

# DBMS Project Report - Doctor Prescription System

Project Title: Doctor Prescription System

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V Semester Section : A

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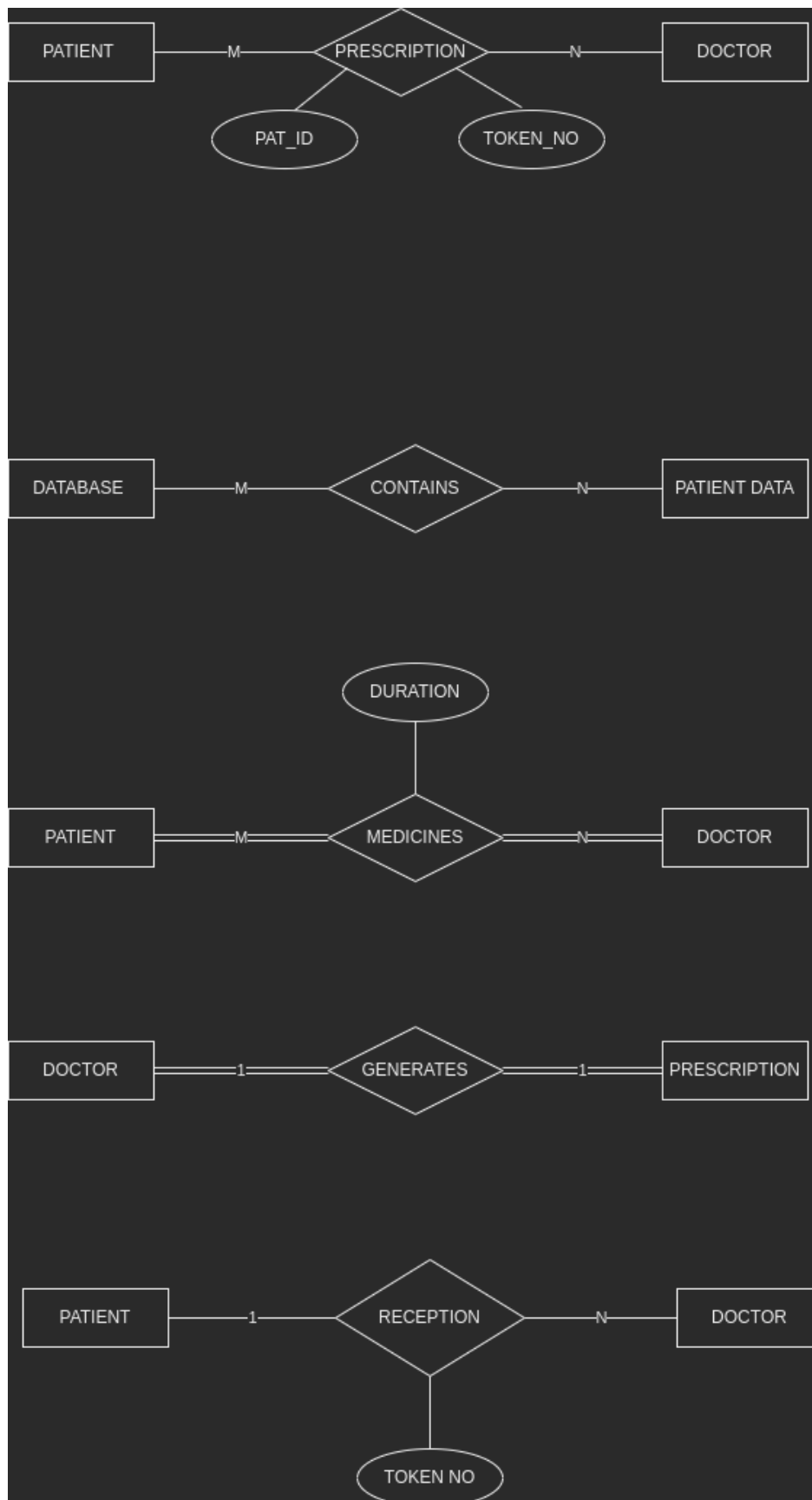
## Short Description and Scope of the Project

The main agenda of this project is to make a fast, responsive and robust Doctor Prescription System whereby Doctors can issue medicines and give advice in the form of prescription to Patients

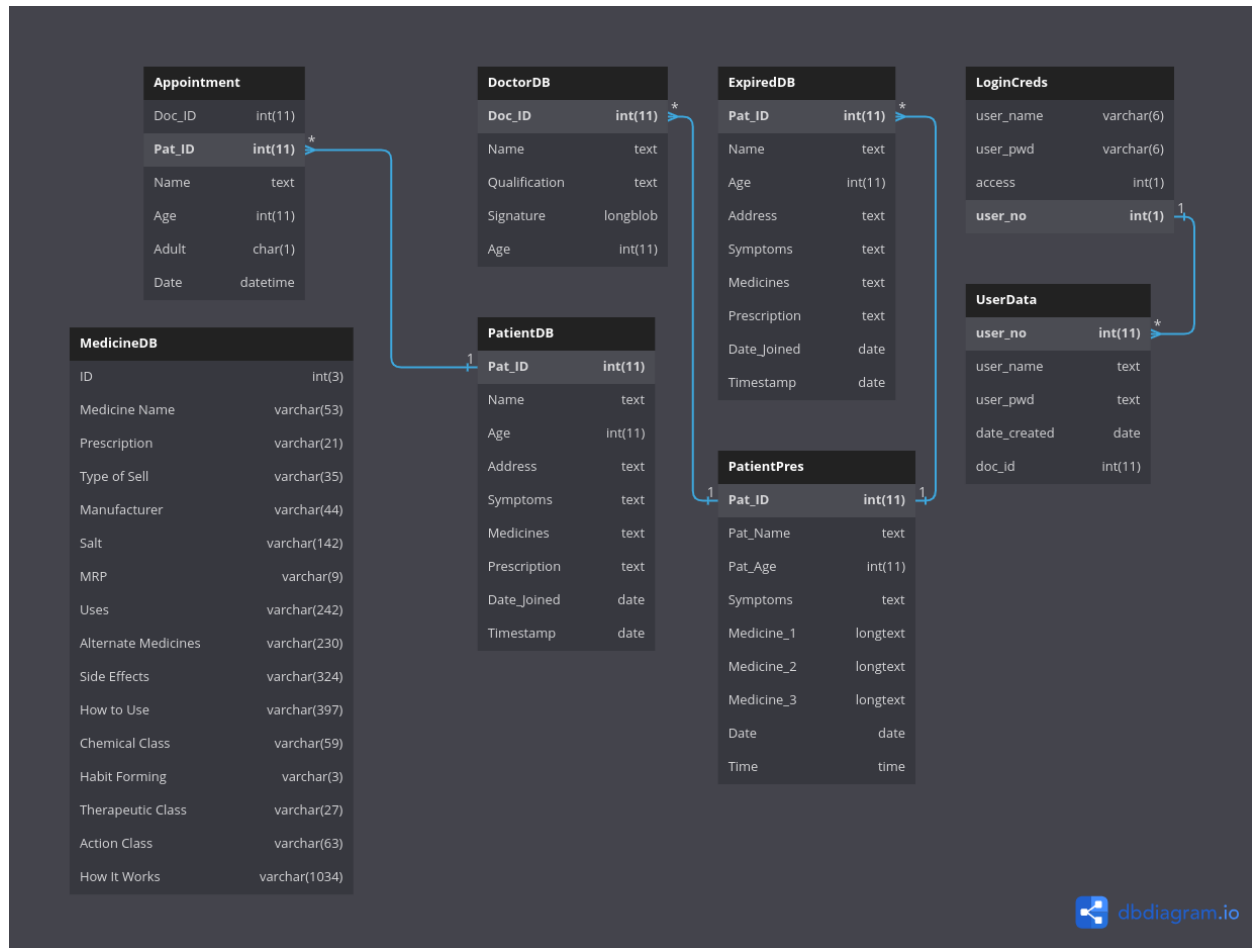
Most of the already existing systems are handwritten and do not have a proper database for storing Doctor's Prescriptions and Bills. Storing in a database has a lot of advantages as the entire system is digitalized and electronically stored for future purposes.

Due to the scaling properties of MySQL this system can work with a very large amount of data. Triggers and Procedures help in easing a lot of jobs that were initially cumbersome and tedious.

## **ER Diagram**



# Relational Schema



## DDL statements - Building the database

```
CREATE TABLE `DoctorDB` ( `Pat_ID` int(11) NOT NULL, `Doc_id` int(11) NOT NULL, `Name` text NOT NULL, `Qualification` text NOT NULL, `Signature` longblob NOT NULL, `Age` int(11) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
CREATE TABLE `ExpiredDB` ( `Pat_ID` int(11) NOT NULL, `Name` text DEFAULT NULL, `Age` int(11) DEFAULT NULL, `Address` text DEFAULT NULL, `Symptoms` text DEFAULT NULL, `Medicines` text DEFAULT NULL, `Prescription` text DEFAULT NULL, `Timestamp` date NOT NULL DEFAULT current_timestamp()) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
CREATE TABLE `LoginCreds` ( `user_name` varchar(6) DEFAULT NULL, `user_pwd` varchar(6) DEFAULT NULL, `access` int(1) DEFAULT NULL, `user_id` int(1) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8;
---- Table structure for table `MedicineDB`
CREATE TABLE `MedicineDB` ( `ID` int(3) DEFAULT NULL, `Medicine Name` varchar(53) DEFAULT NULL, `Prescription` varchar(21) DEFAULT NULL, `Type of Sell` varchar(35) DEFAULT NULL, `Manufacturer` varchar(44) DEFAULT NULL, `Salt` varchar(142) DEFAULT NULL, `MRP` varchar
```

```
(8) DEFAULT NULL, `Uses` varchar(242) DEFAULT NULL, `Alternate Medicines` varchar(230) D
EFAULT NULL, `Side Effects` varchar(324) DEFAULT NULL, `How to Use` varchar(397) DEFAULT
NULL, `Chemical Class` varchar(59) DEFAULT NULL, `Habit Forming` varchar(3) DEFAULT NUL
L, `Therapeutic Class` varchar(27) DEFAULT NULL, `Action Class` varchar(63) DEFAULT NUL
L, `How It Works` varchar(1034) DEFAULT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8;CREATE T
ABLE `PatientBill` ( `Pat_ID` int(11) DEFAULT NULL, `Bill_ID` int(11) NOT NULL, `Medici
ne_1` text NOT NULL, `Medicine_2` text NOT NULL, `Medicine_3` text NOT NULL, `Cost_1` i
nt(11) NOT NULL, `Cost_2` int(11) NOT NULL, `Cost_3` int(11) NOT NULL, `Doctor_Fees` in
t(11) NOT NULL, `Total` int(11) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;CREATE TA
BLE `PatientData` ( `Pat_ID` int(11) NOT NULL, `Pat_Name` text DEFAULT NULL, `Pat_Age`
int(11) DEFAULT NULL, `Adult` char(11) DEFAULT NULL, `Symptoms` text DEFAULT NULL, `Pr
escription` text DEFAULT NULL, `Medicine_1` text DEFAULT NULL, `Medicine_2` text DEFAULT
NULL, `Medicine_3` text DEFAULT NULL, `Timestamp` time DEFAULT current_timestamp()) ENGI
NE=InnoDB DEFAULT CHARSET=utf8mb4;---- Indexes for table `DoctorDB`--ALTER TABLE `DoctorDB`
ADD PRIMARY KEY (`Pat_ID`), ADD UNIQUE KEY `Doc_id` (`Doc_id`);---- Indexes for table
`ExpiredDB`--ALTER TABLE `ExpiredDB` ADD PRIMARY KEY (`Pat_ID`);---- Indexes for table `
LoginCreds`--ALTER TABLE `LoginCreds` ADD PRIMARY KEY (`user_id`);---- Indexes for table
`PatientBill`--ALTER TABLE `PatientBill` ADD PRIMARY KEY (`Bill_ID`);---- Indexes for ta
ble `PatientData`--ALTER TABLE `PatientData` ADD PRIMARY KEY (`Pat_ID`);---- AUTO_INCREME
NT for dumped tables----- AUTO_INCREMENT for table `DoctorDB`--ALTER TABLE `DoctorDB` MO
DIFY `Doc_id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=6;---- AUTO_INCREMENT for ta
ble `PatientBill`--ALTER TABLE `PatientBill` MODIFY `Bill_ID` int(11) NOT NULL AUTO_INCRE
MENT, AUTO_INCREMENT=9;COMMIT;
```

## Populating the Database

```
INSERT INTO `DoctorDB` (`Pat_ID`, `Doc_id`, `Name`, `Qualification`, `Signature`, `Age`) V
ALUES(4160, 2, 'Aditya Balasubramaniam', '- Medicine \r\n- MBBS', 0x89504e470d0a1a0a00000
00d494844520000011d000000b10803000000ce1d996800000087504c5445fffff000000f9f9f9131313f2f2f
2b1b1b1e7e7e7f7f7f7b7dbdbdbdeeeed7d7d7929292dbdbdbc0c0c03a3a3ad0d0dadadad8585857f7f7f68686
89c9c9c6363631a1a1ae1e1e1d1d1d1414141535353a5a5a5080808b7b7b7777772a2a2a3131314d4d4d8d8d8
d707070222227b7b7b6565655b5b5b2e2e2e9f9f9f4949491717173e3e3e294054b50000081649444154789ce
d9de97ab23a10801d3617764529105750d4cfffbbf835a95bd04ec699cf0fe6a2df8847432992dc360d0d3d3d
3d3d3d3d3d3d3c31c4359b5d5787b9a9e96da5f8f852934278ed600b039fb61ec19c94f33fdafc7c406da68954
c87b1b226d2f33377b90732fac341b1816627222386cb71e12fc20e7ca9e40e6e180676323576d51a1a47c0aff
ed16700c436eb2e09a128533c203889ae99d74ecd15fffc7f0c8631a4bd088b5303b91040fd0dd1b0c570976cd
d56b36b2de04b332b7b80ed8f4bea015fc223257373a631f466c6af8d85390280359d916773b3b4cc0d2c1cca7
b0268bc0a3f1a2906b0a9efb2800b876b94281c97feb68087d9917c00da4575c3e6607646225cdaf94c5368217
01f85b06f2938091b10de3a16e6d0d660b4158009f86f1d0b735800bbd637071deefd046ce8a2572ff0f5bea13
087e043d441ad9a00ef1b0b732847d876d1aa67cc4ea84620ec727f223a78bdac09e9f8af3fc3f44d43610f193
a4ece124079d358982300083a7d81f0afe317304cf28f6f181dad620feb7f0c853d12852a77fe06ac0ea8d9597
2060bb27acb50d84369ef763e58a15d5782d1cdce49d0f1aeab10b61dbf411049d7f96595252c861dbf624e48d
7af6094318149db7bbf1d070b006bf54edc3a26a35feeda460212bf73440ca1b7de6c4280687b8d23c70048d79
510b5dc6c861eb97a0e575340ed6a49328b05ed1685b0116f71b2f87a3bda9a2fa35d6a573044e356d033c75c5
620b74c22c424ba573bc5de3b87c318b3765bb14da2ef508e8778768476bb8d0ccff252cc299a2f68530739791
97f63b4eed5e05a69d126586a88cf6085893945b36b63a9d864f3fc599dbf6f30cc61b7d8cf7548d5b47b5d836
62ce3d067762591a482eba80be146f46984b9985a4c13cc6a27793adad9d133c1a0e9feadc3610ddac24961933
98725620debdc0945baeba719a75541bdb0ae4b8bca9ad3205317b8c31a4c7ee051f9d831c9647616cbf70e863
95ca078c2256cd2bf4eb086045fa81435375ed6bc99625f580946e364969d0baea34d44a4909a7aa20a904c4da
14e7e6338aca1343409e7623696e3a32dd7c9a0340a6169909595312f2788dd265506b9dd7c60d5c54c5d0fd1d
```

## DBMS Project Report - Doctor Prescription System



scoril LS Syrup', 'Prescription Required', '100 ml in 1 bottle', 'Glenmark Pharmaceuticals Ltd', 'Ambroxol (30mg/5ml) + Levosalbutamol (1mg/5ml) + Guaifenesin (50mg/5ml)', '108', 'Treatment of Cough with mucus', 'Solvin LS Syrup, Ambrodil-LX Syrup, Zerotuss XP Syrup, Capex LS Syrup, Asthalin AX Syrup', 'Nausea, Vomiting, Diarrhea, Upset stomach, Stomach pain, Allergic reaction, Dizziness, Headache, Rash, Hives, Tremors, Palpitations, Muscle cramp, Increased heart rate', 'Take this medicine in the dose and duration as advised by your doctor. Check the label for directions before use. Measure it with a measuring cup and take it by mouth. Shake well before use. Ascoril LS Syrup may be taken with or without food, but it is better to take it at a fixed time.', 'Not Listed', 'No', 'RESPIRATORY', 'Not Listed', 'Ascoril LS Syrup is a combination of three medicines: Ambroxol, Levosalbutamol and Guaifenesin, which relieves cough with mucus. Ambroxol is a mucolytic which thins and loosens mucus (phlegm), making it easier to cough out. Levosalbutamol is a bronchodilator. It works by relaxing the muscles in the airways and widens airways. Guaifenesin is an expectorant which decreases the stickiness of mucus (phlegm) and helps in its removal from the airways. Together, they make breathing easier.').

(4, 'Allegra 120mg Tablet', 'Prescription Required', '10 tablets in 1 strip', 'Sanofi India Ltd', 'Fexofenadine (120mg)', '198.93', 'Treatment of Sneezing and runny nose due to allergies, Treatment of Allergic conditions', 'Lcfx Tablet, Intrafen 120mg Tablet, Nexofex 120mg Tablet, Histafree 120 Tablet, Fexise 120mg Tablet', 'Headache, Drowsiness, Dizziness, Nausea', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Allegra 120mg Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Diphenylmethane Derivative', 'No', 'RESPIRATORY', 'H1 Antihistaminics (Second Generation)', 'Allegra 120mg Tablet belongs to a class of medicines called antihistamines. It blocks the release of a chemical called histamine, which is responsible for causing inflammation and its associated symptoms such as itching, redness, swelling, and irritation.').

(5, 'Avil 25 Tablet', 'Prescription Required', '15 tablets in 1 strip', 'Sanofi India Ltd', 'Pheniramine (25mg)', '9.97', 'Treatment of Allergic conditions', 'Eralet 25mg Tablet, Apvil 25mg Tablet', 'Sleepiness, Dryness in mouth', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Avil 25 Tablet is to be taken with food.', 'Pyridines Derivatives', 'No', 'RESPIRATORY', 'H1 Antihistaminics (First Generation)', 'Avil 25 Tablet is an antiallergic medication. It works by blocking the action of a chemical messenger (histamine). This relieves symptoms of severe allergic reactions due to insect bite/sting, certain medicines, hives (rashes, swelling, etc.').

(6, 'Aciloc 150 Tablet', 'Prescription Required', '30 tablets in 1 strip', 'Cadila Pharmaceuticals Ltd', 'Ranitidine (150mg)', '36.96', 'Treatment of Gastroesophageal reflux disease (Acid reflux), Treatment of Peptic ulcer disease', 'Ranitas 150mg Tablet, Zynol 150mg Tablet, Ranitin 150 Tablet, Ranizem 150mg Tablet, Histac 150 Tablet', 'Sleepiness, Headache, Tiredness, Constipation, Diarrhea', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Aciloc 150 Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Aralkylamines Derivative', 'No', 'GASTRO INTESTINAL', 'H2 Receptor Blocker', ' '),

(7, 'Atarax 25mg Tablet', 'Prescription Required', '15 tablets in 1 strip', 'Dr Reddy's Laboratories Ltd', 'Hydroxyzine (25mg)', '77.75', 'Treatment of Anxiety, Treatment of Skin conditions with inflammation & itching', 'Hydin 25mg Tablet, Hizet 25mg Tablet, Hyzox 25 Tablet, Hydil 25mg Tablet, Zyzine 25mg Tablet', 'Sedation, Nausea, Vomiting, Upset stomach, Constipation', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Atarax 25mg Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Piperazine Derivative', 'No', 'RESPIRATORY', 'H1 Antihistaminics (First Generation)', 'Atarax 25mg Tablet is an antihistaminic medication. In allergy, it works by blocking the action of a chemical messenger (histamine). This relieves allergy symptoms such as itching, swelling, and rashes. In short-term anxiety, it works by decreasing the activity in brain, thereby helping you feel relaxed/sleepy.').

(8, 'Amoxyclav 625 Tablet', 'Prescription Required', 'strip of 6 tablets', 'Abbott', 'Amoxycillin (500mg) + Clavulanic Acid (125mg)', '113.25', 'Treatment of Bacterial



infections,', 'Moxikind-CV 625 Tablet,Moxiforce-CV 625 Tablet,Mega-CV 625 Tablet,Fightox 625 Tablet,Duet 625 Tablet,', 'Vomiting,Nausea,Diarrhea,', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Amoxyclav 625 Tablet is to be taken with food.', 'Not Listed', 'No', 'ANTI INFECTIVES', 'Not Listed', 'Amoxyclav 625 Tablet is a combination of two medicines: Amoxycillin and Clavulanic Acid. Amoxycillin is an antibiotic. It works by preventing the formation of the bacterial protective covering which is essential for the survival of bacteria. Clavulanic Acid is a beta-lactamase inhibitor which reduces resistance and enhances the activity of Amoxycillin against bacteria.')(9, 'Anovate Cream', 'Prescription Required', '20 gm in 1 tube', 'USV Ltd', 'Phenylephrine (0.10% w/w) + Beclometasone (0.025% w/w) + Lidocaine (2.50% w/w)', '122', 'Treatment of Piles,', 'Pilo GO Cream,PileClear Cream,Proctosedyl BD Cream,', 'Application site reactions (burning, irritation, itching and redness)', 'This medicine is for external use only. Use it in the dose and duration as advised by your doctor. Check the label for directions before use. Clean and dry the affected area and apply the cream. Wash your hands after applying, unless hands are the affected area.', 'Not Listed', 'No', 'DERMA', 'Not Listed', 'Anovate Cream is a combination of three medicines: Phenylephrine, Beclometasone and Lidocaine, which treats piles. Phenylephrine is a decongestant which shrinks the blood vessels in the affected area of skin and decreases swelling. Beclometasone is a steroid which blocks the production of certain chemical messengers (prostaglandins) that make the skin red, swollen and itchy. Lidocaine is a local anesthetic which works by blocking pain signals from the nerves to the brain thereby decreasing pain sensation.')(10, 'Avomine Tablet', 'Prescription Required', 'strip of 10 tablets', 'Abbott', 'Promethazine (25mg)', '50.89', 'Treatment of Nausea,Treatment of Vomiting,Treatment of Allergic conditions,Treatment of Motion sickness,', 'Propazine Tablet,Progene 25mg Tablet,Proz 25mg Tablet,Prometh 25mg Tablet,Emin 25mg Tablet,', 'Dryness in mouth,Blurred vision,Headache,Dizziness,', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Avomine Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Phenothiazine Derivative', 'No', 'GASTRO INTESTINAL', 'H1 Antihistaminics (First Generation)', 'Avomine Tablet is an antiallergic medication. When your body is exposed to an allergen (pollen, animal dander, house dust etc.), it produces a chemical called histamine. This causes watery eyes, runny or blocked nose, sneezing, skin rashes, itching etc. Avomine Tablet works by blocking the action of histamine, thereby relieving these symptoms. It also works directly on several areas of the brain to prevent nausea/vomiting and help you feel more relaxed.')(11, 'Allegra-M Tablet', 'Prescription Required', '10 tablets in 1 strip', 'Sanofi India Ltd', 'Montelukast (10mg) + Fexofenadine (120mg)', '228.46', 'Treatment of Sneezing and runny nose due to allergies,', 'Emlukast-FX Tablet,Fixar 10mg/120mg Tablet,Histakind-M Tablet,Histafree-M Tablet,Spiromont-F Tablet,', 'Nausea,Diarrhea,Vomiting,Skin rash,Flu-like symptoms,Headache,Drowsiness,Dizziness,', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Allegra-M Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Not Listed', 'No', 'RESPIRATORY', 'Not Listed', 'Montelukast is a leukotriene antagonist. It works by blocking the action of a chemical messenger called leukotriene. This reduces inflammation (swelling) in the airways and nose and improves symptoms. Fexofenadine is an antiallergic which blocks the action of another chemical messenger (histamine) responsible for runny nose, watery eyes and sneezing.')(12, 'Alprax 0.25 Tablet', 'Prescription Required', 'strip of 15 tablets', 'Torrent Pharmaceuticals Ltd', 'Alprazolam (0.25mg)', '29', 'Treatment of Anxiety,Treatment of Panic disorder,', 'Alltop 0.25mg Tablet,Alprasafe 0.25mg Tablet,Nindra 0.25mg Tablet,Alora 0.25mg Tablet,Alp 0.25mg Tablet,', 'Lightheadedness,Drowsiness,', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Alprax 0.25 Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Benzodiazepines Derivative', 'Yes', 'NEURO CNS', 'Benzodiazepines', 'Alprax 0.25 Tablet is a benzodiazepine. It works by increasing the action of a chemical messenger (GABA) which suppresses the abnormal and ex

cessive activity of the nerve cells in the brain.')(13, 'Arkamin Tablet', 'Prescription Required', '30 tablets in 1 strip', 'Torrent Pharmaceuticals Ltd', 'Clonidine (100mcg)', '66.05', 'Treatment of Hypertension (high blood pressure)', 'Albamine 100mcg Tablet, Arkamin 100 Tablet, Cloud 100mcg Tablet, Closidin 100mcg Tablet, Cata-Dict 0.1 Tablet', 'Dizziness, Dryness in mouth, Constipation, Headache, Nausea, Fatigue, Insomnia (difficulty in sleeping)', 'Take this medicine in the dose and duration as advised by your doctor. Swallow it as a whole. Do not chew, crush or break it. Arkamin Tablet may be taken with or without food, but it is better to take it at a fixed time.', 'Imidazoline derivative', 'No', 'CARDIAC', 'Alpha 2-adrenoceptors agonist (Central sympatholytics)', 'Arkamin Tablet is an alpha-2 agonist. It works by relaxing blood vessels which makes the heart more efficient at pumping blood around the body.')(14, 'Alkasol Oral Solution', 'N', 'bottle of 100 ml Oral Solution', 'Stadmed Pvt Ltd', 'Disodium Hydrogen Citrate (1.4gm/5ml)', '115.14', 'Treatment of Gout, Treatment of Kidney stone', 'Stomach pain, Tiredness, Diarrhea, Nausea, Vomiting, Frequent urge to urinate', 'Take this medicine in the dose and duration as advised by your doctor. Check the label for directions before use. Measure it with a measuring cup and take it by mouth. Shake well before use. Alkasol Oral Solution may be taken with or without food, but it is better to take it at a fixed time.', 'Carboxylic acid derivative', 'No', 'UROLOGY', 'Uricosuric agent-gout', 'Alkasol Oral Solution is a urine alkalizer. It works by increasing the pH of urine which makes it less acidic. This helps the kidneys get rid of excess uric acid, thereby preventing gout and certain types of kidney stones.')(15, 'Augmentin Duo Oral Suspension', 'Prescription Required', '30 ml in 1 bottle', 'Glaxo SmithKline Pharmaceuticals Ltd', 'Amoxycillin (200mg) + Clavulanic Acid (28.5mg)', '60.82', 'Treatment of Resistance Tuberculosis (TB), Treatment of Bacterial infections', 'Goldclav Oral Suspension, Moxikind-CV Dry Syrup, Tervis DS Oral Suspension, Bestomax Dry Syrup, Amoxyril-CV Dry Syrup', 'Nausea, Vomiting, Abdominal pain, Diarrhea, Allergy, Skin rash', 'Take this medicine in the dose and duration as advised by your doctor. Check the label for directions before use. Measure it with a measuring cup and take it by mouth. Shake well before use. Augmentin Duo Oral Suspension is to be taken with food.', 'Not Listed', 'No', 'ANTI INFECTIVES', 'Not Listed', 'Augmentin Duo Oral Suspension is an antibiotic. It has two active agents, amoxycillin and clavulanic acid. Amoxycillin works by preventing the formation of the bacterial protective covering (cell wall) essential for the survival of the bacteria. Whereas, clavulanic acid serves a special purpose of inhibiting an enzyme (beta-lactamase) that is produced by resistant bacteria. This makes the combination of amoxycillin and clavulanic acid an effective line of treatment for many types of infections.');

```

INSERT INTO `PatientBill` (`Pat_ID`, `Bill_ID`, `Medicine_1`, `Medicine_2`, `Medicine_3`, `Cost_1`, `Cost_2`, `Cost_3`, `Doctor_Fees`, `Total`) VALUES(NULL, 1, 'Aciloc 150 Tablet', 'Atarax 25mg Tablet', 'Allegra-M Tablet', 37, 78, 228, 50, 393),(NULL, 2, 'Avil 25 Tablet', 'Atarax 25mg Tablet', 'Nikoran 5 Tablet', 10, 78, 365, 50, 503),(NULL, 3, 'Aciloc 150 Tablet', 'Atarax 25mg Tablet', 'Allegra-M Tablet', 37, 78, 228, 100, 443),(NULL, 4, 'Aciloc 150 Tablet', 'Atarax 25mg Tablet', 'Allegra-M Tablet', 37, 78, 228, 100000, 100343),(1166, 5, 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 202, 202, 202, 50, 655),(1166, 6, 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 202, 202, 202, 50, 655),(3238, 7, 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 202, 202, 202, 50, 655),(3710, 8, 'Augmentin 625 Duo Tablet', 'Levocet Tablet', 'Allegra-M Tablet', 202, 47, 228, 5000, 5477);
INSERT INTO `PatientData` (`Pat_ID`, `Pat_Name`, `Pat_Age`, `Adult`, `Symptoms`, `Prescription`, `Medicine_1`, `Medicine_2`, `Medicine_3`, `Timestamp`) VALUES(2580, 'Shenoy', 20, '1', '', NULL, NULL, NULL, NULL, '00:00:00'),(3238, 'Navin Shrinivas', 120, '1', '', NULL, 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', 'Augmentin 625 Duo Tablet', '00:00:00'),(4160, 'adarsh Liju abraham', 19, '1', '', NULL, NULL, NULL, NULL, '00:00:00'),(5148, 'adarsh', 56, NULL, 'sdgsdfg', 'sfdgsfdg', NULL, NULL, NULL, '21:49:48'),(5623, 'yggk', 134, '1', '', NULL, NULL, NULL, NULL, '00:00:00'),(6733, 'adarsh', 56, 'A', 'sdgsdfg', 'sfdgsfdg', NULL, NULL, NULL, '21:52:01'),(7014, 'adarsh', 190, '1', '', NULL, NULL, NULL, NULL, '21:52:01')

```

```
L, '00:00:00'),(9182, 'adarsh Liju abraham', 19, '1', '', NULL, NULL, NULL, NULL, '00:00:00'),(9425, 'adarsh Liju abraham', 19, '1', '', NULL, NULL, NULL, NULL, '00:00:00');
```

## Join Queries

```
-- Simple Join
SELECT * FROM PatientPres JOIN PatientData WHERE PatientPres.Pat_Age = PatientData.Pat_Age;

-- INNER JOIN
SELECT * FROM PatientPres INNER JOIN PatientData ON PatientPres.Pat_Age = PatientData.Pat_Age;

-- LEFT JOIN
SELECT * FROM PatientPres LEFT JOIN PatientData ON PatientPres.Pat_Age = PatientData.Pat_Age;

-- RIGHT JOIN
SELECT * FROM PatientPres RIGHT JOIN PatientData ON PatientPres.Pat_Age = PatientData.Pat_Age;

-- CROSS JOIN
SELECT * FROM PatientPres CROSS JOIN PatientData;
```

## Aggregate Functions

1. Count all the patients that paid their bills - **COUNT**

```
SELECT COUNT(Pat_ID) FROM `PatientBill`;
```

2. Maximum Doctor fees - **MAX**

```
SELECT MAX(Doctor_Fees) FROM `PatientBill`;
```

3. Average of Total Bill - **AVG**

```
SELECT AVG(Total) FROM `PatientBill`;
```

#### 4. Concatenate 3 Medicines to a single String - `GROUP_CONCAT`

```
SELECT GROUP_CONCAT(Medicine_1,Medicine_2,Medicine_3) FROM `PatientData` WHERE 1;
```

## Set Operations

Showcase at least 4 Set Operations queries

```
-- UNION
SELECT Pat_Name FROM PatientPres UNION SELECT Pat_ID FROM PatientData;

-- UNION ALL
SELECT Pat_Name FROM PatientPres UNION ALL SELECT Pat_ID FROM PatientData;

-- INTERSECT
SELECT Pat_Name FROM PatientPres INTERSECT SELECT Pat_Name FROM PatientData;

-- EXCEPT
SELECT Pat_Name FROM PatientPres EXCEPT SELECT Pat_Name FROM PatientData;
```

## Functions and Procedures

#### 1. Function to check if the person is senior citizen or not

```
DELIMITER $$
CREATE DEFINER=`ala`@`localhost` FUNCTION `isSenior`(`age` INT) RETURNS char(50) CHARSET utf8mb4
    DETERMINISTIC
RETURN IF(age>60,"Senior Citizen","Not Senior Citizen")$$
DELIMITER ;
```

#### 1. Procedure to return payments greater than 2000 rupees

```
DELIMITER $$
CREATE DEFINER=`ala`@`localhost` PROCEDURE `huge_payments`()
BEGIN
SELECT * FROM PatientBill WHERE PatientBill.Total>2000;
END$$
DELIMITER ;
```

### 3. Display All senior citizens by integrating the function

```
DELIMITER $$  
CREATE DEFINER=`ala`@`localhost` PROCEDURE `senior_citizens`()  
BEGIN  
    SELECT *,isSenior(PatientData.Pat_Age) FROM PatientData;  
END$$  
DELIMITER ;
```

## Triggers and Cursors

### 1. Create a backup of Data when a patient has expired

```
CREATE TRIGGER `death` BEFORE DELETE ON `PatientData`  
FOR EACH ROW BEGIN  
INSERT into ExpiredDB(Pat_ID,Name,Age,Symptoms,Prescription) VALUES (old.Pat_ID,old.Pat_Na  
me,old.Pat_Age,old.Symptoms,old.Prescription);  
END
```

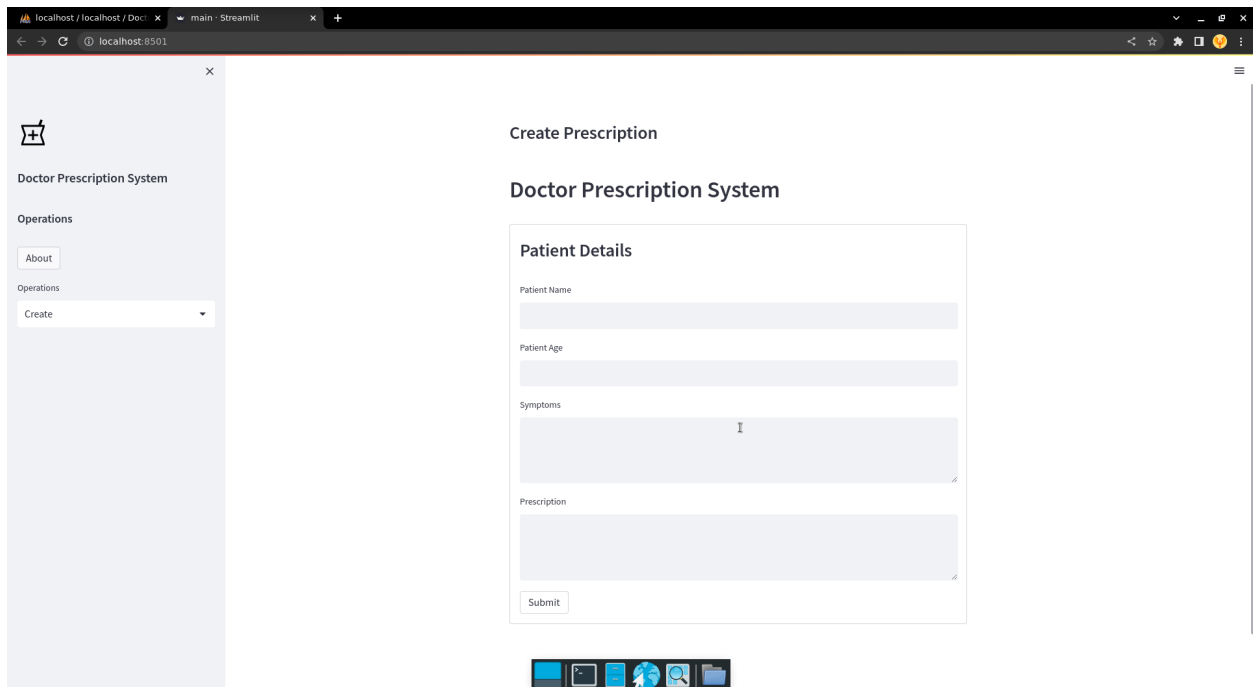
### 2. Classify Adult/Child based on Patient Age

```
CREATE TRIGGER `age_verify` BEFORE INSERT ON `PatientData`  
FOR EACH ROW IF new.`Pat_Age` < 18 then set new.`Adult` = 'C';  
ELSEIF new.`Pat_Age` > 18 then set new.`Adult` = 'A';  
END IF
```

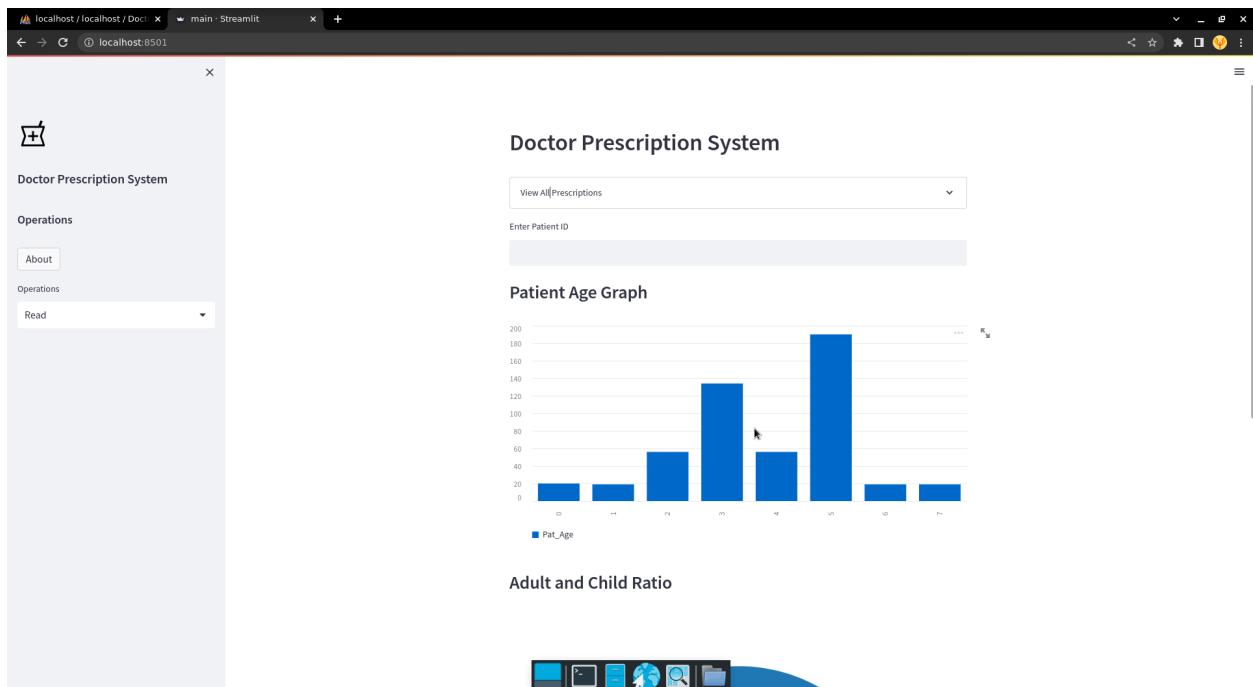
## Frontend

The Frontend was made using `streamlit` and `pymysql` using `python` as the programming language

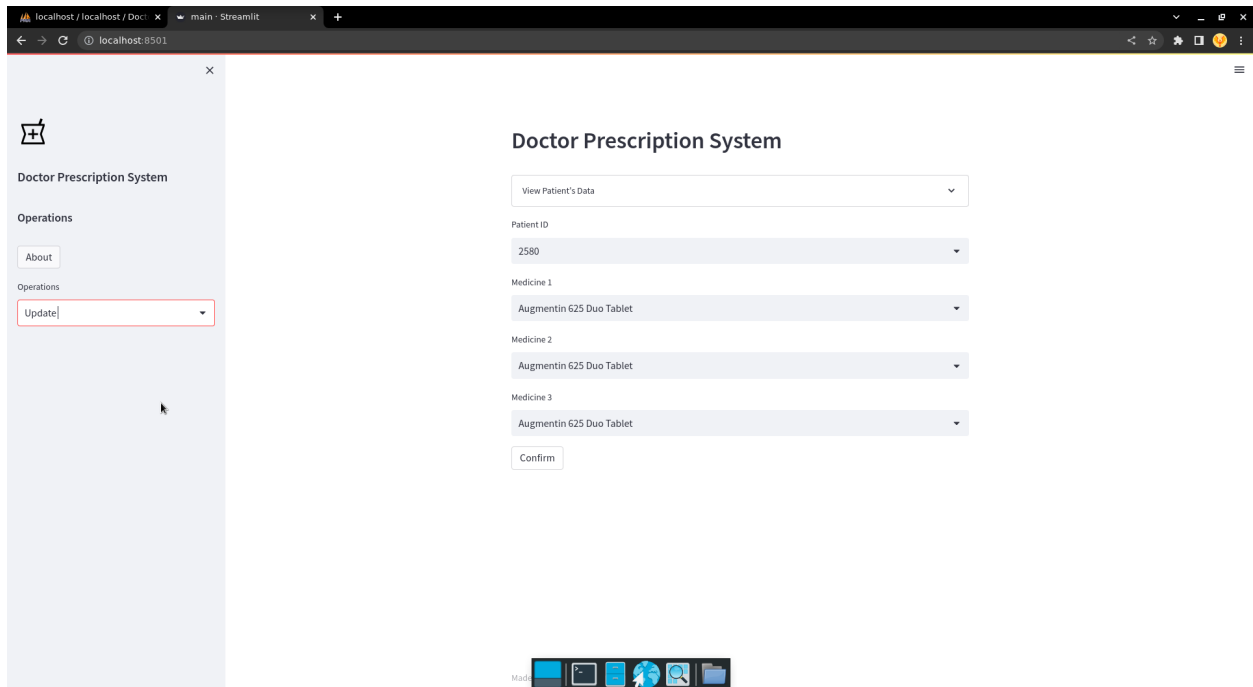
### Home Page - Create Operation



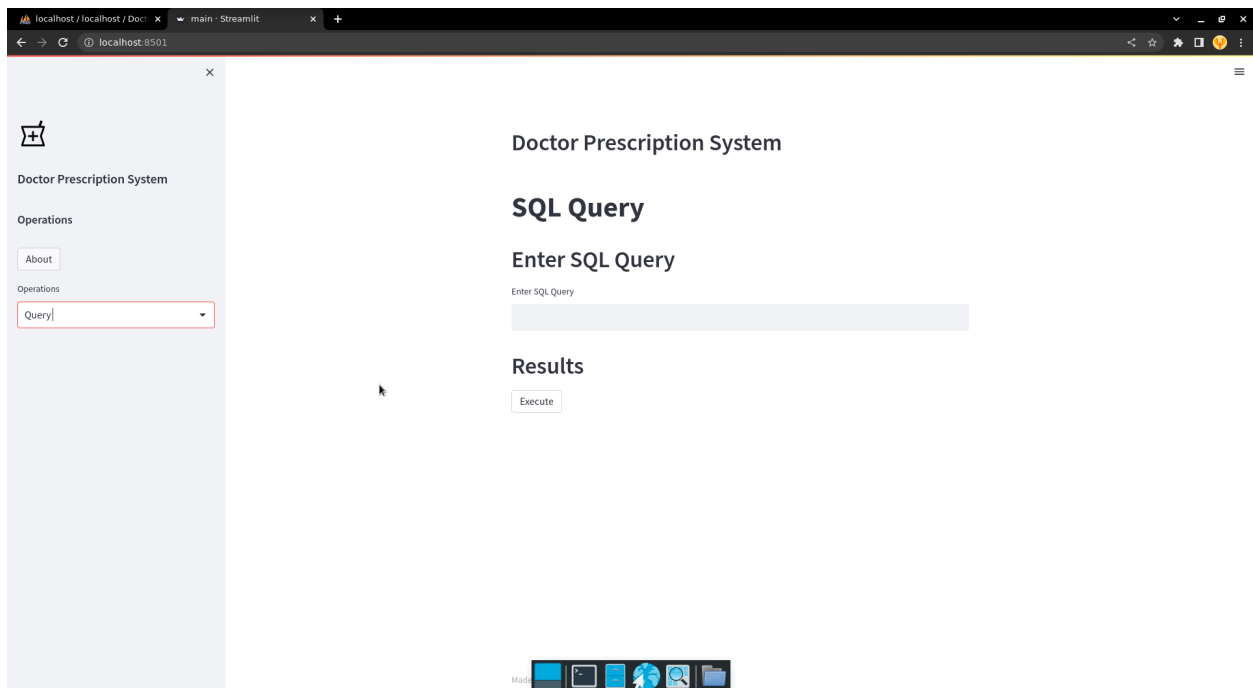
## Read Operation



# Update Operation



# SQL Query Page



# Bill Page

+

Doctor Prescription System

Operations

About

Operations

Bill

## Enter the Patient ID

Patient ID

2580

Pat_Name	Pat_Age	Medicine_1	Medicine_2	Medicine_3	
0	Shenoy	20	Dolo 650 Tablet	Ascoril LS Syrup	Anovate Cream

## Enter the Doctor's Fee

Doctor's Fee

400

Doctor's Fee: 400.0

Cost of Medicine 1 : 30.91

Cost of Medicine 2 : 108

Cost of Medicine 3 : 122

Total Bill: 660.91

Generate Bill