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| **A23MJ4014** | **Abdulrahman Rami Barghouth** |
| **A23MJ4015** | **Thamer Nasser Alharbi** |
| **A23MJ9013** | **Anika Rahman Antu** |

Project 3- Design & Wireframe

6.0 System Analysis and Specification

6.1 Logical DFD TO – BE system (Context Diagram, Diagram 0, Child)

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7.0 Physical System Design

7.1 Physical DFD TO – BE system (Diagram 0, Child, Partitioning, CRUD Matrix, Event Response, Table, Structure Chart, System Architecture)

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**6.0 System Analysis and Specification**

**Overview**

Creating websites now is the easiest and best way to promote products because you can do everything by pressing a button and creating a website design or buying a ready-made design and now we have websites in internet create and design and add the products in easy ways, and you don't have to go anywhere this is because you can do everything you want from home and through the computer or your phone, which includes creating a website. Many basic steps and considerations, which can be broadly categorized into planning, design, development, testing and launch

**System Objectives**

When building a website, it's essential to establish clear system objectives to guide the development process and ensure the final product meets the desired goals. These objectives can vary depending on the type of website and its intended purpose, but generally, they include the following

1. Enhance Brand Awareness this means you must Make your brand more recognizable among your target audience.
2. Increase Overall Website Traffic if you want to succeed in your business, you must Attract more visitors to your site.
3. Improve Ranking for Important Keywords you have to be careful when you are choosing the words and optimize your content to rank higher in search engine results.
4. Increase the Average Number of Pages Visited: when you design the website very good and looks like model this mean encourage users to explore more about the website.
5. Improve Conversion Rate: Increase the percentage of visitors who take desired actions, for example in sign up and purchase.
6. Generate More Qualified Leads: Attract potential customers who are genuinely interested.
7. Boost Sales: Ultimately, drive revenue through your website

**Functional and non-functional system requirements**

When you would like to start building a website, it’s crucial to consider both functional and non-functional requirements in your business to get the best result from the website, these are some examples or functional and non-functional requirements, but it is maybe will be change the requirements this is because it in depends in your website subject and your goal from it.

**Functional Requirements**

* User Authentication: Implementing login and registration functionality.
* Data Management: Storing, retrieving, and updating data.
* Workflow and Business Logic: Defining how processes and tasks flow within the system.
* Reporting and Analytics: Generating reports and analyzing data.
* Integration with External Systems: Connecting to APIs or third-party services.

**Non - Functional Requirements**

* Performance: How fast the website responds under different loads
* Reliability: Ensuring the system operates consistently without failures
* Security: Protecting data and preventing unauthorized access
* Usability: Providing an intuitive and user-friendly interface
* Scalability: Handling increased traffic or data volume
* Maintainability: Ease of maintaining and updating the system
* Compatibility: Working across different browsers and devices

**6.1 LOGICAL DFD TO-BE SYSTEM (CONTEXT DIAGRAM, DIAGRAM 0, CHILD)**

A diagram of a shopping website

Description automatically generated

This part, using DFDs, will show the system from both a high-level (context diagram) and a more in-depth perspective (levels diagram).

A context diagram provides a high-level view of a system and its interactions with external entities. For a shopping website, the context diagram would show the website as the central system and its interactions with various external entities such as customers, payment gateways, inventory systems, and suppliers.

**DFD Level 0**

A diagram of a customer information

Description automatically generated

The DFD level 0 above shows how the process works, The DFD level 0 above shows an assessment procedure of shopping online, has how the process works. it is about the relationship between the seller and the manager and the bank and the customer. in the first the customer has to select the items or the products to create the order and also he has to log in to write his or her customer information for example names , phone numbers , location , gender like more things to get the information to help the customer to get a best experience with the shop then the seller will prepare the item and the manager will check it is correct or not then they will check the store item information to check the item is available or not then it is going to pay then when the bank give him the confirmation payment it can confirm the order then the customer can wait to deliver the order.

**Child**

To create a child diagram from the given diagram, we need to decompose each of the main processes (Create order, pay order, Confirm order) into more detailed subprocesses. Here is a detailed breakdown for each process.

**A diagram of a diagram

Description automatically generated with medium confidence**

**A diagram of a process

Description automatically generated with medium confidence**

**A diagram of a system

Description automatically generated with medium confidence**

**6.2 Process Specification**

**1.0 Create Order**

**Description:**  
The customer sends an order, and employees create the order in the system.

**Inputs:**

* Customer order request
* Customer information

**Outputs:**

* Order details

**Roles:**

* Customer: Sends the order request.
* Employees: Create the order and check the details.

**Steps:**

1. Customer sends the order request to the employees.
2. Employees receive the customer order and verify the customer information.
3. Employees create the order in the system and check the details.

**2.0 Pay Order**

**Description:**  
Payment for the order is processed.

**Inputs:**

* Order details
* Payment information

**Outputs:**

* Payment confirmation

**Roles:**

* Customer: Provides payment information.
* System: Processes the payment.

**Steps:**

1. The system receives the order details from the previous step.
2. The customer provides payment information.
3. The system processes the payment and generates a payment confirmation.

**3.0 Confirm Order**

**Description:**  
The order is confirmed, and an invoice is generated.

**Inputs:**

* Payment confirmation
* Order details

**Outputs:**

* Order confirmation
* Order invoice

**Roles:**

* System: Confirms the order.
* Customer: Receives the order confirmation and invoice.

**Steps:**

1. The system receives payment confirmation.
2. The system confirms the order.
3. The system generates an order invoice and sends it to the customer.

**Additional Details**

* **Customer Information:** Collected and verified during the "Create Order" step. This information is crucial for processing the order and ensuring accurate delivery and invoicing.
* **Manager Confirmation:** Orders may require manager confirmation before finalizing, ensuring all checks are completed correctly.

This process specification provides a clear outline of each step in the order processing flow, ensuring all involved parties understand their roles and responsibilities.

**7.0 Physical System Design**

**7.1 Physical DFD TO – BE system (Diagram 0, Child, Partitioning, CRUD Matrix, Event Response, Table, Structure Chart, System Architecture)**

**Diagram 0**

**A diagram of a product

Description automatically generated with medium confidence**

**A table with writing on it

Description automatically generatedEvent Response table**

**CRUD Matrix**

**A close-up of a note

Description automatically generated**

**Child**

**A diagram of a customer service

Description automatically generated**

**A diagram of a payment method

Description automatically generated**

**8.0 System Wireframe**

**8.1 (Input Design, Output Design)**

**Shopping WebsiteA screenshot of a website

Description automatically generated**

The shopping website gives you looks like the new model, and it provides a high-quality brand (for example H&M, Amazon ....). and show you the new clothes model that has arrived newly and you can download it on your phone, iPad. It is available in Google Play and App Store. You must sign in with your email and your number and of course your name and your address then you can have a wonderful experience and easy way of shopping, just you must wait until the order arrives to you on the shopping website.

A yellow and black color scheme

Description automatically generatedA screenshot of a website

Description automatically generated**Shopping APP**

**9.0 Summary of The Proposed System**

In conclusion, shopping websites provide a seamless and enjoyable shopping experience for all customers. And it is giving you a wonderful feeling this is because it looks like very newly and something news and the shopping websites provide a lot of wide variety of products, competitive prices, and user-friendly navigation this is because the aim of shopping websites is making online shopping comfortably and accessible and of course provide for customers have access to the best products on market. The important thing in shopping websites to be comfortable and accessible is responsive customer service, secure payment options, and reliable delivery services.