Database Requirement Specification

for

IICT Construction Site Material Management System

Course Name: Database Management System Lab
Course Code: SWE 328

Project Supervisor:

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Assistant Professor, IICT, SUST

Submitted By:

Team The TechNerds

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Date Of Supervision:

29th March 2023

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29th March,2023

Dr. Ahsan Habib
Assistant Professor,
IICT, Shahjalal University of Science and Technology, Sylhet
Dear Sir,
We have prepared the attached report on the Software Requirements Specifications of "IICT Construction Site Management System" application for your approval. This report describes the project requirements we've gathered so far.
The major objective of this report is to provide a synopsis of our results from our Project field work. This report contains the specifics of each process used to gather the requirements.
Sincerely yours
Md Sadman Hafiz
On behalf of
Team The TechNerds

Enclosure: Collected documents so far

Executive Summary

IICT Construction Site Material Management System

In 2023, the construction project in our building was still being controlled manually, and we, Team The TechNerds, IICT, SUST students, were thinking about it. We have therefore chosen to totally automate the management of the entire construction site in order to reduce the stress on the staff working on our own building.

Our project intends to build a database that will allow workers to manage the entire building site almost entirely without paper.

Brief Introduction

Construction Site:

Construction site management is the process of organizing, planning, and monitoring the work being done on a construction site to make sure the project is finished on schedule, on budget, and in accordance with all applicable laws and safety requirements.

Project Idea Development:

Handling a building site manually can be difficult and intimidating. Handling a construction site management system manually can lead to a number of issues, such as

➔ Lack of real-time data
➔ Safety concerns
➔ Ineffective communication
➔ Difficulty in managing resources.

In this situation, In order to streamline procedures, enhance communication, and boost productivity overall, a construction site database management system can be very helpful in managing construction site activities.

Project Storyline

Receiving contract:

It goes through some approval process from the proper stakeholder or Owners

Planning:

This involves developing a project plan that outlines the scope of the project, the timeline, the budget, and the resources required.

Site Preparation:

Once the project plan is in place, the site preparation process begins. This involves clearing the site, setting up the construction site office, installing temporary facilities**.**

Procurement:

The procurement process involves identifying and purchasing the necessary construction materials, equipment, and supplies.

Division of the Whole Project into Subparts:

According to IICT Construction Site Engineer, they divide the whole project into sub parts and contracts with the external service providers for the specific subtasks.

Quality Control:

This involves regular inspections and testing to verify that the work meets the required standards and specifications.

Project Management:

This includes managing the project team, coordinating activities, communicating with stakeholders, and monitoring progress against the project plan.

Basic Workflow
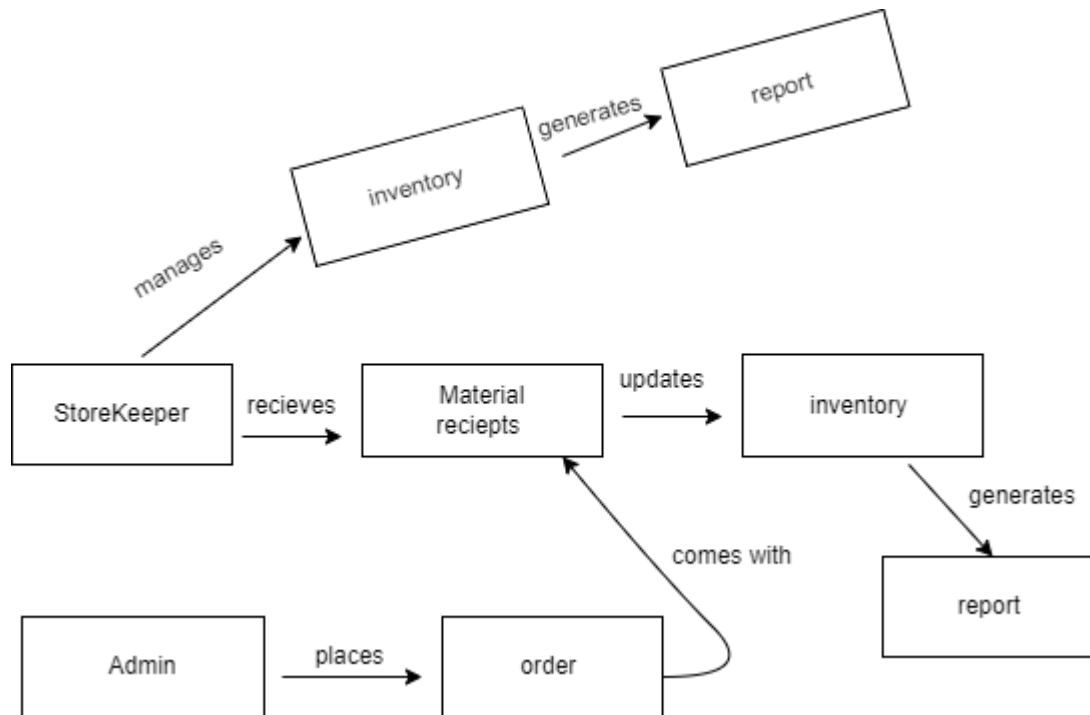
Figure 1:Basic Workflow of Construction Site Material Management

Basic Workflow(Details)

A.Generating Requisition

Figure 2: Requisition Form

Entity Taken Form Here:

RequisitionDetail

Attributes:
- -RequisitionDate
- -RequirementDate
- -Location
- -SlNo
- -Purpose
- -Destination
- -Rate
- -Quantity
- -Stock
- -Remarks
- -Contact

B. Making Order Details:

Figure 3:OderDetail From The Company

Entity Taken From Here:

OrderDetail

Attributes:
Date
Reference
SlNo
Particular
SupplyAmount
InstallationAmaount
Total

C.Recieving Materials:

Figure 4:Materials Reciept

Figure 5:Reciept

Entity Taken From Here

-> Entity : Supplier

attributes:

-Name
-Address
-Lisence
-ContactInfo
- Sign/remarks

->Entity : Item

attributes:

ID
Name
Rate
Price
Detail

-> Entity: Driver

attributes:

Name
contact
carOwner
RegiNo
Contact

->Entity : Shipping Detail
attributes:

Product_Name
Quantity
Rate
Price
DriverInfo
Date
Status

C.Updating Inventory:

Figure 6:Updating Inventory1

Figure 7:Updaing Inventory(Daily And Monthly)
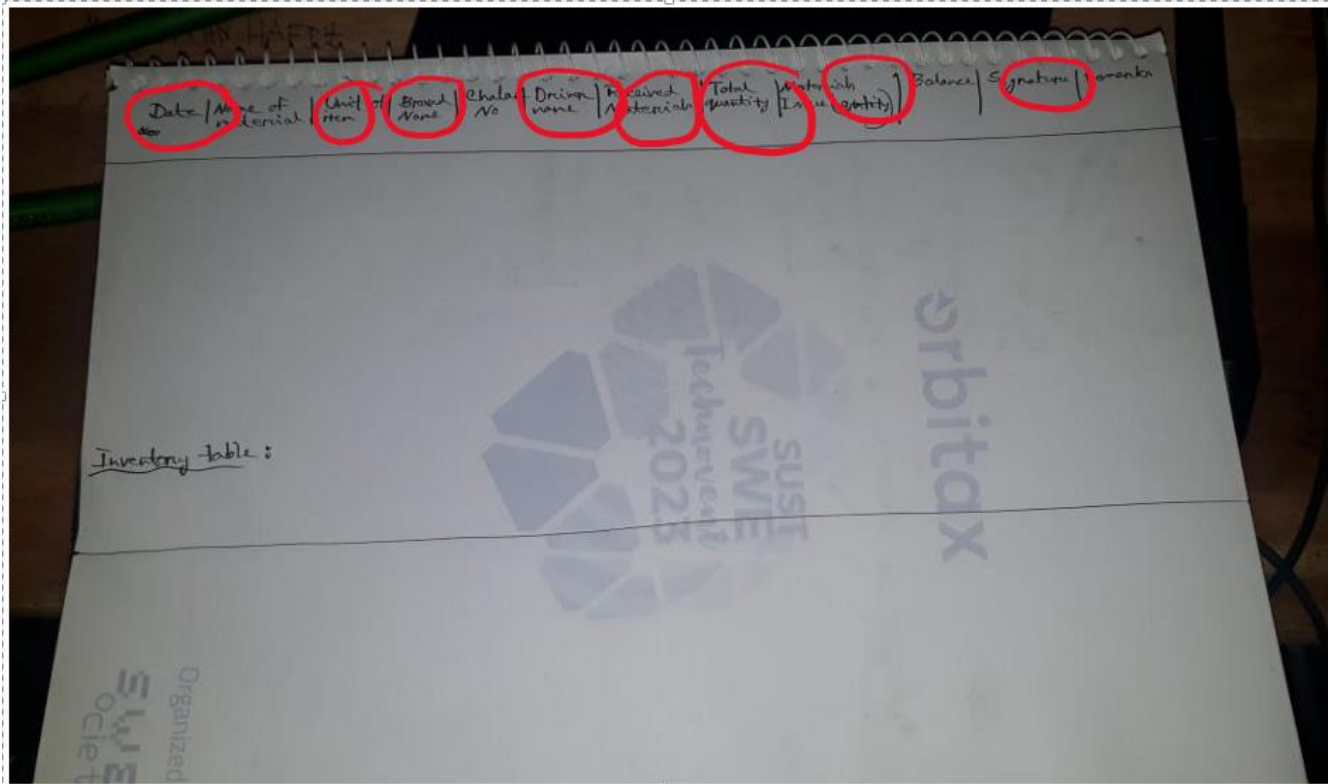
Figure 8:More Detailed Update

Figure 9:Basic Inventory Update Form

Entity Taken From Here:
Entity : Inventory

Attributes:
Date
AvailableStock
IssuedItemName
In/out
RecieptID
ChalanNo
PurchasedQuanity
MaterialBalance
ExpiryDate

Total Entities

1. Storekeeper, Admin
2.inventory
3.item
4.Order Detail
5.Supplier
6.Shipping Detail
7.Driver
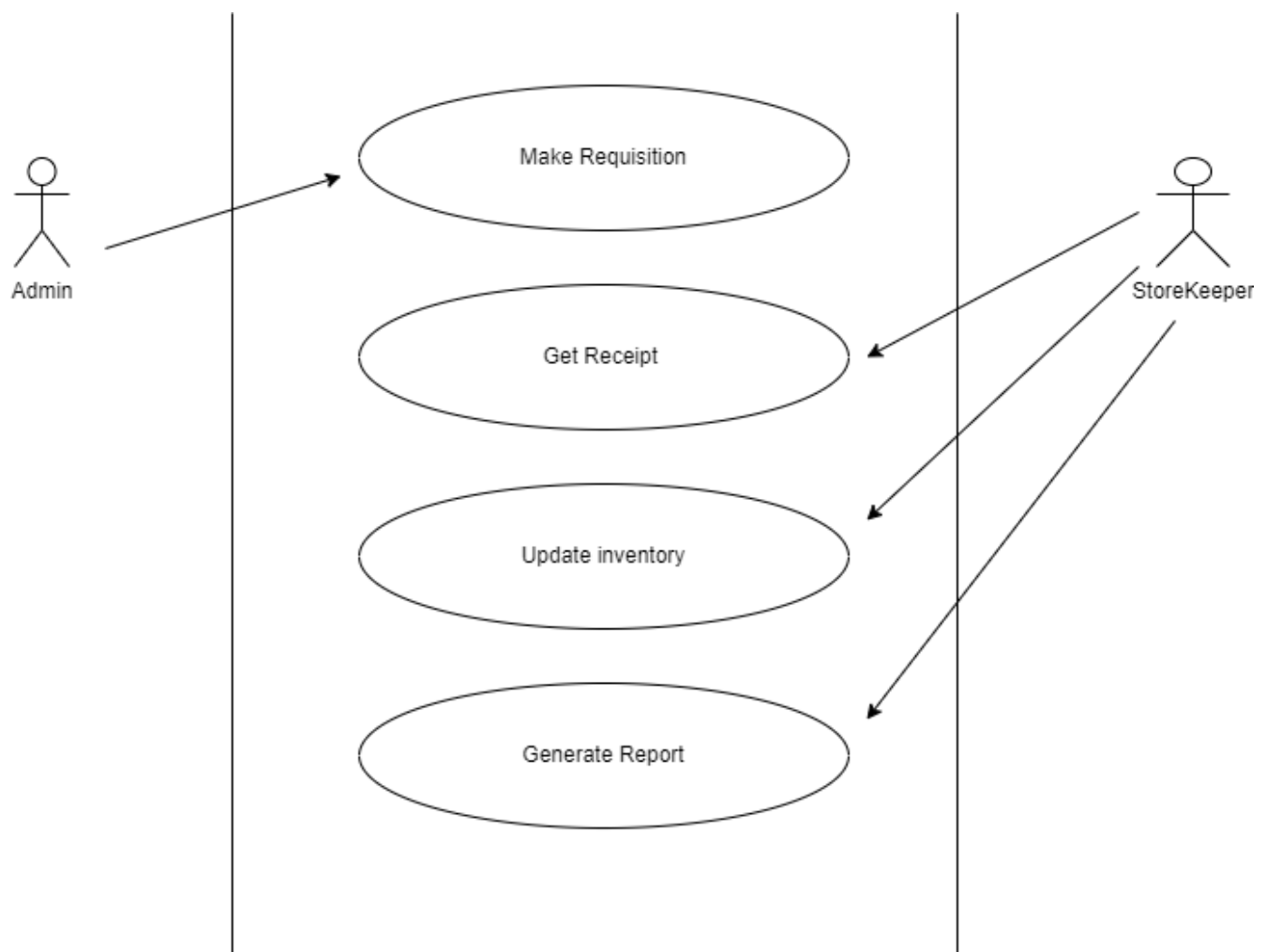8.Requisition Detail

USE CASE DIAGRAM

Figure 10: Use Case Diagram

Data Flow Diagram Level - 0

Figure 11; Data Flow Diagram Level 0
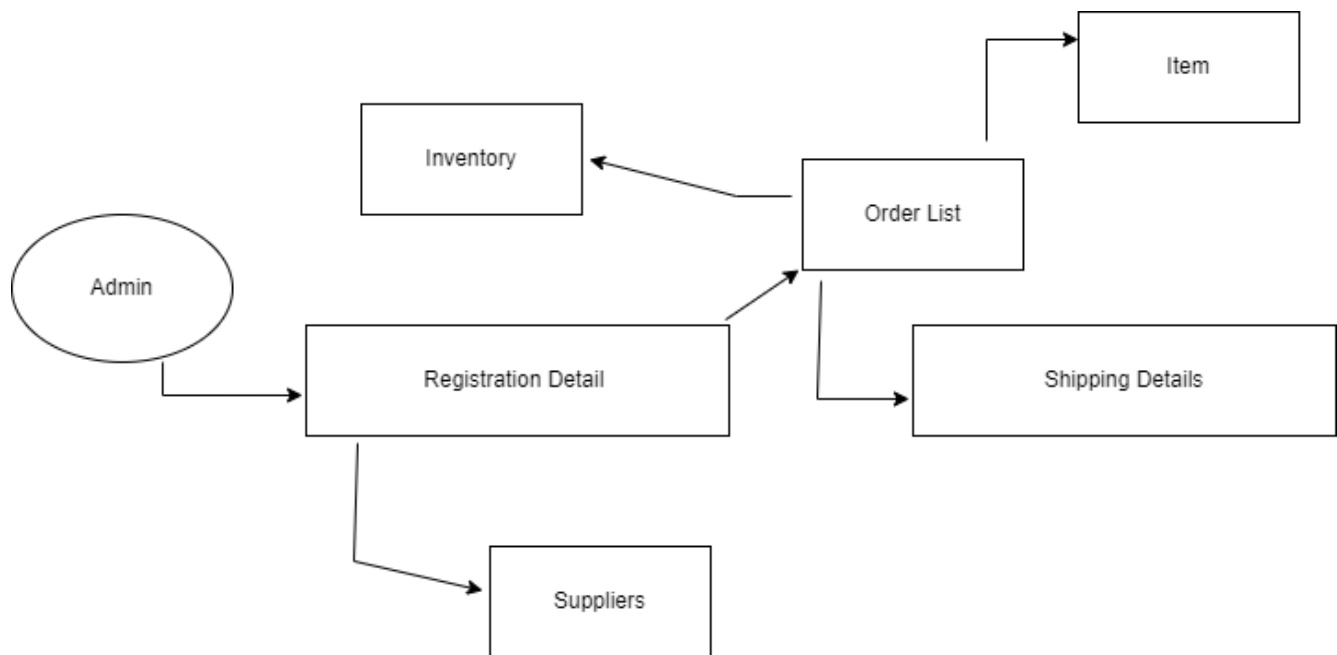
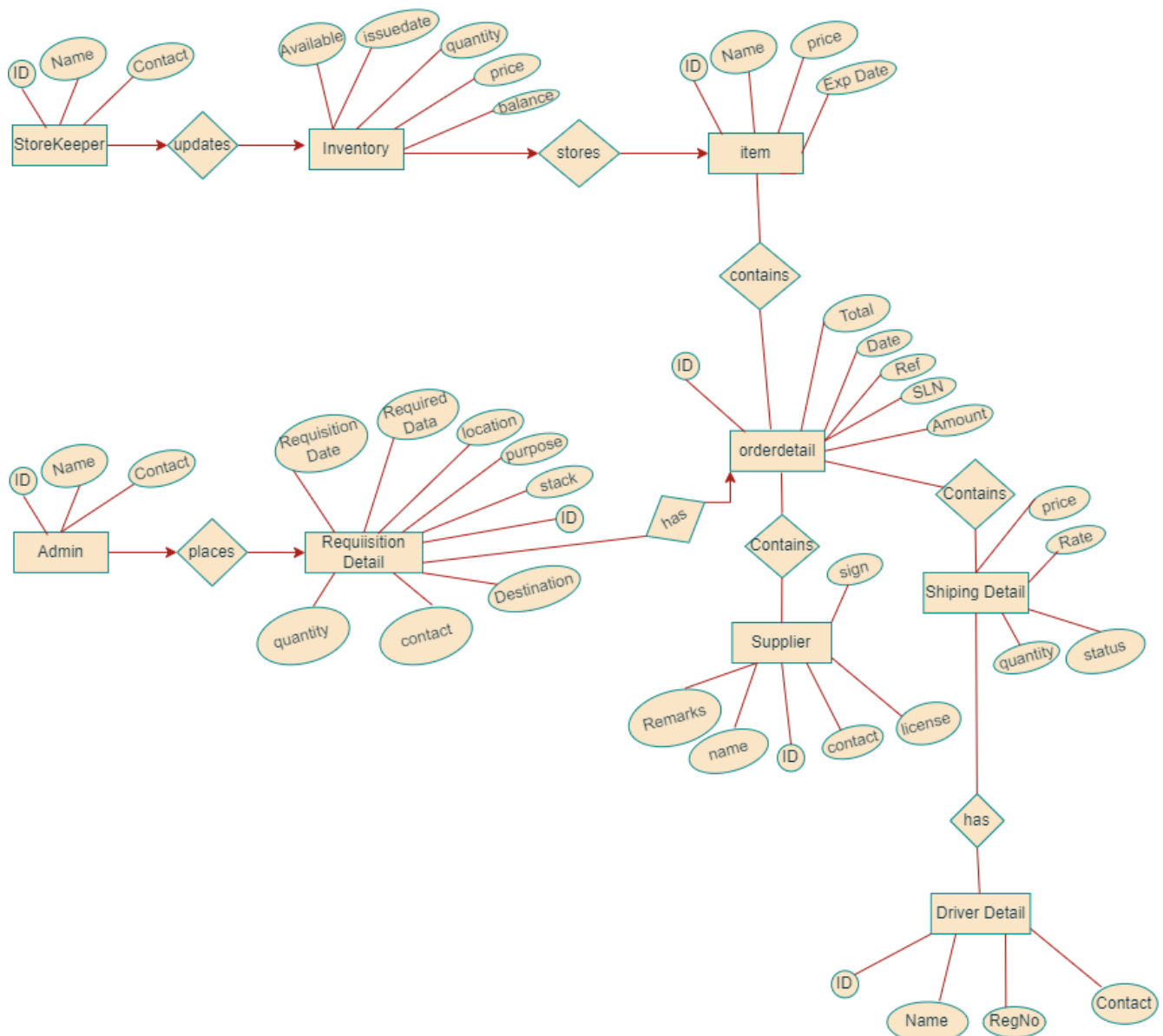# ER DIAGRAM of IICT Construction Site Raw Material Management

Figure 11 :ER diagram

Thank You!!
Any Question?