**Vision and Scope Document**

**Clinic Scheduler Application for Doctors**

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**April 5, 2018**

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Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Team J | 3/7/18 | initial draft | Initial draft |
| Team J | 4/5/18 | Revision based on instructor review | 1.0 approved |

# 1. Business Requirements

## 1.1. Background

In the past, if a person wanted to get a doctor’s appointment, he/she had to go to different doctors, clinics and check if doctor was available or not. He/she had to check whether they accept the health insurance or not. It consumes a lot of time and energy. In addition to this, due to limited number of specialists, a patient sometimes had limited options and had to settle for whatever was available. It was very difficult and inconvenient to get doctor’s appointment that are not available in neighborhood clinics as they had to go far or to other cities where it might be available. Population is one of the factors to delay the process of scheduling a doctor's appointment. The list of stakeholders in this project mainly includes project manager, development team, doctors and users/patients.

## 1.2. Business Scope

This project will consider all local health department services, private clinics, appointment scheduling for women, infants and children, late arrival or missed appointment, scheduling appointment for disabled persons/veterans. The user profile will help the application to collaborate with various insurance companies to recommend the clinic which are covered in insurance. Following are some application services that can help grow business:

1)   Overcoming geographical obstacles by providing accurate clinic locations

2)   Attracting new customers with adding more locations

3)   Providing accurate clinic appointments can increase the efficiency of the clinic.

4)   The user-friendly application interface can provide fast appointment booking.

6)   Providing an appointment queue for popular clinics can help users to schedule an appointment in advance.

7)   Providing information security to the user will increase the user base of the application.

In the future, the mobile and web application may open for third party health insurance companies to collaborate and recommend the clinics on the patient’s health insurance plan.

## 1.3. Business Objective

BO-1: Provide online medical service information to users

BO-2: Allow user to self-setup appointment before seeing the doctor.

BO-3: Increase appointment booking rate of the clinic by 15% - 25%.

BO-4: Increase work efficiency for clinics to collect patient information.

## 1.4. Success Parameters

The success metrics for Scheduler Application can be described as follows:

1. User Base: The growth in user base of the application will be the first success metric. The growth rate of users should be at least 4-5% each quarter. The first 2 years growth in user base should be around 20-25%.
2. Number of appointment: The success of the application will be depending on the number of appointments that are made per week. A growth rate of 5-6% in appointments per month can be an effective growth.
3. Customer Service: The customer care provided by the application owners will help to increase the business efficiency. This includes everyone from clinic, product owner, developer team, etc.

## 1.5. Vision

TapNDiagnose Inc. is a company which will provide smart healthcare services on the go. The company will provide faster medical appointment scheduling, information about the medical facilities, geographical location of the medical facility, and provide services like transportation. The company will be open for new ideas and provide an excellent customer service. The company will be open for new businesses by collaborating with as much as medical facilities as it can.

## 1.6. Risks

RI-1: Too few clinics and doctors agree to pay to use this system which will limit the schedule availabilities.

(Probability= 0.5; Impact= 9)

RI-2: Insufficient appointment capacity which means the appointment system does not provide up-to-date information

(Probability= 0.3; Impact=6)

## 1.7. Assumptions

AS-1: Systems with appropriate user interfaces will be available for clinic receptionists to process the expected volume of scheduling appointments.

AS-2: clinic receptionists shall be able to pull out schedule information when needed.

# 2. Scope and Limitations

## 2.1. Major Features

FE-1:   Search doctors based on keywords like doctor name, specialty.

FE-2:   Narrow down doctors by applying different filters like locations, ratings, price.

FE-3:   Compare multiple doctors.

FE-4:   Adding, cancelling and modifying appointments to/in the cart.

FE-5:   Add appointments to wish list for a later purchase.

FE-6:   Automated recommendation for similar doctors based on current searches.

FE-7:   Provide coupon code capabilities.

FE-8:   Provide appointment history.

FE-9:   Send alerts/reminders prior to appointment.

FE-10: Returns and refunds functionalities.

FE-11: Allow users to provide feedback and ratings.

## 2.2. Scope of Initial & Subsequent Release

|  |  |  |  |
| --- | --- | --- | --- |
| Feature | Release 1 | Release 2 | Release 3 |
| FE-1, Search doctors based on keywords. | a. Search using different keywords like name, specialty.    b. View list of contents that match to their search criteria. |  |  |
| FE-2, Filter doctors. | Filter doctors based on different like locations, ratings. | Filters based on price |  |
| FE-3, Compare multiple products. | a. Feature based comparison.    b. Allowing not more than four doctors for comparison. | Partially implemented. | Fully implemented |
| FE-4: Adding, cancelling and modifying appointments to/in the cart. | User can modify the products in the cart (change or remove appointments) |  |  |
| FE-5: Add appointments to wish list for a later purchase. |  | a. User can save any products for future purchase. | Fully implemented. |
| FE-6: Automated recommendation for similar doctors based on current searches. |  | a. Generate the recommendation based on current search.    b. Generate the recommendation from recently viewed items | Generate the recommendation from appointment history. |
| FE-7: Provide coupon code capabilities. | Not implemented. | a. Provide coupon code on holiday seasons.  b. Provide promotional coupons. |  |
| FE-8: Provide appointment history | Display past appointments. | a. Auto tracking bar on order page | Send system generated emails on tracking updates |
| FE-9: Send alerts/reminders prior to appointment. | Users get alerts on their registered mail prior to appointment. | Users can set customized alerts (same day/before 1hour) either on mail or phone. |  |
| FE-10: Returns and refunds functionalities. | Refund and returns in store | Refunds and returns online |  |
| FE-11: Allow users to provide feedback and ratings | Allow users to give ratings based on their experience. | Allow users to write feedback. |  |

## 2.3. Limitations and Exclusions

1. The website is accessible to customers that are present in USA only.

2. The credit card payment options available are on the website are only Visa and MasterCard. Other payment options are not accepted.

# 3. Business Context

## 3.1. Stakeholder Profiles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Stakeholder | Major Value | Attitudes | Major Interests | Constraints |
| Project Manager | Planning, Managing,  Delegating, Allocating the  resources and keep team  focused towards objective. | Active stakeholder with strong commitment to lead the team towards success. | Cost and employee time savings must exceed development and usage costs | None identified |
| Development Team | Developing the software,  Teamwork, Trust each other  and work towards goals  together. | Responsible for  development of the software application and  concern about union relationships. | Highly efficient and easy to use system. | Training staff in present development tools. |
| Patient | Reaching out clinics and doctors online | Look forward to having such convenient tool for medical needs | Simplicity of use; ease of access health service providers | Be able to access Internet with a device |
| Doctor | Accept patients, referral patients to specialty doctors | Not comfortable on putting effort to study new system, but recognizes the value to the new system for himself/herself and the clinic | Easy to prepare for work agenda and manage work schedule | Be able to use a PC and know how to use the software |
| Clinic Receptionist | Coordinate with doctors and patients for assigning appointments, greeting patients and documenting patient files | Interest to manage patient appointments with advanced computer tools | View and modify appointment with easy steps, prepare files for doctors when patients check-in | Be able to use a PC and know how to use the software |
| Local Health facilities | Provide medical support after patient has seen the doctor | Focus on a new way to let people know about the facilities | Get more closure to public about the facilities | Not authorized to access to any confidential information about patient |
| Software Owner | Pay to develop the application, then sell to clinics | Has passion for the application to improve medical services and make profits | Provide technical support to patients, doctors, clinics, and other medical facilities | For efficient business insights on product sales we need manpower and resources to carry out data mining. |

## 3.2. Project Priorities

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Constraint | Driver | Degree of Freedom |
| Features | All featured to be included in the initial release must be fully functional. |  |  |
| Quality | 95% of user acceptance tests must pass; all security tests must pass |  |  |
| Schedule |  |  | Beta Release planned to be available by start of Q1, 2018; Results to be collected, analyzed and changes to be incorporated by April 2018; Release 1.0 by end of May 2018; |
| Cost |  |  | Budget overrun up to 25% before sponsor review. |
| Staff |  | Team consists of a project manager, 3 application developers, 1 front-end developer, and a tester; Additional developer and a part-time tester available if required. |  |

## 3.3. Deployment Considerations

The application and database servers should be upgraded to the latest compatible versions. More features such as billing and insurance payments will be added in in the later versions. As a part of future releases, the variety of supported devices might extend to smartphones, tablets, etc. Smartphones can work with the same productions and database server, but applications will need to be built to make an interactive interface for the user to use our scheduling services.

Training materials such as application tours, videos, FAQs, etc. shall be developed to train users in both the Internet-based and app-based versions of our application.