A Database Management System for Manufacturing Industries

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Course: 311 Database and Management Systems

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Introduction To Database Management Applications for Manufacturing Industries.

While Manufacturing industries locally maintain their DBMS for the supply chain, It is seen that the Implementation of such a system for large-scale manufacturing industries is yet to be achieved while international standard industries have adopted this scope of production advancement. A very few Industries operate by using relational databases at a local level.

Our Project is placed to wrestle with the idea of the tangibility of DBMS Systems for Industries.

Project Overview

Goals

1. Establishment of the narrative that Industry Operations are Fluid with a Database.
   One Fine reason why most medium to small-scale industries doesn't adopt maintaining a database is the idea that management is executable manually. As of today, industrial warehousing is done with pen and paper while it gets the job done. But it holds the value of relating the data.

2. Scope of Production upscale.
   Factories that operate under manually noted data have to spend large amounts of time tracking data and the idea that eventually it has to be processed by humans only. This makes the job more tedious and Error-prone.

   Having a Database can let the operations team Go through a major amount of data in a much more meaningful way. Additionally if implemented right a DBMS can generate reports based on pre-existing data. As well as Predict material Shortage.

3. Order Tracking
   One big Problem the proposed client faces is the idea that Industries fail to deliver products on due time. This is primarily because Socially managed operations are error-prone and inaccurate. Additionally, Manufacturing Industries require a multitude of suppliers to Deliver materials to maintain the system.

Scope of the Work.

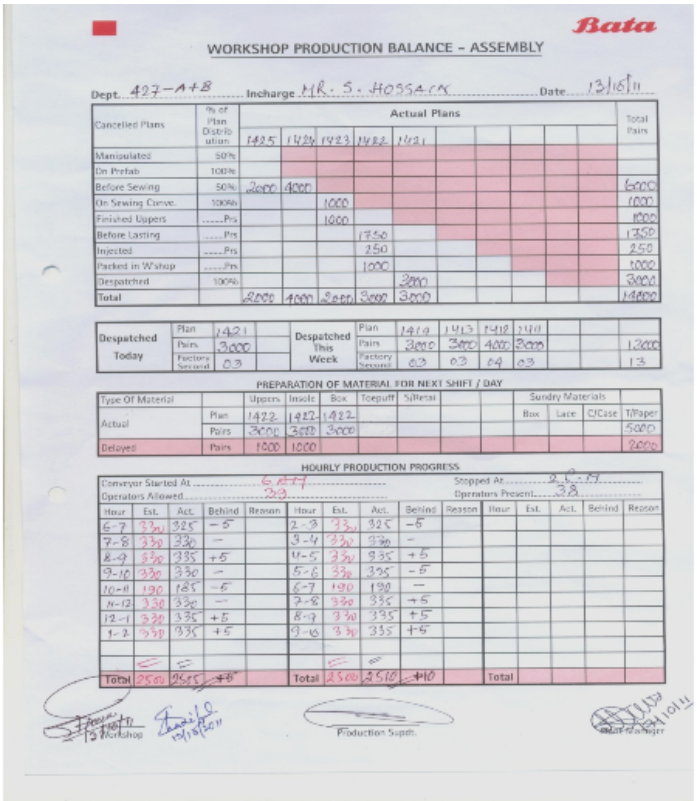
As mentioned above Industries that this project addresses are going to be unique and ranging in different operation cultures but the core idea remains the same which is the idea of collecting data and making it meaningful with accuracy.

As of today, there are at least 5000 factories large Scale import or Export are running without a DBMS and the very few that are using either running with a generalized DBMS or a primitive idea of maintaining.

Once The project's narrative of Data Management is established in the field inevitably this industry has to rely on such a system to upscale their chances of success. The leverage of Technology within Data is increasing along with the want of Efficiency of Manufacturing industries.

While in a Microeconomic Perspective DBMS aids a handful of industries. A well-injected application of this project can technically increase the Export Capacity of The country. This raises one more question, The importance of Developers and IT personnel within this Area of interest and how any organization that deals with Manufacturing can benefit from such a Group of Experts.

Example of local manufacturing industries relying on pen and paper datasheets.



STOCK CARD SYSTEM

The Stock Card includes the following information:

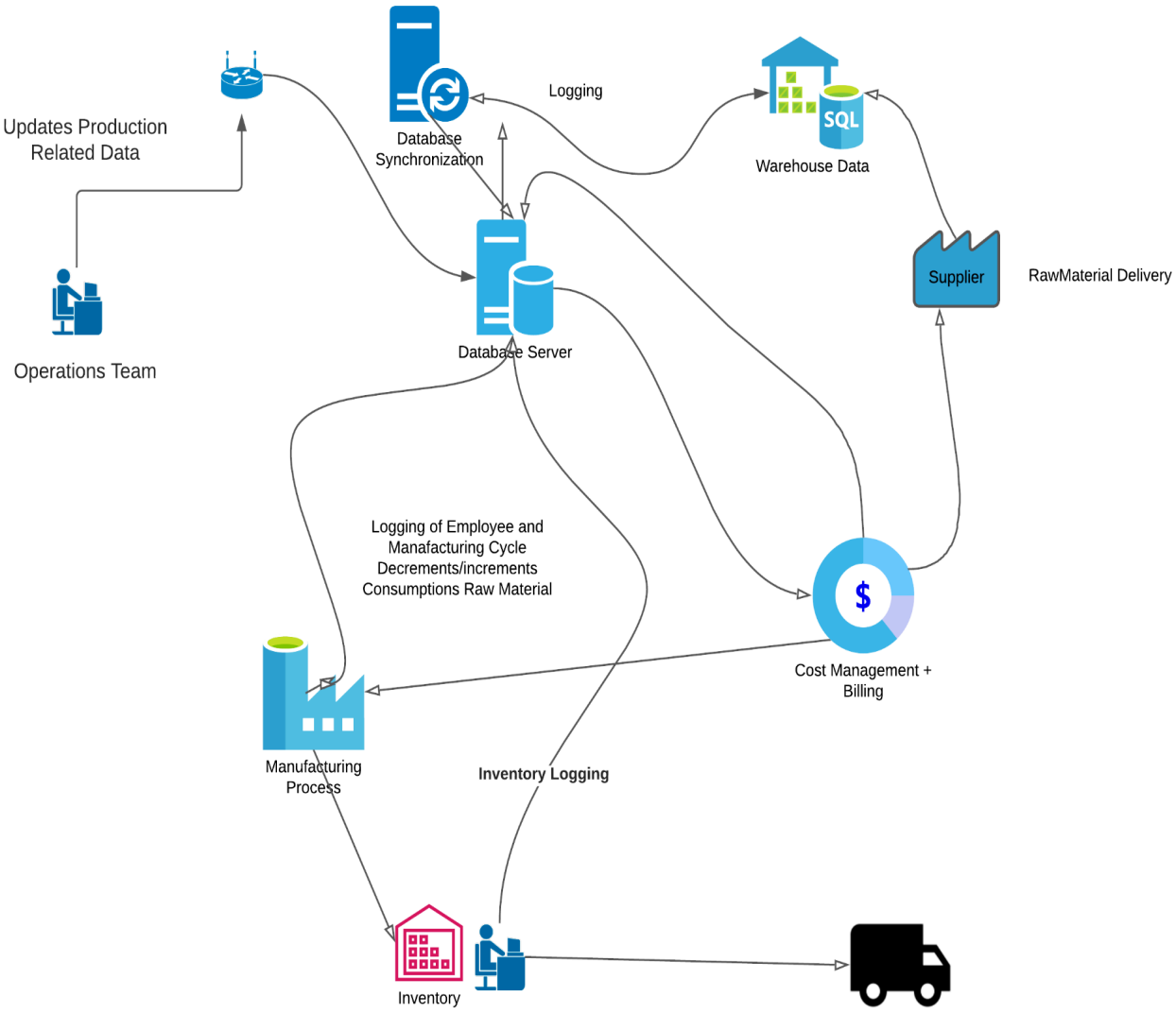
(1)	Supplier	The tanner or agent involved.
(2)	Price	The price of the material when the style was costed.
(3)	Unit	Per sq. foot
(4)	Date	Date of ordering material Date of receiving material
(5)	Order No.	Order Number
(6)	(Ordered) (Price/Quantity)	(a) The price of the material when ordered may be different to the costed price and will represent a gain or loss. (b) The quantity ordered.
(7)	(Received) (Quantity)	This represents the amount received on a specific order.
(8)	Balance on order	This represents the amount outstanding on the order.
(9)	Stock	It represents the amount of this type of leather in the leather store.
(10)	Issued	It illustrates the amount issued each day during the week.
(11)	(Week ending) (Quantity)	This represents the total quantity issued throughout the week.
(12)	Remarks	Quality of leather, size of skins, colour

HOURLY PRODUCTION RECORD

FACTORY HOURLY PRODUCTION | DAY 1 | WK 46 | 2008

	PLASTICS										DIP.				CEMENTED CLOSED						CEMENTED SANDAL												
LINE	[illegible]		[illegible]		[illegible]		[illegible]		TOTAL		[illegible]		[illegible]		TOTAL		[illegible]		[illegible]		TOTAL L		[illegible]		[illegible]		[illegible]		[illegible]		TOTAL				
	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	
6:00 - 7.00	[illegible]																																	
7.00 - 8.00	[illegible]																																	
8.00 - 9.00	[illegible]																																	
9.00 - 10.00	[illegible]																																	
10.00 - 11.00	[illegible]																																	
11.00-12.00	[illegible]																																	
12.00- 1.00	[illegible]																[illegible]						[illegible]											
1.00 - 2.00	[illegible]																																	
TOTAL	[illegible]																																	
2.00-3.00	[illegible]																																	
3.00-4.00	[illegible]																																	
4.00-5.00	[illegible]																																	
5.00-6.00	[illegible]																																	
6.00-6.30	[illegible]																																	
6.30-7.00	[illegible]																																	
7.00-8.00	[illegible]																																	
8.00-9.00	[illegible]																																	
9.00-10.00	[illegible]																																	
TOTAL	[illegible]																																	
10.00-11.00	[illegible]																																	
11.00-12.00	[illegible]																																	
12.00-1.00	[illegible]																																	
1.00-2.00	[illegible]																																	
2.00-2.30	[illegible]																																	
2.30-3.00	[illegible]																																	
3.00-4.00	[illegible]																																	
4.00-5.00	[illegible]																																	
5.00-6.00	[illegible]																																	
TOTAL	[illegible]																																	
TOTAL / DAY	[illegible]																																	

System Architecture



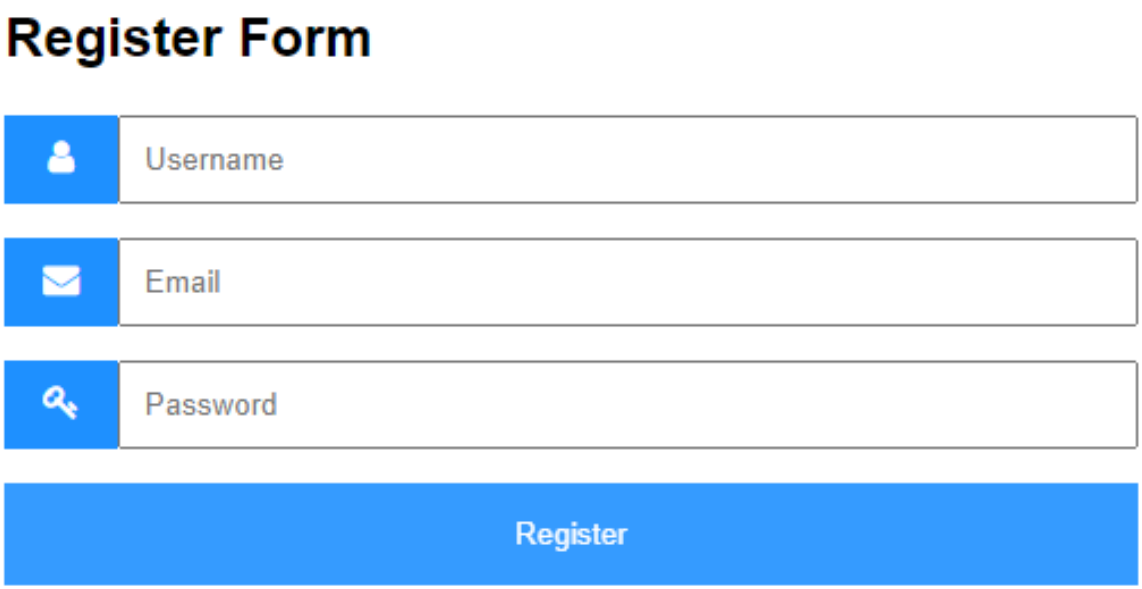
Tools Used :

1. DB ,PHP SQL
2. HTML,Bootstrap js
3. Cloud Services : AWS
4. For MultiPlatform the Entire Project Can be Implemented Using React Native.

Front-End Development and Plans

Front-end Contents

1. Registration.
2. Login Pages and Logout Pages for Operation Managers for each unique site.
3. Client Table
4. Item Details Page.
5. Admin Dashboard
6. Raw Material Scheduling Page
7. Update Page for raw material warehousing
8. Production Unit Logging and Uptime Page.
9. Task Scheduling
10. Bill generation/Costing for suppliers and shippers.



Client List

Search for names..

Name	Company
Alfreds Futterkiste	Marks and Spencer
Berglunds snabbkop	Nike
Island Trading	Bata
Koniglich Essen	apex
Laughing Bacchus Winecellars	AB shoes
Magazzini Alimentari Riuniti	bashundhara shoes
North/South	new balance
Paris specialites	bay

Inventory Update

Material Name :

Enter Product name

Quantity / Weight

No. weight

Raw Material For :

MS001 : Men Shoe

MS001 : Men Shoe
CB001 : Children's Bag
LB001 : Ladies bag

Register New Product

Input Details Regarding the Order At hand

Product :

- [ ] LB001 : Brown Leather wallet [Females]

Quantity :

- [ ] MS001 : Men's Show Black

Quantity :

- [ ] CB001 : Children's Bag

Quantity :

To be Shipped

Client Information :

New Client For this Case

Generate Payment Order

Select the Appropriate changes that you want to make

Client Update Form

Order Placement Form

Payment Slip

Inventory

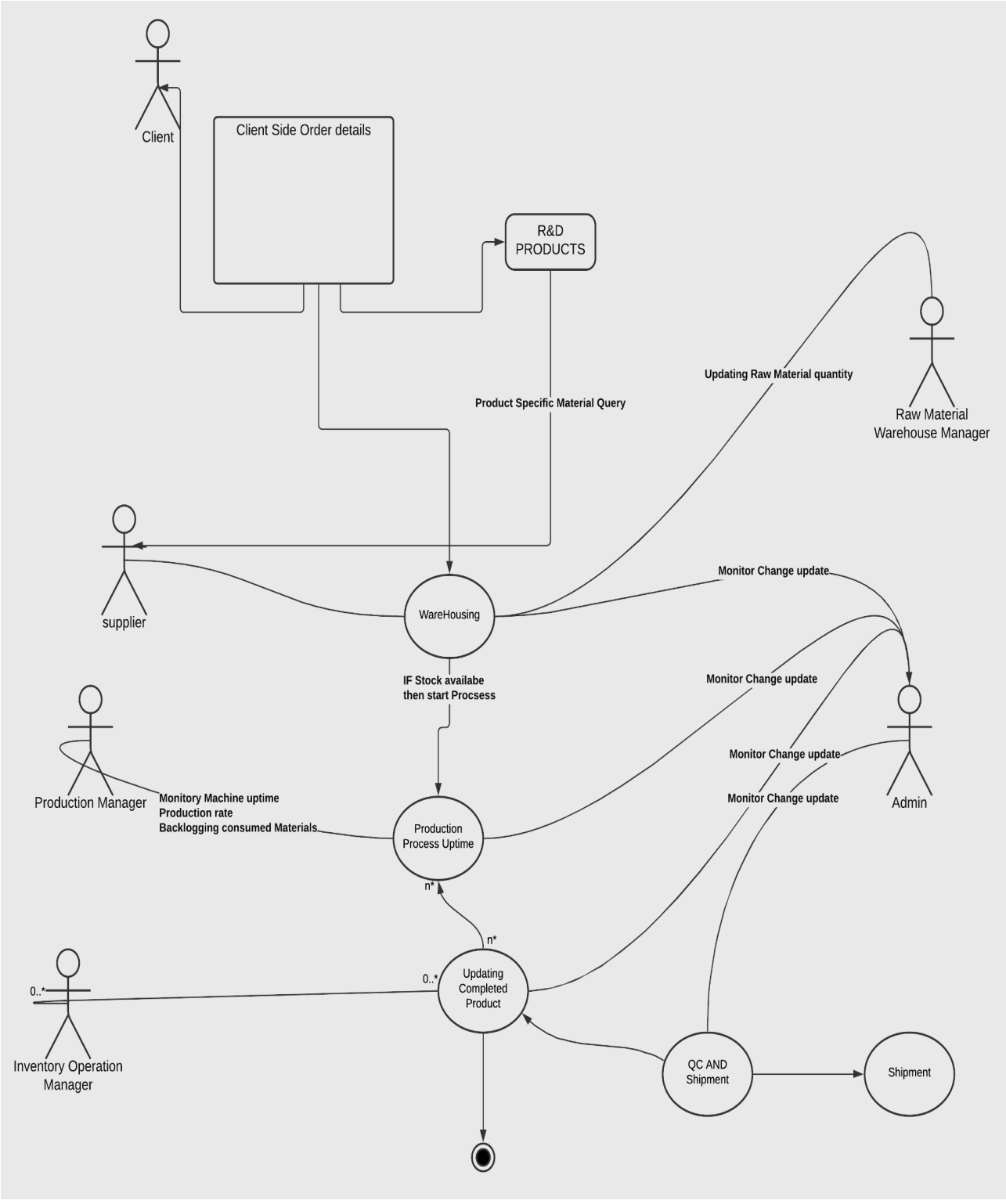
Employee Management

Register New Product

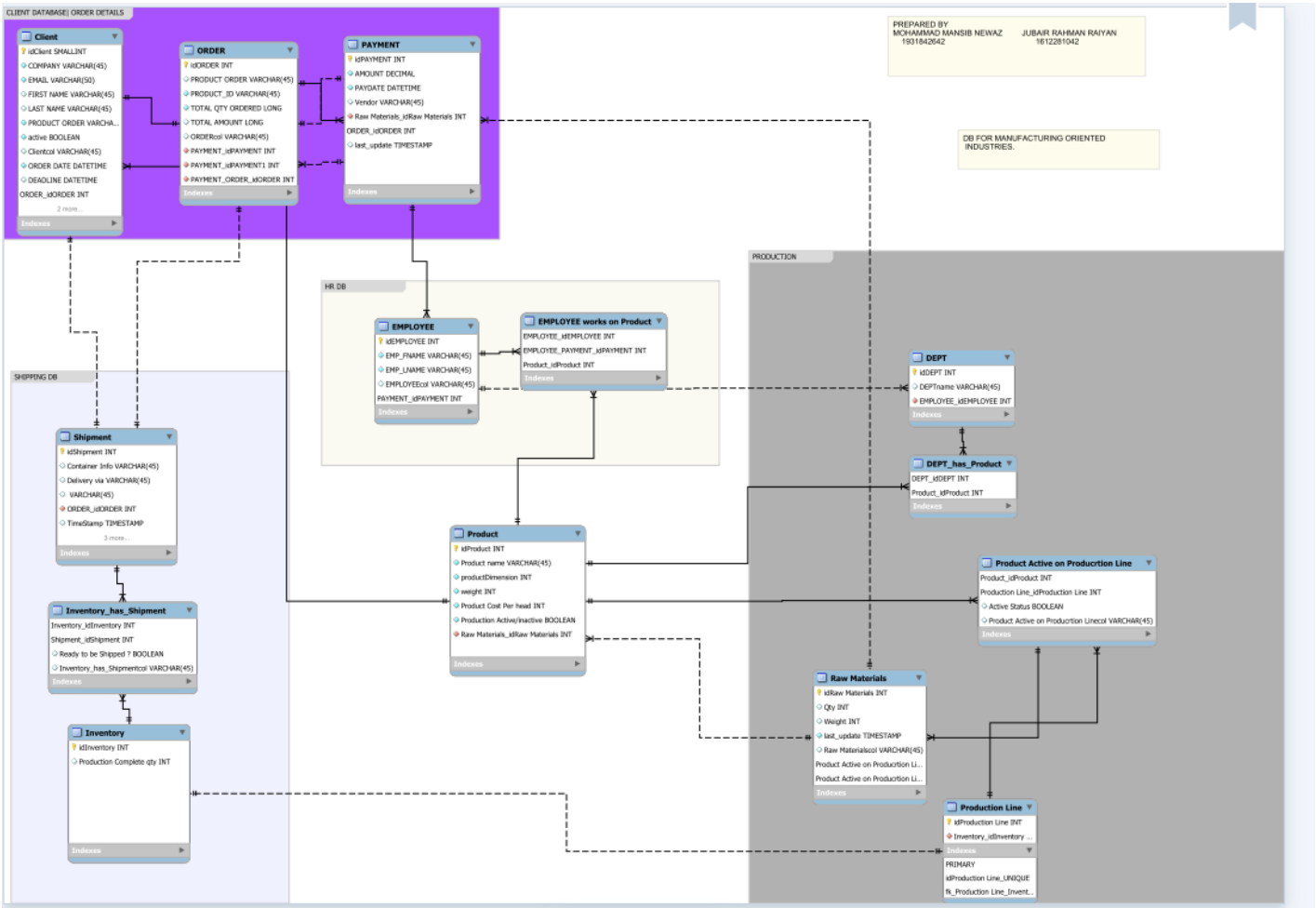
View Database :

Client List

4.Product Use Case Diagrams.



ERD REVISED


CLIENT DATABASE| ORDER DETAILS
Client
idClient SMALLINT
COMPANY VARCHAR(45)
EMAIL VARCHAR(50)
FIRST NAME VARCHAR(45)
LAST NAME VARCHAR(45)
PRODUCT ORDER VARCHA...
active BOOLEAN
Clientcol VARCHAR(45)
ORDER DATE DATETIME
DEADLINE DATETIME
ORDER_idORDER INT
ORDER
idORDER INT
PRODUCT ORDER VARCHAR(45)
PRODUCT_ID VARCHAR(45)
TOTAL QTY ORDERED LONG
TOTAL AMOUNT LONG
ORDERcol VARCHAR(45)
PAYMENT_idPAYMENT INT
PAYMENT_idPAYMENT1 INT
PAYMENT_ORDER_idORDER INT
PAYMENT
idPAYMENT INT
AMOUNT DECIMAL
PAYDATE DATETIME
Vendor VARCHAR(45)
Raw Materials_idRaw Materials INT
ORDER_idORDER INT
last_update TIMESTAMP
PREPARED BY
MOHAMMAD MANSIB NEWAZ 1931842642
JUBAIR RAHMAN RAIYAN 1612281042
DB FOR MANUFACTURING ORIENTED INDUSTRIES.
HR DB
EMPLOYEE
idEMPLOYEE INT
EMP_FNAME VARCHAR(45)
EMP_LNAME VARCHAR(45)
EMPLOYEEcol VARCHAR(45)
PAYMENT_idPAYMENT INT
EMPLOYEE works on Product
EMPLOYEE_idEMPLOYEE INT
EMPLOYEE_PAYMENT_idPAYMENT INT
Product_idProduct INT
PRODUCTION
DEPT
idDEPT INT
DEPTname VARCHAR(45)
EMPLOYEE_idEMPLOYEE INT
DEPT_has_Product
DEPT_idDEPT INT
Product_idProduct INT
SHIPPING DB
Shipment
idShipment INT
Container Info VARCHAR(45)
Delivery via VARCHAR(45)
VARCHAR(45)
ORDER_idORDER INT
TimeStamp TIMESTAMP
Inventory_has_Shipment
Inventory_idInventory INT
Shipment_idShipment INT
Ready to be Shipped ? BOOLEAN
Inventory_has_Shipmentcol VARCHAR(45)
Inventory
idInventory INT
Production Complete qty INT
Product
idProduct INT
Product name VARCHAR(45)
productDimension INT
weight INT
Product Cost Per head INT
Production Active/inactive BOOLEAN
Raw Materials_idRaw Materials INT
Product Active on Producrtion Line
Product_idProduct INT
Production Line_idProduction Line INT
Active Status BOOLEAN
Product Active on Producrtion Linecol VARCHAR(45)
Raw Materials
idRaw Materials INT
Qty INT
Weight INT
last_update TIMESTAMP
Raw Materialscol VARCHAR(45)
Product Active on Producrtion Li...
Product Active on Producrtion Li...
Production Line
idProduction Line INT
Inventory_idInventory ...
PRIMARY
idProduction Line_UNIQUE
fk_Production Line_Invent...

Database Design

Product Table

```
CREATE TABLE IF NOT EXISTS `mydb`.`product` (
  `idproduct` INT NOT NULL,
  `product_name` VARCHAR(45) NOT NULL,
  `weight` VARCHAR(45) NOT NULL,
  `dimension` VARCHAR(45) NOT NULL,
  `status` TINYINT NOT NULL,
  `productcol` VARCHAR(45) NOT NULL,
  `Raw_Material_idRaw_Material` INT NOT NULL,
  PRIMARY KEY (`idproduct`),
  INDEX `fk_product_Raw_Material1_idx` (`Raw_Material_idRaw_Material` ASC)
VISIBLE,
  CONSTRAINT `fk_product_Raw_Material1`
    FOREIGN KEY (`Raw_Material_idRaw_Material`)
    REFERENCES `mydb`.`Raw_Material` (`idRaw_Material`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB
```

```
-- -----------------------------------------------------
-- Table `mydb`.`Managers`
-- -----------------------------------------------------
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`Managers` (
                                                `idManagers` INT NOT NULL,
                                                `fname` VARCHAR(45) NULL,
    `lname` VARCHAR(45) NULL,
    `email` VARCHAR(45) NULL,
    PRIMARY KEY (`idManagers`))
    ENGINE = InnoDB;
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`Order` (
                                            `idOrder` INT NOT NULL,
                                            `quantity` INT NULL,
                                            `cost` INT NULL,
                                            `Date` TIMESTAMP NULL,
                                            `Buyer_idBuyer` INT NOT NULL,
                                            `product_idproduct` INT NOT
NULL,
                                            PRIMARY KEY (`idOrder`,
`Buyer_idBuyer`, `product_idproduct`),
    INDEX `fk_Order_Buyer_idx` (`Buyer_idBuyer` ASC) VISIBLE,
    INDEX `fk_Order_product1_idx` (`product_idproduct` ASC) VISIBLE,
    CONSTRAINT `fk_Order_Buyer`
    FOREIGN KEY (`Buyer_idBuyer`)
    REFERENCES `mydb`.`Buyer` (`idBuyer`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
    CONSTRAINT `fk_Order_product1`
    FOREIGN KEY (`product_idproduct`)
    REFERENCES `mydb`.`product` (`idproduct`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
    ENGINE = InnoDB;
```

```
-- -----------------------------------------------------
-- Table `mydb`.`ProductionStatus`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`ProductionStatus` (

`idProductionStatus` INT NOT NULL,

`product_idproduct` INT NOT NULL,

`Raw_Material_idRaw_Material` INT NOT NULL,

`Inventory_idInventory` INT NOT NULL,
                                                    PRIMARY KEY
(`idProductionStatus`, `product_idproduct`, `Raw_Material_idRaw_Material`,
`Inventory_idInventory`),
    INDEX `fk_ProductionStatus_product1_idx` (`product_idproduct` ASC)
VISIBLE,
    INDEX `fk_ProductionStatus_Raw_Material1_idx`
(`Raw_Material_idRaw_Material` ASC) VISIBLE,
    INDEX `fk_ProductionStatus_Inventory1_idx` (`Inventory_idInventory`
ASC) VISIBLE,
    CONSTRAINT `fk_ProductionStatus_product1`
    FOREIGN KEY (`product_idproduct`)
    REFERENCES `mydb`.`product` (`idproduct`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
    CONSTRAINT `fk_ProductionStatus_Raw_Material1`
    FOREIGN KEY (`Raw_Material_idRaw_Material`)
    REFERENCES `mydb`.`Raw_Material` (`idRaw_Material`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
    CONSTRAINT `fk_ProductionStatus_Inventory1`
    FOREIGN KEY (`Inventory_idInventory`)
    REFERENCES `mydb`.`Inventory` (`idInventory`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
    ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `mydb`.`Raw_Material`
-- -----------------------------------------------------
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`Raw_Material` (
                                                    `idRaw_Material` INT
NOT NULL,
                                                    `Quantity` INT NULL,
                                                    `Cost` INT NULL,
                                                    `Raw_Materialcol`
VARCHAR(45) NULL,
    `product_idproduct` INT NOT NULL,
    PRIMARY KEY (`idRaw_Material`),
    INDEX `fk_Raw_Material_product1_idx` (`product_idproduct` ASC) VISIBLE,
    CONSTRAINT `fk_Raw_Material_product1`
    FOREIGN KEY (`product_idproduct`)
    REFERENCES `mydb`.`product` (`idproduct`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
    ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `mydb`.`Supplier`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`Supplier` (
                                                `idSupplier` INT NOT NULL,
                                                `Name` VARCHAR(45) NOT
NULL,
    `Raw_Material_idRaw_Material` INT NOT NULL,
    PRIMARY KEY (`idSupplier`, `Raw_Material_idRaw_Material`),
    INDEX `fk_Supplier_Raw_Material1_idx` (`Raw_Material_idRaw_Material`
ASC) VISIBLE,
    CONSTRAINT `fk_Supplier_Raw_Material1`
    FOREIGN KEY (`Raw_Material_idRaw_Material`)
    REFERENCES `mydb`.`Raw_Material` (`idRaw_Material`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
    ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `mydb`.`product`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`product` (
                                               `idproduct` INT NOT NULL,
```

```
                                                `product_name` VARCHAR(45)
NOT NULL,
    `weight` VARCHAR(45) NOT NULL,
    `dimension` VARCHAR(45) NOT NULL,
    `status` TINYINT NOT NULL,
    `productcol` VARCHAR(45) NOT NULL,
    `Raw_Material_idRaw_Material` INT NOT NULL,
    PRIMARY KEY (`idproduct`),
    INDEX `fk_product_Raw_Material1_idx` (`Raw_Material_idRaw_Material`
ASC) VISIBLE,
    CONSTRAINT `fk_product_Raw_Material1`
    FOREIGN KEY (`Raw_Material_idRaw_Material`)
    REFERENCES `mydb`.`Raw_Material` (`idRaw_Material`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
    ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `mydb`.`shippingInfo`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`shippingInfo` (
                                                    `id` INT NOT NULL,
                                                    `agentId` VARCHAR(45)
NULL,
    `orderno` INT NULL,
    `dateTime` TIMESTAMP NULL,
    `quantity` INT NULL,
    `cost` INT NULL,
    PRIMARY KEY (`id`))
    ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `mydb`.`table1`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`table1` (
)
    ENGINE = InnoDB;


-- -----------------------------------------------------
-- Table `mydb`.`table2`
```

```
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`table2` (
)
    ENGINE = InnoDB;

USE `dbms` ;

-- -----------------------------------------------------
-- Table `dbms`.`users`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `dbms`.`users` (
    `id` BIGINT(20) NOT NULL,
    `user_id` BIGINT(20) NOT NULL,
    `user_name` VARCHAR(100) NOT NULL,
    `password` VARCHAR(100) NOT NULL,
    PRIMARY KEY (`id`),
    INDEX `user_id` (`user_id` ASC) VISIBLE,
    INDEX `id` (`id` ASC) VISIBLE,
    INDEX `user_name` (`user_name` ASC) VISIBLE,
    INDEX `password` (`password` ASC) VISIBLE,
    INDEX `password_2` (`password` ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8mb4;

USE `phpmyadmin` ;

-- -----------------------------------------------------
-- Table `phpmyadmin`.`pma__bookmark`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__bookmark` (
    `id` INT(10) UNSIGNED NOT NULL AUTO_INCREMENT,
    `dbase` VARCHAR(255) NOT NULL DEFAULT '',
    `user` VARCHAR(255) NOT NULL DEFAULT '',
    `label` VARCHAR(255) CHARACTER SET 'utf8' NOT NULL DEFAULT '',
    `query` TEXT NOT NULL,
    PRIMARY KEY (`id`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Bookmarks';


-- -----------------------------------------------------
```

```
-- Table `phpmyadmin`.`pma__central_columns`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__central_columns` (
    `db_name` VARCHAR(64) NOT NULL,
    `col_name` VARCHAR(64) NOT NULL,
    `col_type` VARCHAR(64) NOT NULL,
    `col_length` TEXT NULL DEFAULT NULL,
    `col_collation` VARCHAR(64) NOT NULL,
    `col_isNull` TINYINT(1) NOT NULL,
    `col_extra` VARCHAR(255) NULL DEFAULT '',
    `col_default` TEXT NULL DEFAULT NULL,
    PRIMARY KEY (`db_name`, `col_name`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Central list of columns';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__column_info`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__column_info` (
    `id` INT(5) UNSIGNED NOT NULL AUTO_INCREMENT,
    `db_name` VARCHAR(64) NOT NULL DEFAULT '',
    `table_name` VARCHAR(64) NOT NULL DEFAULT '',
    `column_name` VARCHAR(64) NOT NULL DEFAULT '',
    `comment` VARCHAR(255) CHARACTER SET 'utf8' NOT NULL DEFAULT '',
    `mimetype` VARCHAR(255) CHARACTER SET 'utf8' NOT NULL DEFAULT '',
    `transformation` VARCHAR(255) NOT NULL DEFAULT '',
    `transformation_options` VARCHAR(255) NOT NULL DEFAULT '',
    `input_transformation` VARCHAR(255) NOT NULL DEFAULT '',
    `input_transformation_options` VARCHAR(255) NOT NULL DEFAULT '',
    PRIMARY KEY (`id`),
    UNIQUE INDEX `db_name` (`db_name` ASC, `table_name` ASC, `column_name`
ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Column information for phpMyAdmin';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__designer_settings`
```

```
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__designer_settings` (
    `username` VARCHAR(64) NOT NULL,
    `settings_data` TEXT NOT NULL,
    PRIMARY KEY (`username`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Settings related to Designer';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__export_templates`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__export_templates` (
    `id` INT(5) UNSIGNED NOT NULL AUTO_INCREMENT,
    `username` VARCHAR(64) NOT NULL,
    `export_type` VARCHAR(10) NOT NULL,
    `template_name` VARCHAR(64) NOT NULL,
    `template_data` TEXT NOT NULL,
    PRIMARY KEY (`id`),
    UNIQUE INDEX `u_user_type_template` (`username` ASC, `export_type` ASC,
`template_name` ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Saved export templates';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__favorite`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__favorite` (
    `username` VARCHAR(64) NOT NULL,
    `tables` TEXT NOT NULL,
    PRIMARY KEY (`username`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Favorite tables';


-- --------------------------------------------------------
```

```
-- Table `phpmyadmin`.`pma__history`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__history` (
    `id` BIGINT(20) UNSIGNED NOT NULL AUTO_INCREMENT,
    `username` VARCHAR(64) NOT NULL DEFAULT '',
    `db` VARCHAR(64) NOT NULL DEFAULT '',
    `table` VARCHAR(64) NOT NULL DEFAULT '',
    `timevalue` TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP(),
    `sqlquery` TEXT NOT NULL,
    PRIMARY KEY (`id`),
    INDEX `username` (`username` ASC, `db` ASC, `table` ASC, `timevalue`
ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'SQL history for phpMyAdmin';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__navigationhiding`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__navigationhiding` (
    `username` VARCHAR(64) NOT NULL,
    `item_name` VARCHAR(64) NOT NULL,
    `item_type` VARCHAR(64) NOT NULL,
    `db_name` VARCHAR(64) NOT NULL,
    `table_name` VARCHAR(64) NOT NULL,
    PRIMARY KEY (`username`, `item_name`, `item_type`, `db_name`,
`table_name`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Hidden items of navigation tree';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__pdf_pages`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__pdf_pages` (
    `db_name` VARCHAR(64) NOT NULL DEFAULT '',
    `page_nr` INT(10) UNSIGNED NOT NULL AUTO_INCREMENT,
    `page_descr` VARCHAR(50) CHARACTER SET 'utf8' NOT NULL DEFAULT '',
    PRIMARY KEY (`page_nr`),
```

```
    INDEX `db_name` (`db_name` ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'PDF relation pages for phpMyAdmin';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__recent`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__recent` (
    `username` VARCHAR(64) NOT NULL,
    `tables` TEXT NOT NULL,
    PRIMARY KEY (`username`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Recently accessed tables';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__relation`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__relation` (
    `master_db` VARCHAR(64) NOT NULL DEFAULT '',
    `master_table` VARCHAR(64) NOT NULL DEFAULT '',
    `master_field` VARCHAR(64) NOT NULL DEFAULT '',
    `foreign_db` VARCHAR(64) NOT NULL DEFAULT '',
    `foreign_table` VARCHAR(64) NOT NULL DEFAULT '',
    `foreign_field` VARCHAR(64) NOT NULL DEFAULT '',
    PRIMARY KEY (`master_db`, `master_table`, `master_field`),
    INDEX `foreign_field` (`foreign_db` ASC, `foreign_table` ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Relation table';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__savedsearches`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__savedsearches` (
    `id` INT(5) UNSIGNED NOT NULL AUTO_INCREMENT,
```

```
    `username` VARCHAR(64) NOT NULL DEFAULT '',
    `db_name` VARCHAR(64) NOT NULL DEFAULT '',
    `search_name` VARCHAR(64) NOT NULL DEFAULT '',
    `search_data` TEXT NOT NULL,
    PRIMARY KEY (`id`),
    UNIQUE INDEX `u_savedsearches_username_dbname` (`username` ASC,
`db_name` ASC, `search_name` ASC) VISIBLE)
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Saved searches';


-- -----------------------------------------------------
-- Table `phpmyadmin`.`pma__table_coords`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__table_coords` (
    `db_name` VARCHAR(64) NOT NULL DEFAULT '',
    `table_name` VARCHAR(64) NOT NULL DEFAULT '',
    `pdf_page_number` INT(11) NOT NULL DEFAULT 0,
    `x` FLOAT UNSIGNED NOT NULL DEFAULT 0,
    `y` FLOAT UNSIGNED NOT NULL DEFAULT 0,
    PRIMARY KEY (`db_name`, `table_name`, `pdf_page_number`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Table coordinates for phpMyAdmin PDF output';


-- -----------------------------------------------------
-- Table `phpmyadmin`.`pma__table_info`
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__table_info` (
    `db_name` VARCHAR(64) NOT NULL DEFAULT '',
    `table_name` VARCHAR(64) NOT NULL DEFAULT '',
    `display_field` VARCHAR(64) NOT NULL DEFAULT '',
    PRIMARY KEY (`db_name`, `table_name`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Table information for phpMyAdmin';
```

```
-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__table_uiprefs`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__table_uiprefs` (
    `username` VARCHAR(64) NOT NULL,
    `db_name` VARCHAR(64) NOT NULL,
    `table_name` VARCHAR(64) NOT NULL,
    `prefs` TEXT NOT NULL,
    `last_update` TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP() ON UPDATE
CURRENT_TIMESTAMP(),
    PRIMARY KEY (`username`, `db_name`, `table_name`))
    ENGINE = InnoDB
    DEFAULT CHARACTER SET = utf8
    COLLATE = utf8_bin
    COMMENT = 'Tables\' UI preferences';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__tracking`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__tracking` (
  `db_name` VARCHAR(64) NOT NULL,
  `table_name` VARCHAR(64) NOT NULL,
  `version` INT(10) UNSIGNED NOT NULL,
  `date_created` DATETIME NOT NULL,
  `date_updated` DATETIME NOT NULL,
  `schema_snapshot` TEXT NOT NULL,
  `schema_sql` TEXT NULL DEFAULT NULL,
  `data_sql` LONGTEXT NULL DEFAULT NULL,
  `tracking` SET('UPDATE', 'REPLACE', 'INSERT', 'DELETE', 'TRUNCATE',
'CREATE DATABASE', 'ALTER DATABASE', 'DROP DATABASE', 'CREATE TABLE',
'ALTER TABLE', 'RENAME TABLE', 'DROP TABLE', 'CREATE INDEX', 'DROP INDEX',
'CREATE VIEW', 'ALTER VIEW', 'DROP VIEW') NULL DEFAULT NULL,
  `tracking_active` INT(1) UNSIGNED NOT NULL DEFAULT 1,
  PRIMARY KEY (`db_name`, `table_name`, `version`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = utf8
COLLATE = utf8_bin
COMMENT = 'Database changes tracking for phpMyAdmin';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__userconfig`
```

```
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__userconfig` (
  `username` VARCHAR(64) NOT NULL,
  `timevalue` TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP() ON UPDATE
CURRENT_TIMESTAMP(),
  `config_data` TEXT NOT NULL,
  PRIMARY KEY (`username`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = utf8
COLLATE = utf8_bin
COMMENT = 'User preferences storage for phpMyAdmin';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__usergroups`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__usergroups` (
  `usergroup` VARCHAR(64) NOT NULL,
  `tab` VARCHAR(64) NOT NULL,
  `allowed` ENUM('Y', 'N') NOT NULL DEFAULT 'N',
  PRIMARY KEY (`usergroup`, `tab`, `allowed`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = utf8
COLLATE = utf8_bin
COMMENT = 'User groups with configured menu items';


-- --------------------------------------------------------
-- Table `phpmyadmin`.`pma__users`
-- --------------------------------------------------------
CREATE TABLE IF NOT EXISTS `phpmyadmin`.`pma__users` (
  `username` VARCHAR(64) NOT NULL,
  `usergroup` VARCHAR(64) NOT NULL,
  PRIMARY KEY (`username`, `usergroup`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = utf8
COLLATE = utf8_bin
COMMENT = 'Users and their assignments to user groups';

USE `mydb` ;

-- --------------------------------------------------------
-- Placeholder table for view `mydb`.`view1`
```

```
-- -----------------------------------------------------
CREATE TABLE IF NOT EXISTS `mydb`.`view1` (`id` INT);

-- -----------------------------------------------------
-- View `mydb`.`view1`
-- -----------------------------------------------------
DROP TABLE IF EXISTS `mydb`.`view1`;
USE `mydb`;

CREATE USER 'root' IDENTIFIED BY 'root';


SET SQL_MODE=@OLD_SQL_MODE;
SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS;
SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS;
```

Maintenance Requirements.

To generate Reliable data the operation managers are required to use the system accordingly and maintain it so that generated reports are as valid as possible.

Supportability

Constant Patches and user-specific demands must be fulfilled such that the client can rely on the system.

Audit Requirement

Since Each factory is unique on its own it is important to note that the product designer must be present within the system. Proper auditing will only better use case scenarios for the users.