification

Given the possible risks in data security, BAUHINIA ought to give data security top priority right from the start of the project. To protect sensitive client data, this entails putting in place strict security processes, encryption techniques, and access controls. To ensure a strong and secure system infrastructure and protect against potential breaches or privacy violations, it is essential to conduct regular security audits, compliance checks with relevant data protection regulations, and employee training on data security best practices.

- Training and User Adoption

A major risk to the new system's success is staff or consumer resistance or reluctance to adopt it. Insufficient training initiatives or intricate user interfaces may impede user adoption, hence affecting overall effectiveness. Comprehensive training programs designed for various user groups should be created in order to reduce this risk. Adoption will also be boosted and a sense of ownership will be created by include end users in the design process, getting their input, and resolving any issues.

Justification

In order to reduce the possibility of resistance to the new system, BAUHINIA ought to prioritize developing user-friendly and intuitive interfaces in addition to offering extensive training sessions customized for various user groups. It will be easier to ease the transition and encourage quick adoption if end users are included in the design and testing stages, encouraged to provide input, and provided with resources and assistance going forward. This will help them feel more invested in the new system and more confident in its use.

- Supplier Trustworthiness

There is risk involved in depending on an outside software development company in the event that they have internal problems, miss deadlines, or produce a subpar result. It is essential to have clear lines of communication, realistic project milestones and

expectations, and backup procedures in place in order to reduce this risk. This risk can be managed with the aid of regular progress reports, milestone evaluations, and contractual agreements that outline deliverables and deadlines.

Justification

In order to limit the risks related to external software development and ensure supplier responsibility, BAUHINIA needs to establish clear communication channels, clearly define project milestones, and consistently provide progress reports. It is possible to strengthen vendor accountability and maintain flexibility in handling unforeseen delays or issues that may arise during the development process by implementing a staged payment structure linked to project objectives.

- Attention to Regulations

BAUHINIA faces legal and reputational risks if it does not adhere to industry regulations and standards involving financial transactions and data handling. Strict adherence to pertinent regulations and a thorough grasp of them are necessary for risk mitigation. It is essential to conduct regular audits, compliance checks, and policy and procedure revisions to ensure compliance with changing requirements. To reduce this risk, it is crucial to hire legal professionals to offer advice and to regularly train staff members on compliance standards.

Justification

BAUHINIA needs to stay up to date on relevant industry rules and standards in order to effectively handle regulatory compliance concerns. To ensure strict adherence to changing compliance regulations, this entails carrying out routine compliance audits, creating and enforcing internal protocols, and holding in-depth employee training sessions. Stronger adherence to industry regulations will come from legal assistance and continual education about compliance guidelines.

- Integration Difficulties

Integrating a new system with an existing one seamlessly carries a risk of compatibility problems, data transfer challenges, or disruptions in functioning, particularly if there are several legacy systems in use. A staged integration strategy should be used, with extensive

testing at every stage, to reduce this risk. Early in the development cycle, integration problems can be found and fixed with the aid of thorough compatibility testing and clear communication across various systems.

Justification

BAUHINIA should use an organized staged integrating approach, starting with thorough system compatibility testing, to reduce any potential integration problems. It will be essential to have open lines of communication between various systems and to hire integration experts to handle technological difficulties. Thorough documentation and troubleshooting in addition to rigorous testing at every level of integration will help to prevent disruptions and ensure smooth system integration.

- Quality Control and Testing

Insufficient quality assurance or testing processes could lead to hidden vulnerabilities or faults in the system, jeopardizing its dependability and functionality. It is imperative to adopt stringent testing processes that include functional testing, performance testing, and user acceptance testing in order to mitigate this risk. Throughout the development process, continuous quality assurance techniques including code reviews, testing automation, and feedback loops will aid in finding and fixing problems.

Justification

BAUHINIA should put in place a thorough testing plan that includes different testing methodologies like functional testing, performance testing, and security testing in order to mitigate the risk of insufficient testing or quality assurance. When possible, automating testing procedures will increase productivity. This should be combined with a strong culture of quality assurance that spans the whole development cycle. Frequent testing iterations, thorough code reviews, and continuous improvement techniques will guarantee the new system's dependability and efficacy.

- Change Management

The organization's resistance to change may make it more difficult to successfully execute the new system. Effective change management techniques are needed to mitigate this risk. These techniques include informing stakeholders of the advantages of the new system in a clear and concise manner, incorporating them in decision-making processes, proactively

addressing concerns, and offering sufficient support and training to ensure a seamless transition. Employee and consumer acceptance and adoption will be facilitated by ongoing interaction and feedback systems.

Justification

Developing comprehensive change management strategies is necessary to address resistance to change. BAUHINIA needs to be transparent and clear in its communication to stakeholders about the importance and expected benefits of the new system. The seamless change will be facilitated by including stakeholders in decision-making processes, actively addressing concerns, offering comprehensive training programs, and providing continuous support. This will encourage both employees and customers to embrace and utilize the new system.

The Software Design Document Of the BAUHINIA SZ System

Ranudi Gayathmie Kariyapperuma

24.11.2023

Overview of the BAUHINIA system and its purpose.

The BAUHINIA system is a significant development for the apparel company, which aims to modernize the way things are done by moving from an order management system that is mostly focused on social media to an automated web platform. This method demonstrates a dedication to streamlining internal procedures and improving client experiences. Its objective is to create a user-friendly, effective, and safe online shopping environment that streamlines the customer experience while improving inventory control, order monitoring, and financial reporting for the company.

The Problem with Current System of BAUHINIA - Manual Inventory Management System

The current inventory management system of BAUHINIA is primarily based on manual operations, primarily through messaging services on social media platforms for customized order placements. Nevertheless, there are a number of significant issues with this system that prevent it from functioning efficiently and from providing smooth user experiences. First of all, processing orders manually through messages results in inefficiencies that cause delays and make it difficult to properly manage large numbers of orders. Furthermore, the lack of real-time inventory management makes it harder to keep track of stock levels accurately and update product availability quickly, which could result in overselling and inaccurate order fulfillment.

The manual method also requires a lot of paperwork and careful record-keeping, which increases the possibility of mistakes and inconsistent data while using a lot of time and resources. All of these issues make BAUHINIA less scalable, lower consumer happiness, and more difficult for the brand to compete in the marketplace. The adoption of an automated system becomes imperative in order to surmount these constraints, optimize workflows, guarantee accurate inventory control, and augment client contentment, consequently clearing the path for enduring expansion and prosperity within the sector.

Objectives and scope of the document

This Software Design Document (SDD) serves as a thorough manual that describes the BAUHINIA system's functional elements, architectural layout, and operational framework. This document seeks to give a thorough overview of the system's architecture and functionality to developers, stakeholders, and decision-makers involved in the system's development and deployment phases. It provides a comprehensive overview of the system's architecture and functionalities by outlining interface designs, deployment techniques, security protocols, and structural elements.

Target Market

The target market for BAUHINIA is the online consumer, who constitutes a vibrant and technologically savvy sector of the Sri Lankan retail industry. This target market represents an increasing trend towards digital consumption and online transactions. It is made up of varied individuals who desire convenience, variety, and trustworthiness in their buying experiences. BAUHINIA wants to connect with this technologically literate consumer base by meeting their requirements, wants, and online shopping habits.BAUHINIA's marketing approach is centered on online consumers, who are distinguished by their preference for easily accessible, easy-to-use, and customized online buying experiences. This particular demographic prioritizes ease of use interfaces, thorough product details, and seamless transactions, desiring convenience and effectiveness during their shopping experience.

The switch to an automated method by BAUHINIA is in accordance with the preferences of these online customers.Furthermore, BAUHINIA seeks to cater to the varied range of tastes, preferences, and stylistic inclinations of its customer base within this target market. BAUHINIA aims to provide a broad range of clothing options that appeal to the many interests of online shoppers, from fashion-forward people looking for fashionable items to those who value comfort and sophistication. This entails offering carefully chosen collections, customized suggestions, and a seamless purchasing journey based on user preferences.Establishing a foundation of trust and loyalty with online shoppers is essential to BAUHINIA's marketing strategy.

With an emphasis on security in transactions, prompt delivery, quick customer service, and transparency, the company hopes to build long-lasting relationships with this audience that is connected to the internet. Utilizing data insights to improve personalization and streamline products increases BAUHINIA's attractiveness to online shoppers and establishes the brand as a reliable option in Sri Lanka's cutthroat online retail sector.

Aim of Bauhinia

The mission of BAUHINIA is to transform the retail scene in Sri Lanka by emerging as the top option for internet shoppers looking for an easy, interesting, and varied online shopping experience. The primary goal is to replace manual procedures with an automated system that redefines accuracy, efficiency, and customer happiness in the digital retail industry.

BAUHINIA wants to establish itself as a cutting-edge company that specializes in meeting the demands and tastes of Sri Lanka's internet consumer base. This means utilizing technology to develop a platform that is clear and easy to use, offering an extensive product catalog, expedited checkout procedures, and accurate inventory control. By doing this, the company hopes to provide a well-chosen selection of clothes that cater to a wide range of online shoppers by offering a variety of styles, trends, and tastes.

Furthermore, BAUHINIA wants to establish a personalized and engaging online purchasing experience, going beyond simple transactions. The business aims to establish long-lasting relationships with online buyers by prioritizing dependability, transparency, and outstanding customer service, which in turn fosters trust and loyalty. Using data-driven insights, this strategy aims to improve each customer's overall purchasing experience by continuously improving offerings and tailoring recommendations.

In the end, BAUHINIA wants to become a leader in Sri Lanka's online retail industry by creating new benchmarks for ease of use, creativity, and customer focus. The company hopes to establish a strong and long-lasting presence in the digital retail space by not just meeting but exceeding the changing expectations of online consumers through this revolutionary journey.

The Expected Facilities of the Proposed System for Bauhinia

The purpose of features of the proposed system (BAUHINIA) can be divided into functionalities for staff and customers, including different levels of access, based on the information that has been provided. Here's a thorough explanation:

For Customers:

- Sign-up and Log-In: Permit clients to sign up for a free account by giving them the necessary information (name, email, delivery address, password, phone numbers), and allow them to log in with their email address and password to access the account in the future.
- Product Browsing and Cart Management: Offer an easy-to-use product catalog that allows users to peruse and verify product availability. Additionally, allow users to add products to a cart for easy selection.
- Checkout Process: Show the entire amount due, direct clients to verify their billing information (name, address, phone number, email), and provide cash on delivery as a payment option.

For Staff Members:

- Employee Sign-In and Registration: Permit employees to sign up and log in using the proper login credentials according to their jobs and responsibilities.

- Inventory and Order Management:

  Allow the production manager to compile a daily report on orders that have been requested.

1. Product Availability Report: Permit the Production Manager to provide a daily report on the availability of products.
2. Inventory management: Make it easier for inventory handlers to update the data of already-existing goods and add new ones to the inventory.

3. Financial Reporting: Give the Chief Accountant the authority to compile income reports every month in order to provide thorough financial supervision.

Access Levels:

- Report Only: This level of access allows you to view reports and data but not edit them.
- Update Only: Access rights limited to information updates only; no delete rights.
- Update and Delete: Permissions were given to edit and remove data, respectively.
- Total System Access: All system features can be managed with total system access, giving you the most control and supervision possible.

The proposed system intends to improve inventory management, expedite the customer shopping experience, and give staff members designated roles and access levels. Through the integration of these features and access levels, BAUHINIA hopes to automate its process and guarantee increased productivity, accuracy, and customer satisfaction in its retail clothes operations.

Benefits of the proposed system for BAUHINIA

1. Streamlined Order Processing: The system uses social media to replace manual order management, which streamlines the procedure. From order selection through payment confirmation, automated order tracking minimizes mistakes and delays, guaranteeing a more seamless client experience.

2. Better Inventory Management: By automating inventory processes, manual tracking results in more paperwork and human mistake. Accurate order fulfillment is ensured, stock replenishment is optimized, and overselling is prevented with real-time alerts on product availability and levels.

3. Improved Customer Experience: For registered users, the portal offers simple access to order history, streamlined checkout, and seamless browsing. This ease of use encourages consumer happiness and loyalty, which leads to recurring business and favorable evaluations.

4. Effective Reporting and Analysis: Managers are able to act quickly and decisively thanks to daily reporting on orders and product availability. The monthly income reports support resource optimization, growth opportunity identification, and financial planning.

5. Secure and Scalable Platform: The system makes use of strong security mechanisms to guarantee transaction security and data privacy. Because of its scalability, BAUHINIA can grow and handle higher order quantities and more product lines with ease.

6. Empowered Staff and Role Clarity: Staff members can carry out duties that are in line with their responsibilities thanks to varying degrees of access. This framework guarantees effective management across multiple operational facets, lowers errors, and improves accountability.

7. Agile Development Approach: Using an Agile methodology enables the system to adjust to changing needs, guaranteeing ongoing progress and keeping up with changing market demands and technology breakthroughs.

8. Time and Resource Optimization: By reducing manual labor, automation frees up employees to work on more strategic projects. It streamlines resource allocation, gets rid of pointless procedures, and produces less paperwork.

9. Competitive Advantage and Brand Image: BAUHINIA's competitiveness is increased by providing an easy-to-use and cutting-edge web platform. It presents the company as cutting edge, customer-focused, and in step with current developments in digital retail.

10. Data-Driven Decision Making: BAUHINIA adopts a data-driven approach to business strategy by having access to extensive reports and analytics that enable the company to make well-informed decisions based on sales patterns, customer behavior, and inventory insights.

User and System Requirements of the BAUHINIA Web-based System

Functional Requirements

- User Registration and Authentication

Users should be able to create an account with the necessary information, authenticate safely using an email address and password for customer accounts, and provide specific login credentials for staff access

- Product Catalog and Selection

There needs to be a thorough product catalog that allows customers to look up, filter, and choose products that interest them.

- Cart Management and Checkout

Before beginning a safe checkout procedure, customers should manage their carts by adding, removing, and changing goods.

- Order Processing and Status Tracking

Order status updates should come after order confirmation so that clients may monitor the status of their purchases.

- Staff Role-Based Functionality

Employees with varying jobs (production manager, inventory handler, etc.) ought to have access to features like order management and inventory updates that are pertinent to their duties.

- Reporting and Analytics Access

Daily and periodic reports on orders, product availability, and financial information should be produced by authorized staff.

- System Admin Management

Administrators are in charge of system setups, user management, and access rights.

- Mobile Responsiveness

The platform must to retain complete functionality and uniformity in display across different mobile devices.

- Inventory Updates and Item Addition

Employees in charge of inventory must effortlessly add new products and update information about current ones.

- Data Backup and Recovery

To guarantee less data loss in the event of system problems, effective recovery techniques and routine automated data backups should be in place.

Non-functional Requirements

- Performance and Responsiveness

In order to ensure quick load times and seamless navigation even during periods of high user traffic, the system needs to be responsive.

- Reliability and Availability

Ensuring consistent uptime and reliability, minimizing system downtime, and ensuring accessibility 24/7.

- Data Security and Privacy

application of strict security measures to protect user information while guaranteeing adherence to laws and industry norms.

- Usability and User Experience

The platform should put a high priority on user-friendly navigation, intuitive design, and convenience of use for both staff and customers.

- Compatibility Across Browsers

The system should function optimally across major web browsers, ensuring a consistent experience for all users.

- Integration Capabilities

Capacity to interface with third-party services or APIs, enabling cooperation for improved features.

- Error Handling and Logging

To track system faults and make debugging easier, robust error handling methods and extensive logging systems are required.

- Compliance and Regulation Adherence

respect for legal requirements and compliance norms pertaining to privacy, data security, and e-commerce laws.

- Technical Support and Maintenance

Regular maintenance and on-going technical support are provided to guarantee system dependability and quickly resolve problems.

The suitable tools and methodologies to analyse the proposed BAUHINIA web based system

In order to fully evaluate the functionality, performance, and alignment of the proposed BAUHINIA web-based system with user needs, an extensive analysis utilizing a variety of techniques and approaches is required. It is easier to visualize system operations, user interactions, and improved features when tools like Use Case Diagrams, Flowcharts, and Prototyping are used. These technologies make it easier to comprehend how users interact with the system in great detail, which makes it possible to see any possible bottlenecks or inefficiencies in the user experience. They also provide a blueprint for developers and stakeholders to agree with regarding the essential features and user interfaces of the system.

A different set of tools, such as load testing, security assessment, and usability testing, are needed for non-functional analysis. In order to assess system performance under different conditions and ensure scalability and responsiveness, load testing tools simulate varied user loads. While usability testing tools gather user feedback to improve the system's usability and align it with user expectations, security assessment tools conduct rigorous tests to uncover vulnerabilities and boost data protection mechanisms. These evaluations guarantee that the system operates at peak efficiency and complies with strict safety rules all the while providing a user-friendly interface.

Critical to the method of analysis are methodologies like Requirement Analysis, Agile Development, and User-Centered Design. Agile Development's iterative methodology enables ongoing enhancements, successfully managing evolving requirements. In order to promote usability and happiness, user-centered design makes sure that the system is built around the needs, habits, and preferences of the user. Techniques for requirement analysis, including as surveys and stakeholder interviews, aid in thoroughly compiling system requirements. The integration of these approaches enables a comprehensive comprehension of the system's capabilities, performance standards, and user-focused design. This guarantees that the suggested system conforms to BAUHINIA's goals and user demands, while providing scalability, security, and ease of use.

The System Design of BAUHINIA Web-based System

Entity Relational Diagram of BAUHINIA Web-based System (ERD)

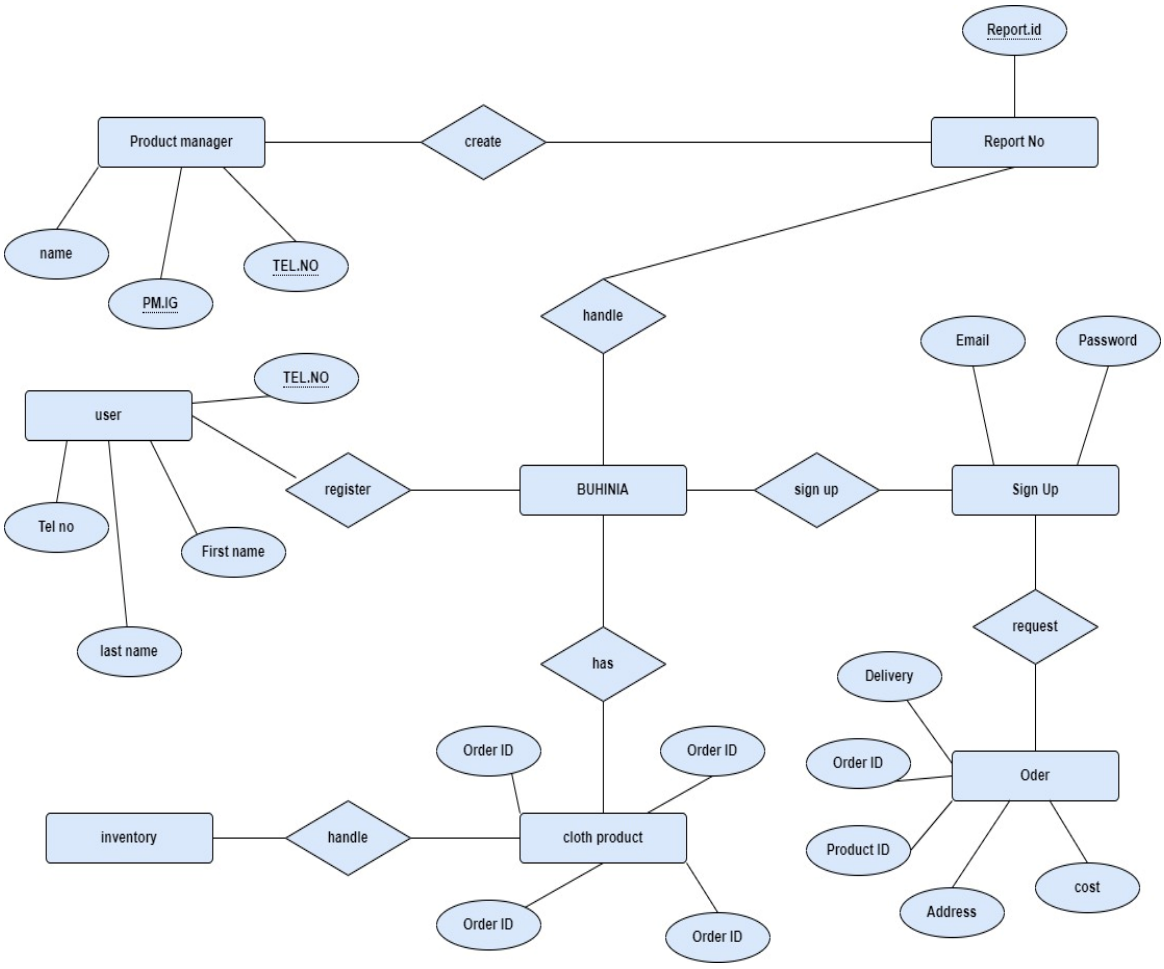


Figure 1: Er diagram

Use Case Diagram of BAUHINIA Web-based Application

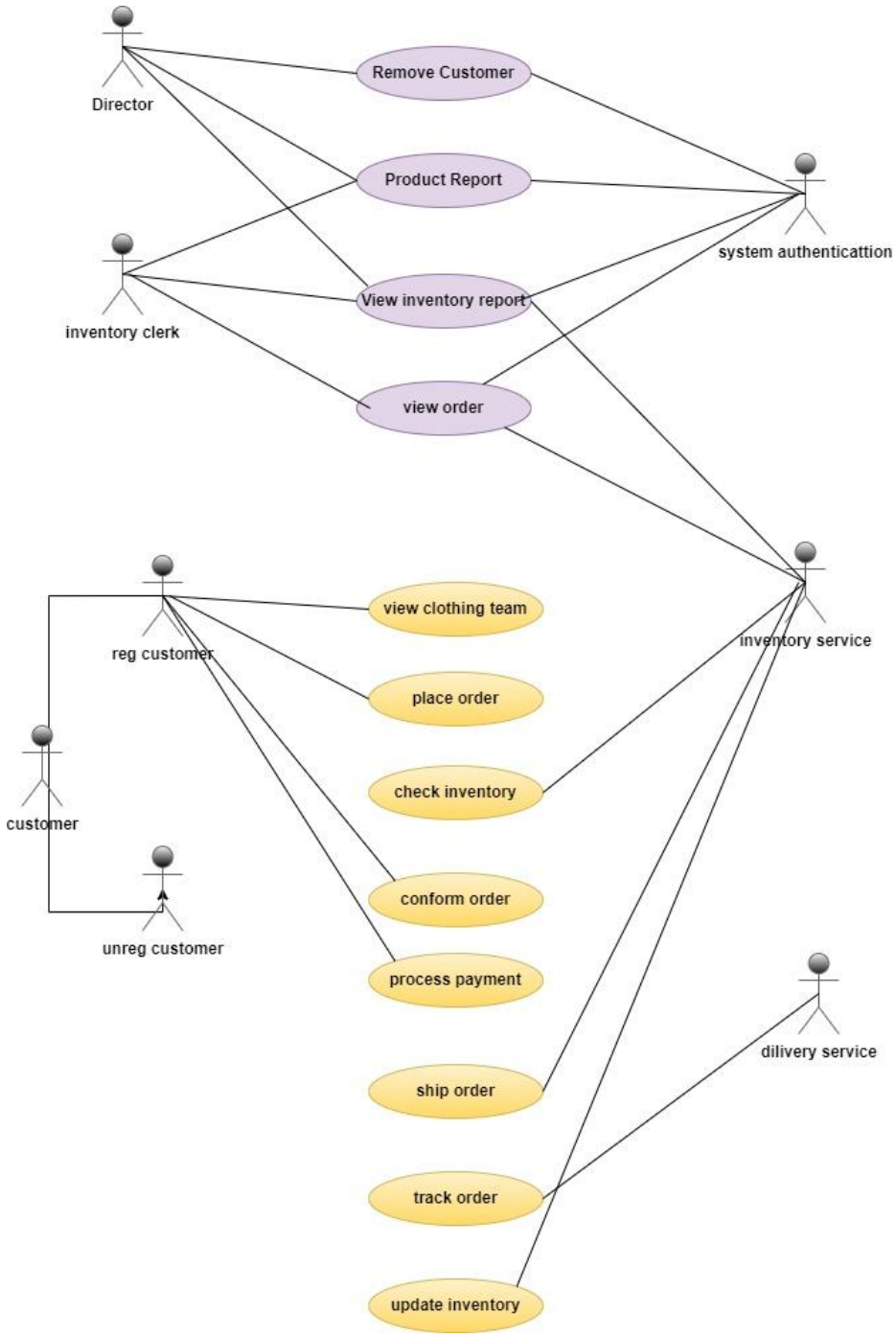


Figure 2 : Use case diagram

System Environment of the Proposed System

Proposed Website Name	Bauhinia SZ
Development Methodology	Agile Methodology
User Interface Type	GUI
UI/UX Tools	Figma
Programming Language	Html,css,PHP,SQL
Development Framework	ASP.NET
Development IDE	Visual studio 2019
Local Server	XAMPP,PHP Admin
Diagram Types	ER,USE CASE
Database Language	SQL
Database Server	SQL Server
Testing Type	Black box ,White Box

Table 1: System Enviorement of the Proposed System

The Test Case Plan to Test Bahunia System

Test Scenario	Test Case	Test Steps	Test Data
Customer Registration	Customer Registration	1. Verify new customer registration. 2. Validate mandatory fields. 3. Check for duplicate registrations.	Name: ranudi Email: ranudi@gmail.com Delivery Address: [Horana] Password: Test@123 Contact Numbers: 1234567890, 9876543210
Product Catalog and Cart Management	Browse and Add Product to Cart	1. Verify product visibility in catalog. 2. Add products to the cart.	Product Code: 001 Size: M Quantity: 2
Checkout Process	Checkout and Billing Details	1. Validate the checkout process. 2. Confirm billing details. 3. Check payment method.	Name: ranudi Address: Horana Contact: 1234567890
Staff Registration and Sign-In	Staff Login	1. Validate staff login credentials. 2. Attempt login with incorrect details.	Staff Credentials: Username Ishara Password: Ishara1234
Reporting Functionality	Daily Order Report by Production Manager	1. Generate the daily order report. 2. Check report access permissions.	Report Access Levels: Report-Only, Update-Only, Complete Access
System Access Levels	Access Level Permissions	1. Validate access restrictions for user roles.	User Roles: Report-Only, Update-Only, Complete Access

Integration and Functionality Testing	Integration and Functionality Check	1. Verify seamless integration of modules. 2. Test system stability under load.	Test under heavy load, End-to-end functionality testing

Table 2: Test case

Tools for Develop the User Interface of BAUHINIA web based Application

Figma

As an author, it was a wise choice to utilize Figma to create the web application's user interface for BAUHINIA. Figma is a cutting-edge platform that enables team members to collaborate and edit in real-time with ease. Its cloud-based platform facilitates seamless collaboration between designers, developers, and stakeholders, enabling concurrent contributions, real-time revisions, and immediate feedback sharing.

The way that Figma handles interaction design and prototyping is very important for the process of creation. It makes it possible to create interactive prototypes that mimic how users might interact with the application. This capability helps with rigorous user testing to ensure the application resonates optimally with its intended audience. It also helps envision the flow and functioning of the final product.

Furthermore, Figma is revolutionary in that it emphasizes design consistency through libraries and components. Through the establishment of reusable components like buttons, navigation elements, and input fields, application designers are able to maintain a consistent visual language across a variety of displays and capabilities.

For BAUHINIA's application, the tool's responsive design features are essential since they make it easier to create layouts that can be adjusted for different screen sizes and devices. This feature completely satisfies the demands of modern users by guaranteeing a smooth user experience on every device.

Figma's wide choice of plugins enhances its functionality even further and makes it possible to integrate it easily with other design tools and services. By offering extra features like asset management and user flow mapping, these plugins increase productivity by expediting the design process and promoting efficiency.

Figma is a perfect partner for an author who is committed to creating a visually appealing and user-centered web application. Its ability to work collaboratively, prototype quickly, prioritize consistency in design, be responsive, and have integrative plugins strengthen the design process and make it easier to create an interface that truly reflects BAUHINIA's brand ethos and functional goals.

Traditional Project Development approaches

Traditional project development approaches refer to the conventional methods and frameworks used in managing and executing projects. One of the widely employed approaches is the Waterfall model, which follows a linear and sequential process. In this method, each phase of the project, such as requirements gathering, design, implementation, testing, and maintenance, is completed before moving on to the next. This structured approach provides a clear roadmap for project progression but may lack flexibility to adapt to changes during development.

Another traditional approach is the V-Model, which is an extension of the Waterfall model. It emphasizes the relationship between each development stage and its corresponding testing phase. The V-Model helps ensure that testing is integrated throughout the entire project lifecycle, promoting early detection and correction of defects.

Additionally, the Spiral model combines elements of both Waterfall and iterative development. It allows for incremental development, incorporating feedback and adjustments at each iteration. This iterative approach is particularly beneficial for complex projects where requirements may evolve over time.

Despite their historical significance and widespread use, traditional project development approaches have faced criticism for their rigidity and limited ability to accommodate changing requirements. In response to these challenges, agile methodologies have gained popularity for their flexibility, adaptability, and focus on collaboration and customer feedback throughout the development process. Nonetheless, traditional approaches continue to be relevant in certain contexts, especially in industries where strict regulatory compliance or well-defined requirements are critical.

The spiral methodology

The Spiral model is an iterative software development methodology that combines elements of both the Waterfall model and iterative prototyping. Proposed by Barry Boehm, the Spiral model recognizes the inherent complexities and uncertainties in software development projects and provides a systematic approach to address them. The

development process is represented as a spiral, with each loop representing a phase in the project life cycle, such as planning, risk assessment, engineering, and evaluation.

The key feature of the Spiral model is its focus on risk management. Each loop of the spiral involves identifying potential risks, determining strategies to mitigate these risks, and then proceeding with the development process. This iterative and risk-driven approach allows for flexibility and adaptability, enabling the project team to incorporate changes and adjustments based on feedback and evolving requirements.

The Spiral model is particularly suitable for large, complex projects where the requirements are not well-understood at the outset. By addressing risks early and continuously refining the product through iterations, the Spiral model aims to deliver a high-quality product while accommodating changes and uncertainties in a controlled manner. While the Spiral model offers advantages in managing risks and accommodating changes, its complexity and potential for increased development time and cost may make it less suitable for smaller, well-defined projects.

Prototyping methodology

The prototyping methodology is an iterative development approach that focuses on creating a tangible representation of the system early in the project life cycle. Unlike traditional linear models such as Waterfall, prototyping emphasizes the quick and continuous generation of prototypes or models of the intended product. These prototypes serve as a tangible means for stakeholders to visualize and interact with the system, providing valuable feedback for refining requirements and design.

The prototyping process typically involves several iterations. In each iteration, a basic version of the system, often with limited functionality, is developed and presented to stakeholders for evaluation. Feedback from stakeholders is then used to refine the prototype, and the cycle continues until the final system meets the desired requirements and user expectations.

Prototyping is particularly beneficial in projects where requirements are not well-defined or may evolve over time. It allows for early user involvement, fostering collaboration and reducing the risk of misunderstandings between developers and users. This methodology is often employed in user interface design, software development, and product development where user feedback and involvement are crucial for success.

While prototyping is effective in enhancing user satisfaction and system usability, it may also pose challenges such as potential scope creep and increased development time and cost. However, these drawbacks are often outweighed by the advantages of creating a system that better aligns with user needs and expectations.

Agile Methodology

Agile methodology is a modern and flexible approach to software development that prioritizes iterative progress, collaboration, and customer feedback. Unlike traditional linear models, Agile emphasizes adaptability and responsiveness to changing requirements throughout the development process. The Agile framework is based on the Agile Manifesto, which outlines four key values: individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, and responding to change over following a plan.

Agile development is typically organized into short iterations known as sprints, which typically last two to four weeks. Cross-functional teams work collaboratively to deliver a potentially shippable product increment at the end of each sprint. Continuous communication, regular reviews, and retrospectives are integral components of Agile, fostering a dynamic and responsive development environment.

One of the most popular Agile methodologies is Scrum, which defines specific roles (such as Scrum Master and Product Owner), events (like sprint planning and daily stand-ups), and artifacts (such as the product backlog and burndown charts) to structure and guide the development process.

Agile's strengths lie in its ability to accommodate changing requirements, enhance collaboration between development teams and stakeholders, and deliver a product that

more closely aligns with user needs. However, its success requires a dedicated and empowered team, open communication, and a commitment to continuous improvement. As a result, Agile has become a widely adopted methodology across various industries beyond software development.

Kanban Methodology

The Kanban methodology is an agile project management approach that originated from lean manufacturing principles. It focuses on visualizing work, limiting work in progress (WIP), and maximizing flow to deliver value continuously. In Kanban, work items are represented as cards on a visual board, typically divided into columns that represent different stages of the workflow, such as "To Do," "In Progress," and "Done."

Unlike other agile methodologies with fixed iteration lengths, Kanban is more flexible, allowing for a continuous and evolutionary development process. The primary objective is to optimize the flow of work, minimize bottlenecks, and ensure a steady pace of delivery. Teams pull work from a prioritized backlog, and the emphasis is on completing and delivering tasks as quickly and efficiently as possible.

Kanban provides real-time visibility into the status of work items, making it easier for teams to identify and address issues promptly. It promotes a pull-based system where work is pulled into the next stage only when there is capacity, preventing overloading and improving overall efficiency.

Continuous improvement is a core principle of Kanban, and teams regularly review and adapt their processes based on performance metrics and feedback. This methodology is particularly well-suited for teams with variable workloads and processes that require a high level of flexibility and responsiveness to changing priorities.

In summary, the Kanban methodology provides a visual and flexible approach to project management, allowing teams to optimize their workflow, respond to changing priorities, and continuously improve their processes for greater efficiency and value delivery.

Creating the user interface for the Bauhinia web based Application

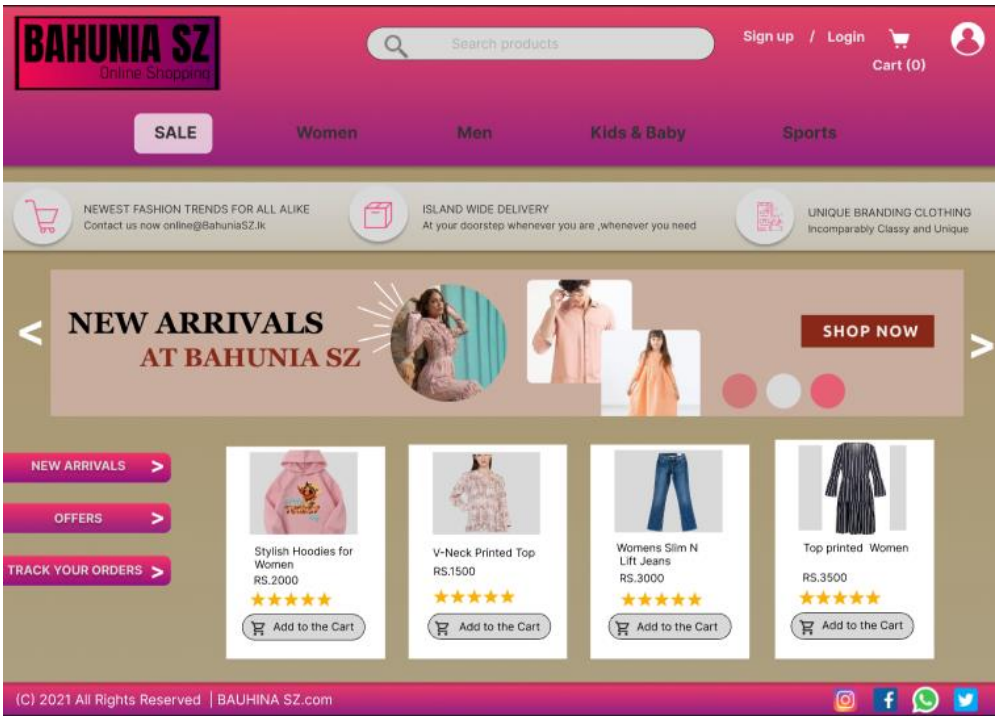


Figure 3: Buauhinia web based Application (developed by Author)

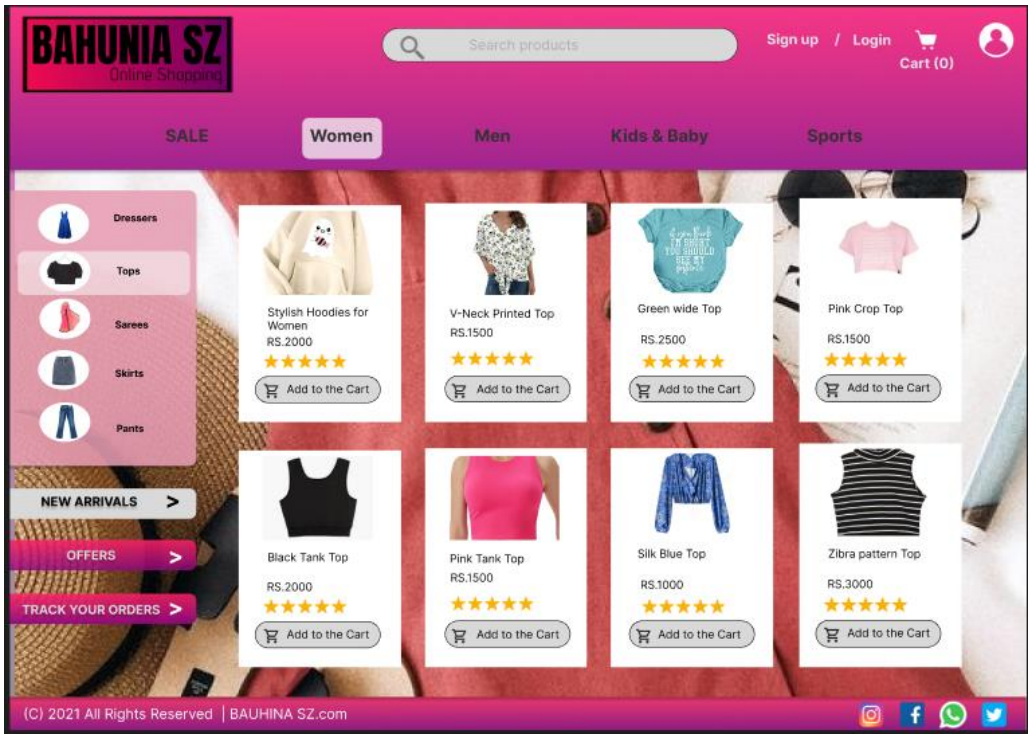


Figure 4: Buauhinia web based Application (developed by Author)

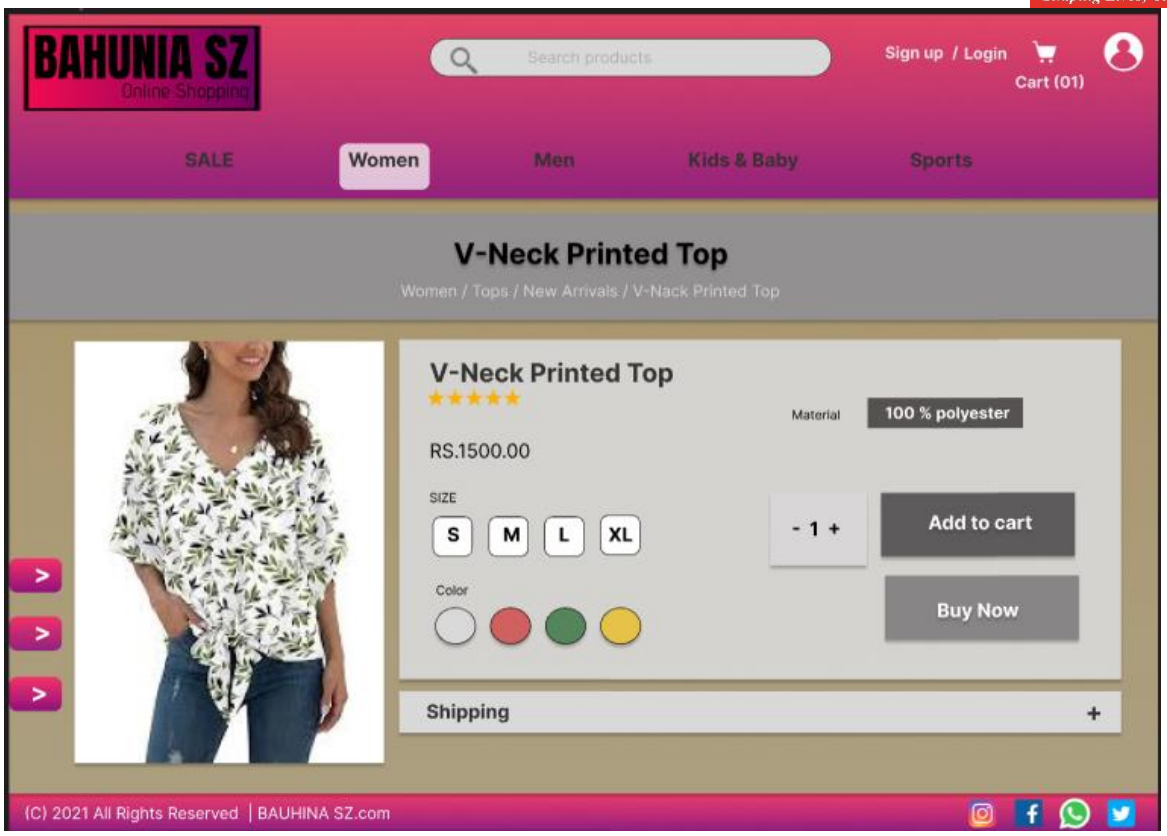


Figure 5: Buauhinia web based Application (developed by Author)

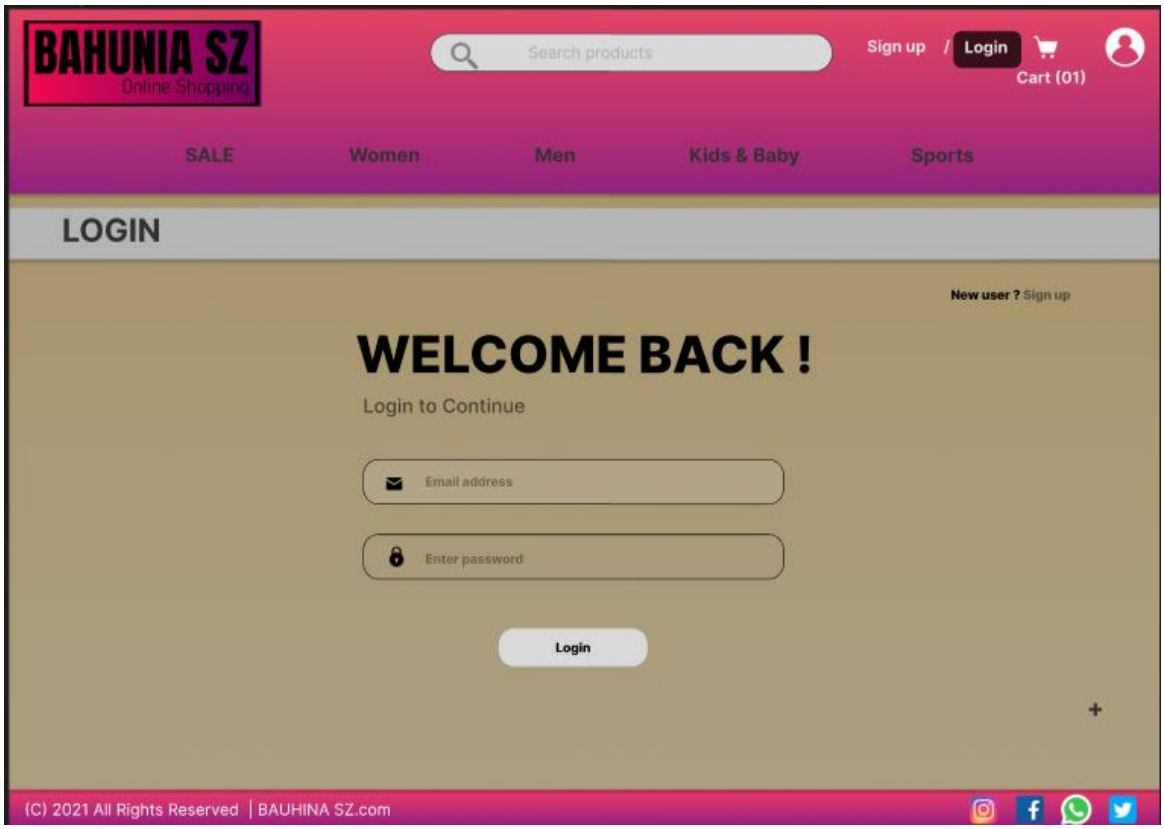


Figure 6: Buauhinia web based Application (developed by Author)

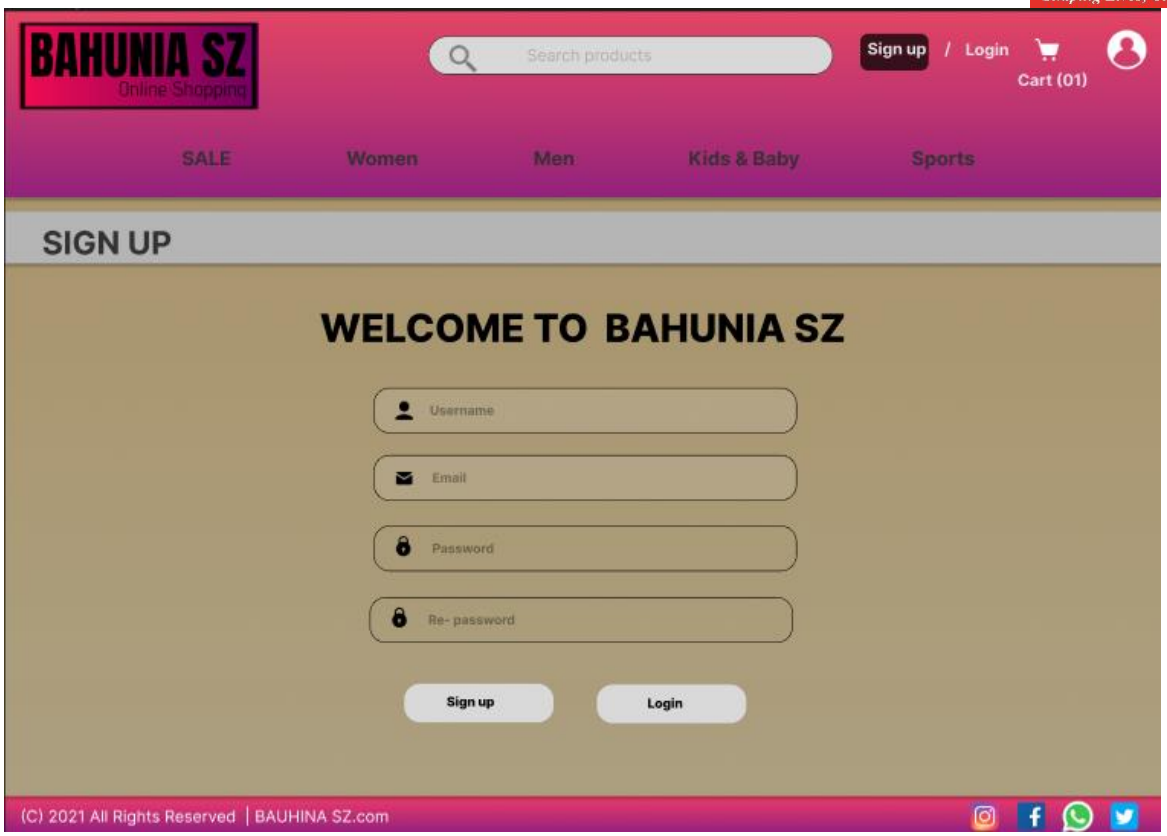


Figure 7: Buauhinia web based Application (developed by Author)

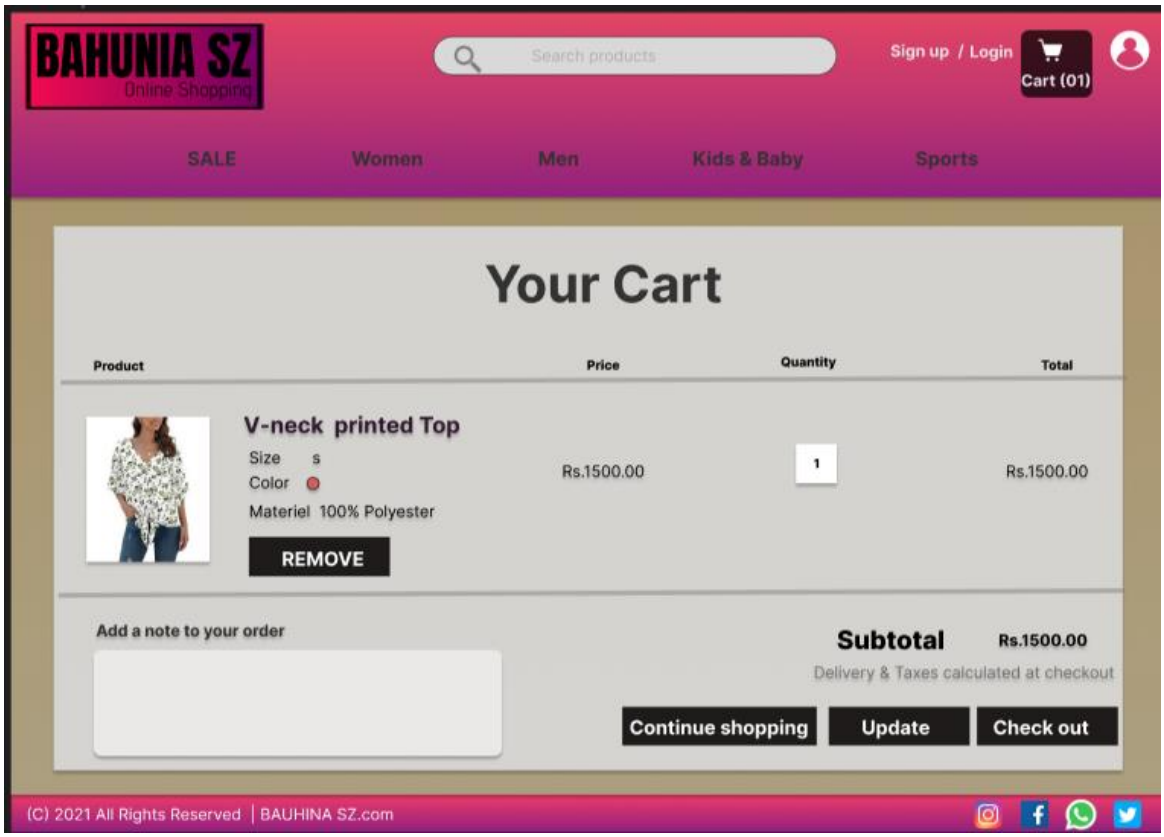


Figure 8: Buauhinia web based Application (developed by Author)

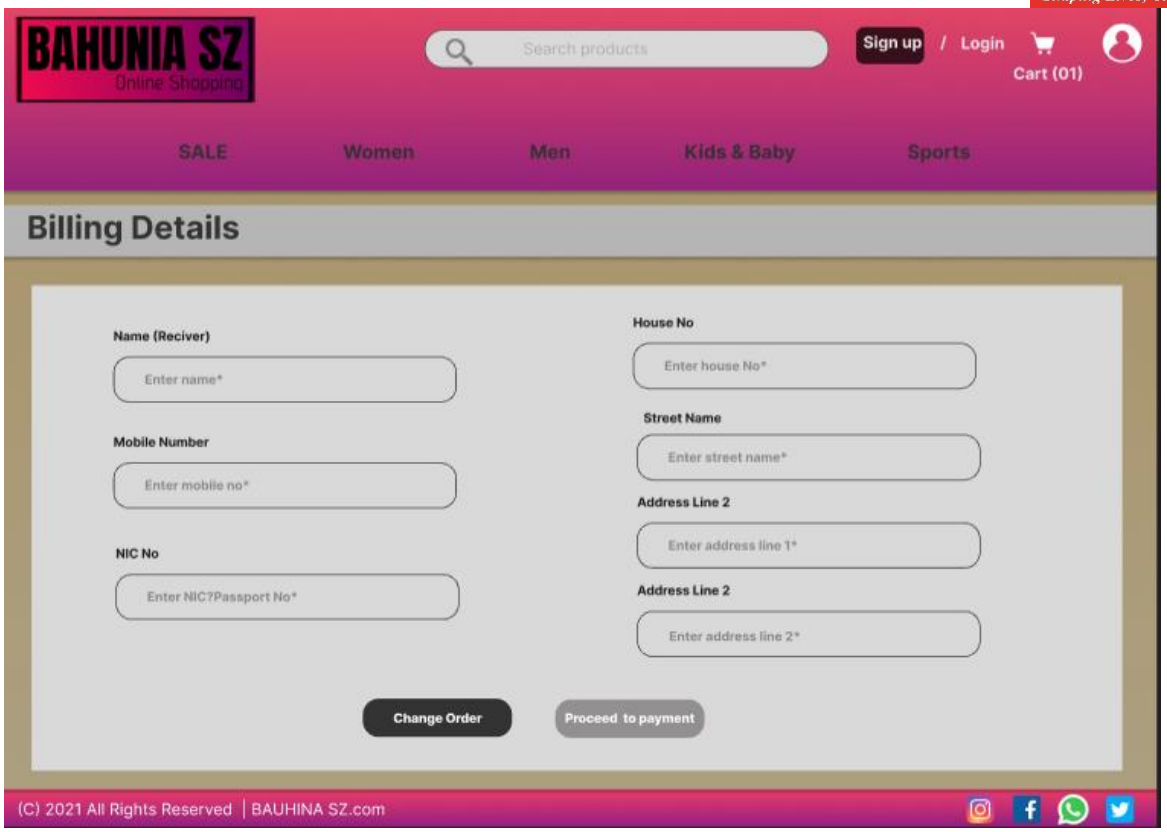


Figure 9: Buauhinia web based Application (developed by Author)

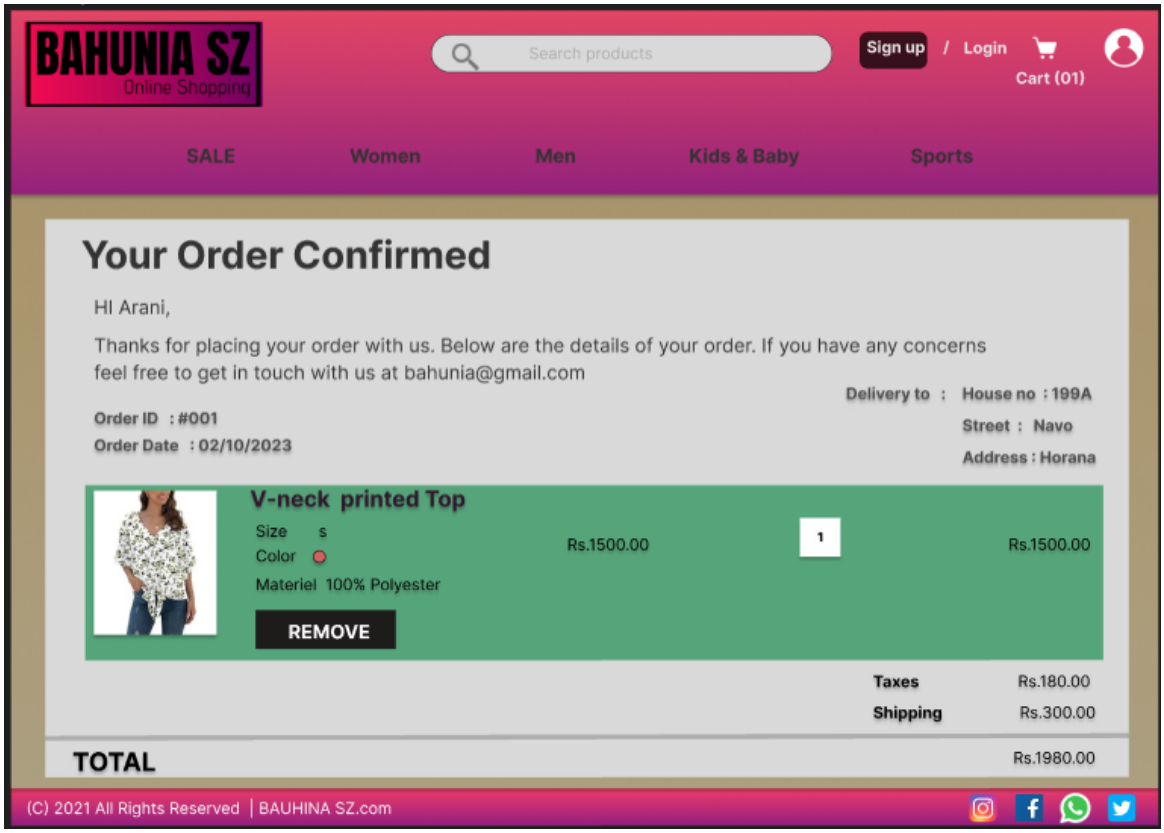
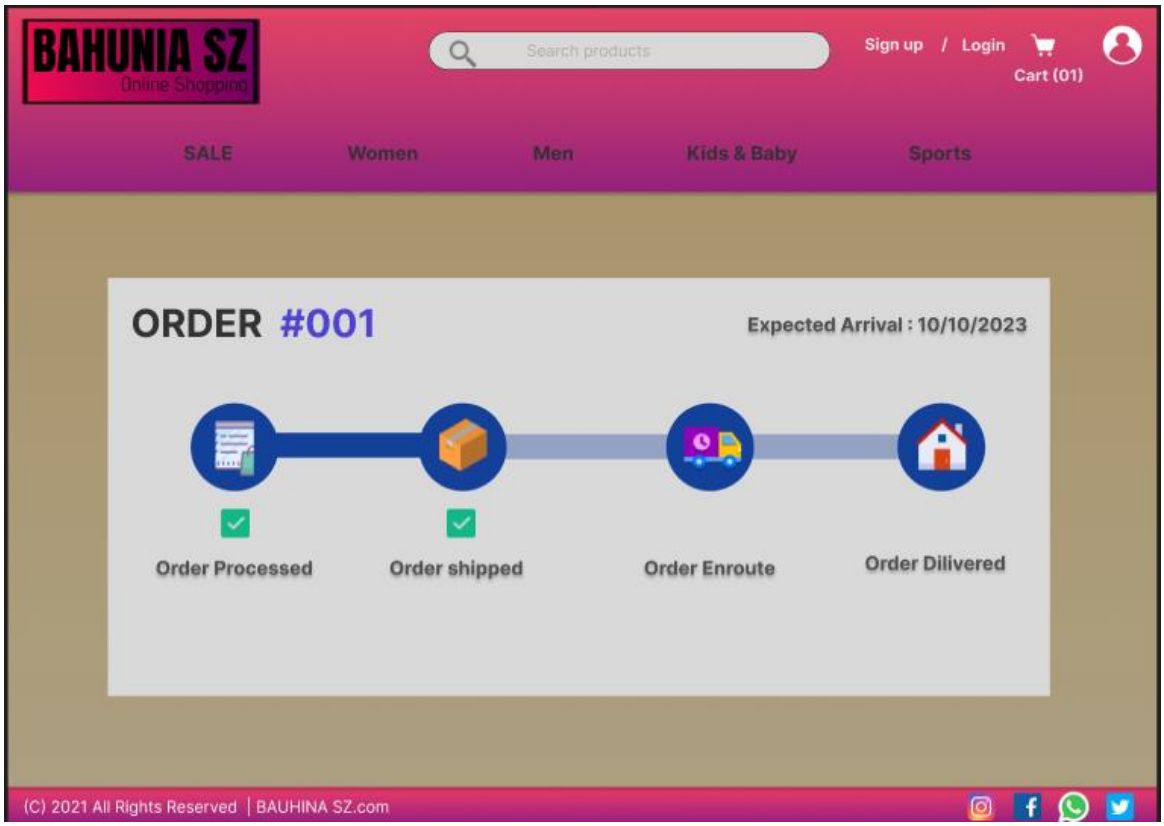


Figure 10: Buauhinia web based Application (developed by Author



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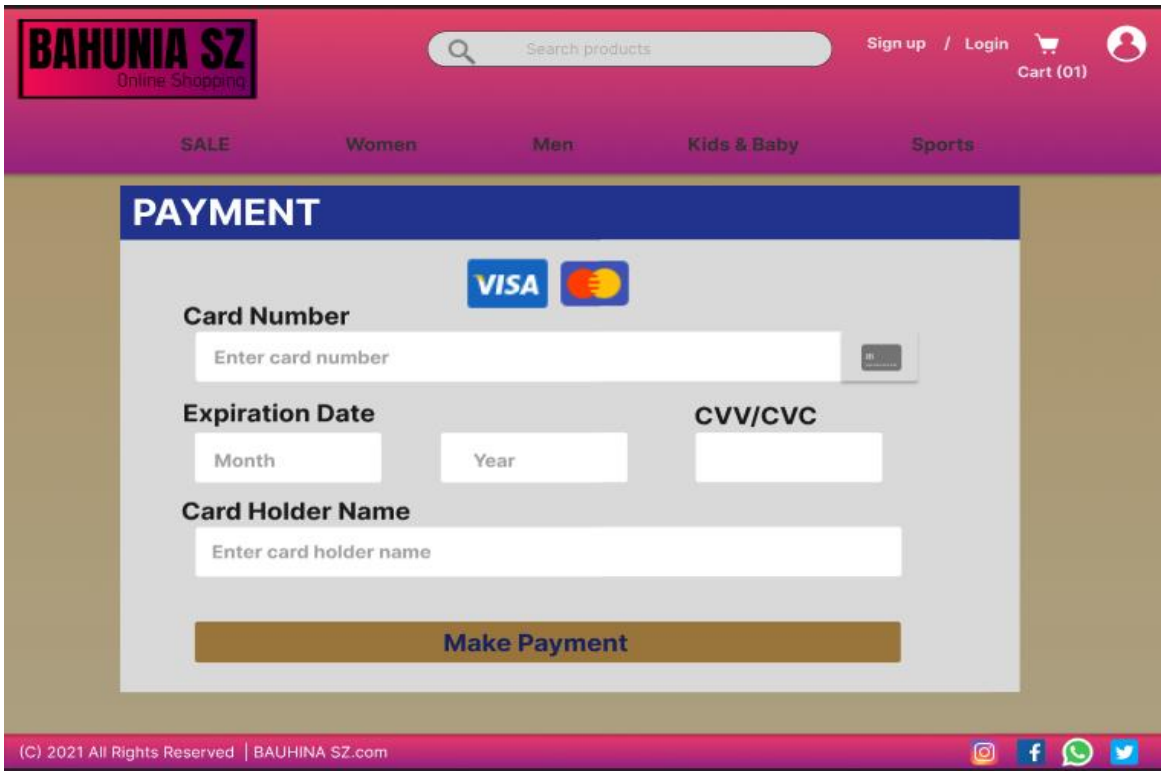


Figure 12: Buauhinia web based Application (developed by Author)

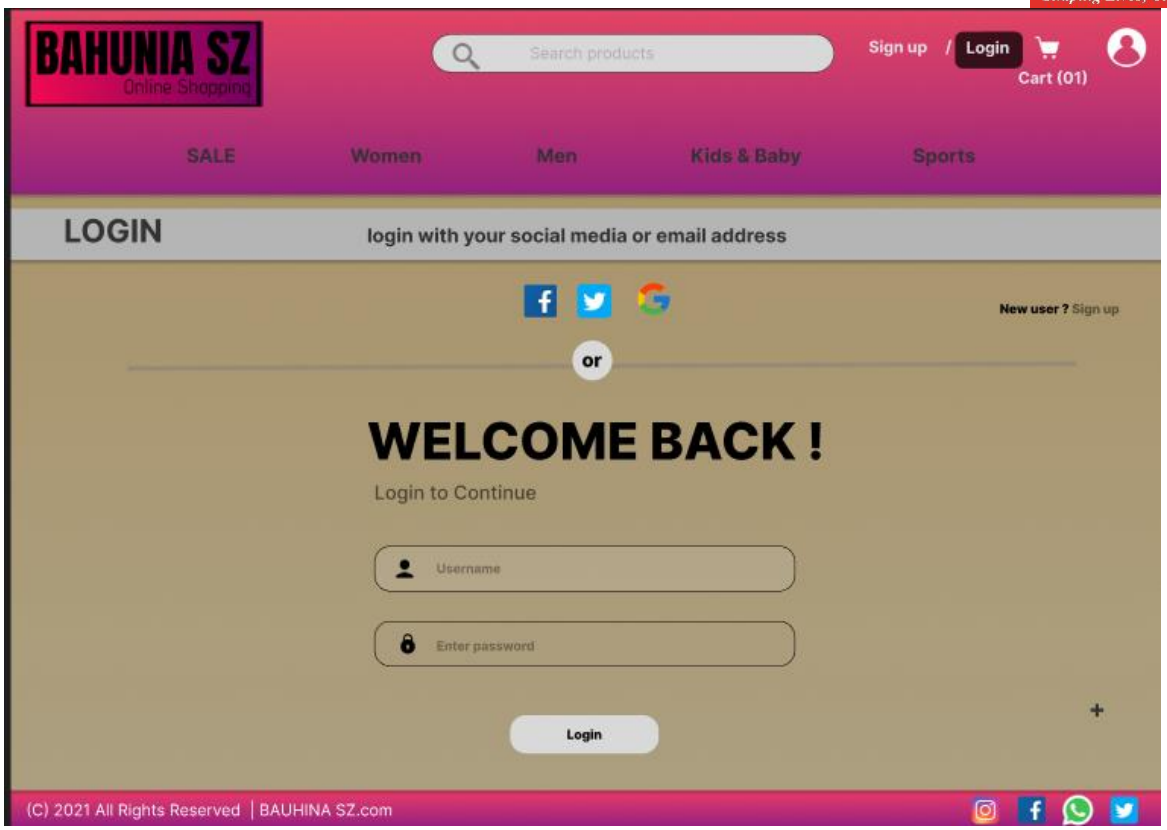


Figure 13: Buauhinia web based Application (developed by Author)

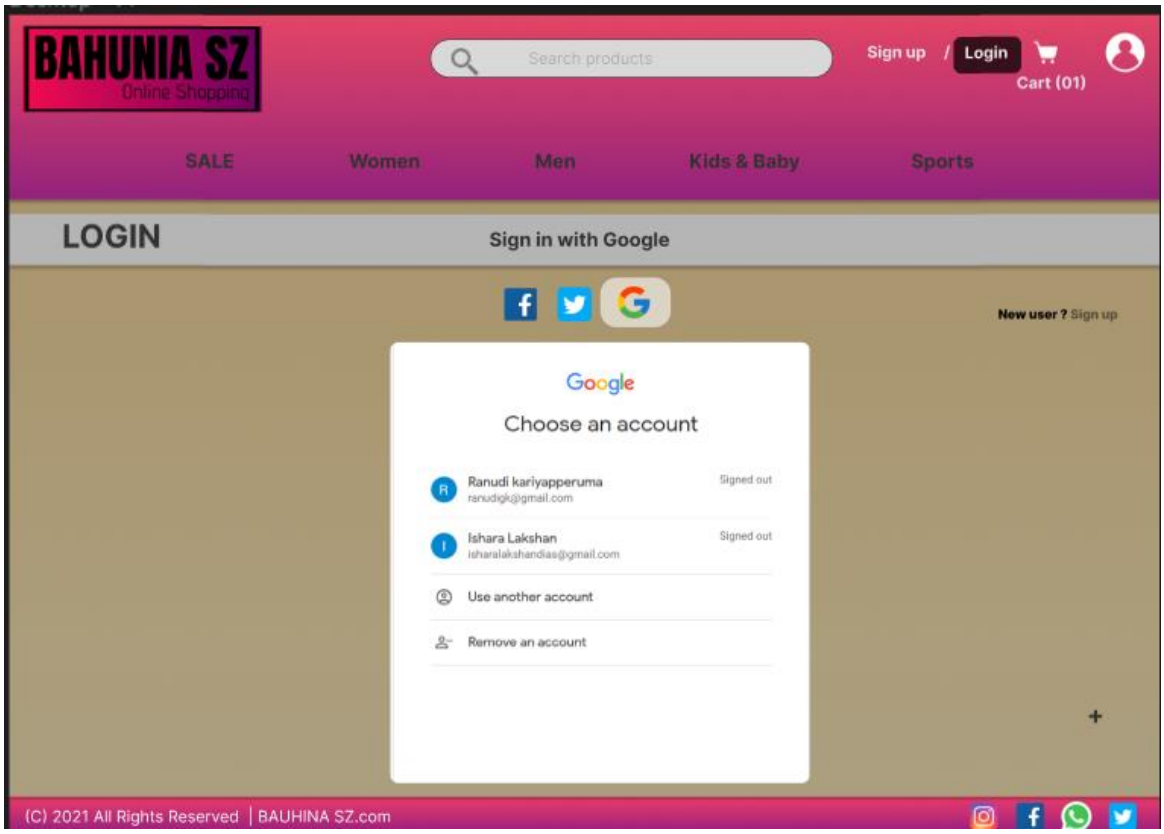


Figure 14: Buauhinia web based Application (developed by Author)

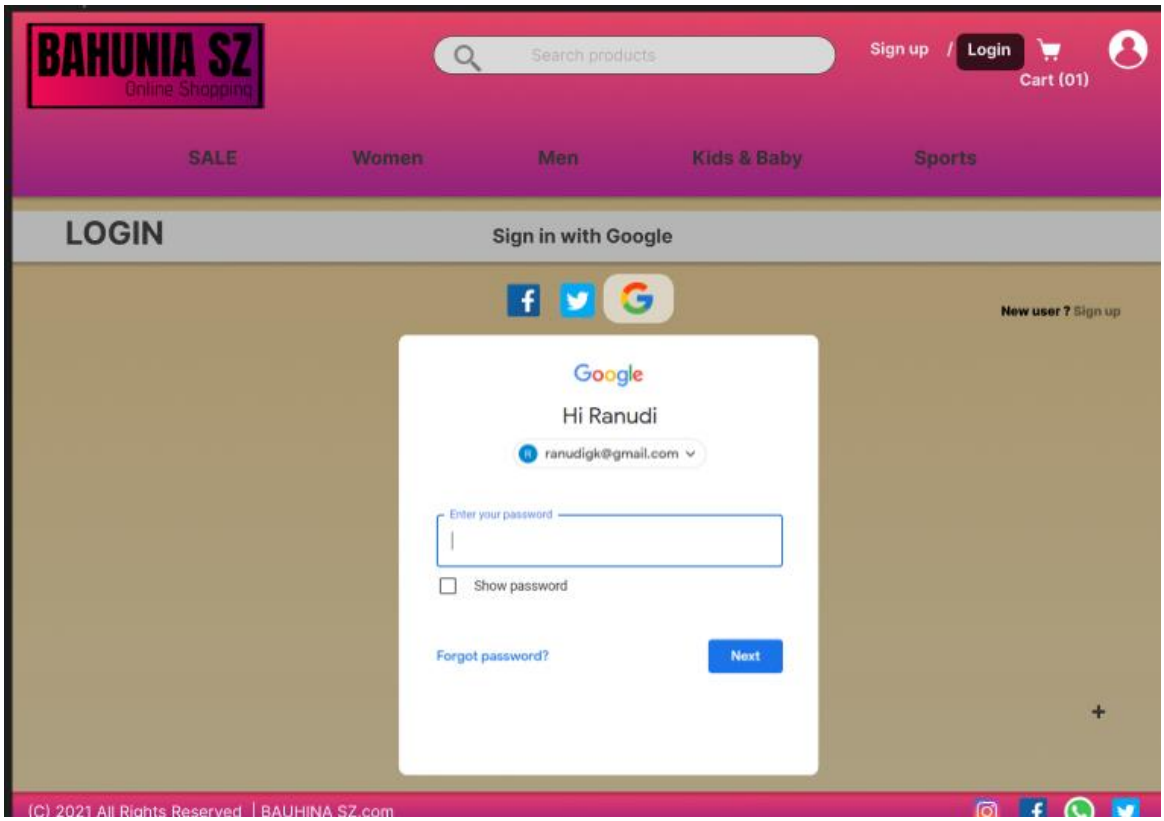


Figure 15: Buauhinia web based Application (developed by Author)

The presentation of BAUHINIA Project Proposal

Figure 16 : Presentation slide 1

Figure 17 : Presentation slide 2

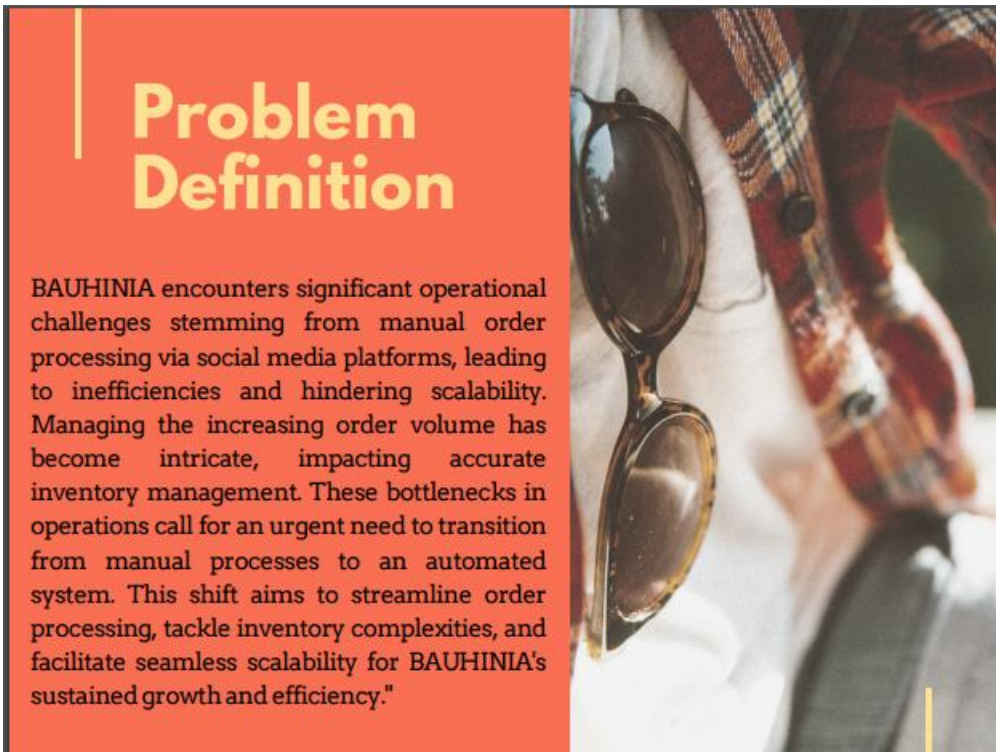


Figure 18 : Presentation slide 3

Figure 19 : Presentation slide 4

Figure 20 : Presentation slide 5

Figure 21 : Presentation slide 6

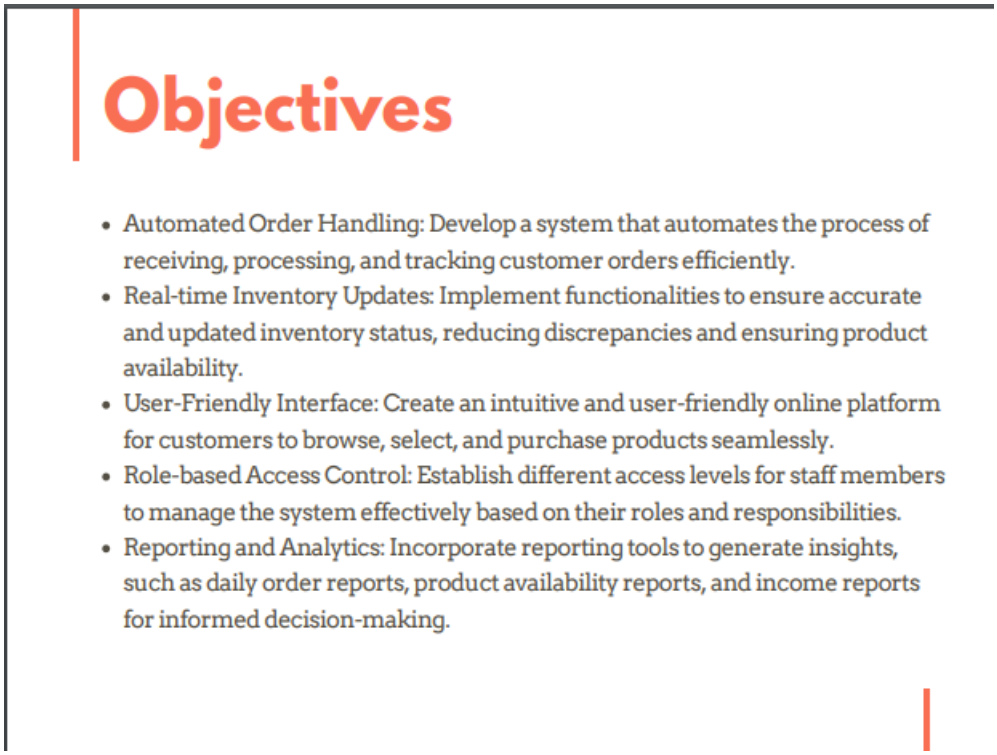


Figure 22 : Presentation slide 7

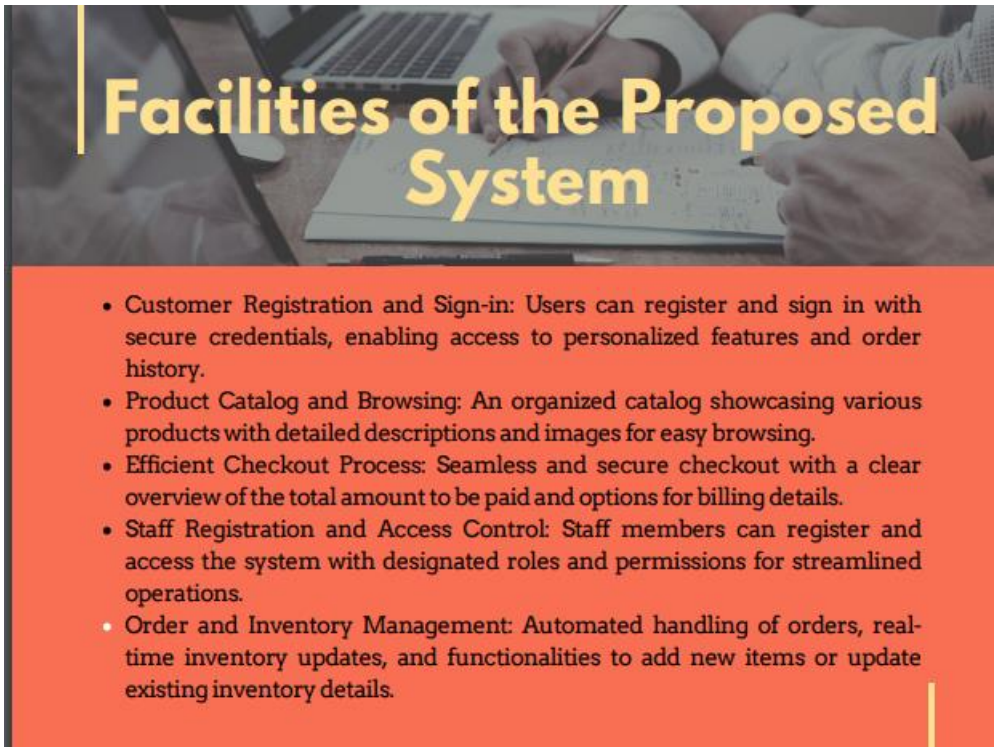


Figure 23 : Presentation slide 8

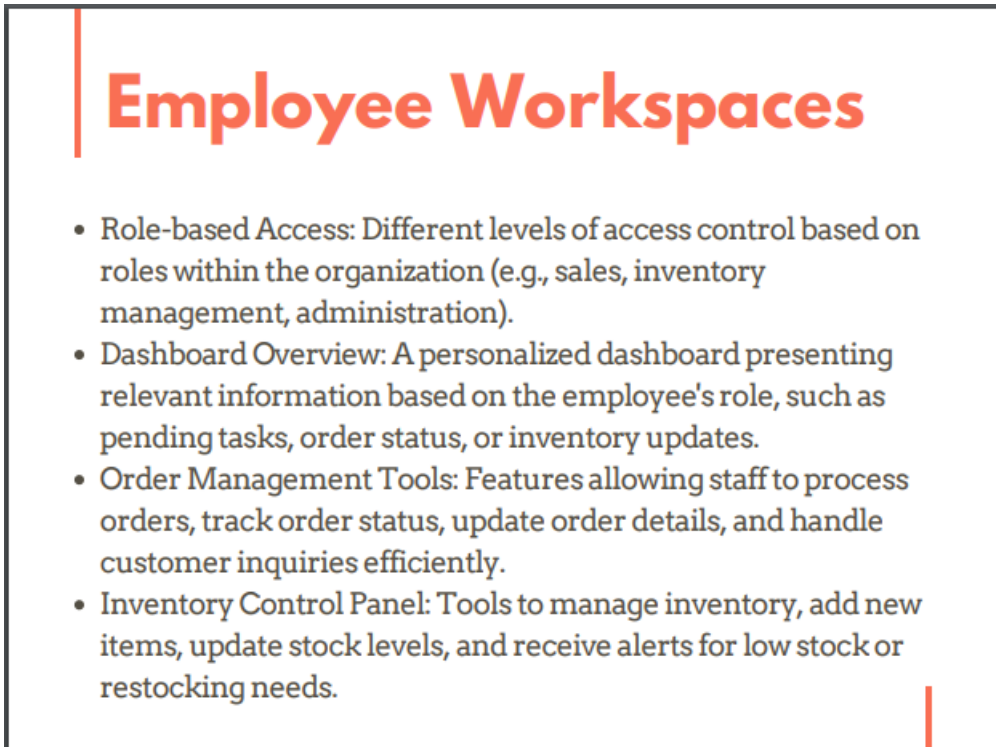


Figure 24 : Presentation slide 9

Figure 25 : Presentation slide 10

Figure 26 : Presentation slide 11

Figure 27 : Presentation slide 12

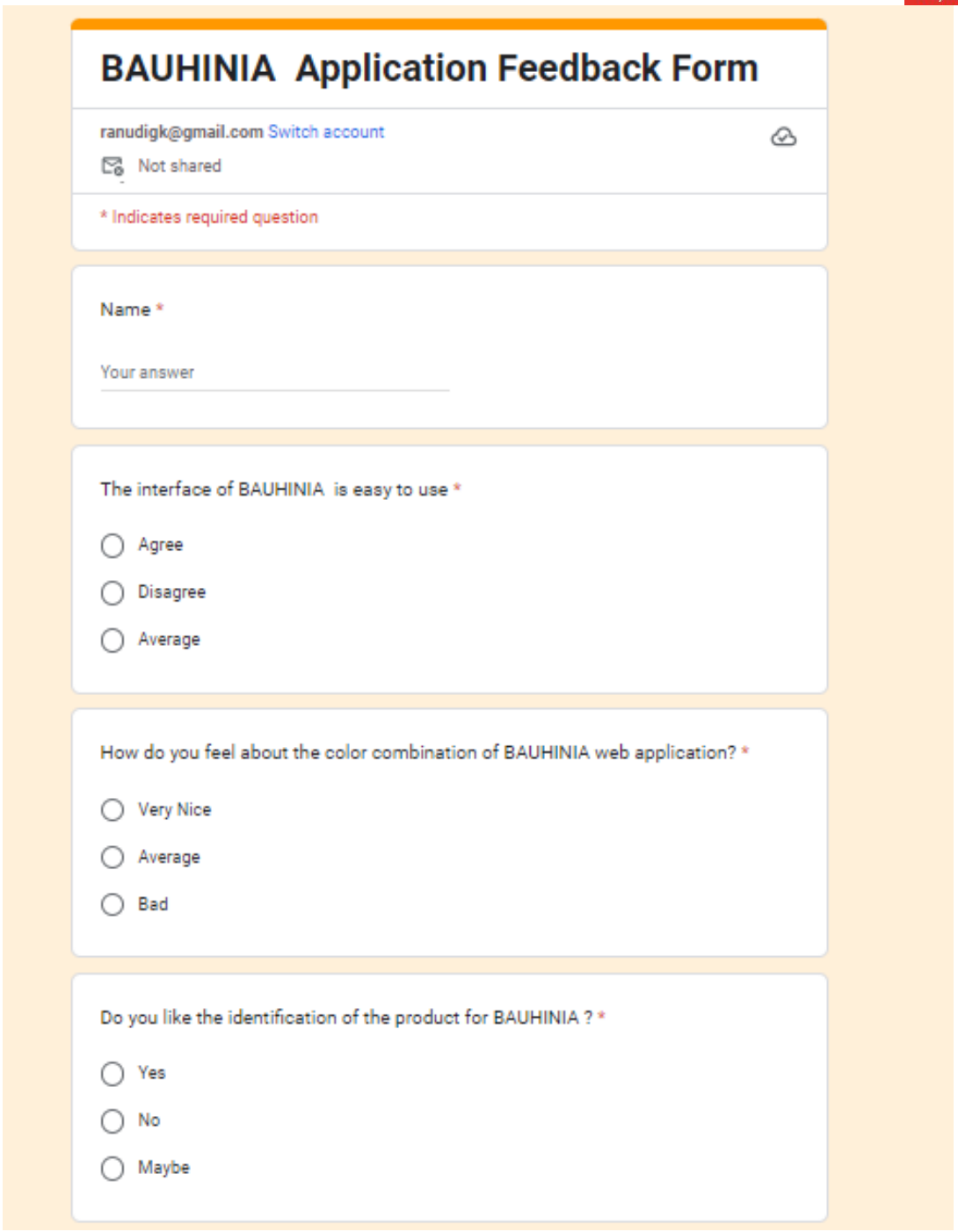


Figure 28 : Web application feedback Form (developed by author)

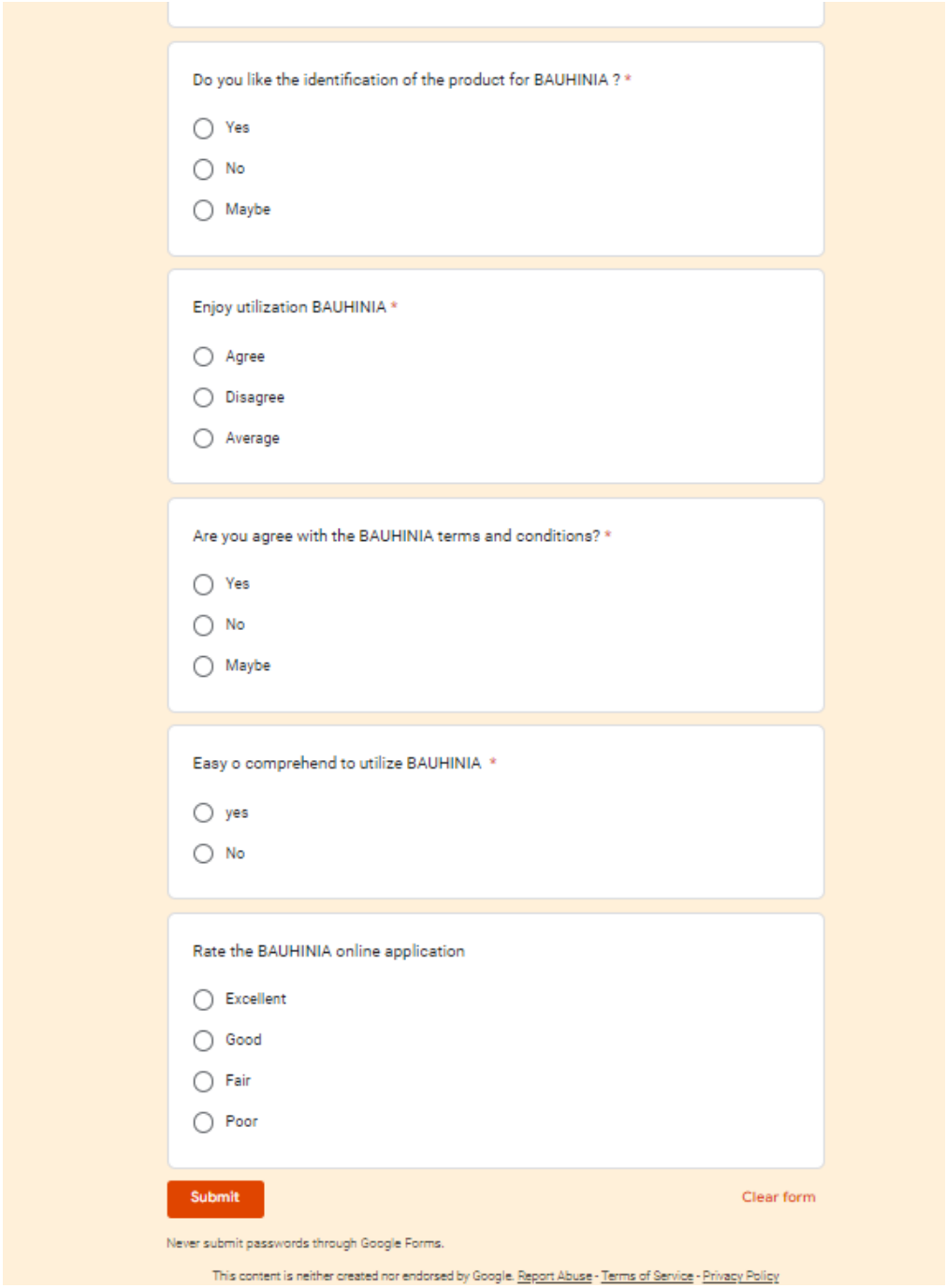
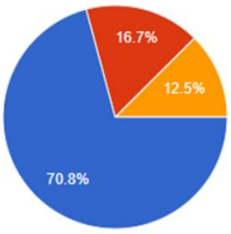
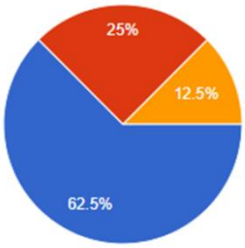
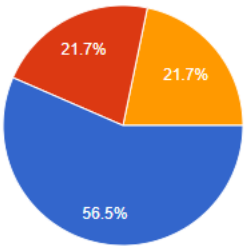
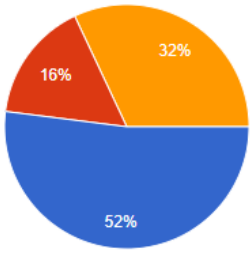


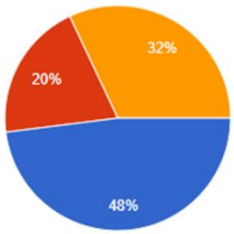
Figure 29 : Web application feedback Form (developed by author)

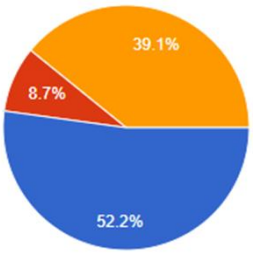
THE DATA ANALYSIS REPORT FOR BAUHINIA				
BAUHINIA WEB APPLICATION				
Developer: Ranudi Gayathmie Kariyapperuma				
Count of Responses 13			**20/11/2023**	
Agree	**Disagree**	**Average**	**Excellent**	
No	**Question**	**Analysis**	**Conclusion**	**Priority**
01	The interface of BAUHINIA CO is easy to use.		70.8% of the participants agreed that BAUHINIA CO had a user-friendly interface, whereas 12.5% rated the interface as mediocre and 16.7% disagreed with the user-friendliness of the interface. These data indicate that the interface is highly preferred by users and is distinguished by its usefulness. It would be worthwhile to analyze the responses of participants who rated the interface as average or disagreed, since they may	

			provide valuable insights into specific areas where the interface may be improved.	
02	How do you feel about the color combination of BAUHINIA CO?		According to the pie chart, most respondents (62.5%) agree that they favor the color combination utilized by BAUHINIA CO. A lesser number of respondents (12.5%) regarded the color combination as average, whereas a somewhat bigger percentage (25%) disagreed with loving the color combination. This suggests that the color combination is usually well-received and successfully communicates the desired picture or message. It is also important noting the comments from respondents who ranked the color combination as	

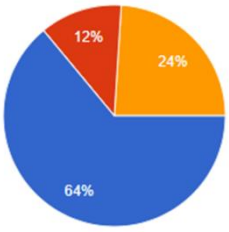
			average or disagreed, since they may give ideas on other color combinations that might be more effective or attractive.	
03	Do you like it? Identification of the product for BAUHINIA CO		According to the pie chart, most respondents (56.5%) express their satisfaction with the product categorization applied by BAUHINIA CO. A considerable number of respondents (21.7%) assessed the product classification as average, but an identical proportion (21.7%) disagreed with the efficacy of the product categorization. This shows that, generally, consumers tend to accept product classification, although there is potential for enhancement or explanation. It might	

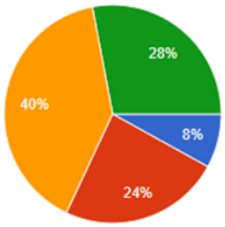
			be good to study the opinions of people who evaluated the product categorization as average or disagreed, as they may give thoughts on how to increase the category's performance or simplify navigation.	
04	Enjoy utilizing BAUHINIA CO		According to the pie chart, it is obvious that most participants (52%) are in support of the implementation of BAUHINIA CO. A considerable fraction of respondents (32%) maintains a neutral view regarding the use of BAUHINIA CO. Conversely, a minority of individuals (16%) express their displeasure with the utilization of BAUHINIA CO. In overall, it can be determined that the support for BAUHINIA CO	

			surpasses the opposition, as most respondents have a favorable or neutral attitude.	
05	Are you agree with the BAUHINIA CO terms and policies		According to the pie chart, over half of the participants (48%) agree with the terms and policies of BAUHINIA CO. Many respondents (32%) expressed an average assessment of the BAUHINIA CO terms and policies. A limited number of persons (20%) disagreed with the terms and practices of BAUHINIA CO. Overall, it is obvious that the terms and policies of BAUHINIA CO attract more support than resistance, since most respondents have a favorable or neutral attitude. However, it is crucial to realize that there is	

			still a considerable number of respondents who do not totally agree with these terms and rules. It would be advantageous for BAUHINIA CO to address any concerns or difficulties highlighted by these people to boost customer satisfaction and loyalty.	
06	BAUHINIA CO offers the greatest user account interface design		According to the statistics shown in the pie chart, most respondents (52.2%) express a good emotion towards the user account interface design of BAUHINIA CO. A considerable majority of respondents (39.1%) express a neutral attitude on the user account interface design of BAUHINIA CO. Conversely, a very small minority of participants (8.7%) disagree with the	

			opinion that BAUHINIA CO has the greatest user account interface design. Overall, it can be determined that the user account interface design of BAUHINIA CO is well-received by most respondents, with a good or average assessment. This suggests that BAUHINIA CO has found success in producing an intuitive user account interface design that resonates with most users. However, it would be advantageous for BAUHINIA CO to address any issues or challenges highlighted by the minority of respondents who have a negative perspective, to further improve the overall user experience.	

07	Easy to comprehend to utilize BAUHINIA CO		According to the pie chart, most participants (64%) regarded BAUHINIA CO to be straightforward to comprehend and apply. A considerable proportion of participants (24%) had an average opinion of the ease of use of BAUHINIA CO. A very small minority of participants (12%) disagreed with the concept that BAUHINIA CO is uncomplicated to learn and utilize.In summary, it can be stated that BAUHINIA CO has been well welcomed by most participants in terms of its ease of use, with a good or average opinion. This implies that BAUHINIA CO is user-friendly and accessible for most	

			people. However, it would be advantageous for BAUHINIA CO to address any concerns or difficulties presented by the minority of participants who voiced disagreement, to further improve the user experience.	
08	Rate the BAUHINIA CO online application.		According to the pie chart, it is obvious that a large fraction of the participants (40%) believes the BAUHINIA CO online application to be outstanding. Conversely, a tiny minority of respondents (8%) see the web application as unsatisfactory. A considerable number of participants (24%) have an average impression regarding the online application. On the other hand, a relatively substantial number of responders	

			(28%) evaluate the online application as excellent. In summary, it can be stated that most respondents had a good or neutral assessment of the BAUHINIA CO online application. This means that the online application is functioning and fits the demands of most users. However, it would be advantageous for BAUHINIA CO to resolve any issues or challenges indicated by the minority of respondents who considered the online application unsatisfactory to improve the overall user experience.	

Table 3 : Analysing of Feedbackform

Grading Criteria	Achieved	Feedback
LO1 Produce a Software Design Document by analysing a business-related problem and deduce an appropriate solution including a set of initial requirements.		
P1 Explore a business related problem and produce a well-defined Problem Definition Statement supported by a set of user and system requirements.		
P2 Determine any areas of risk related to the successful completion of your application.		
M1 Analyse a business related problem using appropriate methods and produce a well-structured Software Design Document that defines a proposed solution and includes relevant details on requirements, system analysis, system design, coding, testing and implementation.		
LO2 Use design and development methodologies with tools and techniques associated with the creation of a business application.		
P3 Research the use of software development tools and techniques and identify any that have been selected for the development of this application.		

M2 Compare the differences between the various software development tools and techniques researched and justify your preferred selection as well as your preferred software development methodology.		
LO1 & LO2 Justify your solution to a business-related problem and your preferred software development methodology, by comparing between the various software development tools and techniques researched.		
LO3 Work individually and as part of a team to plan and produce a functional business application with support documentation.		
P4 Create a formal presentation that effectively reviews your business application, problem definition statement, proposed solution and development strategy. Use this presentation as part of a peer-review and document any feedback given.		
P5 Develop a functional business application with support documentation based on a specified business problem.		
M3 Interpret your peer review feedback and identify opportunities not previously considered.		
M4 Develop a functional business application based on a specific Software Design Document with supportive evidence of using the preferred tools, techniques and methodologies.		
D2 Evaluate any new insights, ideas or potential improvements to your system and justify the reasons why you have chosen to include (or not to include) them as part of this business application.		

LO4 Evaluate the performance of a business application against its Software Design Document and initial requirements.		
P6 Review the performance of your business application against the Problem Definition Statement and initial requirements.		
M5 Analyse the factors that influence the performance of a business application and use them to undertake a critical review of the design, development, and testing stages of your application. Conclude your review by reflectively discussing your previously identified risks.		
D3 Critically evaluate the strengths and weaknesses of your business application and fully justify opportunities for improvement and further development.		