PROJECT ON

SHOP MANAGEMENT ENTRY

COURSE NAME: DATABASE CONCEPTS AND DESIGN

COURSE TITLE: ITC 231

CLASS: L200D GROUP ONE (1)

NAMES	INDEX
GOMINA KADERI	200009413
AMANKWA-SAM OBED	200010935
BOAHEN ADOMAH JOSHUA	200009354
NTAADU JOSEPH	200010877
QUARTEY GEORGE NII	200010904

CERTIFICATE

- This is to certify that this proposal titled **SHOP MANAGEMENT ENTRY** embodies the original work done by group one (1) members in a partial fulfillment of our *course requirement* in Akenten Appiah–Menka University of Skills Training and Entrepreneurial Development - Kumasi Campus.

SYSTEM ANALYSIS

- **SUMMARY**

- **DE-STANDARD ENTERPRISE** is a large wholesale provision shop at Adum – Kumasi off Boss FM road, is well known for maintaining an optimum inventory transaction of various categories of items with affordable price range, timely services and also give discount to numerous customers.
- This **SHOP MANAGEMENT ENTRY** will make shopping at **DE-STANDARD ENTERPRISE** very easy to its employees and customers as well as the shop owner and other member in records keeping and decision making on time.
- This **SHOP MANAGEMENT ENTRY,** Will be able to keep records on the shop employee, list of items.

ENTITIES

- **NUMBERS OF ENTITIES: 6**
- **NUMBERS OF ENTITIES:**
  - CATEGORY
  - EMPLOYEE
  - PURCHASE_ORDER
  - CUSTOMER
  - ITEM
  - INVENTORY_TRANSACTION

TABLES AND ATTRIBUTES

EMPLOYEE
Emp_ID
Emp_FulName
Emp_Age
Emp_Title
Emp_PhoneNumber
Emp_Salary
Emp_Gender
Emp_Address
Emp_Email
Emp_Picture
Emp_DOB

PURCHASE_ORDER
PurchaseOrder_ID
Emp_ID
Pur_Quantity
Pur_Cost
OrderDate
TransportationID
TransportationMode
Pur_Type
Emp_Address

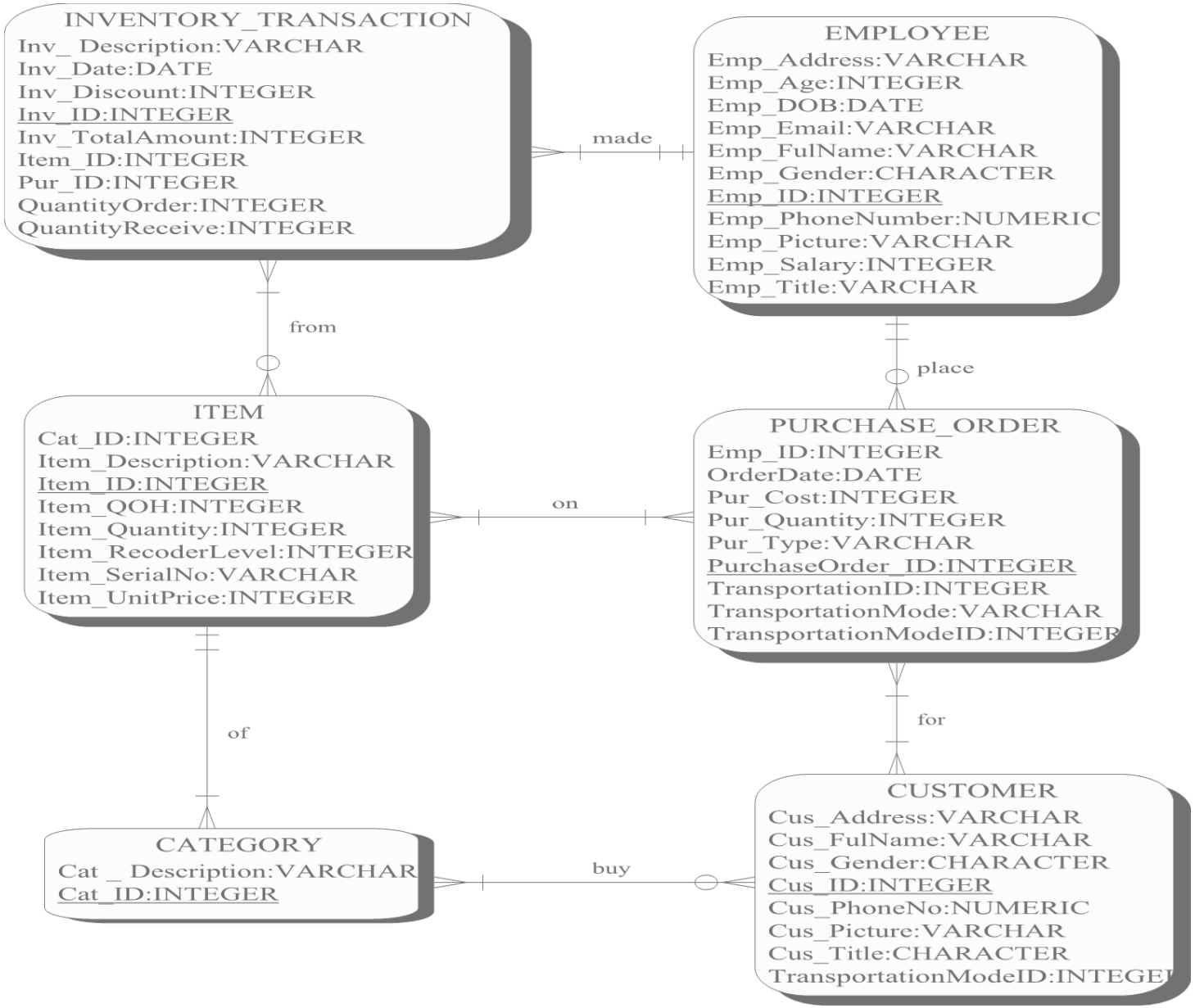
ITEM
Item_ID
Item_SerialNo
Item_Description
Item_RecoderLevel
Item_Quantity
Cat_ID
Item_UnitPrice
Item_QOH

CATEGORY
Cat_ID
Cat _ Description

INVENTORY_TRANSACTION
Inv _ID
Inv _Description
Item_ID
Pur_ID
Inv _TotalAmount
QuantityOrder
QuantityReceive
Inv _Date
Inv _Discount

CUSTOMER
Cus_ID
Cus_Title
Cus_FulName
Cus_Gender
Cus_Address
Cus_PhoneNo
Cus_Picture
TransportationModeID

RELATIONAL ENTITY DIAGRAM



FUNCTIONAL SYSTEM ANALYSIS

- The **functional system** are the thing or activities that standard user can perform with the software.
- The software allows standard user to perform the following task
- Sign in or login with his or her name and password
- User will be able to change user name and password as well as the user picture
- User will be able to make sells to customers and other clients.
- Get not of items that are about to get finished
- User will be able to make Purchase Order
- View the categories of items at the shop with its price, description etc.
- Have partial control over the software

NON-FUNCTIONAL SYSTEM ANALYSIS

- The **NON-FUNTIONAL SYSTEM:** These are the activities system administrator can perform but not standard user
- Will be able to login with his or her name and password
- Will be able to add or remove Entry user (login user)
- View retrieve forgotten password or user name
- Change user name and password as well as the user picture (both, administrator and standard user)
- View all login accounts
- Retrieve sells made in a day, month, or year
- User will be able to change user name and password as well as the user picture

- User will be able to make sells to customers and other clients.
- Get not of items that are about to get finished
- User will be able to make Purchase Order
- Take inventory, add, update or remove item
- Make entry (Add, update and delete item, employee and customer from or into the entry)
- Have full control of the software

SYSTEM REQUIREMENT

- The **SYSTEM REQUIREMENT:** These are the things one need to input into the program or the system before user can access or use the program.
- User name and password (authorizes access)
- User roll (standard user or administrator)
- Personal information (Employee and Customer)
- Information on the items to be sold

FUNCTIONAL REQUIREMENT

- The **FUNTIONAL REQUIREMENT:** These are the things one need before he or she can access the program or the system.
- User name and password (authorizes access)
- User roll (standard user or administrator)

1ST NORMALISATION TABLES

EMPLOYEE
Emp_ID
Emp_FulName
Emp_Age
Emp_Title
Emp_PhoneNumber
Emp_Salary
Emp_Gender
Emp_Address
Emp_Email
Emp_Picture
Emp_DOB

PURCHASE_ORDER
PurchaseOrder_ID
Emp_ID
Pur_Quantity
Pur_Cost
OrderDate
TransportationID
TransportationMode
Pur_Type
Emp_Address

ITEM
Item_ID
Item_SerialNo
Item_Description
Item_RecoderLevel
Item_Quantity
Cat_ID
Item_UnitPrice
Item_QOH

CATEGORY
Cat_ID
Cat _ Description

INVENTORY_TRANSACTION
Inv _ID
Inv _Description
Item_ID
Pur_ID
Inv _TotalAmount
QuantityOrder
QuantityReceive
Inv _Date
Inv _Discount

CUSTOMER
Cus_ID
Cus_Title
Cus_FulName
Cus_Gender
Cus_Address
Cus_PhoneNo
Cus_Picture
TransportationModeID

2ND NORMALISATION TABLES

The table are already in the second normal form (2NF) as the attribute in each table depends on the primary key

EMPLOYEE
Emp_ID
Emp_FulName
Emp_Age
Emp_Title
Emp_PhoneNumber
Emp_Salary
Emp_Gender
Emp_Address
Emp_Email
Emp_Picture
Emp_DOB

PURCHASE_ORDER
PurchaseOrder_ID
Emp_ID
Pur_Quantity
Pur_Cost
OrderDate
TransportationID
TransportationMode
Pur_Type
Emp_Address

ITEM
Item_ID
Item_SerialNo
Item_Description
Item_RecoderLevel
Item_Quantity
Cat_ID
Item_UnitPrice
Item_QOH

CATEGORY
Cat_ID
Cat _ Description

INVENTORY_TRANSACTION
Inv _ID
Inv _Description
Item_ID
Pur_ID
Inv _TotalAmount
QuantityOrder
QuantityReceive
Inv _Date
Inv _Discount

CUSTOMER
Cus_ID
Cus_Title
Cus_FulName
Cus_Gender
Cus_Address
Cus_PhoneNo
Cus_Picture
TransportationModeID

3RD NORMALISATION TABLES

In the Customer table, the attribute TransportationMode depends on the TransportationModeID and not on the Cus_ID. Therefore, for the table to be in the third normal form (3NF), we need to create another table on the TransportationMode. Also, in the Purchase_Order table the attribute, TransportationDate depents on the TransportationModeID and not on the PurchaseOrder_ID. Therefore, for the table to be in the third normal form (3NF), we need to create another table on the TransportationMethod.

EMPLOYEE
Emp_ID
Emp_FulName
Emp_Age
Emp_Title
Emp_PhoneNumber
Emp_Salary
Emp_Gender
Emp_Address
Emp_Email
Emp_Picture
Emp_DOB

PURCHASE_ORDER
PurchaseOrder_ID
Emp_ID
Pur_Quantity
Pur_Cost
OrderDate
TransportationID
TransportationMode
Pur_Type
Emp_Address

ITEM
Item_ID
Item_SerialNo
Item_Description
Item_RecoderLevel
Item_Quantity
Cat_ID
Item_UnitPrice
Item_QOH

CATEGORY
Cat_ID
Cat _ Description

INVENTORY_TRANSACTION
Inv _ID
Inv _Description
Item_ID
Pur_ID
Inv _TotalAmount
QuantityOrder
QuantityReceive
Inv _Date
Inv _Discount

CUSTOMER
Cus_ID
Cus_Title
Cus_FulName
Cus_Gender
Cus_Address
Cus_PhoneNo
Cus_Picture
TransportationModeID

TRANSACTION_METHOD
Tra_ID
Tra_Description
Tra_Method
Tra_Name
Tra_TotalAmount
Tra_Date

TRANSACTION_MODE
Tra_ID
Tra_Description
Tra_Method
Tra_Name
Tra_TotalAmount
Tra_Date

TABLES AFTER DENORMALISATION

We place the information about Transportation Mode in a separate table, the query performance during the generation of Customer receipt will get affected due to creation of join in every Customer receipt. Therefore, for optimum performance, we renormalize and place the TransactionMode information back into the Customer table. Now the table are as follows:

EMPLOYEE
Emp_ID
Emp_FulName
Emp_Age
Emp_Title
Emp_PhoneNumber
Emp_Salary
Emp_Gender
Emp_Address
Emp_Email
Emp_Picture
Emp_DOB

PURCHASE_ORDER
PurchaseOrder_ID
Emp_ID
Pur_Quantity
Pur_Cost
OrderDate
TransportationID
TransportationMode
Pur_Type
Emp_Address

ITEM
Item_ID
Item_SerialNo
Item_Description
Item_RecoderLevel
Item_Quantity
Cat_ID
Item_UnitPrice
Item_QOH

CATEGORY
Cat_ID
Cat _ Description

INVENTORY_TRANSACTION
Inv _ID
Inv _Description
Item_ID
Pur_ID
Inv _TotalAmount
QuantityOrder
QuantityReceive
Inv _Date
Inv _Discount

CUSTOMER
Cus_ID
Cus_Title
Cus_FulName
Cus_Gender
Cus_Address
Cus_PhoneNo
Cus_Picture
TransportationModeID

TRANSACTION_METHOD
Tra_ID
Tra_Description
Tra_Method
Tra_Name
Tra_TotalAmount
Tra_Date