CS631-Data Management systems design
Woody's automotive online application project
Deliverable-3

Team-09

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Goals of this project:
The goal of this part is translating our Relational schema to a real world database framework, populate the database, and create a which is user-friendly, menu-driven for woody's automotive online application.

The application should have a well-designed database schema and instance that can hold a sufficient number of tuples and handle table relationships. It should also provide features for customer registration, service appointments, and its administration. Management and reporting, as well as transaction processing. The program should be simple to use for both staff and customers, and it should allow for the installation of new features in the future.

Furthermore, the program should provide precise data and reports to assist management and the accounting department in making sound judgments. The project should be carried out precisely, with no errors or violations of integrity. The finished result should be thoroughly tested, and it should include a detailed user's guide, source code, SQL command files, and a printout of how to use the program. The program should also be effectively shown in order to highlight its features and benefits.

Revisions:

- No changes to be made in deliverable phase 2.

Problems Encountered:

- Getting the table layout and PHP interfaces to operate properly.
- Assuring that all tables were properly populated with the specified attributes and constraints.
- Incorporating all PHP files to work in accordance with the essential functionalities.

SOFTWARE REQUIREMENT:

PHP:

PHP is a server programming language that may be used to create dynamic and interactive Web sites. PHP is a popular, open-source, and cost-effective alternative to competitors such as Microsoft's ASP.

HTML:

HTML is the language in which most websites are written. HTML is used to create pages and make them functional. A Markup Language is a way that computers speak to each other to control how text is processed and presented. To do this HTML uses two things: tags and attributes.

CSS:

CSS is a stylesheet language used to describe the presentation of an HTML or XML document (including XML dialects such as SVG, MathML, or XHTML). CSS specifies how elements should be shown on screen, paper, during speech, or in other medium.

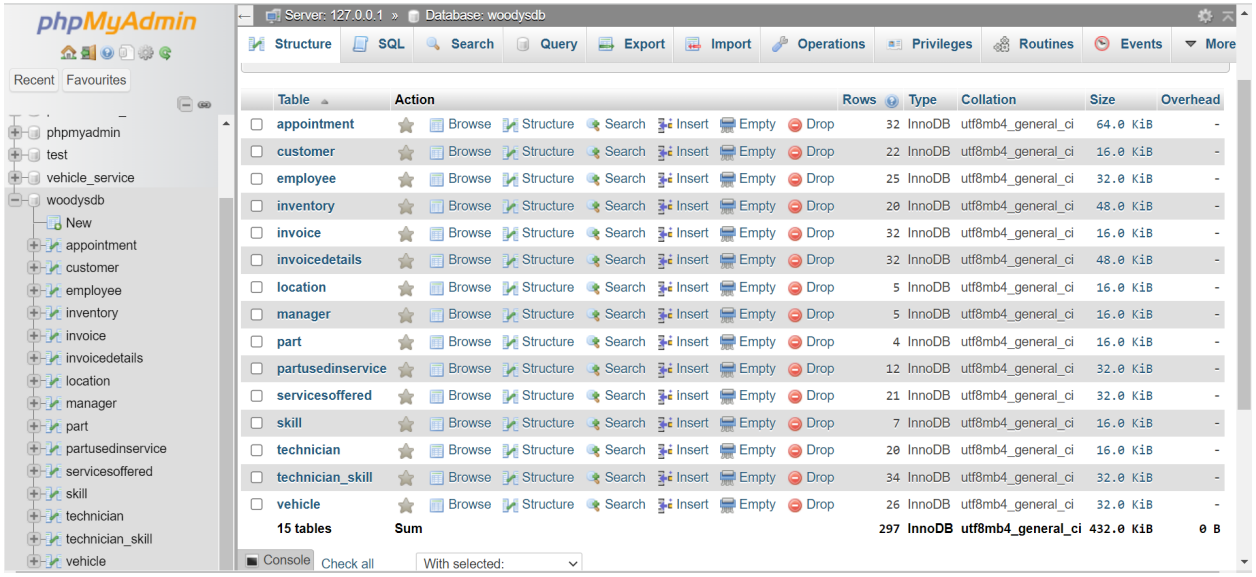
XAMPP:

XAMPP is a free and open-source web server solution. It is mostly used for testing web applications on a local host webserver.

PHPMYADMIN:

phpMyAdmin is a database administration tool for MySQL-compatible databases. It is a graphical tool for creating, developing, and managing MySQL databases. It allows you to create and change database schemas, tables, and relationships using a graphical interface. It also has tools for visualizing data, writing and running SQL queries, and managing database connections.

DATABASE STRUCTURE:



CREATION OF TABLES:

```
CREATE TABLE Customer (
   id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
   fname VARCHAR(30) NOT NULL,
   minit CHAR(1),
   lname VARCHAR(30) NOT NULL,
   haddress VARCHAR(100) NOT NULL,
   phone VARCHAR(15) NOT NULL,
   creditcard VARCHAR(20) NOT NULL,
   email VARCHAR(50)
);

CREATE TABLE Vehicle (
   vin VARCHAR(20) NOT NULL,
   cust_id INT(6) UNSIGNED NOT NULL,
   model VARCHAR(30) NOT NULL,
   make_year INT(4) NOT NULL,
   color VARCHAR(15) NOT NULL,
   vehicle_type VARCHAR(20) NOT NULL,
   manufacturer VARCHAR(20) NOT NULL,
   PRIMARY KEY (vin),
   CONSTRAINT cust_owns_vehicle FOREIGN KEY (cust_id) REFERENCES Customer(id)
);
```

```
CREATE TABLE location (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  loc_address VARCHAR(100) NOT NULL
);

CREATE TABLE Employee (
  ssn CHAR(9) PRIMARY KEY,
  loc_id INT(6) UNSIGNED NOT NULL,
  fname VARCHAR(30) NOT NULL,
  minit CHAR(1),
  lname VARCHAR(30) NOT NULL,
  haddress VARCHAR(100) NOT NULL,
  hire_date DATE NOT NULL,
  CONSTRAINT employee_works_at_location FOREIGN KEY (loc_id) REFERENCES
location(id)
);

CREATE TABLE Manager (
  emp_ssn CHAR(9) PRIMARY KEY,
  salary int(7) NOT NULL,
  CONSTRAINT emp_is_manager FOREIGN KEY (emp_ssn) REFERENCES Employee(ssn)
);

CREATE TABLE Technician (
  emp_ssn CHAR(9) PRIMARY KEY,
  hourly_rate FLOAT(7) NOT NULL,
  CONSTRAINT emp_is_technician FOREIGN KEY (emp_ssn) REFERENCES
Employee(ssn)
);

CREATE TABLE Skill (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  skill_name VARCHAR(100) NOT NULL
);

CREATE TABLE technician_skill (
  tech_ssn CHAR(9) NOT NULL,
  skill_id INT(6) UNSIGNED NOT NULL,
```

```
  PRIMARY KEY (tech_ssn, skill_id),
  CONSTRAINT tech_has_skill FOREIGN KEY (tech_ssn) REFERENCES
Technician(emp_ssn),
  CONSTRAINT skill_for_tech FOREIGN KEY (skill_id) REFERENCES Skill(id)
);

CREATE TABLE ServicesOffered (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  svc_type VARCHAR(50) NOT NULL,
  vehicle_type VARCHAR(25) NOT NULL,
  skill_id INT(6) UNSIGNED NOT NULL,
  price FLOAT(7) NOT NULL,
  CONSTRAINT service_requires_skill FOREIGN KEY (skill_id) REFERENCES Skill(id)
);

CREATE TABLE Part (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  part_name VARCHAR(20) NOT NULL,
  price FLOAT(7) NOT NULL
);

CREATE TABLE PartUsedInService (
  part_id INT(6) UNSIGNED NOT NULL,
  service_id INT(6) UNSIGNED NOT NULL,
  PRIMARY KEY (part_id, service_id),
  CONSTRAINT part_use_in_service FOREIGN KEY (part_id) REFERENCES Part(id),
  CONSTRAINT service_has_id FOREIGN KEY (service_id) REFERENCES
ServicesOffered(id)
);

CREATE TABLE Inventory (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  quantity INT(6) NOT NULL,
  part_id INT(6) UNSIGNED NOT NULL,
  loc_id INT(6) UNSIGNED NOT NULL,
  CONSTRAINT part_in_inventory FOREIGN KEY (part_id) REFERENCES Part(id),
  CONSTRAINT inventory_location FOREIGN KEY (loc_id) REFERENCES location(id)
);
```

```
CREATE TABLE Appointment (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  appt_date DATE NOT NULL,
  loc_id INT(6) UNSIGNED NOT NULL,
  cust_id INT(6) UNSIGNED NOT NULL,
  vin VARCHAR(20) NOT NULL,
  CONSTRAINT loc_of_service FOREIGN KEY (loc_id) REFERENCES location(id),
  CONSTRAINT cust_makes_appt FOREIGN KEY (cust_id) REFERENCES Customer(id),
  CONSTRAINT vin_in_service FOREIGN KEY (vin) REFERENCES Vehicle(vin)
);

CREATE TABLE Invoice (
  id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  amount INT(6) NOT NULL,
  date_paid DATE
);

CREATE TABLE InvoiceDetails (
  appt_id INT(6) UNSIGNED NOT NULL,
  service_id INT(6) UNSIGNED NOT NULL,
  invoice_id INT(6) UNSIGNED NOT NULL,
  price FLOAT(7) NOT NULL,
  status VARCHAR(20) DEFAULT 'Waiting',
  PRIMARY KEY (appt_id, service_id, invoice_id),
  CONSTRAINT appointment_in_detail FOREIGN KEY (appt_id) REFERENCES
Appointment(id),
  CONSTRAINT service_in_detail FOREIGN KEY (service_id) REFERENCES
ServicesOffered(id),
  CONSTRAINT invoice_in_detail FOREIGN KEY (invoice_id) REFERENCES Invoice(id)
);
```

INSERTION STATEMENTS:

```
/* Customer */
INSERT INTO `customer` (`fname`, `minit`, `lname`, `haddress`, `phone`, `creditcard`,
`email`)
  VALUES  ('John', 'A', 'Smith', '816 Washington Ave, Hoboken, NJ', '2015551822',
'1234123412341234', 'johnsmith@example.com'),
       ('Jane', NULL, 'Doe', '51 Franklin Rd, East Brunswick, NJ', '2015558162',
'2345234523452345', 'janedow@example.com'),
```

('Mark', 'S', 'Hale', '321 Moat Dr, Paramus, NJ', '2015558261', '3456345634563456', 'markhale@example.com'),
('Sam', 'B', 'Roberts', '61 Englewood St, Trenton, NJ', '2015557162', '4567456745674567', 'samroberts@example.com'),
('Jay', NULL, 'Dale', '12 Broad St, Newark, NJ', '2015557281', '5678567856785678', 'jaydale@example.com'),
('Mario', 'A', 'Fleming', '61 Morleys Green, Hoboken, NJ', '2015557150', '1111111111111111', 'mariofleming@example.com'),
('Jenny', 'B', 'Hardy', '61 Meadowsweet Town, Hoboken, NJ', '2015557151', '2222222222222222', 'jennyhardy@example.com'),
('Naomi', 'C', 'Norman', '61 Mallory Garden, Paramus, NJ', '2015557152', '3333333333333333', 'naominorman@example.com'),
('Herman', 'D', 'Bradshaw', '61 Mackenzie Common, Paramus, NJ', '2015557153', '4444444444444444', 'hermanbradshaw@example.com'),
('Willie', 'E', 'Winn', '61 Mortonhall Park Green, East Brunswick, NJ', '2015557154', '5555555555555555', 'williewinn@example.com'),
('Margaret', 'F', 'Choi', '61 Manor Close, East Brunswick, NJ', '2015557155', '6666666666666666', 'margaretchoi@example.com'),
('Edmund', 'G', 'Whalen', '61 The Croft, Trenton, NJ', '2015557156', '7777777777777777', 'edmundwhalen@example.com'),
('Mike', 'H', 'Bryant', '61 Primrose St, East Brunswick, NJ', '2015557157', '8888888888888888', 'mikebryant@example.com'),
('Jonathan', 'I', 'Rangel', '61 Jubilie Rd, Trenton, NJ', '2015557158', '9999999999999999', 'jonathanrangel@example.com'),
('Connie', 'J', 'Owen', '61 Willow St, Hoboken, NJ', '2015557159', '1212121212121212', 'connieowen@example.com'),
('Hal', 'K', 'Murry', '61 Swift St, Newark, NJ', '2015557160', '2323232323232323', 'halmurry@example.com'),
('Deb', 'L', 'Schneider', '61 Byron Ave, Hoboken, NJ', '2015557161', '3434343434343434', 'debschneider@example.com'),
('Keith', 'M', 'Ware', '61 Abe St, Newark, NJ', '2015557163', '4545454545454545', 'keithware@example.com');

/* Vehicle */
INSERT INTO `vehicle` (`vin`, `cust_id`, `model`, `make_year`, `color`, `vehicle_type`, `manufacturer`)
VALUES ('111111', '1', 'Camry', '2010', 'Blue', 'Car', 'Toyota'),
('211111', '2', 'CRV', '2020', 'Black', 'Van', 'Honda'),
('311111', '3', 'Civic', '2010', 'Blue', 'Car', 'Honda'),

```
        ('411111', '4', 'Y', '2020', 'Blue', 'Car', 'Tesla'),
        ('511111', '5', 'Discovery', '2012', 'Grey', 'Truck', 'Land Rover'),
        ('611111', '6', 'Hatchback', '2018', 'Grey', 'Car', 'MINI'),
        ('711111', '7', 'Q3', '2022', 'Blue', 'Car', 'Audi'),
        ('811111', '8', 'E-Pace', '2016', 'Black', 'Van', 'Jaguar'),
        ('911111', '9', 'Ibiza', '2018', 'Red', 'Car', 'Seat'),
        ('101111', '10', 'Prius', '2017', 'Red', 'Car', 'Toyota'),
        ('110111', '11', 'Swift', '2009', 'Yellow', 'Van', 'Suzuki'),
        ('120111', '12', 'Durango', '2013', 'Red', 'Van', 'Dodge'),
        ('130111', '13', 'Enclave', '2014', 'Grey', 'Van', 'Buick'),
        ('140111', '14', 'Acadia', '2016', 'Red', 'Truck', 'GMC'),
        ('150111', '15', 'Sierra', '2020', 'Black', 'Truck', 'GMC'),
        ('160111', '16', 'Giula', '2022', 'Maroon', 'Car', 'Alfa Romeo'),
        ('170111', '17', 'X5', '2022', 'Black', 'Truck', 'BMW'),
        ('180111', '18', 'Passat', '2018', 'Grey', 'Car', 'Volkswagen'),
        ('182111', '18', 'TLX', '2022', 'Grey', 'Car', 'TLX'),
        ('172111', '17', 'Focus', '2022', 'White', 'Car', 'Ford'),
        ('121111', '1', 'Volt', '2022', 'Blue', 'Car', 'Chevrolet');

/* Location */
INSERT INTO `location` (`loc_address`)
  VALUES  ('Newark, NJ'),
        ('Trenton, NJ'),
        ('Hoboken, NJ'),
        ('Paramus, NJ'),
        ('East Brunswick, NJ');

/* Employee */
INSERT INTO `employee` (`ssn`, `loc_id`, `fname`, `minit`, `lname`, `haddress`, `hire_date`)
  VALUES  ('113456789', '1', 'Michael', 'X', 'Hal', '123 S 9th St, Newark, NJ', '2023-04-10'),
        ('213456789', '1', 'Michelle', 'S', 'Dal', '114 Prince St, Newark, NJ', '2023-03-10'),
        ('313456789', '1', 'Fernando', '', 'Li', '58 Branch Ct, Newark, NJ', '2023-04-10'),
        ('413456789', '1', 'Manuel', '', 'Kreuger', '110 Newark St, Newark, NJ', '2023-03-10'),
        ('513456789', '1', 'Armando', 'K', 'North', '85 Avon Ave, Newark, NJ', '2023-04-10'),
        ('123456789', '2', 'Adrian', 'L', 'Chandler', '158 Franklin St, Trenton, NJ', '2023-03-10'),
        ('223456789', '2', 'Tommy', '', 'Christian', '115 Melrose Ave, Trenton, NJ',
'2023-04-10'),
        ('323456789', '2', 'Traci', '', 'Baldwin', '48 Donald Dr, Trenton, NJ', '2023-03-10'),
```

```
        ('423456789', '2', 'Angelica', 'S', 'Jordan', '105 Van Camp Alley, Trenton, NJ',
'2023-04-10'),
        ('523456789', '2', 'Thomas', 'A', 'Darling', '219 Quincy Ave, Trenton, NJ', '2023-03-10'),
        ('133456789', '3', 'Jaime', '', 'Ward', '151 Washington St, Hoboken, NJ', '2023-04-10'),
        ('233456789', '3', 'Todd', '', 'Gregory', '791 Washington St, Hoboken, NJ',
'2023-03-10'),
        ('333456789', '3', 'Ramiro', '', 'Frazier', '80 Willow Ave, Hoboken, NJ', '2023-04-10'),
        ('433456789', '3', 'Wendell', '', 'Shepard', '467 Clinton St, Hoboken, NJ', '2023-03-10'),
        ('533456789', '3', 'Ross', '', 'Jenkins', '77 Madison St, Hoboken, NJ', '2023-04-10'),
        ('143456789', '4', 'Antoinette', '', 'Holt', '16 Midland Ave, Paramus, NJ', '2023-03-10'),
        ('243456789', '4', 'Everette', 'E', 'Peters', '203 Kendrick St, Paramus, NJ',
'2023-04-10'),
        ('343456789', '4', 'Taylor', 'O', 'Connel', '98 Paramus Rd, Paramus, NJ', '2023-03-10'),
        ('443456789', '4', 'Jeffrey', '', 'Hawkins', '162 Arundel Rd, Paramus, NJ', '2023-04-10'),
        ('543456789', '4', 'Pablo', '', 'Sparks', '212 Ring Rd, Paramus, NJ', '2023-03-10'),
        ('153456789', '5', 'Vera', 'V', 'Hogan', '30 Brookhill Rd, East Brunswick, NJ',
'2023-03-10'),
        ('253456789', '5', 'Raymond', 'P', 'Padilla', '293 Timber Rd, East Brunswick, NJ',
'2023-04-10'),
        ('353456789', '5', 'Lourdes', '', 'Griffin', '100 Hilltop Blvd, East Brunswick, NJ',
'2023-03-10'),
        ('453456789', '5', 'Alfred', '', 'Wilkins', '281 Claremont Ave, East Brunswick, NJ',
'2023-04-10'),
        ('553456789', '5', 'Carmen', '', 'Gamble', '300 Woodlot Rd, East Brunswick, NJ',
'2023-03-10');

/* Manager */
INSERT INTO `manager` (`emp_ssn`, `salary`)
  VALUES ('113456789', '70000'),
        ('123456789', '60000'),
        ('133456789', '80000'),
        ('143456789', '55000'),
        ('153456789', '84000');

/* Technician*/
INSERT INTO `technician` (`emp_ssn`, `hourly_rate`)
  VALUES ('213456789', '16.50'),
        ('313456789', '15.50'),
        ('413456789', '14.50'),
```

```
        ('513456789', '13.50'),
        ('223456789', '15.50'),
        ('323456789', '16.50'),
        ('423456789', '15.50'),
        ('523456789', '17.50'),
        ('233456789', '15.50'),
        ('333456789', '14.50'),
        ('433456789', '13.50'),
        ('533456789', '17.50'),
        ('243456789', '18.50'),
        ('343456789', '15.50'),
        ('443456789', '14.50'),
        ('543456789', '13.50'),
        ('253456789', '19.50'),
        ('353456789', '15.50'),
        ('453456789', '16.50'),
        ('553456789', '18.50');

/* Skill */
INSERT INTO `skill` (`skill_name`)
  VALUES  ('Oil change'),
        ('Front-end alignment'),
        ('Brake'),
        ('Tire repair and replacement'),
        ('Engine tune-up'),
        ('Vehicle computer diagnostic'),
        ('State vehicle inspection');

/* Technician has Skill */
INSERT INTO `technician_skill` (`tech_ssn`, `skill_id`)
  VALUES  ('223456789', '1'),
        ('223456789', '2'),
        ('223456789', '3'),
        ('223456789', '4'),
        ('223456789', '5'),
        ('223456789', '6'),
        ('223456789', '7'),
        ('213456789', '1'),
        ('213456789', '2'),
```

```
        ('313456789', '2'),
        ('413456789', '3'),
        ('313456789', '3'),
        ('413456789', '4'),
        ('513456789', '4'),
        ('323456789', '5'),
        ('323456789', '6'),
        ('423456789', '7'),
        ('523456789', '4'),
        ('233456789', '2'),
        ('233456789', '4'),
        ('333456789', '6'),
        ('233456789', '6'),
        ('233456789', '5'),
        ('333456789', '7'),
        ('433456789', '3'),
        ('533456789', '2'),
        ('243456789', '1'),
        ('343456789', '5'),
        ('443456789', '2'),
        ('543456789', '6'),
        ('253456789', '2'),
        ('353456789', '1'),
        ('453456789', '3'),
        ('553456789', '1');

/* Part */
INSERT INTO `part` (`part_name`, `price`)
  VALUES ('Engine', '300'),
        ('Oil', '10'),
        ('Tire', '100'),
        ('Brake', '2000');

/* Services Offered */
INSERT INTO `servicesoffered` (`svc_type`, `vehicle_type`, `skill_id`, `price`)
  VALUES ('Oil Change', 'Car', '1', '50'),
        ('Front-end alignment', 'Car', '2', '75'),
        ('Brake', 'Car', '3', '200'),
        ('Tire repair and replacement', 'Car', '4', '60'),
```

```
        ('Engine tune-up', 'Car', '5', '80'),
        ('Vehicle computer diagnostic', 'Car', '6', '100'),
        ('State vehicle inspection', 'Car', '7', '10'),
        ('Oil Change', 'Van', '1', '75'),
        ('Front-end alignment', 'Van', '2', '100'),
        ('Brake', 'Van', '3', '300'),
        ('Tire repair and replacement', 'Van', '4', '70'),
        ('Engine tune-up', 'Van', '5', '150'),
        ('Vehicle computer diagnostic', 'Van', '6', '100'),
        ('State vehicle inspection', 'Van', '7', '10'),
        ('Oil Change', 'Truck', '1', '50'),
        ('Front-end alignment', 'Truck', '2', '100'),
        ('Brake', 'Truck', '3', '400'),
        ('Tire repair and replacement', 'Truck', '4', '100'),
        ('Engine tune-up', 'Truck', '5', '200'),
        ('Vehicle computer diagnostic', 'Truck', '6', '200'),
        ('State vehicle inspection', 'Truck', '7', '20');

/* Part Used In Service */
INSERT INTO `partusedinservice` (`part_id`, `service_id`)
  VALUES ('2', '5'),
        ('1', '1'),
        ('3', '4'),
        ('4', '3'),
        ('2', '12'),
        ('1', '8'),
        ('3', '11'),
        ('4', '10'),
        ('2', '19'),
        ('1', '15'),
        ('3', '18'),
        ('4', '17');

/* Inventory */
INSERT INTO `inventory` (`quantity`, `part_id`, `loc_id`)
  VALUES ('2', '1', '1'),
        ('20', '2', '1'),
        ('10', '3', '1'),
        ('5', '4', '1'),
```

```
        ('1', '1', '2'),
        ('22', '2', '2'),
        ('8', '3', '2'),
        ('6', '4', '2'),
        ('1', '1', '3'),
        ('22', '2', '3'),
        ('13', '3', '3'),
        ('2', '4', '3'),
        ('5', '1', '4'),
        ('21', '2', '4'),
        ('11', '3', '4'),
        ('7', '4', '4'),
        ('4', '1', '5'),
        ('16', '2', '5'),
        ('13', '3', '5'),
        ('2', '4', '5');

/* Appointment */
INSERT INTO `appointment` (`appt_date`, `loc_id`, `cust_id`, `vin`)
   VALUES ('2023-04-27', '3', '1', '111111'),
        ('2023-04-15', '5', '2', '211111'),
        ('2023-04-23', '4', '3', '311111'),
        ('2023-04-13', '2', '4', '411111'),
        ('2023-04-17', '1', '5', '511111'),
        ('2023-04-20', '3', '6', '611111'),
        ('2023-04-21', '3', '7', '711111'),
        ('2023-04-23', '4', '8', '811111'),
        ('2023-04-25', '4', '9', '911111'),
        ('2023-04-27', '5', '10', '101111'),
        ('2023-04-27', '5', '11', '110111'),
        ('2023-04-27', '2', '12', '120111'),
        ('2023-04-27', '5', '13', '130111'),
        ('2023-04-26', '2', '14', '140111'),
        ('2023-04-27', '3', '15', '150111'),
        ('2023-04-27', '1', '16', '160111'),
        ('2023-04-27', '3', '17', '170111'),
        ('2023-04-27', '1', '18', '180111'),
        ('2023-04-27', '1', '18', '182111'),
        ('2023-04-27', '3', '1', '111111'),
```

```
        ('2023-04-28', '3', '1', '111111'),
        ('2023-04-27', '3', '1', '121111'),
        ('2023-04-27', '5', '2', '211111'),
        ('2023-04-27', '4', '3', '311111'),
        ('2023-04-27', '3', '17', '172111');

/* Invoice */
INSERT INTO `invoice` (`amount`, `date_paid`)
  VALUES ('200', '2023-04-27'),
        ('200', '2023-04-15'),
        ('200', '2023-04-23'),
        ('200', '2023-04-13'),
        ('200', '2023-04-17'),
        ('200', '2023-04-20'),
        ('200', '2023-04-21'),
        ('200', '2023-04-23'),
        ('200', '2023-04-25'),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', '2023-04-26'),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL),
        ('200', NULL);

/* Invoice Details */
INSERT INTO `invoicedetails` (`appt_id`, `service_id`, `invoice_id`, `price`, `status`)
  VALUES ('1', '1', '1', '200', 'Paid'),
        ('2', '9', '2', '200', 'Paid'),
        ('3', '4', '3', '200', 'Paid'),
```

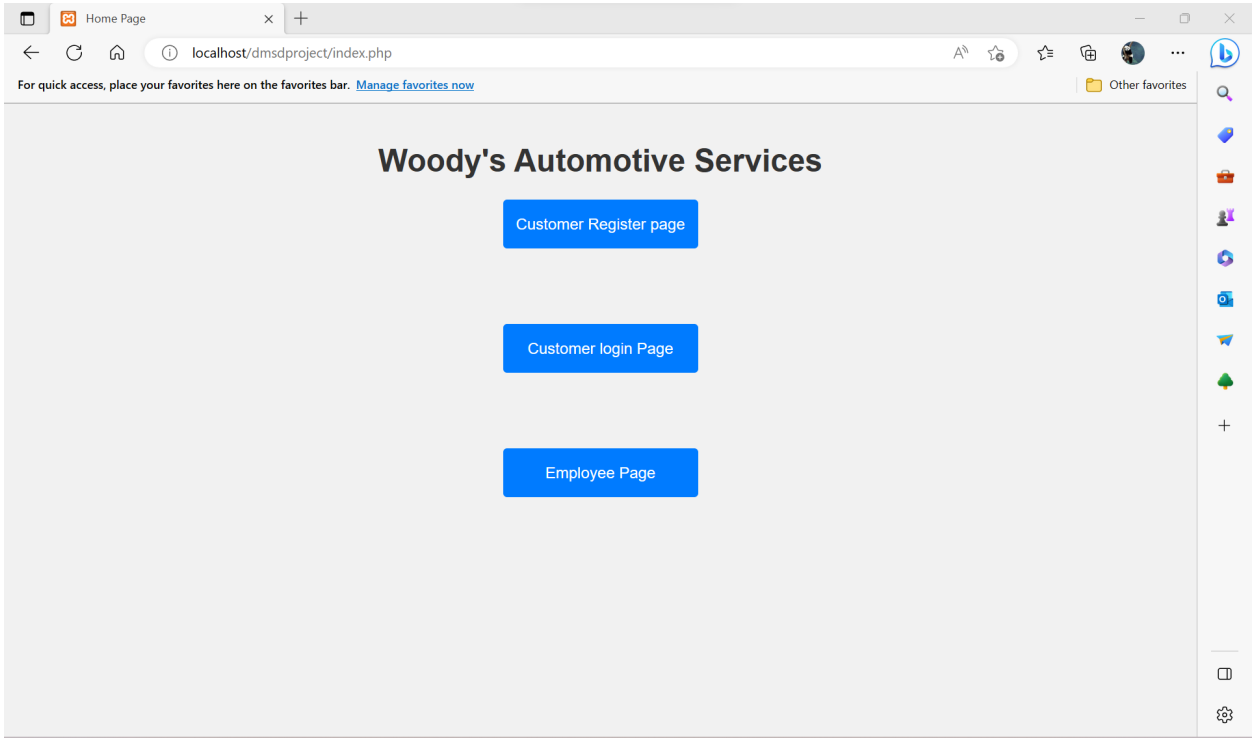
('4', '5', '4', '200', 'Paid'),
('5', '20', '5', '200', 'Paid'),
('6', '5', '6', '200', 'Paid'),
('7', '7', '7', '200', 'Paid'),
('8', '13', '8', '200', 'Paid'),
('9', '6', '9', '200', 'Paid'),
('10', '7', '10', '200', 'Waiting'),
('11', '12', '11', '200', 'Waiting'),
('12', '14', '12', '200', 'Waiting'),
('13', '12', '13', '200', 'Waiting'),
('14', '17', '14', '200', 'Paid'),
('15', '16', '15', '200', 'In Progress'),
('16', '6', '16', '200', 'Waiting'),
('17', '18', '17', '200', 'In Progress'),
('18', '5', '18', '200', 'In Progress'),
('19', '6', '19', '200', 'In Progress'),
('20', '7', '20', '200', 'In Progress'),
('21', '4', '21', '200', 'Waiting'),
('22', '7', '22', '200', 'Completed'),
('23', '8', '23', '200', 'In Progress'),
('24', '6', '24', '200', 'In Progress'),
('25', '7', '25', '200', 'In Progress');

TESTING:

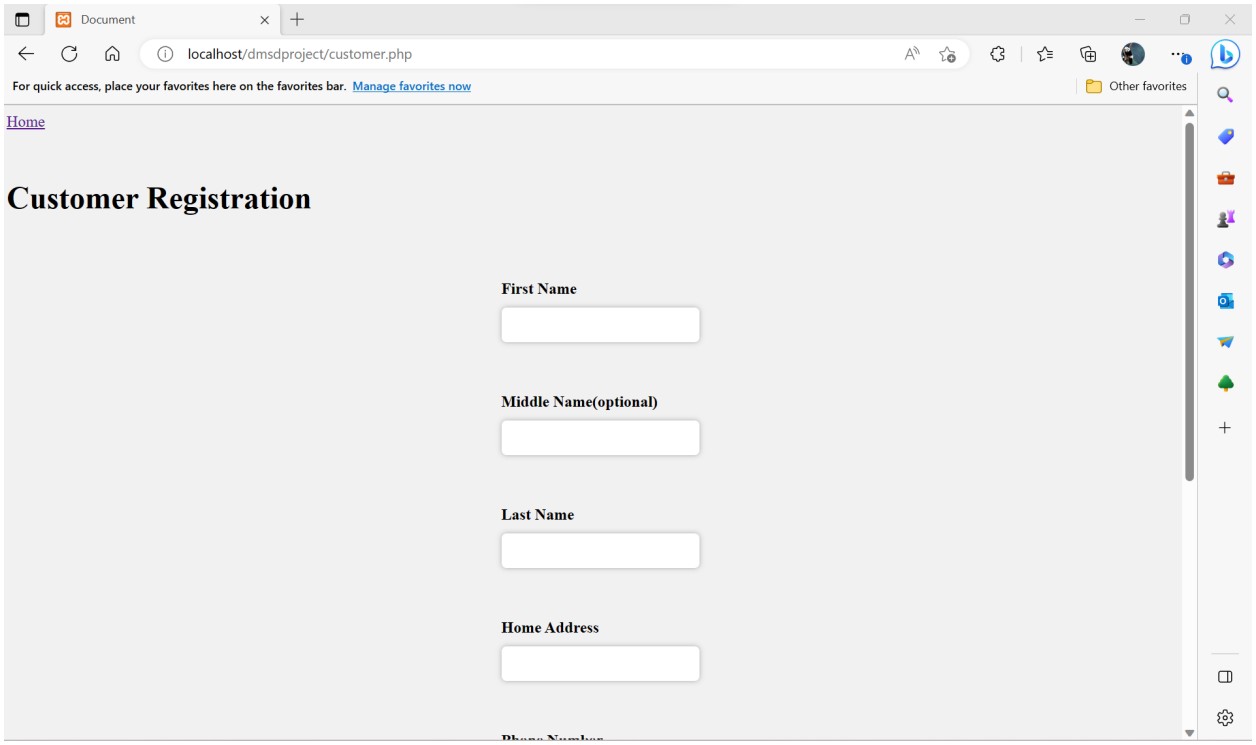
Different testing techniques are utilized throughout the various stages of project development to ensure a system is free from bugs. The primary goal of testing is to identify errors, vulnerabilities, and defects in the work being produced. By employing different types of testing, it becomes possible to verify the functionality of components, subassemblies, and final products. The main objective is to guarantee that the software system satisfies user expectations and requirements while avoiding any unacceptable failures. Numerous testing methods are available, each catering to specific testing needs.

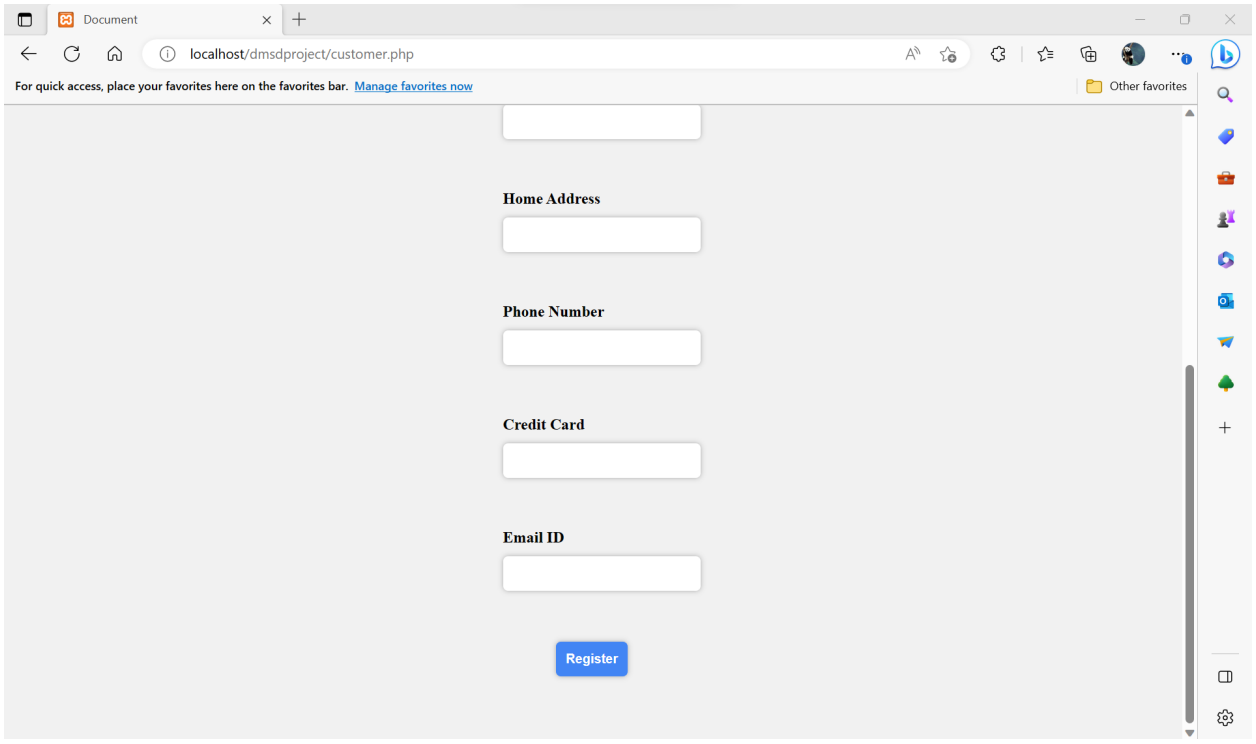
WEB APPLICATION SCREENSHOTS

Home Page:



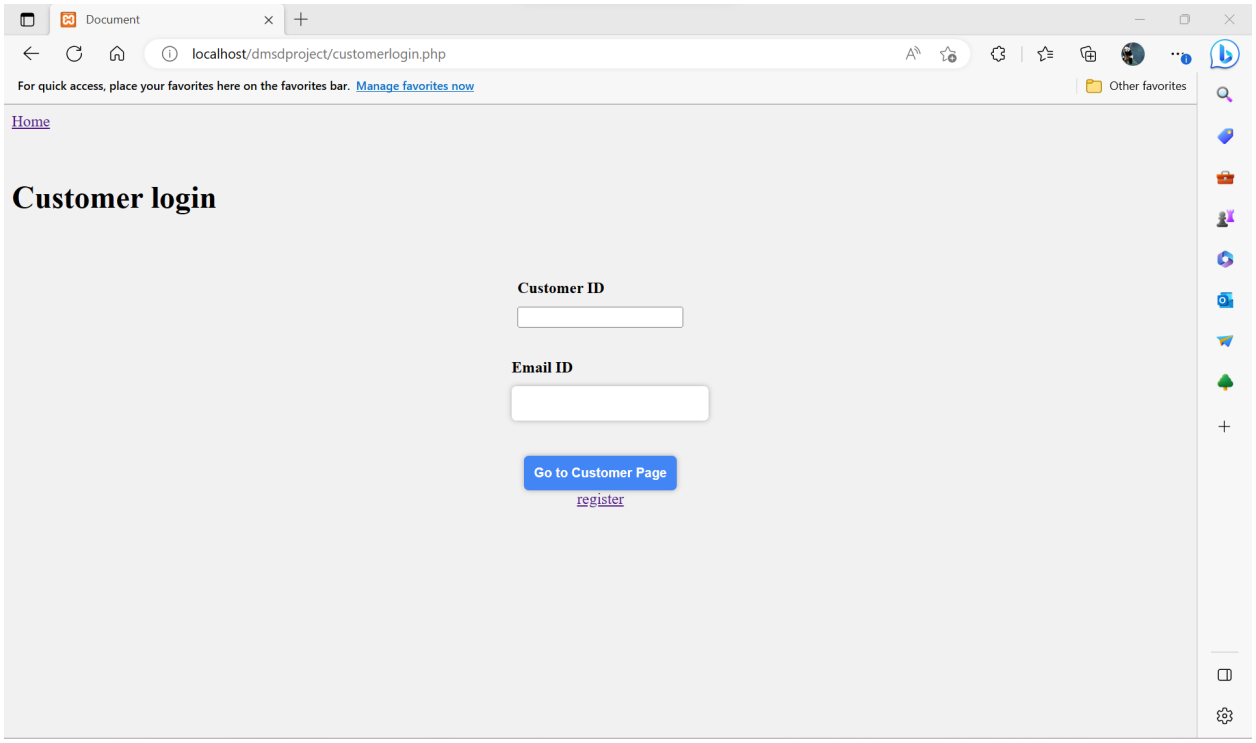
Registration Page:



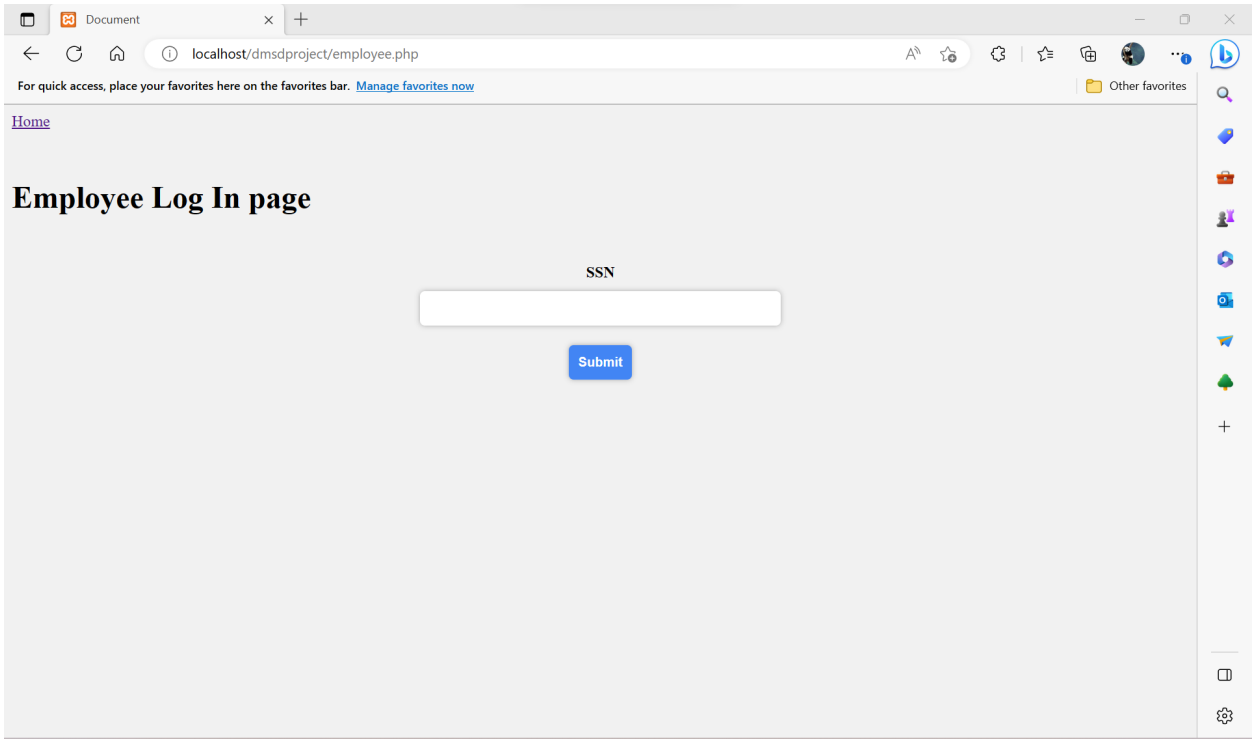


Login page:

Customer Login Page:

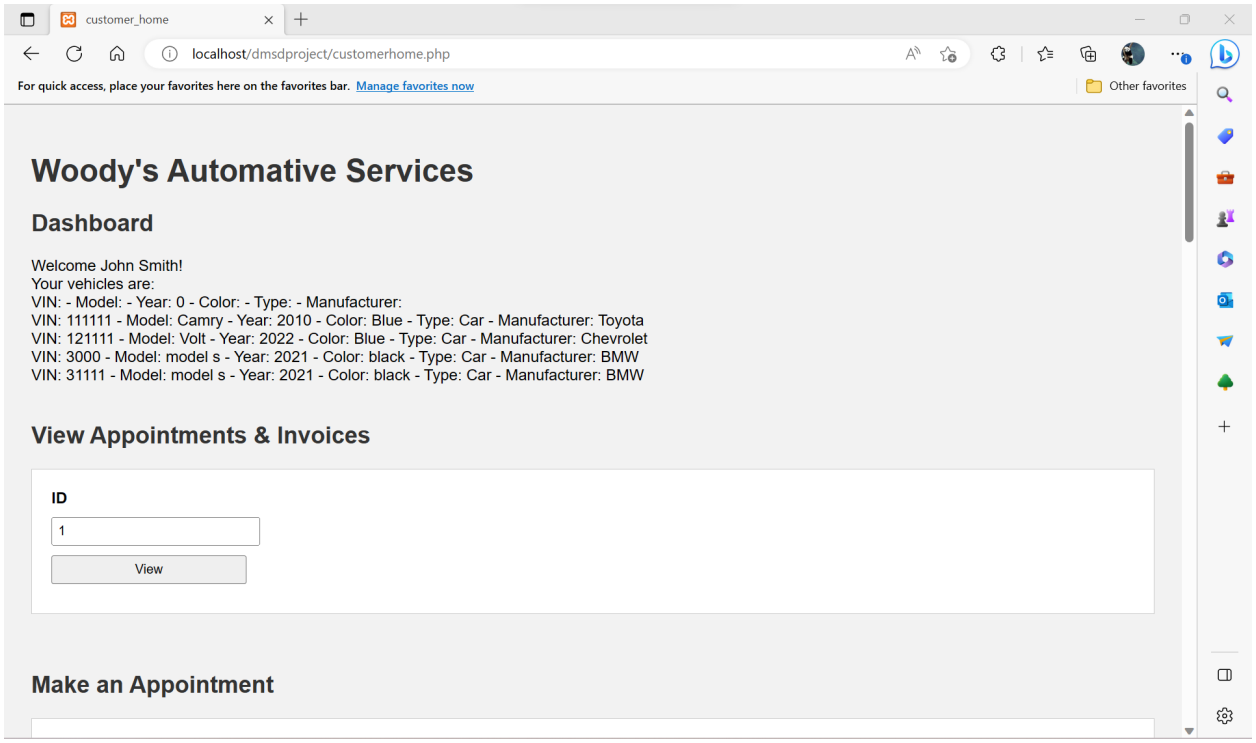


Employee Login Page:

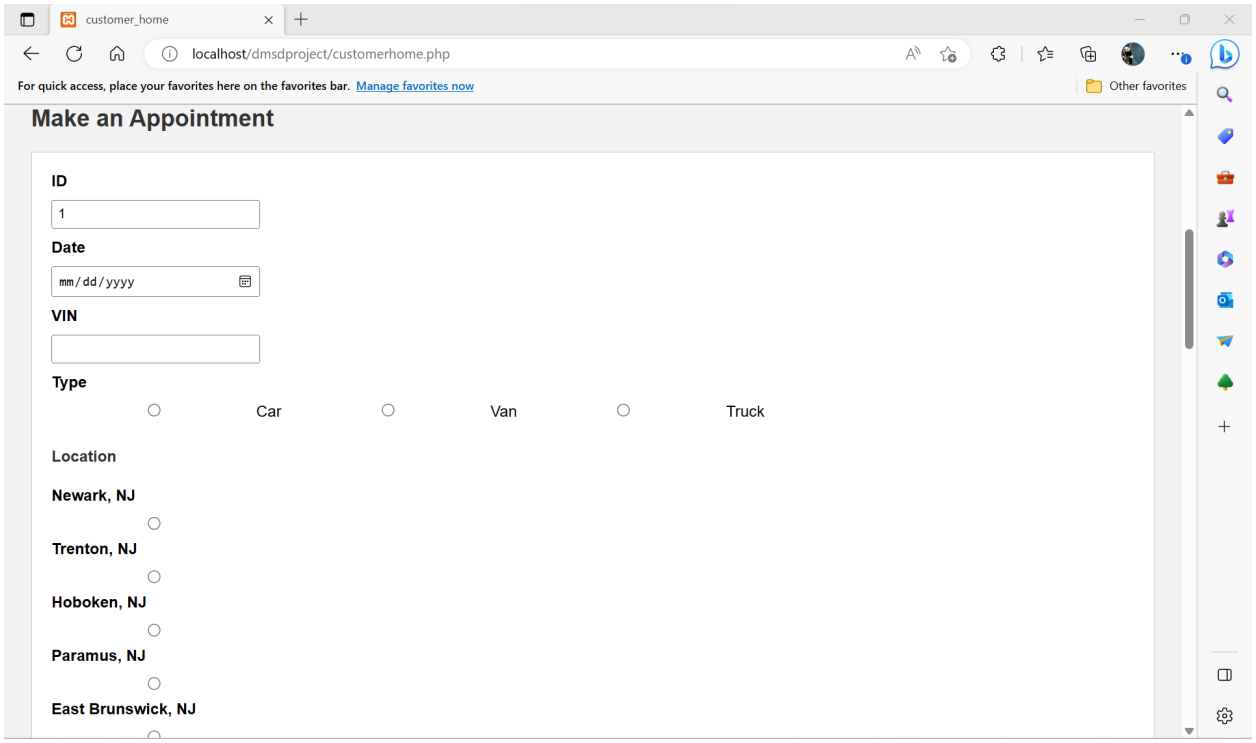


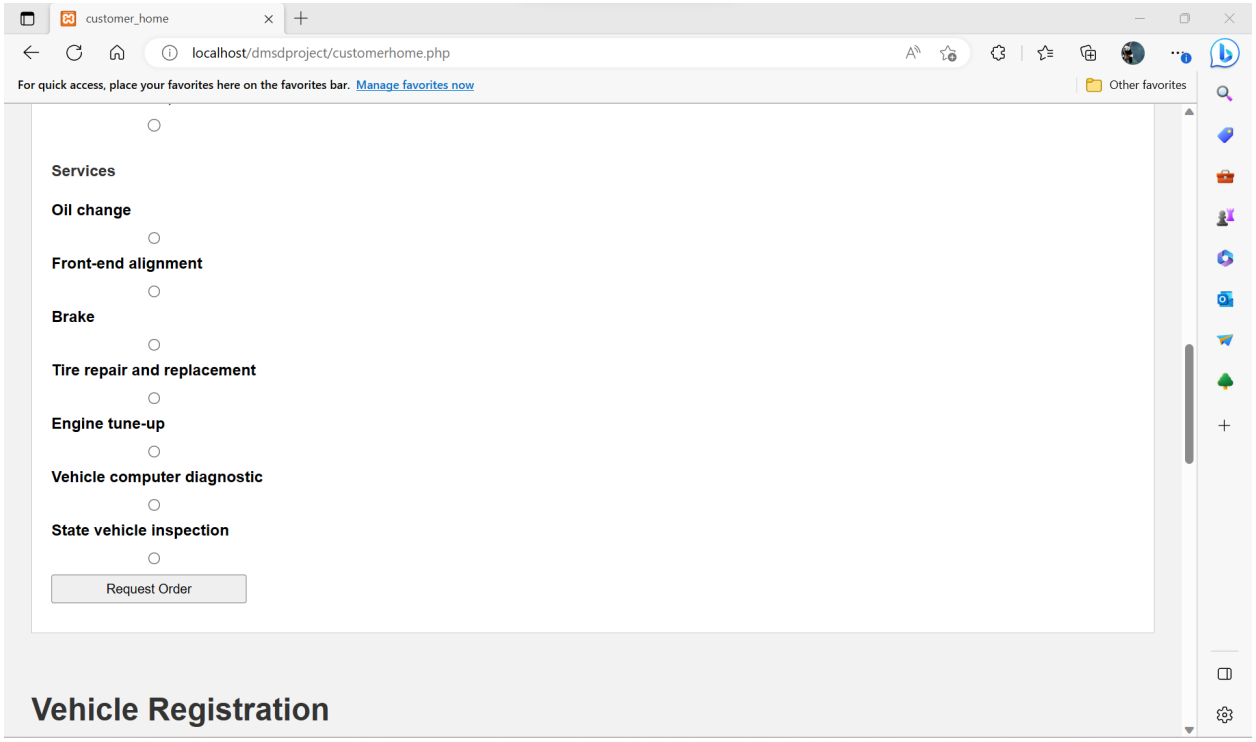
Customer Dashboard:

Viewing users appointments & invoices, payment:

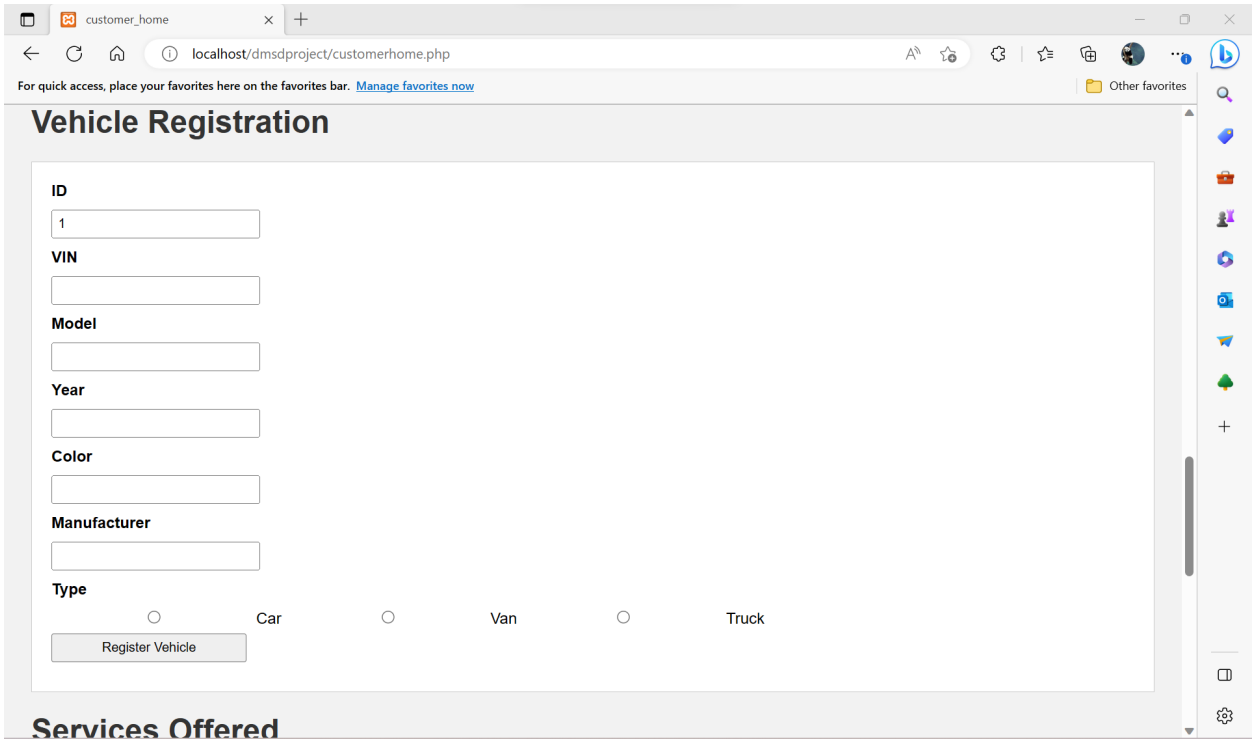


Making an appointment:

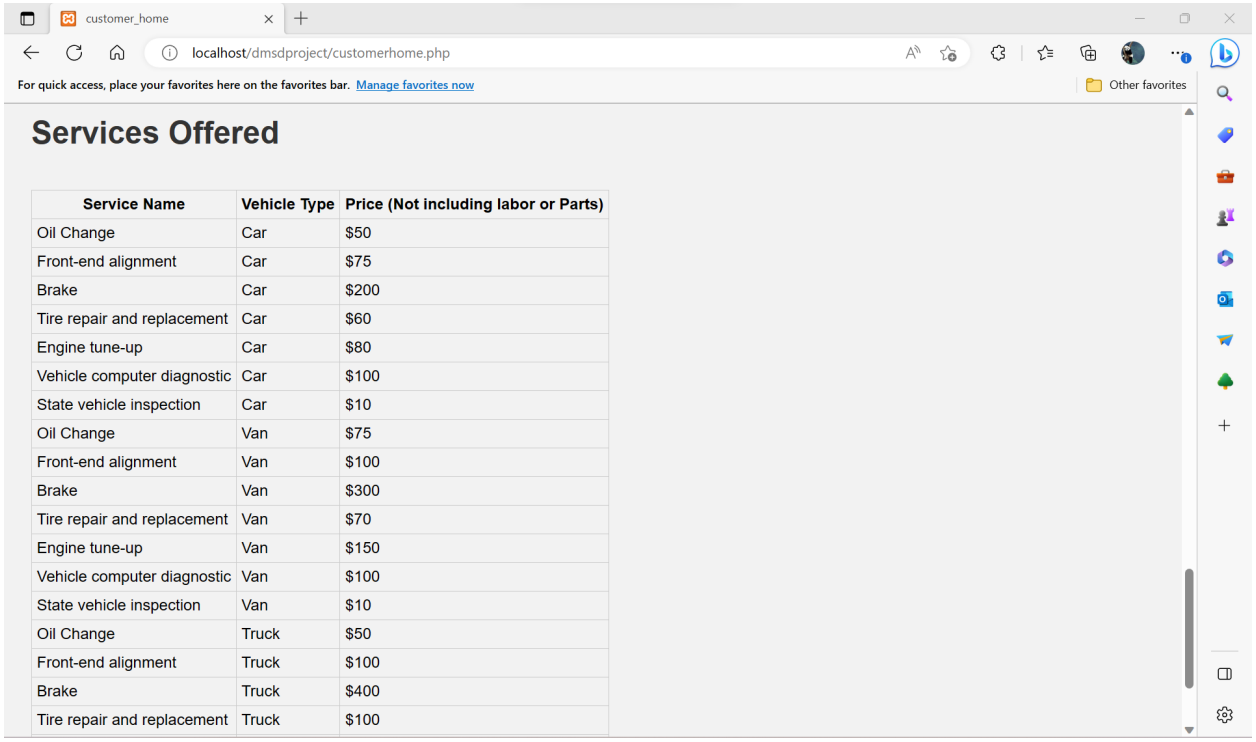




Vehicle Registration:

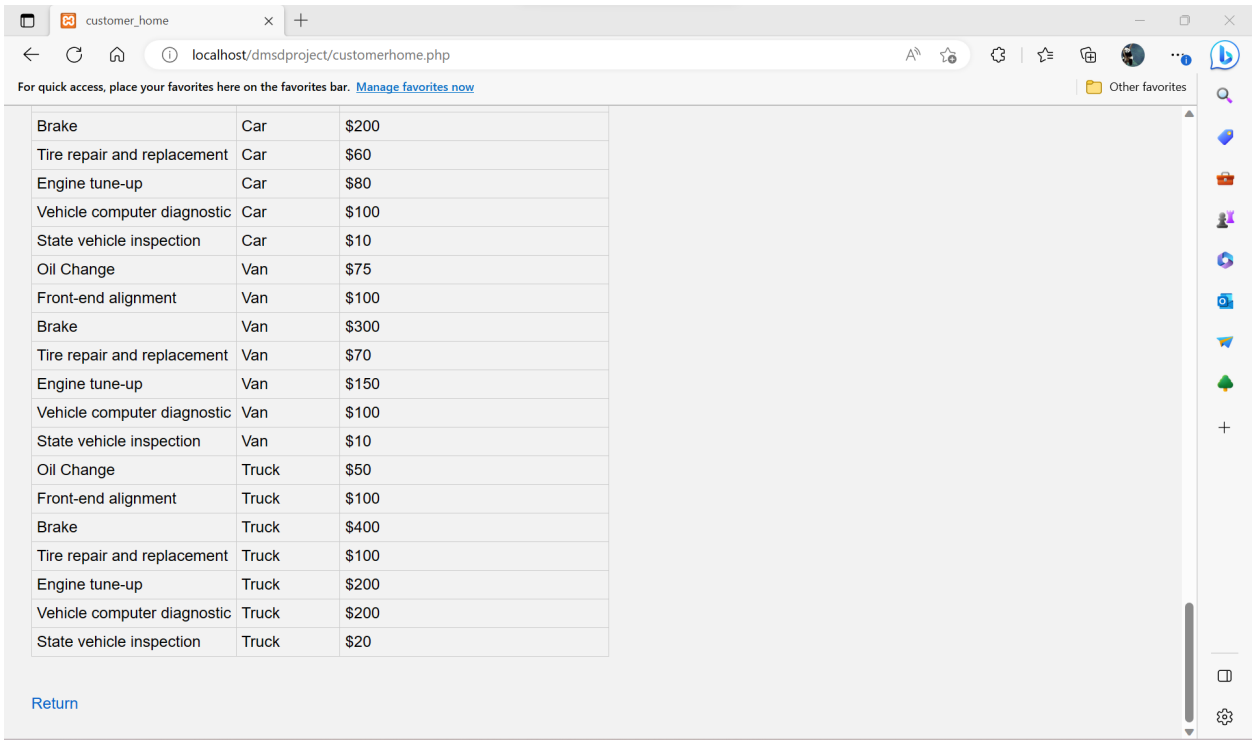


Services Offered:



Services Offered

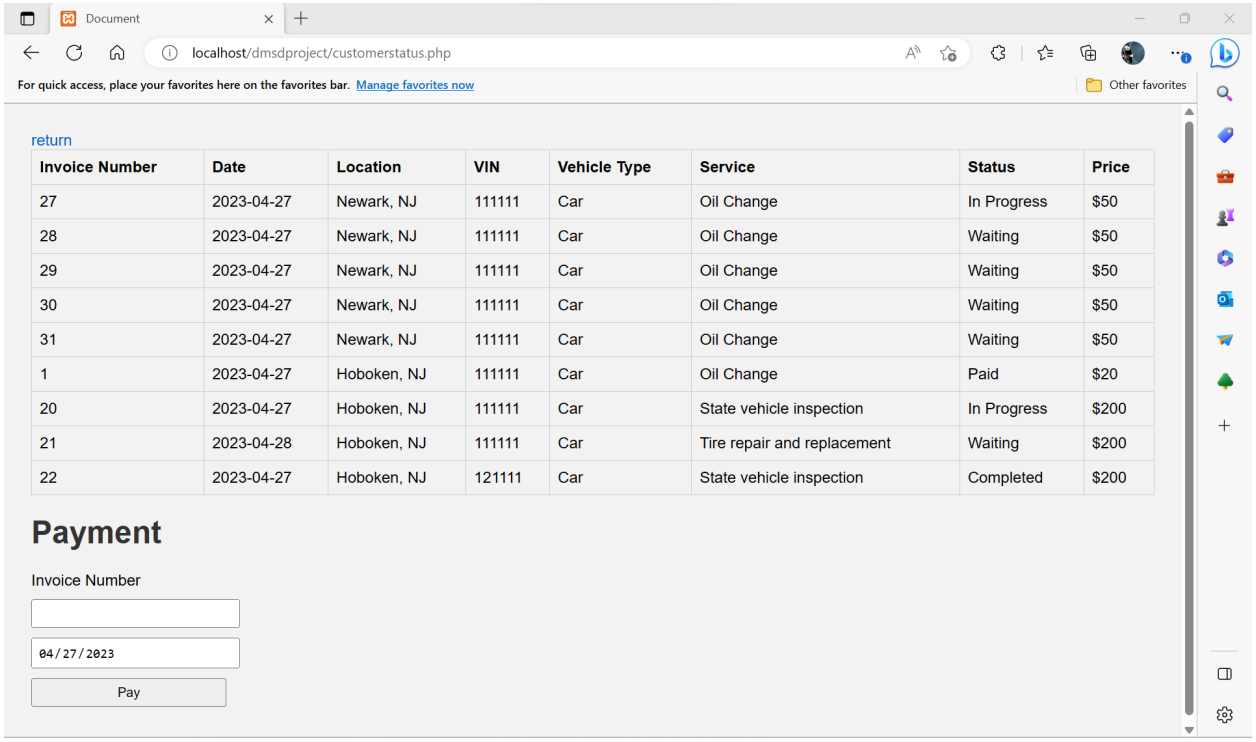
Service Name	Vehicle Type	Price (Not including labor or Parts)
Oil Change	Car	$50
Front-end alignment	Car	$75
Brake	Car	$200
Tire repair and replacement	Car	$60
Engine tune-up	Car	$80
Vehicle computer diagnostic	Car	$100
State vehicle inspection	Car	$10
Oil Change	Van	$75
Front-end alignment	Van	$100
Brake	Van	$300
Tire repair and replacement	Van	$70
Engine tune-up	Van	$150
Vehicle computer diagnostic	Van	$100
State vehicle inspection	Van	$10
Oil Change	Truck	$50
Front-end alignment	Truck	$100
Brake	Truck	$400
Tire repair and replacement	Truck	$100



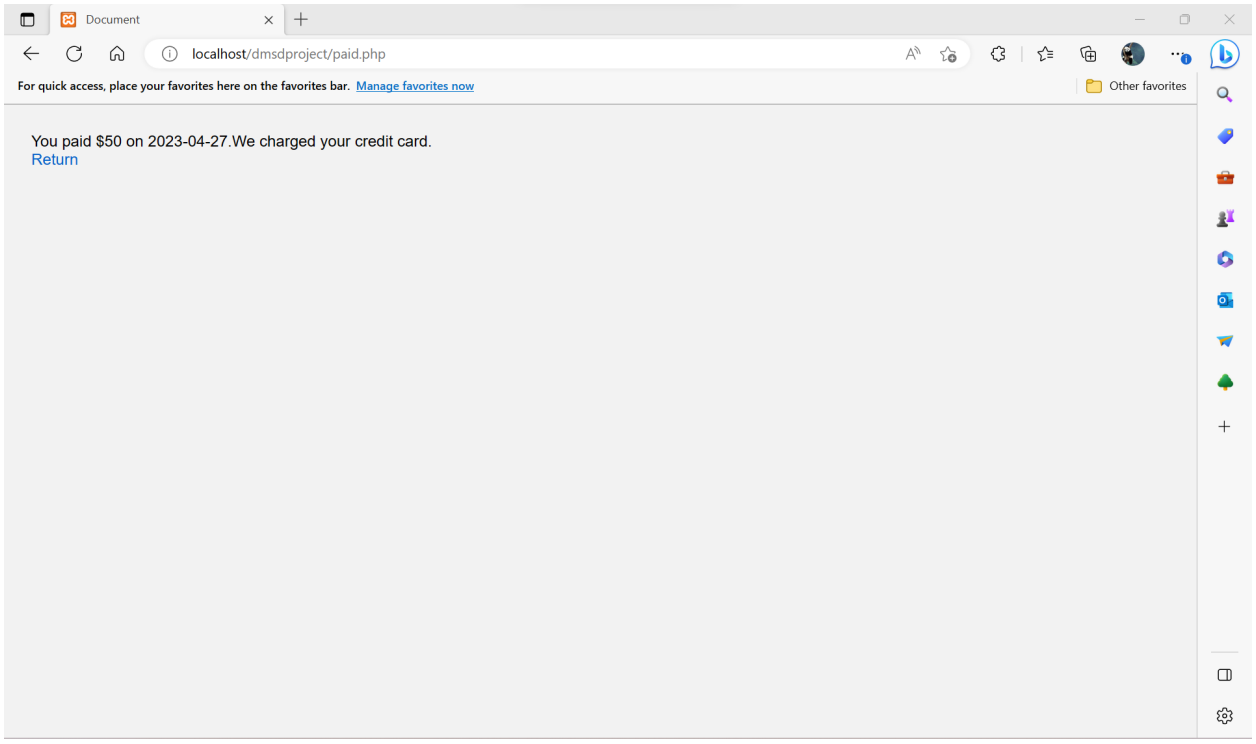
Brake	Car	$200
Tire repair and replacement	Car	$60
Engine tune-up	Car	$80
Vehicle computer diagnostic	Car	$100
State vehicle inspection	Car	$10
Oil Change	Van	$75
Front-end alignment	Van	$100
Brake	Van	$300
Tire repair and replacement	Van	$70
Engine tune-up	Van	$150
Vehicle computer diagnostic	Van	$100
State vehicle inspection	Van	$10
Oil Change	Truck	$50
Front-end alignment	Truck	$100
Brake	Truck	$400
Tire repair and replacement	Truck	$100
Engine tune-up	Truck	$200
Vehicle computer diagnostic	Truck	$200
State vehicle inspection	Truck	$20

Return

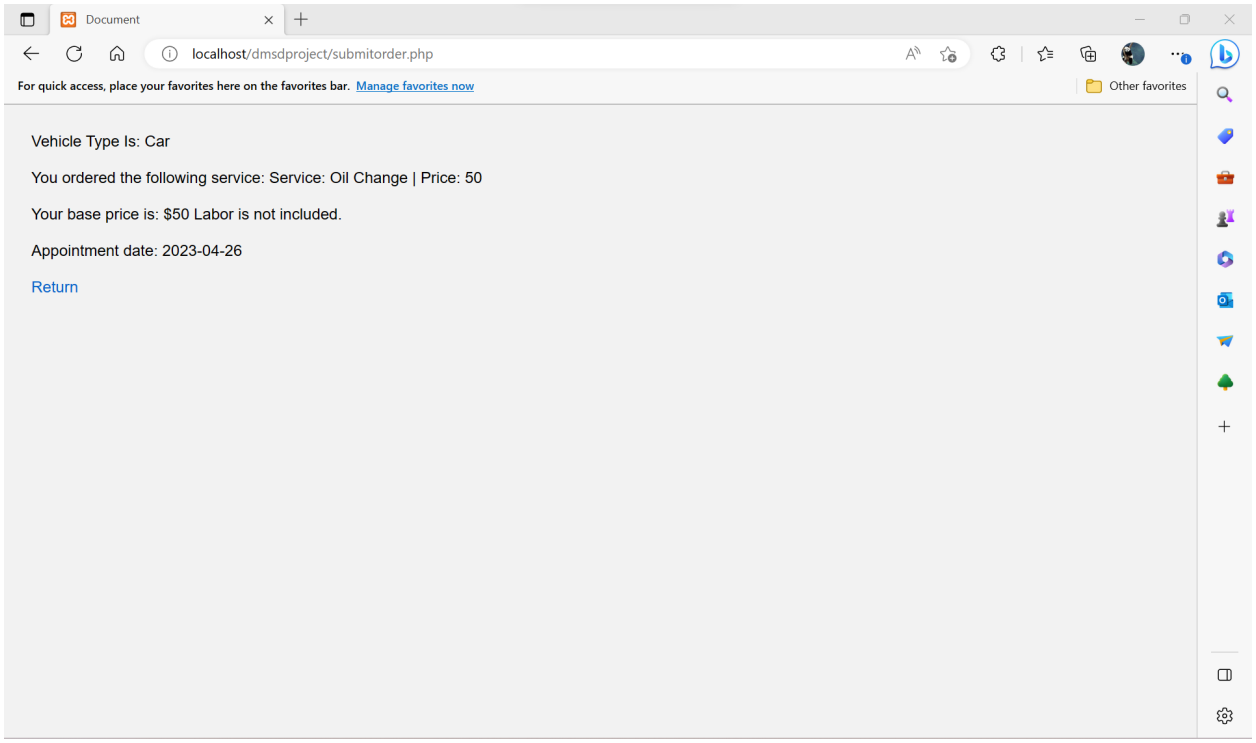
Customer Appointments & Invoices:



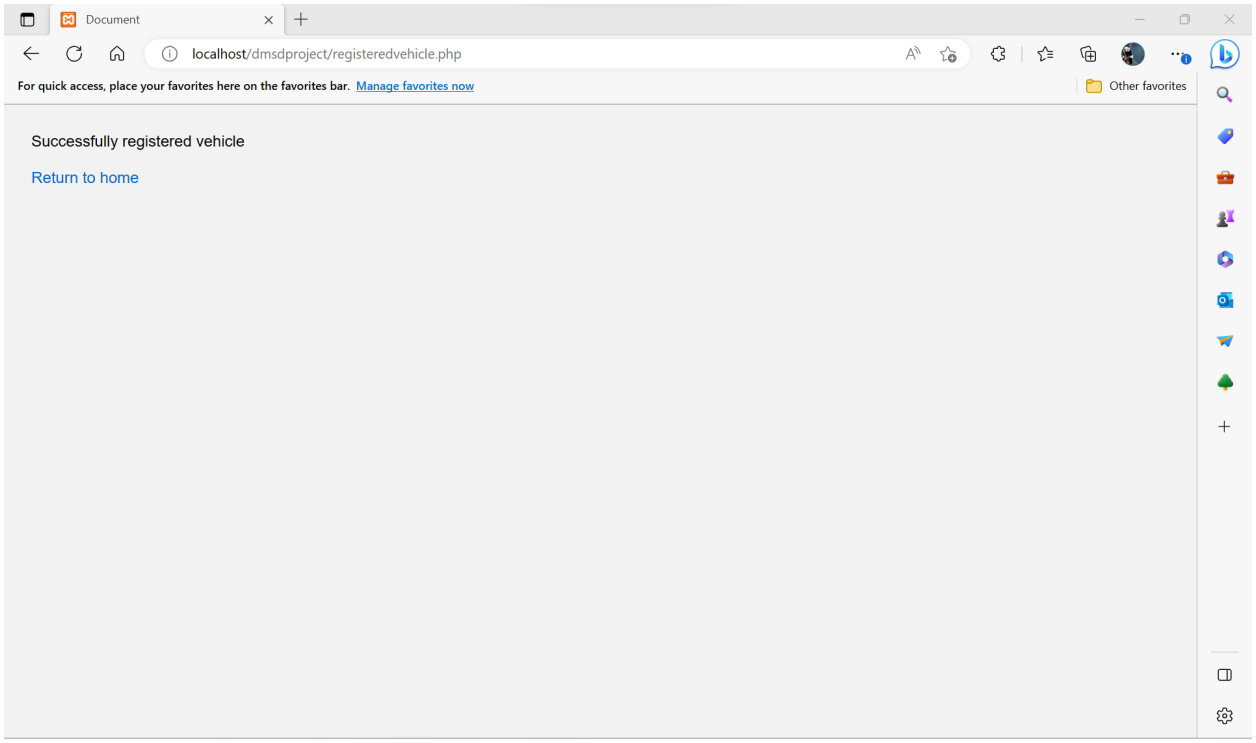
Customer Payment Confirmation:



Customer Appointment Confirmation:

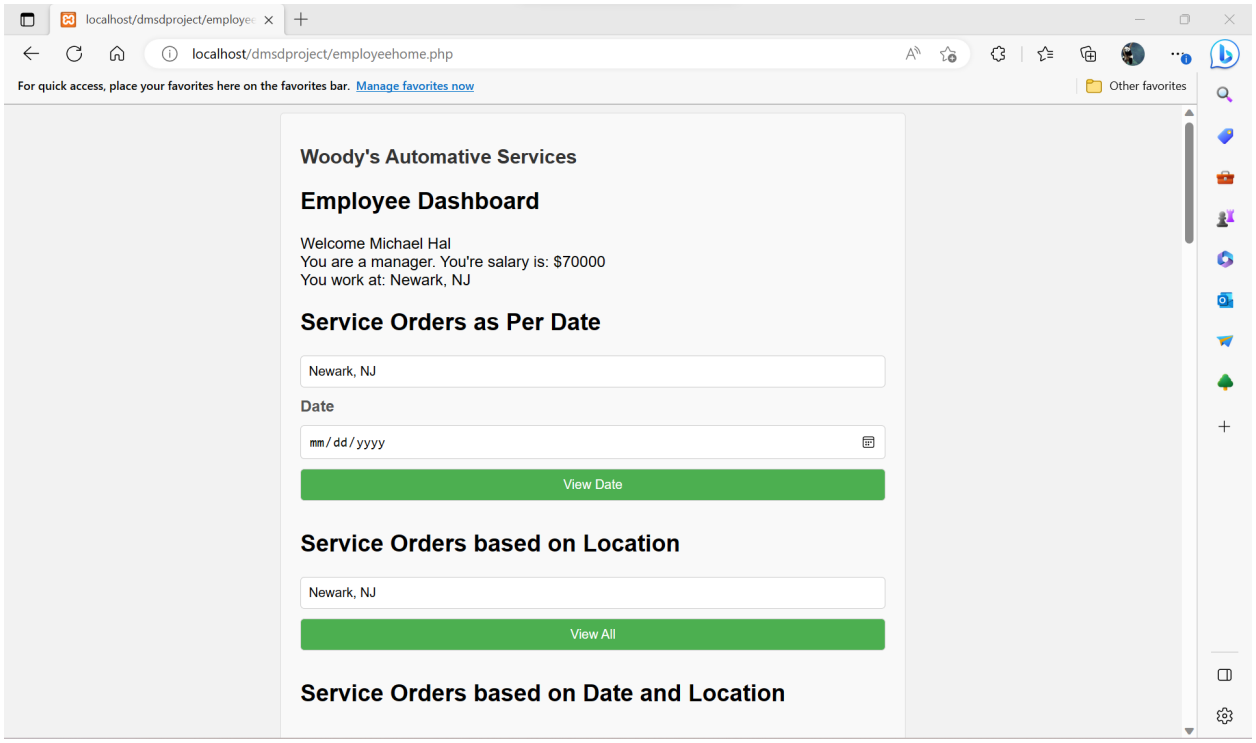


Vehicle Registration Confirmation:

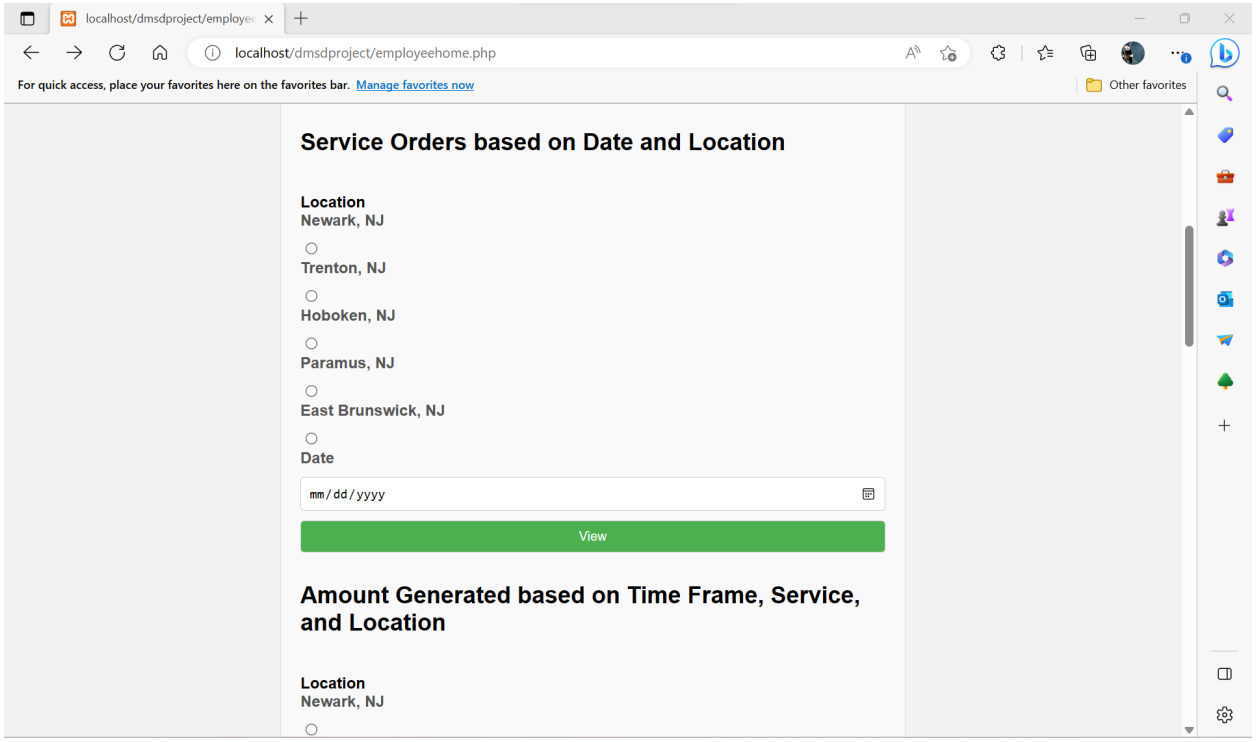


Employee Dashboard:

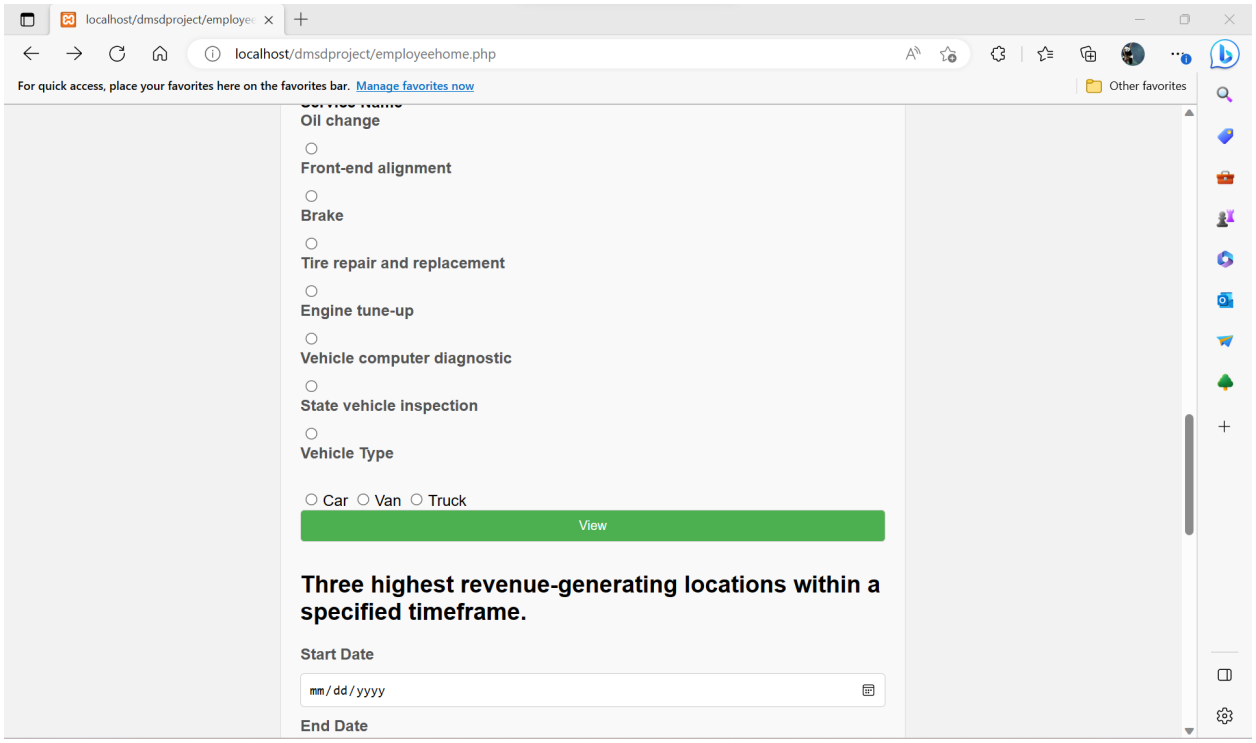
Service orders as per date and location:

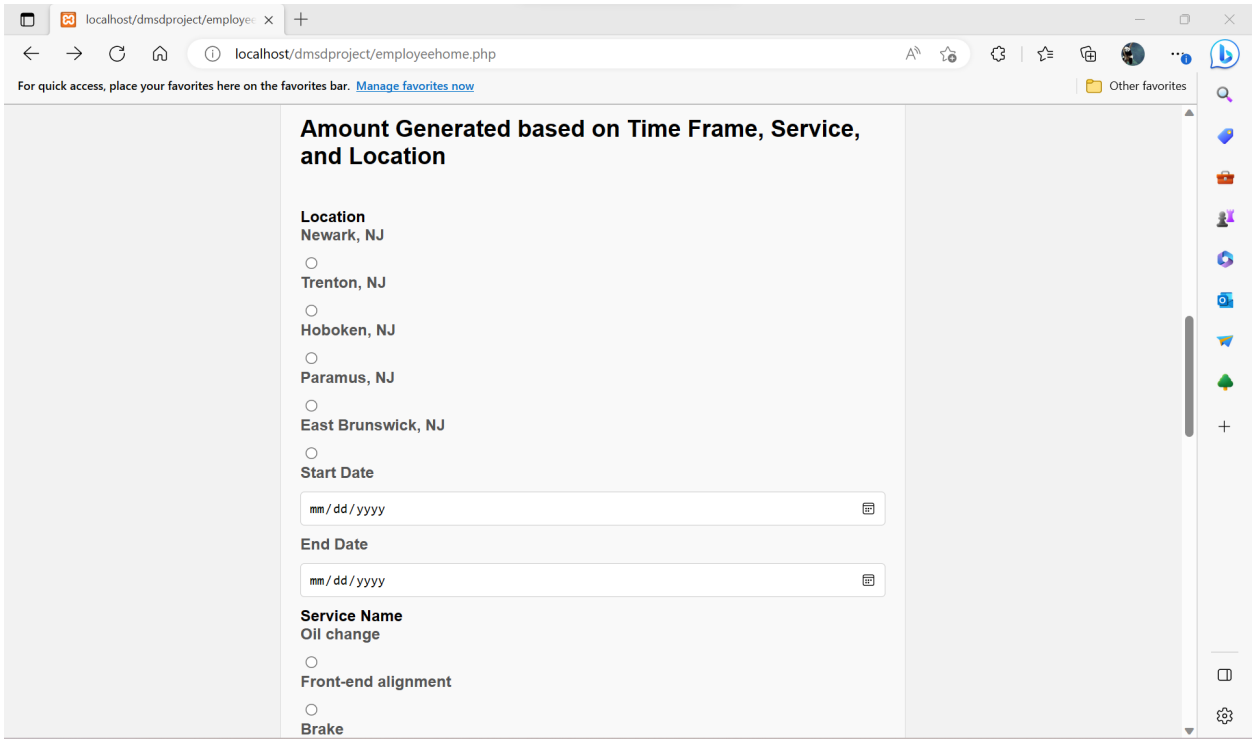


Service Orders based on Date and Location:

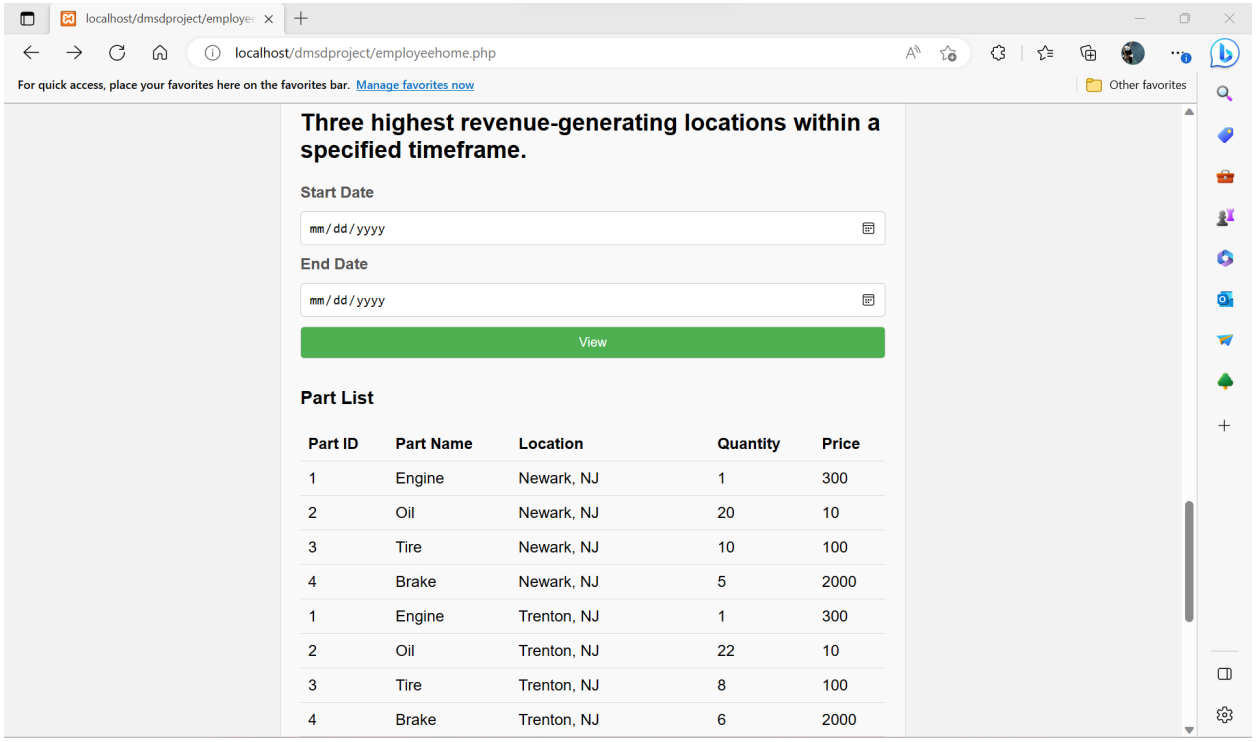


Amount generated based on time frame, service, and location:

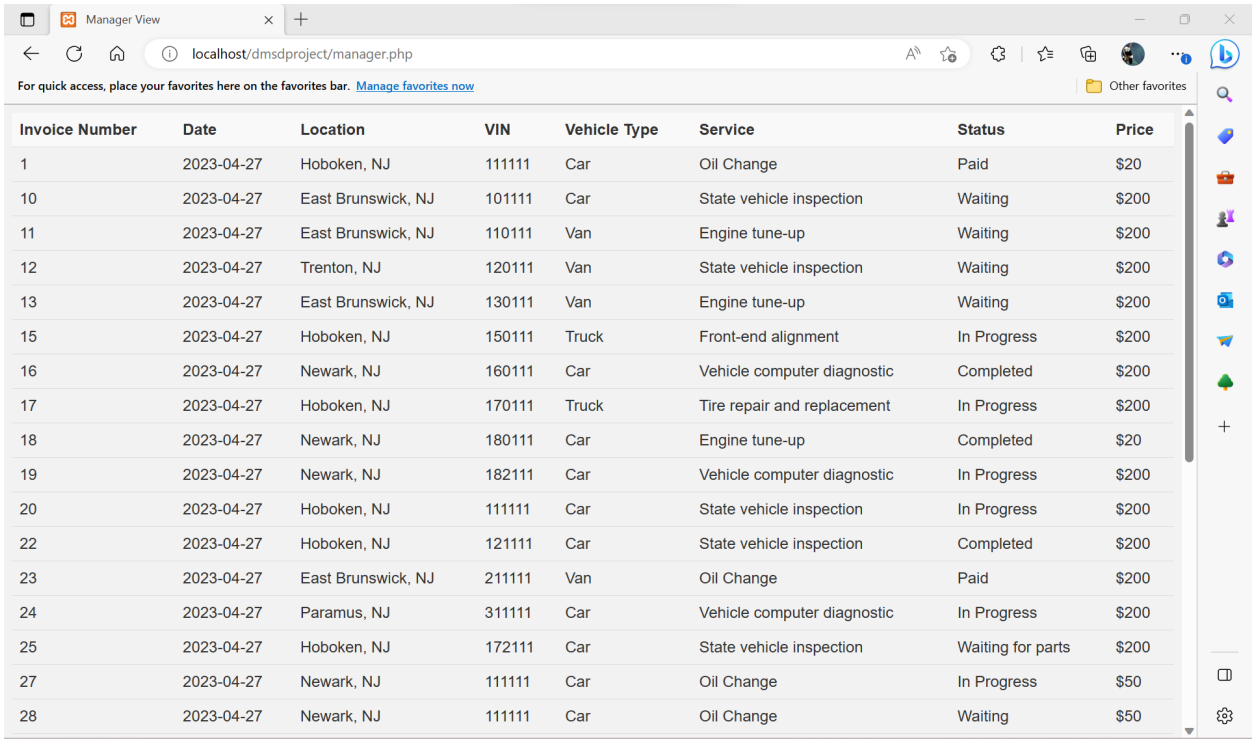




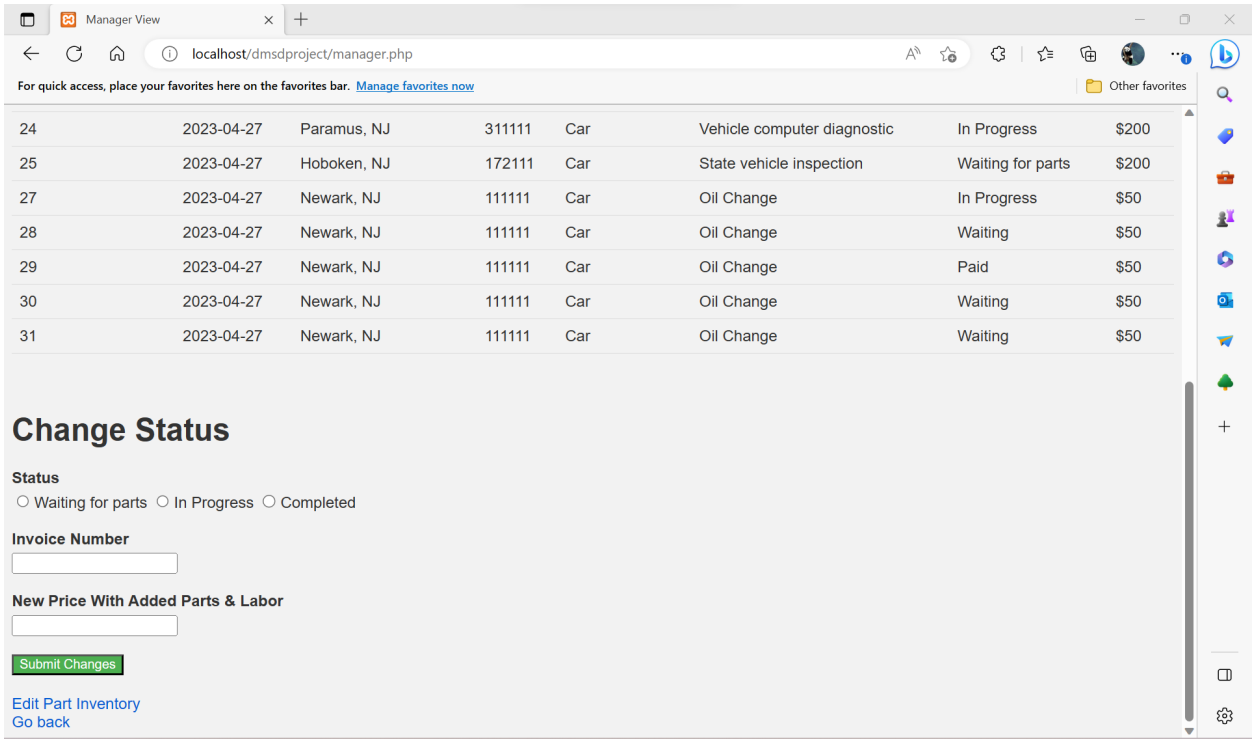
Three highest revenue-generating locations within a specified timeframe:


localhost/dmsdproject/employee
localhost/dmsdproject/employeehome.php
For quick access, place your favorites here on the favorites bar. Manage favorites now
Other favorites
Three highest revenue-generating locations within a specified timeframe.
Start Date
mm/dd/yyyy
End Date
mm/dd/yyyy
View
Part List
Part ID Part Name Location Quantity Price
1 Engine Newark, NJ 1 300
2 Oil Newark, NJ 20 10
3 Tire Newark, NJ 10 100
4 Brake Newark, NJ 5 2000
1 Engine Trenton, NJ 1 300
2 Oil Trenton, NJ 22 10
3 Tire Trenton, NJ 8 100
4 Brake Trenton, NJ 6 2000

Service orders as per date view:



Invoice Number	Date	Location	VIN	Vehicle Type	Service	Status	Price
1	2023-04-27	Hoboken, NJ	111111	Car	Oil Change	Paid	$20
10	2023-04-27	East Brunswick, NJ	101111	Car	State vehicle inspection	Waiting	$200
11	2023-04-27	East Brunswick, NJ	110111	Van	Engine tune-up	Waiting	$200
12	2023-04-27	Trenton, NJ	120111	Van	State vehicle inspection	Waiting	$200
13	2023-04-27	East Brunswick, NJ	130111	Van	Engine tune-up	Waiting	$200
15	2023-04-27	Hoboken, NJ	150111	Truck	Front-end alignment	In Progress	$200
16	2023-04-27	Newark, NJ	160111	Car	Vehicle computer diagnostic	Completed	$200
17	2023-04-27	Hoboken, NJ	170111	Truck	Tire repair and replacement	In Progress	$200
18	2023-04-27	Newark, NJ	180111	Car	Engine tune-up	Completed	$20
19	2023-04-27	Newark, NJ	182111	Car	Vehicle computer diagnostic	In Progress	$200
20	2023-04-27	Hoboken, NJ	111111	Car	State vehicle inspection	In Progress	$200
22	2023-04-27	Hoboken, NJ	121111	Car	State vehicle inspection	Completed	$200
23	2023-04-27	East Brunswick, NJ	211111	Van	Oil Change	Paid	$200
24	2023-04-27	Paramus, NJ	311111	Car	Vehicle computer diagnostic	In Progress	$200
25	2023-04-27	Hoboken, NJ	172111	Car	State vehicle inspection	Waiting for parts	$200
27	2023-04-27	Newark, NJ	111111	Car	Oil Change	In Progress	$50
28	2023-04-27	Newark, NJ	111111	Car	Oil Change	Waiting	$50



24	2023-04-27	Paramus, NJ	311111	Car	Vehicle computer diagnostic	In Progress	$200
25	2023-04-27	Hoboken, NJ	172111	Car	State vehicle inspection	Waiting for parts	$200
27	2023-04-27	Newark, NJ	111111	Car	Oil Change	In Progress	$50
28	2023-04-27	Newark, NJ	111111	Car	Oil Change	Waiting	$50
29	2023-04-27	Newark, NJ	111111	Car	Oil Change	Paid	$50
30	2023-04-27	Newark, NJ	111111	Car	Oil Change	Waiting	$50
31	2023-04-27	Newark, NJ	111111	Car	Oil Change	Waiting	$50

Change Status

Status

○ Waiting for parts ○ In Progress ○ Completed

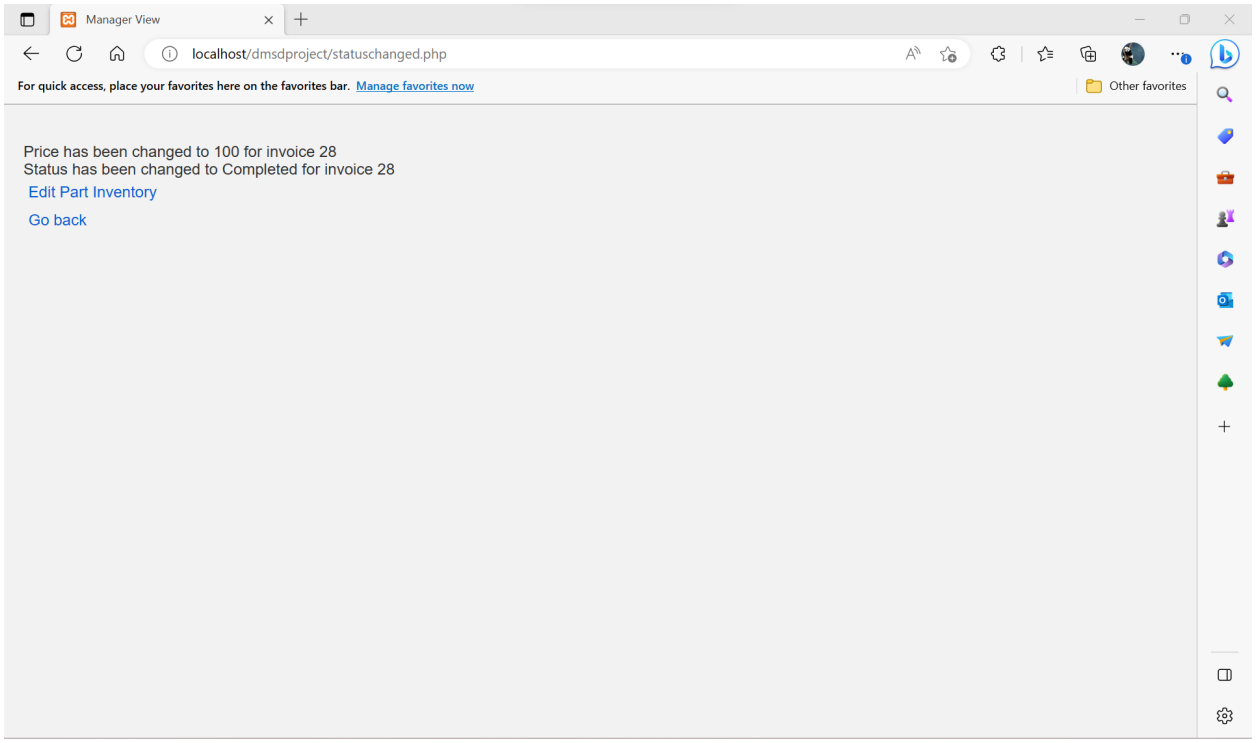
Invoice Number

New Price With Added Parts & Labor

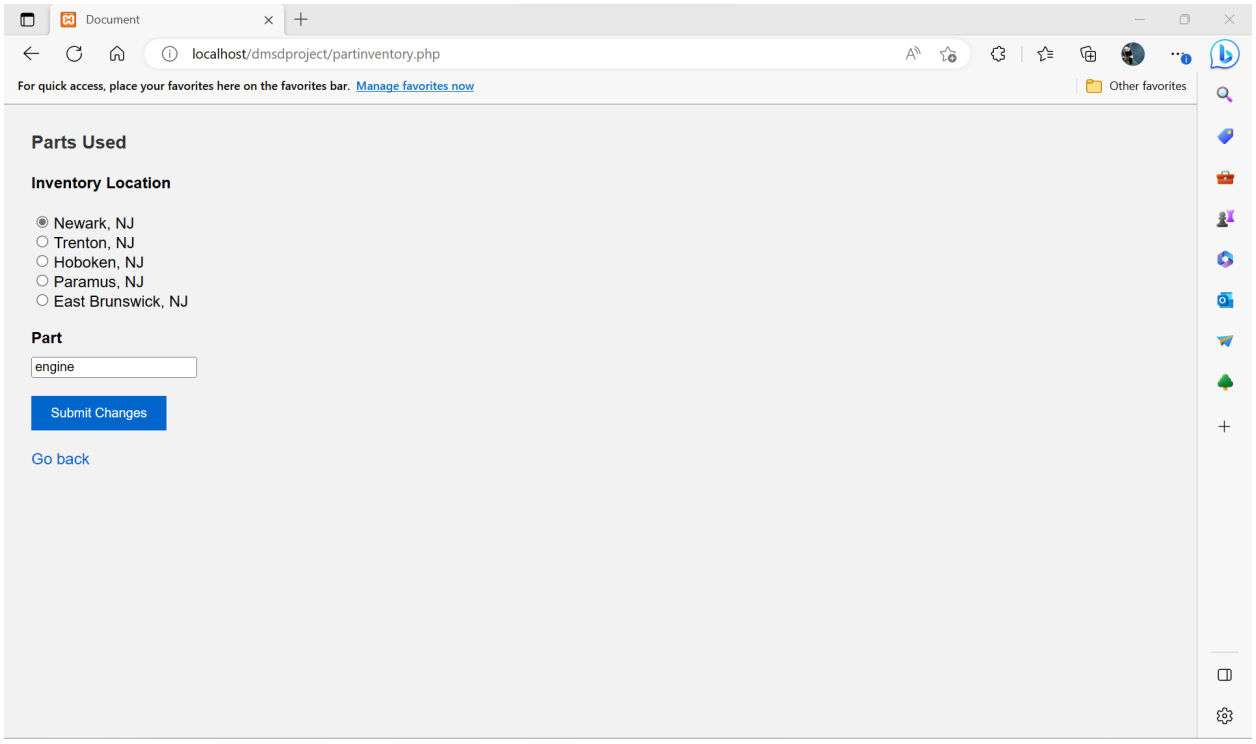
Submit Changes

Edit Part Inventory
Go back

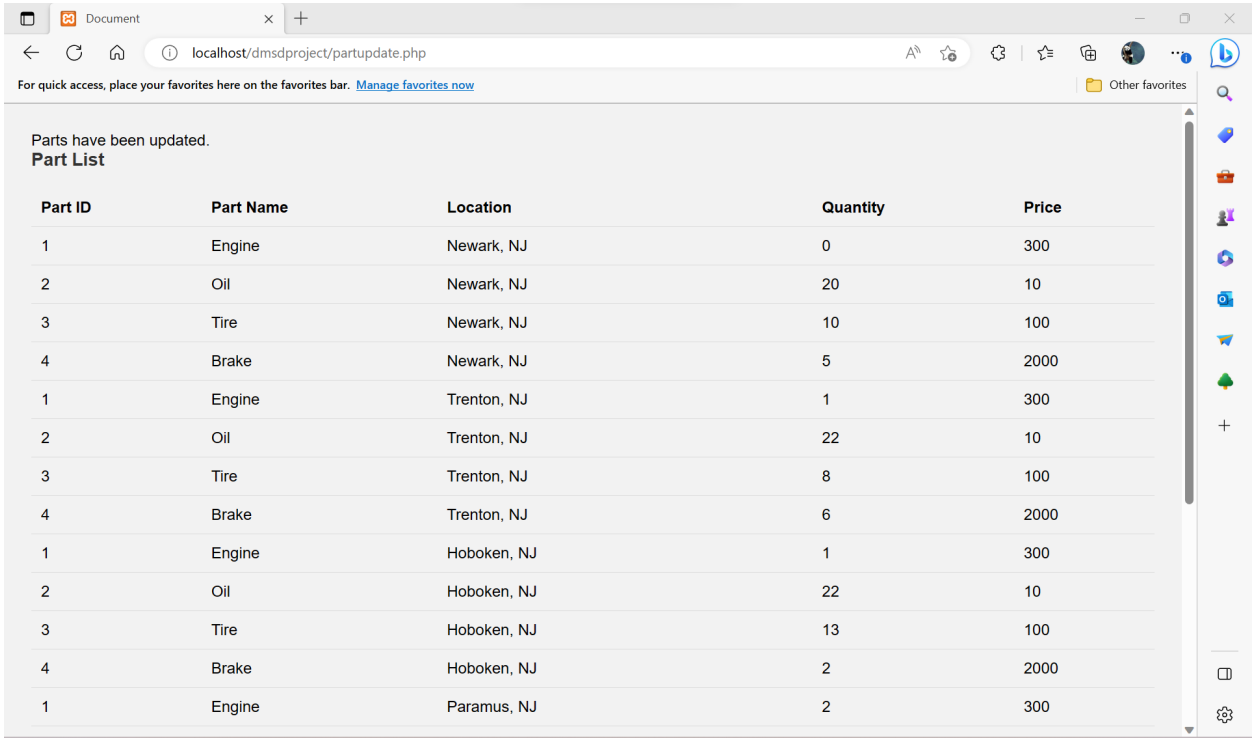
Status Change Confirmation:



Edit Part Inventory:



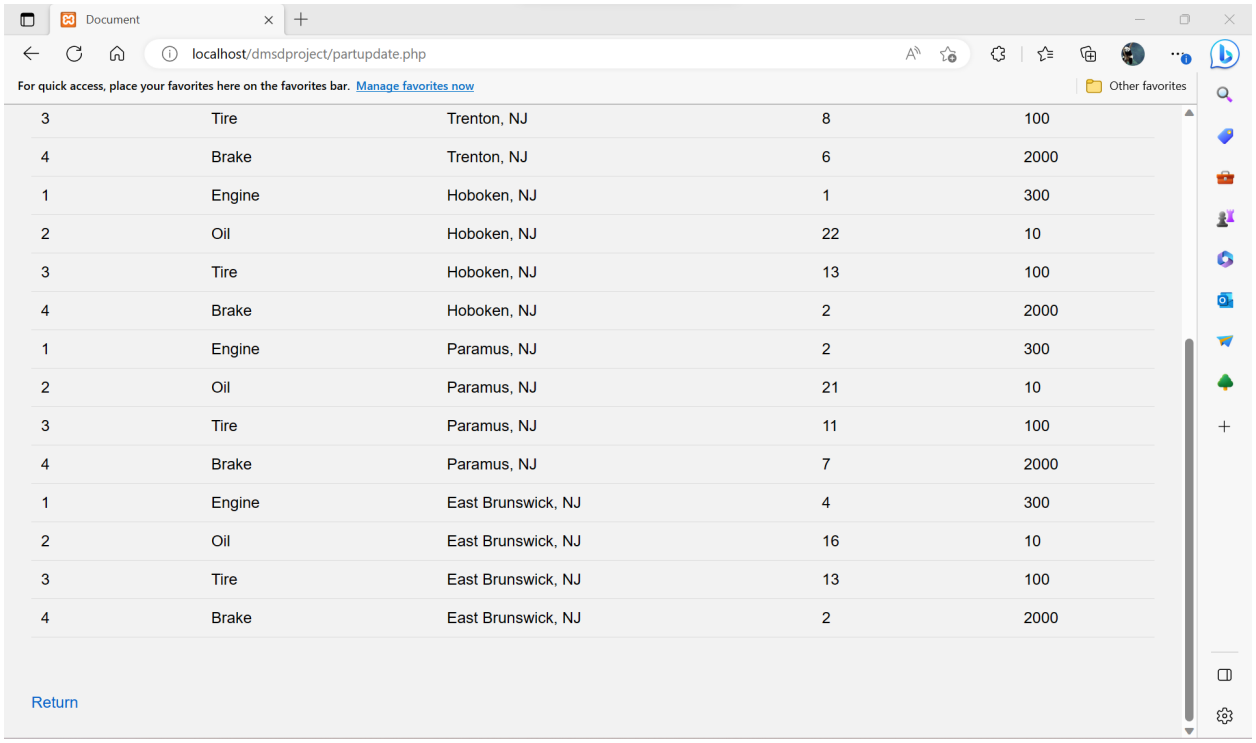
Edit parts Update Confirmation:



Parts have been updated.

Part List

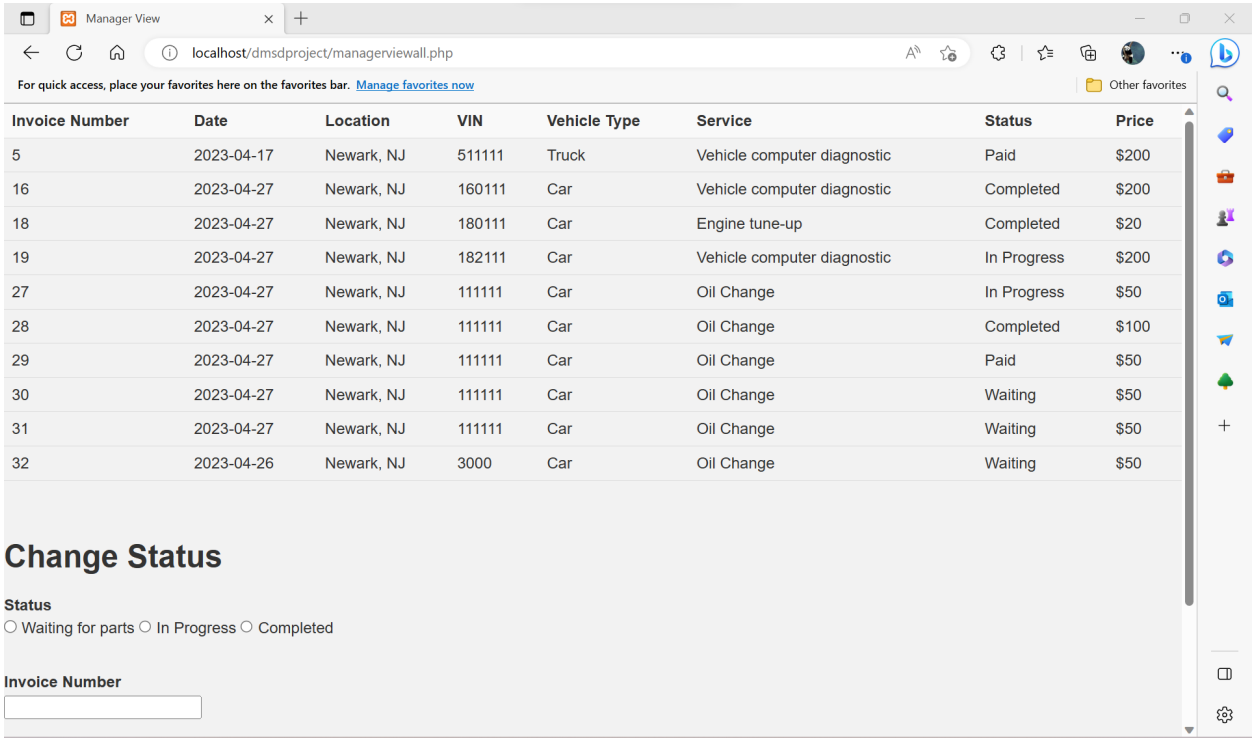
Part ID	Part Name	Location	Quantity	Price
1	Engine	Newark, NJ	0	300
2	Oil	Newark, NJ	20	10
3	Tire	Newark, NJ	10	100
4	Brake	Newark, NJ	5	2000
1	Engine	Trenton, NJ	1	300
2	Oil	Trenton, NJ	22	10
3	Tire	Trenton, NJ	8	100
4	Brake	Trenton, NJ	6	2000
1	Engine	Hoboken, NJ	1	300
2	Oil	Hoboken, NJ	22	10
3	Tire	Hoboken, NJ	13	100
4	Brake	Hoboken, NJ	2	2000
1	Engine	Paramus, NJ	2	300



3	Tire	Trenton, NJ	8	100
4	Brake	Trenton, NJ	6	2000
1	Engine	Hoboken, NJ	1	300
2	Oil	Hoboken, NJ	22	10
3	Tire	Hoboken, NJ	13	100
4	Brake	Hoboken, NJ	2	2000
1	Engine	Paramus, NJ	2	300
2	Oil	Paramus, NJ	21	10
3	Tire	Paramus, NJ	11	100
4	Brake	Paramus, NJ	7	2000
1	Engine	East Brunswick, NJ	4	300
2	Oil	East Brunswick, NJ	16	10
3	Tire	East Brunswick, NJ	13	100
4	Brake	East Brunswick, NJ	2	2000

Return

Manager View based on Date:



Invoice Number	Date	Location	VIN	Vehicle Type	Service	Status	Price
5	2023-04-17	Newark, NJ	511111	Truck	Vehicle computer diagnostic	Paid	$200
16	2023-04-27	Newark, NJ	160111	Car	Vehicle computer diagnostic	Completed	$200
18	2023-04-27	Newark, NJ	180111	Car	Engine tune-up	Completed	$20
19	2023-04-27	Newark, NJ	182111	Car	Vehicle computer diagnostic	In Progress	$200
27	2023-04-27	Newark, NJ	111111	Car	Oil Change	In Progress	$50
28	2023-04-27	Newark, NJ	111111	Car	Oil Change	Completed	$100
29	2023-04-27	Newark, NJ	111111	Car	Oil Change	Paid	$50
30	2023-04-27	Newark, NJ	111111	Car	Oil Change	Waiting	$50
31	2023-04-27	Newark, NJ	111111	Car	Oil Change	Waiting	$50
32	2023-04-26	Newark, NJ	3000	Car	Oil Change	Waiting	$50

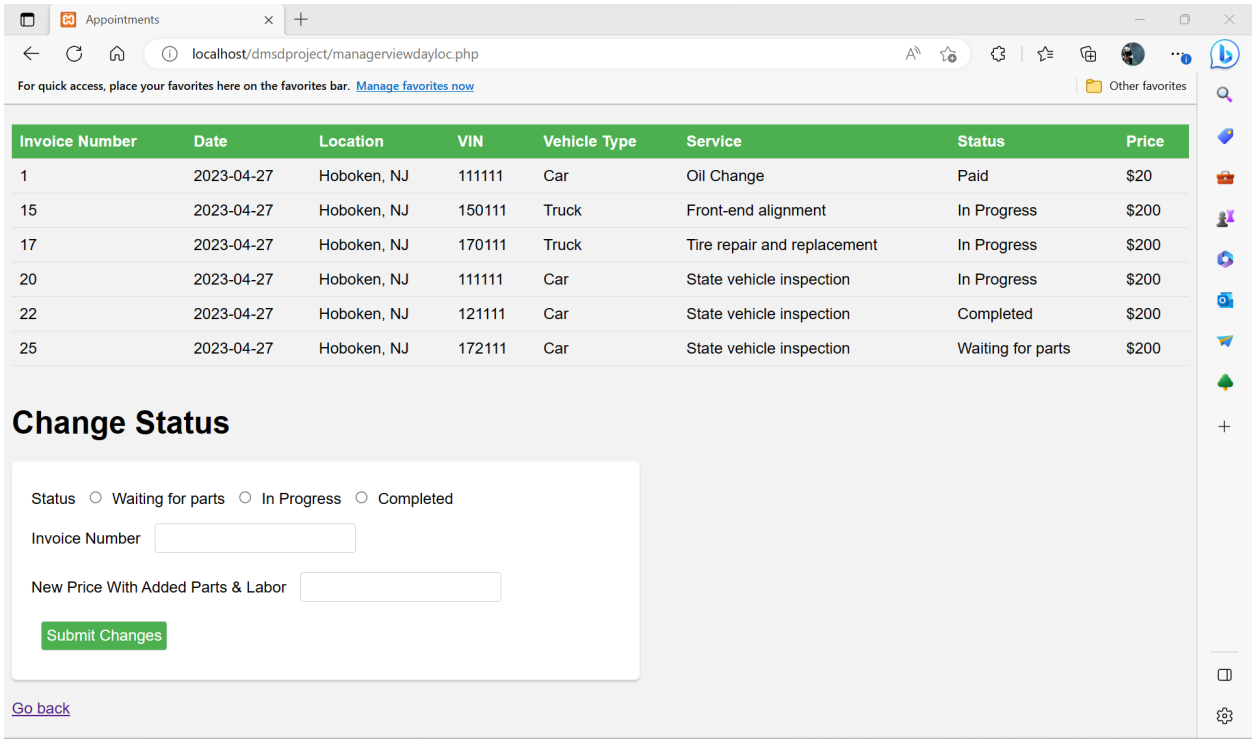
Change Status

Status

○ Waiting for parts ○ In Progress ○ Completed

Invoice Number

Manager view of Service Orders based on Date and Location:



Invoice Number	Date	Location	VIN	Vehicle Type	Service	Status	Price
1	2023-04-27	Hoboken, NJ	111111	Car	Oil Change	Paid	$20
15	2023-04-27	Hoboken, NJ	150111	Truck	Front-end alignment	In Progress	$200
17	2023-04-27	Hoboken, NJ	170111	Truck	Tire repair and replacement	In Progress	$200
20	2023-04-27	Hoboken, NJ	111111	Car	State vehicle inspection	In Progress	$200
22	2023-04-27	Hoboken, NJ	121111	Car	State vehicle inspection	Completed	$200
25	2023-04-27	Hoboken, NJ	172111	Car	State vehicle inspection	Waiting for parts	$200

Change Status

Status ○ Waiting for parts ○ In Progress ○ Completed

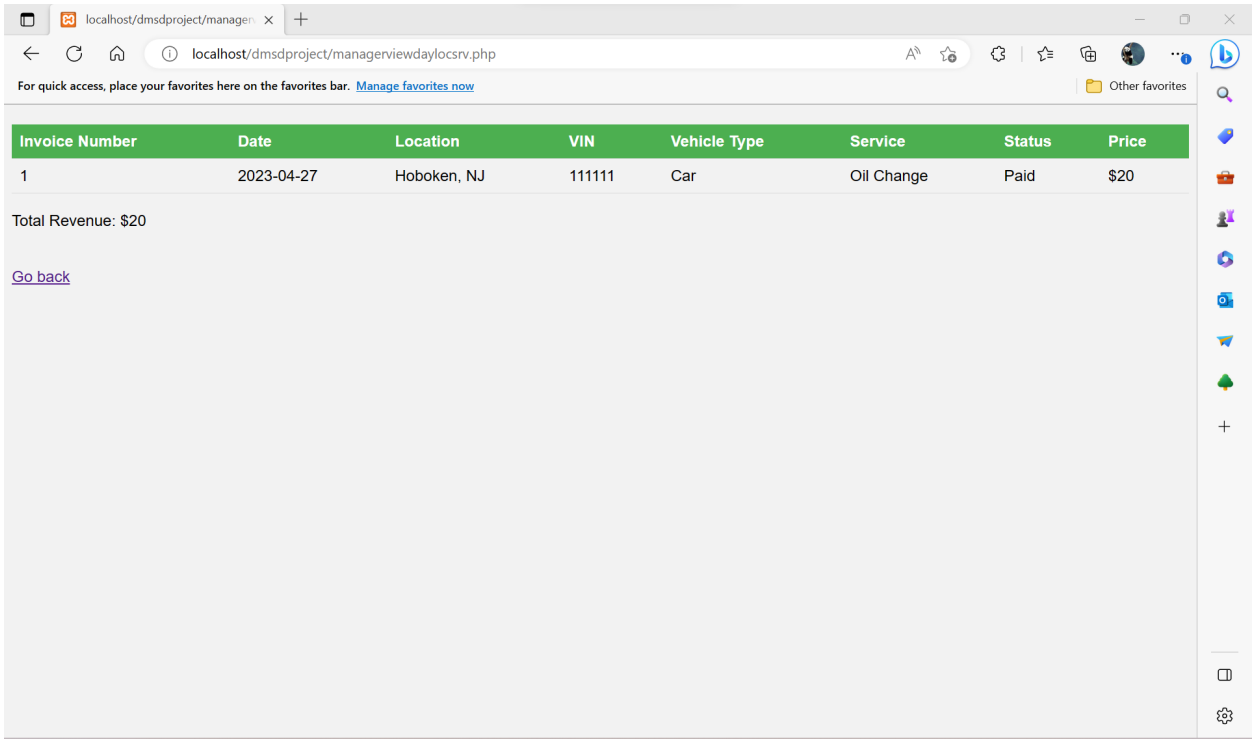
Invoice Number

New Price With Added Parts & Labor

Submit Changes

Go back

Manager view based on time frame, service, and location:

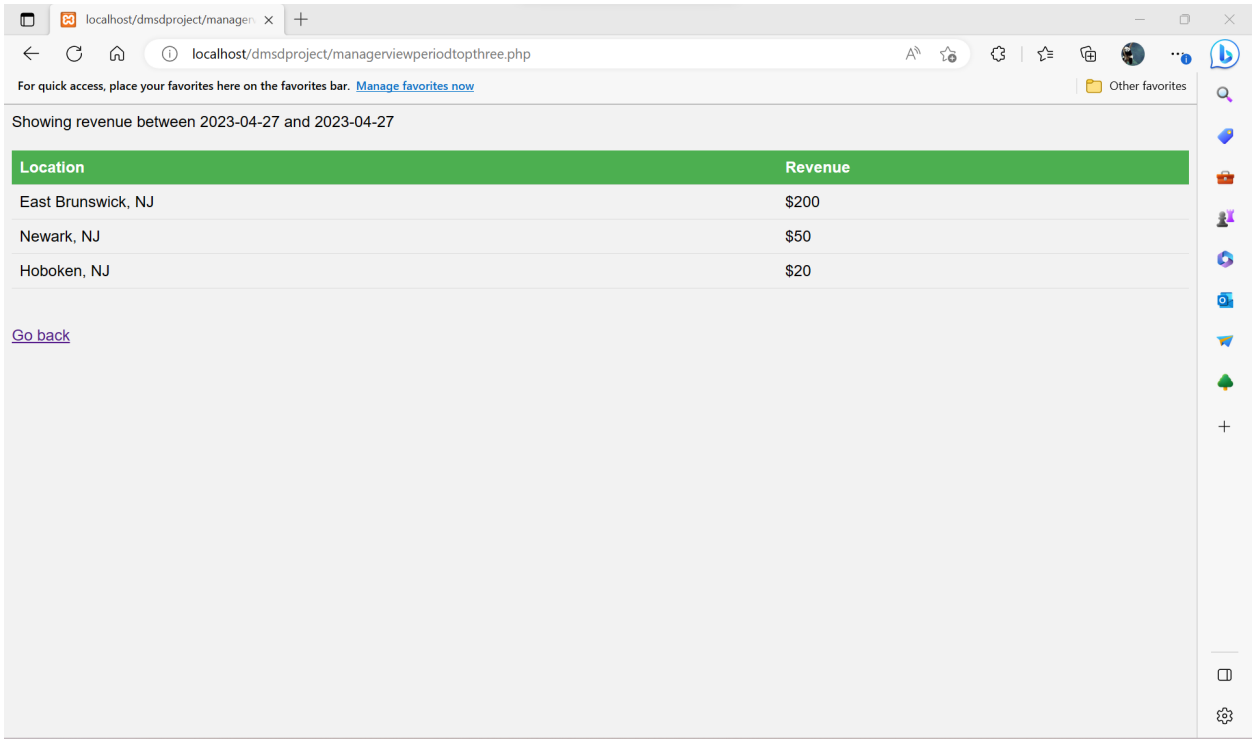


Invoice Number	Date	Location	VIN	Vehicle Type	Service	Status	Price
1	2023-04-27	Hoboken, NJ	111111	Car	Oil Change	Paid	$20

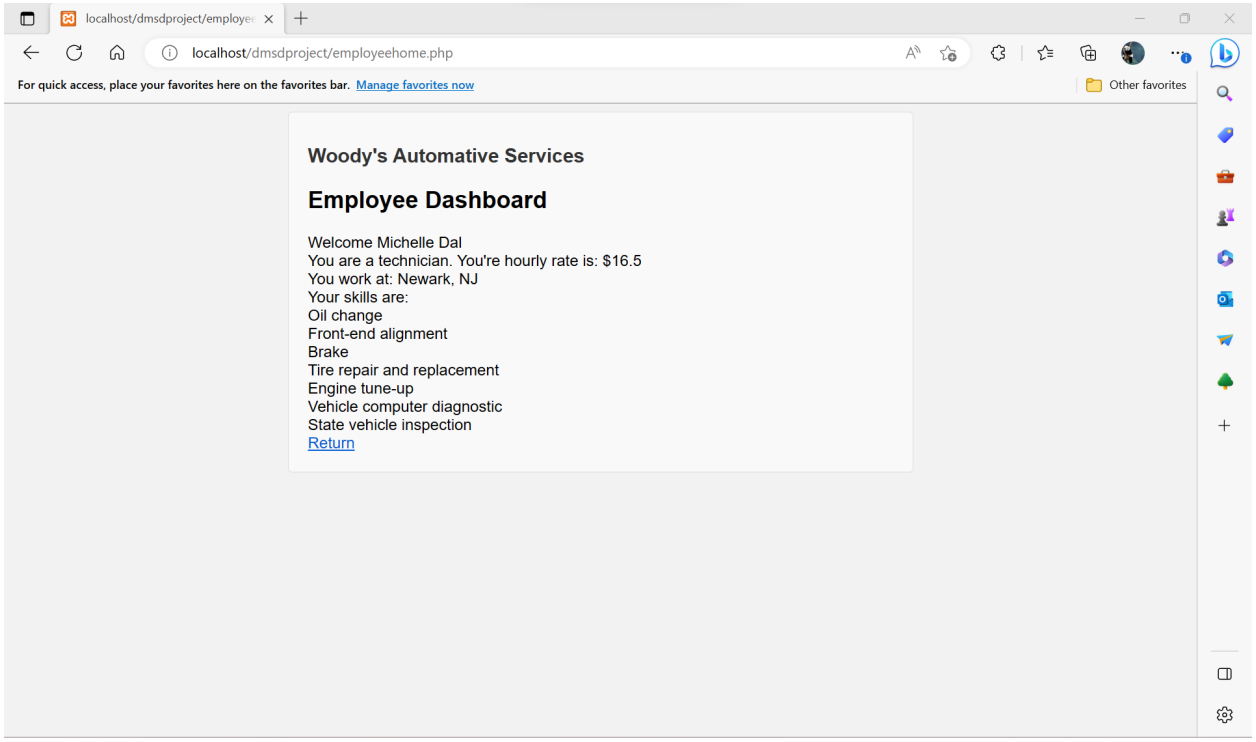
Total Revenue: $20

Go back

Three highest revenue generating locations:



Technician Dashboard:


localhost/dmsdproject/employee
localhost/dmsdproject/employeehome.php
For quick access, place your favorites here on the favorites bar. Manage favorites now
Other favorites
Woody's Automative Services
Employee Dashboard
Welcome Michelle Dal
You are a technician. You're hourly rate is: $16.5
You work at: Newark, NJ
Your skills are:
Oil change
Front-end alignment
Brake
Tire repair and replacement
Engine tune-up
Vehicle computer diagnostic
State vehicle inspection
Return

Edit Profile: