Hospital Management System Project Report

Team	Details	:
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1.About:

The proposed Hospital Management System (HMS) is a comprehensive software solution designed to streamline hospital operations, including patient registration, appointment scheduling, medical history tracking, billing, and staff management. Built on a centralized MySQL database, the system ensures secure and efficient handling of patient and administrative data. With a user-friendly interface, the HMS facilitates seamless interaction for healthcare providers, administrators, and patients, enhancing resource utilization. Scalable and compliant with healthcare regulations, this system promotes operational efficiency, data integrity, and improved patient care.

2. User requirement:

2.1 User Management

Admins can manage user roles, profiles, and authentication details.

2.2 Asset Management

Track and monitor hospital assets, including vendors and departments.

2.3 Patient Record Management

 Store and access detailed patient information such as personal details, ailments, and discharge status.

2.4 Medical Inventory Management

 Manage pharmaceuticals and medical equipment, including vendors and stock levels.

2.5 Payroll Automation

 Generate and manage payrolls for hospital staff with salary details and payment status.

2.6 Laboratory Operations

Record and retrieve laboratory test results for patients.

2.7 Doctor Profiles and Surgery Management

 Maintain doctor information and log surgery details, including patient and procedure data.

2.8 Financial Management

Manage accounts, transactions, and financial records for the hospital.

2.9 Prescription Management

 Generate and maintain prescriptions for patients, including instructions and ailment details.

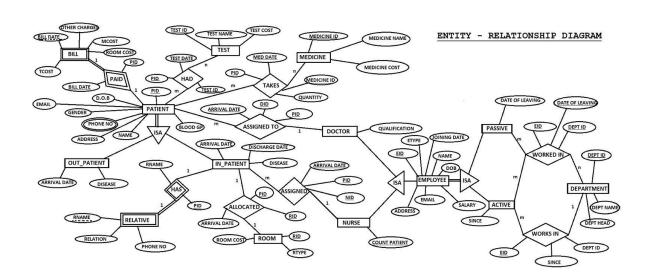
2.10 Surgery and Transfers

Log patient transfers and surgery-related records for better tracking

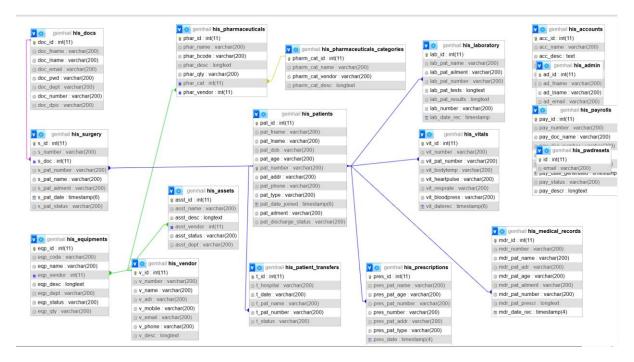
3. Software/Tools/Programming languages:

- PHP
- MySQL (Database)
- Phpmyadmin (Accessing the database)
- CSS, JavaScript and SASS

4. ER Diagram:



5. Relational Schema:



6.DDL Commands:

These are the create table commands:

```
CREATE TABLE `his_accounts` (
   `acc_id` int(200) NOT NULL,
   `acc_name` varchar(200) DEFAULT NULL,
   `acc_desc` text,
   `acc_type` varchar(200) DEFAULT NULL,
   `acc_number` varchar(200) DEFAULT NULL,
   `acc_amount` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_assets` (
    `asst_id` int(20) NOT NULL,
    `asst_name` varchar(200) DEFAULT NULL,
    `asst_desc` longtext,
    `asst_vendor` varchar(200) DEFAULT NULL,
    `asst_status` varchar(200) DEFAULT NULL,
    `asst_dept` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_docs` (
   `doc_id` int(20) NOT NULL,
   `doc_fname` varchar(200) DEFAULT NULL,
   `doc_lname` varchar(200) DEFAULT NULL,
   `doc_email` varchar(200) DEFAULT NULL,
   `doc_pwd` varchar(200) DEFAULT NULL,
   `doc_dept` varchar(200) DEFAULT NULL,
   `doc_number` varchar(200) DEFAULT NULL,
   `doc_dpic` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_equipments` (
   `eqp_id` int(20) NOT NULL,
   `eqp_code` varchar(200) DEFAULT NULL,
   `eqp_name` varchar(200) DEFAULT NULL,
   `eqp_vendor` varchar(200) DEFAULT NULL,
   `eqp_desc` longtext,
   `eqp_dept` varchar(200) DEFAULT NULL,
   `eqp_status` varchar(200) DEFAULT NULL,
   `eqp_qty` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_laboratory` (

`lab_id` int(20) NOT NULL,

`lab_pat_name` varchar(200) DEFAULT NULL,

`lab_pat_ailment` varchar(200) DEFAULT NULL,

`lab_pat_number` varchar(200) DEFAULT NULL,

`lab_pat_tests` longtext,

`lab_pat_results` longtext,

`lab_number` varchar(200) DEFAULT NULL,

`lab_date_rec` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

DENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_medical_records` (
  `mdr_id` int(20) NOT NULL,
  `mdr_number` varchar(200) DEFAULT NULL,
  `mdr_pat_name` varchar(200) DEFAULT NULL,
  `mdr_pat_adr` varchar(200) DEFAULT NULL,
  `mdr_pat_age` varchar(200) DEFAULT NULL,
  `mdr_pat_ailment` varchar(200) DEFAULT NULL,
  `mdr_pat_number` varchar(200) DEFAULT NULL,
  `mdr_pat_prescr` longtext,
  `mdr_date_rec` timestamp(4) NOT NULL DEFAULT CURRENT_TIMESTAMP(4) ON UPDATE CURRENT_TIMESTAMP(4)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_patients` (
    `pat_id` int(20) NOT NULL,
    `pat_fname` varchar(200) DEFAULT NULL,
    `pat_lname` varchar(200) DEFAULT NULL,
    `pat_dob` varchar(200) DEFAULT NULL,
    `pat_age` varchar(200) DEFAULT NULL,
    `pat_number` varchar(200) DEFAULT NULL,
    `pat_addr` varchar(200) DEFAULT NULL,
    `pat_phone` varchar(200) DEFAULT NULL,
    `pat_type` varchar(200) DEFAULT NULL,
    `pat_date_joined` timestamp(6) NOT NULL DEFAULT CURRENT_TIMESTAMP(6) ON UPDATE CURRENT_TIMESTAMP(6),
    `pat_ailment` varchar(200) DEFAULT NULL,
    `pat_discharge_status` varchar(200) DEFAULT NULL,
    `pat_discharge_status` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_patient_transfers` (
   `t_id` int(20) NOT NULL,
   `t_hospital` varchar(200) DEFAULT NULL,
   `t_date` varchar(200) DEFAULT NULL,
   `t_pat_name` varchar(200) DEFAULT NULL,
   `t_pat_number` varchar(200) DEFAULT NULL,
   `t_status` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_payrolls` (
    pay_id` int(20) NOT NULL,
    pay_number` varchar(200) DEFAULT NULL,
    pay_doc_name` varchar(200) DEFAULT NULL,
    pay_doc_number` varchar(200) DEFAULT NULL,
    pay_doc_email` varchar(200) DEFAULT NULL,
    pay_emp_salary` varchar(200) DEFAULT NULL,
    pay_date_generated` timestamp(4) NOT NULL DEFAULT CURRENT_TIMESTAMP(4) ON UPDATE CURRENT_TIMESTAMP(4),
    pay_status` varchar(200) DEFAULT NULL,
    pay_descr` longtext
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_prescriptions` (
    `pres_id` int(200) NOT NULL,
    `pres_pat_name` varchar(200) DEFAULT NULL,
    `pres_pat_age` varchar(200) DEFAULT NULL,
    `pres_pat_number` varchar(200) DEFAULT NULL,
    `pres_number` varchar(200) DEFAULT NULL,
    `pres_pat_addr` varchar(200) DEFAULT NULL,
    `pres_pat_type` varchar(200) DEFAULT NULL,
    `pres_pat_type` varchar(200) DEFAULT NULL,
    `pres_date` timestamp(4) NOT NULL DEFAULT CURRENT_TIMESTAMP(4) ON UPDATE CURRENT_TIMESTAMP(4),
    `pres_pat_ailment` varchar(200) DEFAULT NULL,
    `pres_ins` longtext
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_pwdresets` (
   `id` int(20) NOT NULL,
   `email` varchar(200) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_surgery` (
    `s_id` int(200) NOT NULL,
    `s_number` varchar(200) DEFAULT NULL,
    `s_doc` varchar(200) DEFAULT NULL,
    `s_pat_number` varchar(200) DEFAULT NULL,
    `s_pat_name` varchar(200) DEFAULT NULL,
    `s_pat_ailment` varchar(200) DEFAULT NULL,
    `s_pat_date` timestamp(6) NOT NULL DEFAULT CURRENT_TIMESTAMP(6) ON UPDATE CURRENT_TIMESTAMP(6),
    `s_pat_status` varchar(200) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `his_vendor` (

`v_id` int(20) NOT NULL,

`v_number` varchar(200) DEFAULT NULL,

`v_name` varchar(200) DEFAULT NULL,

`v_adr` varchar(200) DEFAULT NULL,

`v_mobile` varchar(200) DEFAULT NULL,

`v_email` varchar(200) DEFAULT NULL,

`v_phone` varchar(200) DEFAULT NULL,

`v_desc` longtext

) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

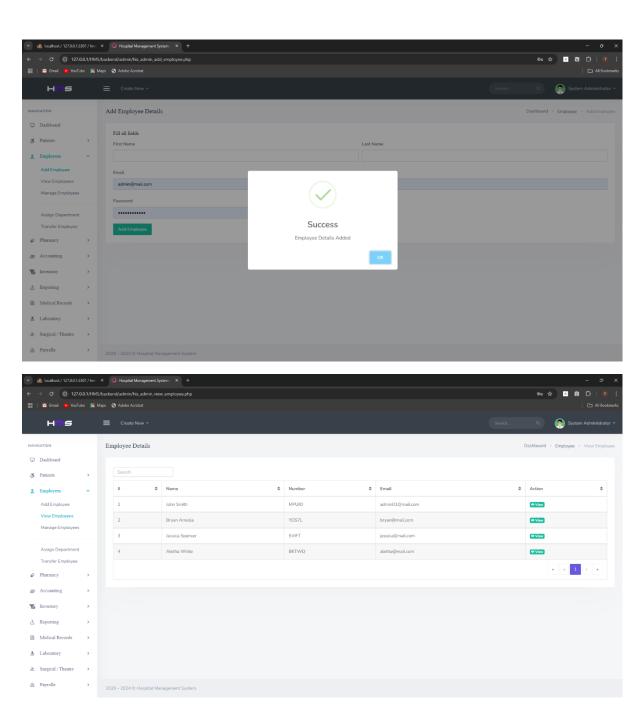
```
CREATE TABLE `his_vitals` (
   `vit_id` int(20) NOT NULL,
   `vit_number` varchar(200) DEFAULT NULL,
   `vit_pat_number` varchar(200) DEFAULT NULL,
   `vit_bodytemp` varchar(200) DEFAULT NULL,
   `vit_heartpulse` varchar(200) DEFAULT NULL,
   `vit_resprate` varchar(200) DEFAULT NULL,
   `vit_bloodpress` varchar(200) DEFAULT NULL,
   `vit_daterec` timestamp(6) NOT NULL DEFAULT CURRENT_TIMESTAMP(6) ON UPDATE CURRENT_TIMESTAMP(6)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

7. CRUD Operation:

7.1. Adding an employee (Jessica Smith)

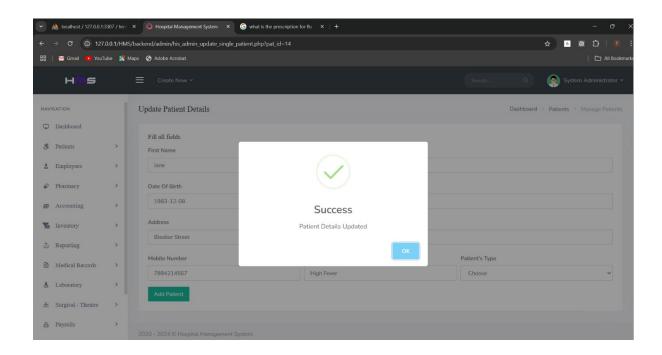
```
//sql to insert captured values
$query="INSERT INTO his_docs (doc_fname, doc_number, doc_email, doc_pwd) values(?,?,?,?)";
$stmt = $mysqli->prepare(query: $query);
$rc=$stmt->bind_param(types: 'sssss', var: &$doc_fname, vars: &$doc_lname, $doc_number, $doc_email, $doc_pwd);
$stmt->execute();
/*

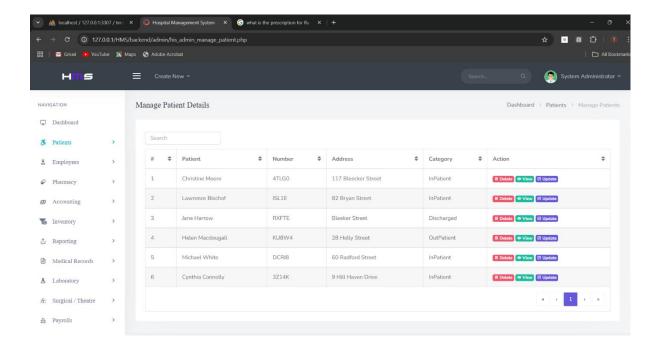
*echo"<script>alert('Successfully Created Account Proceed To Log In ');</script>";
*/
//declare a varible which will be passed to alert function
is(fature)
```



7.2. Updating a patient details:

```
$pat_ailment = $POST['pat_ailment'];
//sql to insert captured values
$query="MDATE his_pat_ients SET pat_fname=?, pat_lname=?, pat_age=?, pat_dob=?, pat_number=?, pat_phone=?, pat_type=?, pat_addr=?, pat_ailment=? WHERE pat_id = ?";
$stmt = $mysqli->prepare(query: $query);
$rc-$stmt->bind_param(types: 'sssssssssi', var: &$pat_fname, vars: &$pat_lname, $pat_age, $pat_dob, $pat_number, $pat_phone, $pat_type, $pat_addr, $pat_ailment, $pat_id);
$stmt->execute();
/*
```

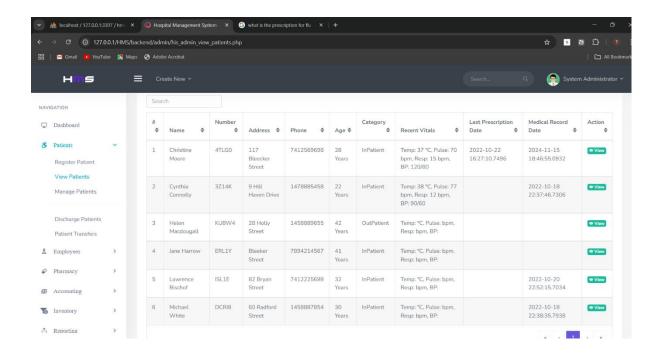




8. Functionalities:

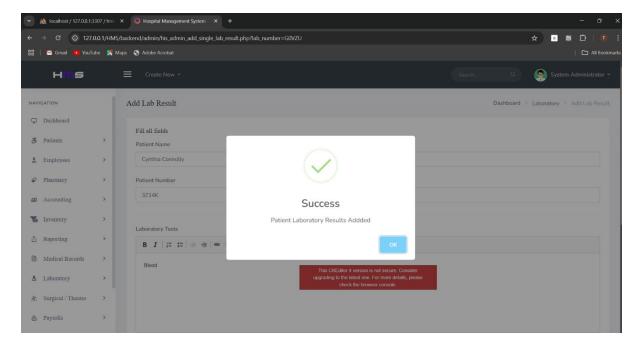
• Join query (listing out all the details of the patient):

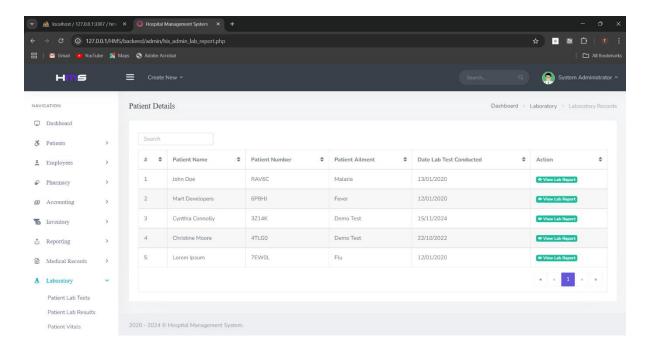
```
p.pat_id,
    p.pat_fname,
    p.pat_lname,
    p.pat_number,
    p.pat_addr,
   p.pat_phone,
   p.pat_age,
   p.pat_type,
   v.vit_bodytemp AS recent_body_temp,
   v.vit heartpulse AS recent heart pulse,
   v.vit_resprate AS recent_resp_rate,
   v.vit bloodpress AS recent blood pressure,
    pr.pres date AS last prescription date,
   pr.pres pat ailment AS prescription ailment,
    mdr.mdr pat ailment AS medical record ailment,
    mdr.mdr_date_rec AS medical_record_date
   his_patients AS p
  his_vitals AS v ON p.pat_number = v.vit_pat_number
   his_prescriptions AS pr ON p.pat_number = pr.pres_pat_number
   his_medical_records AS mdr ON p.pat_number = mdr.mdr_pat_number
ORDER BY
    p.pat_fname, p.pat_lname;
```



• Triggers:

```
DELIMITER //
CREATE TRIGGER before_insert_lab_tests
BEFORE INSERT ON lab_tests
FOR EACH ROW
    IF EXISTS (SELECT 1 FROM lab_tests WHERE lab_number = NEW.lab_number) THEN
         SIGNAL SQLSTATE '45000'
         SET MESSAGE TEXT = 'Error: Lab test number must be unique';
    END IF:
       Check if patient number exists in the 'his patients' table
    IF NOT EXISTS (SELECT 1 FROM his_patients WHERE pat_number = NEW.lab_pat_number) THEN
| SIGNAL SQLSTATE '45000'
         SET MESSAGE_TEXT = 'Error: Patient number does not exist';
DELIMITER;
        `action_description`: Provides a description of the action, including the patient number associated with the new lab test. `action_date`: Records the exact timestamp when the action occurred, using the `NOW()` function.
DELIMITER $$
CREATE TRIGGER after_insert_lab_tests
AFTER INSERT ON lab_tests
FOR EACH ROW
     INSERT INTO audit_logs (action_type, table_name, action_description, action_date)
    VALUES ('INSERT', 'lab_tests', | CONCAT('New lab test added for patient number: ', NEW.lab_pat_number),
END$$
```







Aggregate function (used in payroll):

```
This query calculates the total payroll amount for all employees by summing up the 'pay_emp_salary' column in the 'his_payrolls' table. It provides a single aggregated value representing the total salary expenditure for the organization.

*/

SELECT SUM(pay_emp_salary) A5 total_payroll_amount FROM his_payrolls;

/*
This query computes the average salary of employees by averaging the values in the 'pay_emp_salary' column of the 'his_payrolls' table. It helps determine the typical salary level within the organization.

*/

SELECT AVG(pay_emp_salary) A5 average_salary FROM his_payrolls;

/*
This query counts the total number of unique employees by finding distinct values in the 'pay_doc_number' column of the 'his_payrolls' table. It ensures that each employee is only counted once, even if they appear in multiple payroll records.

*/

SELECT COUNT(DISTINCT pay_doc_number) A5 total_employees FROM his_payrolls;

/*
This query retrieves the highest and lowest salaries among employees by calculating the maximum and minimum values in the 'pay_emp_salary' column of the 'his_payrolls' table. It helps identify the salary range within the organization.

*/

SELECT MUX(pay_emp_salary) A5 highest_salary, MIN(pay_emp_salary) A5 lowest_salary FROM his_payrolls;
```

```
SELECT

CASE

WHEN pay_emp_salary < 30000 THEN 'Below 30K'

WHEN pay_emp_salary BETWEEN 30000 AND 50000 THEN '30K-50K'

WHEN pay_emp_salary BETWEEN 50000 AND 70000 THEN '50K-70K'

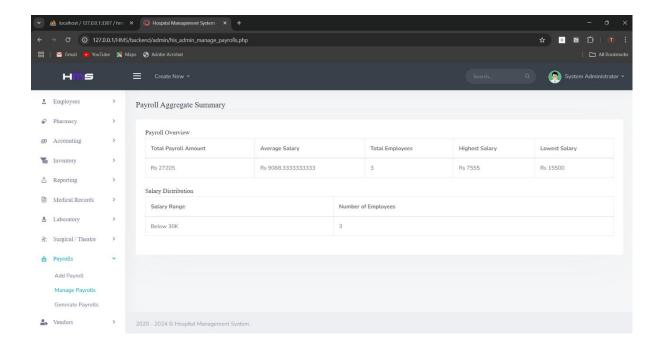
ELSE 'Above 70K'

END AS salary_range,

COUNT(*) AS number_of_employees

FROM his_payrolls

GROUP BY salary_range;
```



9. SQL queries (Create, Insert, Triggers, Procedures/ Functions, Nested query, Join, Aggregate queries) used in the project in the form of .sql file:

```
Notify Turn Data paccounts ("acc_pis", "acc_pame", "acc_desc", "acc_type", "acc_mmaber", "acc_mmount") WALUES

1 (A, "individual Retirement Account", "spotPARequops are simply an account where you stash your money for retirement. The concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a complete for the concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a complete for the concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a complete for the concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept is pretty simple, your account balance is not taxed UNTIL you withdraw, at a concept, and an interest is pretty is pretty is pretty is pretty is pretty is pretty in a concept is not a concept in a co
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```

```
INSERT INTO 'his_patients' ('pat_id', 'pat_fname', 'pat_lname', 'pat_dob', 'pat_age', 'pat_mumber', 'pat_ader', 'pat_phone', 'pat_date_joined', 'pat_allment', 'pat_discharge_status') VALUES (8, 'Michael', 'White', '02/02/1992', '30', 'DCRI8', '60 Radford Street', '1488887884', 'InPatient', '0202-10-18 16:28:51.469431', 'Demo Test', NULL), (19, 'Cynthia', 'Gonnolly', '19/11/2003', '22', '51LE', '82 Bryan Street', '7412250989', 'InPatient', '2022-10-18 16:54:53.164409', 'Demo Test', NULL), (19, 'Cynthia', 'Gonnolly', '10/11/2003', '22', '37LAK', '9 Hill Haven Drive', '1478885458', 'InPatient', '2022-10-18 16:54:53.164409', 'Demo Test', NULL), (19, 'Christine', 'Moore', '11/06/1994', '28', '4TLG0', '117 Bleecker Street', '1478569698', 'InPatient', '2022-10-22 10:38:38.937516', 'Demo Test', NULL);
    CREATE TABLE 'his_patient_transfers' (
't_id' int(28) NOT NULL,
't_dsir' varchar(280) DEFAULT NULL,
't_dsir' varchar(280) DEFAULT NULL,
't_dsir' varchar(280) DEFAULT NULL,
't_pat_mase' varchar(280) DEFAULT NULL,
't_pat_mase' varchar(280) DEFAULT NULL,
't_status' varchar(280) DEFAULT NULL,
't_statu
```

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```

```
CREATE TABLE 'Nis_padresets' (
'1d' int(2') NOT NULL,
'easil' varchar(200) NOT NULL
'S. Lable structure for table 'his_surgery'

CREATE TABLE 'Nis_surgery' (
'S. Lid 'Int(200) NOT NULL,
'S. Lable varchar(200) DEFALIT NULL,
'
```

```
CREATE TABLE 'his_vendor'

CREATE TABLE 'his_vendor'

("'.id' int(20) NOT NULL,

"v.number' varchar(200) DEFAULT NULL,

"v.mumber' varc
```

```
Johnstee 7 monspop().Sep

470 -- Indexes for table 'his_equipments'

471 ALTER TABLE 'his_equipments'

472 ALTER TABLE 'his_laboratory'

473 -- Indexes for table 'his_laboratory'

474 -- ADD PRIMARY KEY ('lab_id');

475 -- Indexes for table 'his_medical_records'

480 -- Indexes for table 'his_medical_records'

481 -- Indexes for table 'his_medical_records'

483 -- Indexes for table 'his_patients'

486 -- Indexes for table 'his_patients'

487 -- Indexes for table 'his_patients'

489 -- Indexes for table 'his_patients'

490 -- Indexes for table 'his_patient_transfers'

491 | ADD PRIMARY KEY ('pat_id');

492 -- Indexes for table 'his_patient_transfers'

493 -- Indexes for table 'his_patient_transfers'

494 -- Indexes for table 'his_patient_transfers'

495 -- Indexes for table 'his_payrolls'

496 -- Indexes for table 'his_payrolls'

591 -- Indexes for table 'his_payrolls'

592 -- Indexes for table 'his_payrolls'

593 -- Indexes for table 'his_payrolls'

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592 -- Indexes for table 'his_payrolls'

593 -- Indexes for table 'his_payrolls'

594 -- Indexes for table 'his_payrolls'
```

```
-- Indexes for table 'his_pharmaceuticals_categories'
-- ALTER TABLE 'his_pharmaceuticals_categories'
-- ADD PRIMARY KEY ('pharm_cat_id');
-- Indexes for table 'his_prescriptions'
-- ADD PRIMARY KEY ('pres_id');
-- Indexes for table 'his_pwdresets'
-- Indexes for table 'his_pwdresets'
-- ADD PRIMARY KEY ('id');
-- Indexes for table 'his_surgery'
-- Indexes for table 'his_surgery'
-- ALTER TABLE 'his_surgery'
-- ADD PRIMARY KEY ('s_id');
-- Indexes for table 'his_vendor'
-- Indexes for table 'his_vendor'
-- Indexes for table 'his_vendor'
-- ALTER TABLE 'his_vendor'
-- Indexes for table 'his_vitals'
-- AUTO_INCREMENT for dumped tables
-- AUTO_INCREMENT for dumped tables
```

```
ALTER TABLE 'his_accounts'

MODIFY 'acc_id' int(200) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-4;

AUTO_INCREMENT for table 'his_admin'

ALTER TABLE 'his_admin'

ALTER TABLE 'his_admin'

AUTO_INCREMENT for table 'his_assets'

ALTER TABLE 'his_assets'

AUTO_INCREMENT for table 'his_assets'

AUTO_INCREMENT for table 'his_assets'

AUTO_INCREMENT for table 'his_docs'

AUTO_INCREMENT for table 'his_docs'

AUTO_INCREMENT for table 'his_equipments'

AUTO_INCREMENT for table 'his_equipments'

AUTO_INCREMENT for table 'his_equipments'

AUTO_INCREMENT for table 'his_laboratory'

AUTO_INCREMENT for table 'his_laboratory'

AUTO_INCREMENT for table 'his_laboratory'

AUTO_INCREMENT for table 'his_laboratory'

MODIFY 'lab_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-6;

AUTO_INCREMENT for table 'his_medical_records'

AUTO_INCREMENT for table 'his_medical_records'

AUTO_INCREMENT for table 'his_medical_records'

MODIFY 'md_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-5;

MODIFY 'md_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-5;

MODIFY 'md_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-13;

AUTO_INCREMENT for table 'his_patients'

MODIFY 'pat_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-13;

AUTO_INCREMENT for table 'his_patients'

MODIFY 'pat_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-13;

AUTO_INCREMENT for table 'his_patients'

MODIFY 'pat_id' int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT-2;
```

```
AUTO_INCREMENT for table his_payrolis
ALTER TABLE `his payrolls`
 MODIFY `pay_id` int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=5;
-- AUTO_INCREMENT for table `his_pharmaceuticals`
ALTER TABLE `his_pharmaceuticals`
MODIFY `phar_id` int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4;
-- AUTO_INCREMENT for table `his_pharmaceuticals_categories`
ALTER TABLE `his_pharmaceuticals_categories`
MODIFY `pharm_cat_id` int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4;
ALTER TABLE `his_prescriptions`
 MODIFY `pres_id` int(200) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;
ALTER TABLE `his_pwdresets`
MODIFY `id` int(20) NOT NULL AUTO_INCREMENT;
-- AUTO_INCREMENT for table `his_surgery`
ALTER TABLE `his_surgery`
MODIFY `s_id` int(200) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=5;
MODIFY `v_id` int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;
ALTER TABLE `his vitals`
 MODIFY `vit_id` int(20) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;
```

```
Database > Princephp(Use)
| Prince Force F
```

```
DELIMITER;

The 'AddPatientLabTest' procedure is created to streamline the process of adding lab test details for a patient into the 'his_laboratory' table. It accepts input parameters such as the patient's name, ailment, unique patient number, the lab tests prescribed, and a unique lab test identification number. When the procedure is invoked, an 'INSERT' statement is executed to store these details in the 'ris_laboratory' table. This procedure ensures efficient and accurate recording of laboratory test information in the hospital's database system.

*/*

**DELIMITER //

CREATE PROCEDURE AddPatientLabTest(
IN p_lab_pat_name VARCHAR(255),
IN p_lab_pat_name VARCHAR(255),
IN p_lab_pat_name VARCHAR(255),
IN p_lab_pat_name VARCHAR(260),
IN p_lab_pat_name VARCHAR(20),
IN p_lab_pat_nameProver(lab_pat_name, lab_pat_ailment, lab_pat_number, lab_pat_tests, lab_number)

**V**

**DELIMITER**:

CREATE TABLE lab_pat_name, p_lab_pat_ailment, p_lab_pat_number, p_lab_pat_tests, p_lab_number);

DELIMITER**;

CREATE TABLE lab_tests (
lab_pat_name VARCHAR(255) NOT NULL,
lab_pat_caiment VARCHAR(255) NOT NULL,
lab_pat_caiment VARCHAR(255) NOT NULL,
lab_pat_caiment VARCHAR(255) NOT NULL,
lab_pat_caiment VARCHAR(265) NOT NULL,
lab_pat_caiment VARCHAR(265) NOT NULL,
lab_pat_caiment VARCHAR(265) NOT NULL,
lab_pat_caiment VARCHAR(265) NOT NULL,
lab_pat_cated_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP

);
```

```
The 'before_insert_lab_tests' trigger ensures data integrity before a new record is inserted into the 'lab_tests' table.

It perfores too key checks:

1. Verifies that the 'lab_number' being inserted is unique, If the 'lab_number' already exists in the table, the trigger |
| raises an error with a message indicating that the lab test number must be unique.
2. Ensures that the 'lab_primber' (patient number) being inserted exists in the 'his_patients' table. If no matching |
| patient number is found, the trigger raises an error with a message stating that the patient number does not exist. This mechanism prevents duplicate lab test numbers and ensures that all lab tests are linked to valid patients.

**TORDIGHTER**/

DELIMITER**/

The 'after_insert_lab_tests' trigger is executed after a new record is successfully inserted into the 'lab_tests' table. Its purpose is to log the insertion event into the 'madit_logs' table for tracking purposes.

**Delimiter**/

DELIMITER**/

The 'after_insert_lab_tests' trigger is executed after a new record is successfully inserted into the 'lab_tests' table. Its purpose is to log the insertion event into the 'madit_logs' table for tracking purposes.

**Decimiter**/

DELIMITER**/

DELI
```

```
p.pat_id,
   p.pat_fname,
   p.pat_lname,
   p.pat_number,
   p.pat_addr,
   p.pat_phone,
   p.pat_age,
   p.pat_type,
   v.vit_bodytemp AS recent_body_temp,
   v.vit_heartpulse AS recent_heart_pulse,
   v.vit_resprate AS recent_resp_rate,
   v.vit_bloodpress AS recent_blood_pressure,
   pr.pres_date AS last_prescription_date,
   pr.pres_pat_ailment AS prescription_ailment,
   mdr.mdr_pat_ailment AS medical_record_ailment,
   mdr.mdr_date_rec AS medical_record_date
   his_patients AS p
   his_vitals AS v ON p.pat_number = v.vit_pat_number
  his_prescriptions AS pr ON p.pat_number = pr.pres_pat_number
 his_medical_records AS mdr ON p.pat_number = mdr.mdr_pat_number
ORDER BY
   p.pat_fname, p.pat_lname;
```

```
-- Retrieve all pharmaceutical details, ordered randomly

/*
This query retrieves pharmaceutical product details from the `his_pharmaceuticals` table and displays the following:

1. 'Pharmaceutical Name': Name of the product.

2. 'Pharmaceutical Barcode': Unique barcode identifying the product.

3. 'Vendor ID': The ID of the vendor supplying the pharmaceutical.

4. 'Category': The category or type of pharmaceutical product.

5. 'Quantity': Current stock quantity of the pharmaceutical.

The query applies a `RAND()` function in the `ORDER BY' clause to shuffle the order of results, providing a randomized display of pharmaceutical products each time the query is run.

*/

SELECT

| phar_name AS 'Pharmaceutical Barcode', phar_vendor AS 'Vendor ID', phar_cat AS 'Category', phar_quy AS 'Quantity'

FROM
| his_pharmaceuticals

ORDER BY
| RAND();
```

```
This query retrieves detailed information about pharmaceutical products from the 'his_pharmaceuticals' table and enriches it with vendor details from the 'his_vendor' table. The key components are:

1. **Selected Columns**:

1. *Pharmaceutical Name': Hame of the pharmaceutical product.

2. *Pharmaceutical Rame': Hame of the pharmaceutical product.

3. *Pharmaceutical Rame': Hame of the vendor supplying the product, retrieved through a join with the 'his_vendor' table.

4. *Category': Type on category of the product.

5. *Quantity': Stock level of the product.

2. **Join**:

1. *The 'JOIN' operation links 'his_pharmaceuticals' with 'his_vendor' using 'phar_vendor' and 'v_id' to retrieve the vendor's name.

3. **Filter Condition**:

4. *Filters pharmaceuticals to include only those whose quantity ('phar_qty') is greater than the average quantity of all pharmaceuticals.

5. The subquery '(SELECT AWG(shar_qty) FROM his_pharmaceuticals and associating them with their vendors.

*/

**SELECT p.phar_name AS 'Pharmaceutical Name', p.phar_gty AS 'Vendor Name', p.phar_cat AS 'Category', p.phar_cat AS 'Ca
```

```
SELECT SUM(pay emp salary) AS total payroll amount FROM his payrolls;
This query computes the average salary of employees by averaging the values in the `pay_emp_salary` column of the `his payrolls` table. It helps determine the typical salary level within the organization.
SELECT AVG(pay_emp_salary) AS average_salary FROM his_payrolls;
This query counts the total number of unique employees by finding distinct values in the `pay_doc_number` column of the `his payrolls` table. It ensures that each employee is only counted once, even if they appear in multiple payroll records.
SELECT COUNT(DISTINCT pay_doc_number) AS total_employees FROM his_payrolls;
SELECT MAX(pay_emp_salary) AS highest_salary, MIN(pay_emp_salary) AS lowest_salary FROM his_payrolls;
This query categorizes employees into salary ranges and counts the number of employees in each range.
  3. Salaries between 50,000 and 70,000 are categorized as '50K-70K'.
          WHEN pay_emp_salary < 30000 THEN 'Below 30K'
          WHEN pay emp salary BETWEEN 30000 AND 50000 THEN '30K-50K'
          WHEN pay_emp_salary BETWEEN 50000 AND 70000 THEN '50K-70K'
    END AS salary_range,
    COUNT(*) AS number_of_employees
FROM his payrolls
GROUP BY salary_range;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER SET RESULTS=@OLD CHARACTER SET RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

Link to the full project https://github.com/TanayB10/hospital-management-system.git