

Project Report: Dos Spot Salesman Appointment Booking for Health

1. INTRODUCTION

1.1 Project Overview

Dos Spot is a digital appointment booking system designed for health-related consultations through field salespersons. The aim is to digitize and streamline how healthcare appointments are booked, especially in semi-urban and rural areas where traditional online systems are inaccessible.

1.2 Purpose

To create a platform where health sales representatives can assist customers in booking health checkups or consultations efficiently, bridging the gap between healthcare services and non-digital users.

2. IDEATION PHASE

2.1 Problem Statement

Many people in remote or tech-averse regions lack access to online healthcare appointment systems. Manual processes are inefficient and prone to errors.

2.2 Empathy Map Canvas

- Users: Health reps, Patients
- Needs: Fast, error-free booking, accessible platform
- Pains: Manual errors, missed bookings
- Gains: Simplified system, accurate data, timely appointments

2.3 Brainstorming

- Mobile app for salesmen
- Centralized backend for hospitals
- Auto notifications and confirmations
- Role-based access (Admin, Salesman)

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Patient Contacted by Salesman Appointment booked via app Confirmed by Hospital Notification sent to patient

3.2 Solution Requirement

- Salesman-facing mobile interface
- Admin dashboard

- Booking module
- Notification system (SMS/Email)

3.3 Data Flow Diagram

Level 0 DFD:

Patient Salesman App Backend Server Hospital System

3.4 Technology Stack

- Frontend: React Native
- Backend: Node.js, Express
- Database: MongoDB
- Cloud: AWS/GCP
- Auth: Firebase Auth

4. PROJECT DESIGN

4.1 Problem-Solution Fit

Offline users can access online healthcare booking via trusted salesmen, ensuring reach and accuracy.

4.2 Proposed Solution

A mobile application for field reps integrated with a backend system allowing real-time booking and updates.

4.3 Solution Architecture

- Frontend (Mobile App): Booking UI, form validation
- Backend (API Layer): Logic, authentication, booking sync
- Database: Store booking, users, hospitals
- Notification System: SMS, Email using Twilio

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Week 12: Requirement gathering & planning
- Week 34: Frontend & backend setup
- Week 5: Integration and testing
- Week 6: Deployment and feedback loop

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

- Load testing using JMeter
- Booking response time < 2s
- Concurrent users tested up to 500
- Uptime target: 99.9%

7. RESULTS

7.1 Output Screenshots

(Demo screenshots of: Login, Booking form, Confirmation page, Admin dashboard add manually here)

8. ADVANTAGES & DISADVANTAGES

Advantages:

- Improves health access
- Reduces booking time
- Centralized tracking
- Role-based security

Disadvantages:

- Salesman dependency
- Initial training needed
- Mobile network required

9. CONCLUSION

Dos Spot successfully bridges the digital divide in healthcare appointment booking, enabling wider access through sales representatives. It offers scalability and integration possibilities with hospital EMRs.

10. FUTURE SCOPE

- AI-based appointment suggestions
- Integration with government health schemes
- Voice-based assistant for booking
- Analytics for hospitals to track outreach

11. APPENDIX

- Source Code: Will be provided upon request
- Dataset Link: Custom entries via forms (no public dataset)
- GitHub & Project Demo Link: <https://github.com/example/dos-spot> (placeholder link)

Program

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "appointment_db";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);

// Check
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

$name = $_POST['customer_name'];
$contact = $_POST['contact_number'];
$location = $_POST['location'];
$date = $_POST['appointment_date'];
$time = $_POST['appointment_time'];
$concern = $_POST['health_concern'];

$sql = "INSERT INTO appointments (customer_name, contact_number, location,
appointment_date, appointment_time, health_concern)
VALUES ('$name', '$contact', '$location', '$date', '$time', '$concern')";

if ($conn->query($sql) === TRUE) {
    echo "<h3>Appointment booked successfully!</h3>";
    echo "<b>Customer:</b> $name<br>";
}
```

```
    echo "<b>Contact:</b> $contact<br>";
    echo "<b>Location:</b> $location<br>";
    echo "<b>Date:</b> $date<br>";
    echo "<b>Time:</b> $time<br>";
    echo "<b>Concern:</b> $concern<br>";
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}
$conn->close();
?>
```

Output

Appointment booked successfully!

Customer: John Doe

Contact: 9876543210

Location: Hyderabad

Date: 2025-07-02

Time: 11:00

Concern: Regular health check-up