

# Carefree Spec

## Introduction

This spec is focused on the design and development of the minimally viable product (MVP) for our product, Carefree; meaning that the design and development sections (I.e. UX and Work Breakdown) present solely high-priority features that will be included in the MVP. Additional features are mentioned but are not broken down into further details.

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## Problem statement

The lack of transparency and accessibility to information regarding insurance coverage plans prevents young adults from accessing safe and affordable healthcare.

## Summary

Do you know the cost of a medical visit before you receive the medical bill? Do you feel lost whenever you try to understand your health care? For the young adults like you who are always on the go and have experienced the frustrations of finding information regarding health care services, or the fears of not being able to afford care, Carefree is a web app that helps users identify services that are accessible, affordable, and catered to their needs. Unlike traditional insurance brochures and doctor websites

which are hard to navigate, Carefree offers a central, go-to spot in finding the right doctor for the best price.

## Customer profile

Initially, our target audience includes young adults with ages ranging from 18 to 25.

- Who - young adults ranging from the ages of 18 to 25
- What - who are not familiar with navigating the healthcare system and are living on very tight budgets
- Where – within the United States, including rural, suburban, and urban areas
- Why -

A lot of young adults are on a tight budget and struggle to find health care services that are affordable.

- Many young adults are seeking healthcare services without parents/guardian help for the first time
  - Understanding medical terms can be very difficult, and expensive.
- When - they need to seek a specialized health service, generally after visiting
- How -
  - Search for services, and filter out options based on preferences
  - Get a comparison of various providers

### User Story #1

Sarah is a college senior attending a private Liberal Arts college in New York. She works under a tight budget because she has taken out student loans to support her education. As a college Athlete, Sarah is not only prone to injury but also always on the go and never finds the time to search for affordable services. Everyday Sarah enjoys going on morning runs before class. On Monday, while running Sarah slipped on ice and sprained her ankle. She decided to buy painkillers over the counter and try at-home remedies to treat her injury. As this injury began to affect her ability to play on her team, she decided to seek medical attention after a couple days and asked her friends for recommendations on cheap health service providers in New York.

### User Story #2

Ojok is a college Freshman who is an international student from Kenya. Ojok is often required to pay out of pocket for some health services after visiting the hospital uncertain of what was covered by the college insurance. The quest for information about in-network services provided by the school motivates Ojok to frequently check the college website. However, Ojok always finds the information on the website confusing with many complex terms.

### User Story #3

Grace is a young adult that moved from California. She recently graduated from college and now works in a city a few hours from home. Beyond visiting a personal care provider, she isn't quite aware of which specialists she should visit, and which ones would have access to her medical records. In the past, her parents dealt with the details of scheduling appointments and covering costs, but now that she lives on her own, the terminology and ambiguity in how much a visit will cost discourages her from visiting most doctors.

## Goals

- To improve accessibility to health care information- People who seek medical attention often lack information on health care services that are in-network for different coverage plans. Our product will enable users to promptly access information about various health care providers, allowing users to make more informed decisions regarding their health.
  - Allow users to gain more background knowledge on health care professionals through the doctor's profile
  - Provide users with information on the doctor's background and specialties
  - Help users understand health care terms they may be unfamiliar with
- Increase informed decision making about the cost of health care services- Our product will provide costs of different health care services to enable users to learn about the affordable services available to them.
  - Provide cost estimates for different health services to the users

## In scope scenarios

Criteria:

*P0 features are...*

- Necessities the user utilizes in looking for a provider to eventually finding/choosing a provider
- Key to distinguishing our product from competitors
- Essential in the Minimal Viable Product

*P1 features are...*

- Not necessary for the user walkthrough (looking for a provider to finding/choosing a provider), but support P0's to improve user experience
- Valuable to add once P0s are fully developed
- Not stand-alone features

*P2 features are*

- Nice-to-haves
- Stand-alone features, purpose is not to support P0 features, instead solely in improving user experience
- Can be mentioned in the assumptions

Pages:

- P0 - Home Page
- P0 - Doctor Page
- P0 - Filter Page
- P0 - Comparison Page
- P2 - User Profile

P0:

1. (All) Navigation Bar
2. (Home) Search Bar
3. (Filter) Proximity, in-Network, budget filters
4. (Filter) Add doctor to comparison list
5. (Filter - Provider List) Display phone number and email on card
6. (Filter - Provider List) Price Gauge
7. (Filter - Provider List) Doctor Card
8. (Doctor) Information sections
9. (Doctor) Doctor's information
10. (Doctor) Dropdown with services applicable to the individual doctor
11. (Comparison) Full comparison display
12. (Comparison) Remove doctor

P1:

1. (All) Complex terms description
2. (Home) Top Searches
3. (Home) Popular Specialties

4. (Filter) More Filters
5. (Filter) Collapsible Filter
6. (Filter - Provider List) Change number of cards viewed
7. (Doctor) Ratings/Testimonies
8. (Doctor) Additional Information
9. (Comparison) Additional Rows – languages, years of practice etc.

P2:

1. (User profile) Favorites
2. (Filter - Provider List) Directly call/email provider

## **Out of scope scenarios**

The following are not accessible within our product:

- Users can schedule appointments for the user
- Users can utilize features to deal with emergency situations
- Users can receive information about choosing insurance providers
- Users can receive remedies/solutions for their health-related issues
- Users can find a diagnosis on their health-related issues

## **UX**

Our product will be a web app that will provide in-depth information about different health providers. The walkthrough displays P0, P1, and P2 features, though P1 and P2 features are not included in the minimal viable product.

### **Assumption**

Before the user lands on the search page, we assume that the user:

- Signs in with an account, inputs personal information that we will use to personalize experience
- Knows what procedure to get and what provider to visit, and has already visited a general practitioner
- Can set an appointment with the desired provider without additional help from the app

### **Home Page**

Once on the page, the user may input a specific provider's name, field of specialty, or condition they wish to get treated and they will be directed to the filter page when they hit search.

## Initial Search

[Home](#) [Filter](#) [Compare](#) [Favorites](#) [Account](#)

### Find your doctor

Search\*

Near\*

Doctor, specialist, or condition

Zip Code

Search

\* Indicates required fields

## Filtering System and Providers List

The filter page includes a filtering system and a list of providers. Within the filtering system will enable, the user adjusts filters to narrow down provider options. The user moves sliders to determine the size of the search area or indicate the budget to cover medical costs. The user can also specify the search to only in-network providers. For additional support, the user can select and add more filters, as well as collapse the filter to better view options.

## Filtering System

Proximity

Adjust the slider to change search radius (mi)

5 20 50

In-Network

X

Budget

Set your budget for the desired service

0 90 \$5,000 +

GO

Refresh filters

[Home](#) [Filter](#) [Compare](#) [Favorites](#) [Account](#)

\$\$\$

Dr. A

Specialty Location

Dr. A@microsoft.com 859 231 6543 show profile

Saves pinned provider

Summary Info About Dr. A

Connects to providers profile page when user clicks on individual summary

\$

Dr. B

Specialty Location

Dr. B@microsoft.com 123 456 7890 show profile

Saves pinned provider

Summary Info About Dr. A

Connects to providers profile page when user clicks on individual summary

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Dr. C

Specialty Location

Dr. C@microsoft.com 111 111 1000 show profile

Saves pinned provider

Summary Info About Dr. A

Connects to providers profile page when user clicks on individual summary

The providers list will be a list of providers available based on the filters selected in the filtering system. The list provides summarized information about the providers with an option to call or email them, including a price gauge provide an estimate of how costly the range of provider's service is in comparison to similar providers. When a user clicks on an individual provider's card, they will access that doctor's profile.

## Provider List





### Doctor Profile


The Doctor Profile page allows users to gain more background information on local doctors that offer affordable health care services. The doctor page provides information such as insurances accepted, and services offered by that doctor. The user will also be able to view the doctor's contact information and contact them in order to book an appointment. When the user visits the doctors page, each section will be a drop down, and the user can expand the windows for more information on that topic.

## Doctor Profile Page

[Home](#) [Filter](#) [Compare](#) [Favorites](#) [Account](#)






Insurance 

**Aetna**

- Advantage Dental
- Basic Dental

**UnitedHealthCare**

- Dental PPO
- Dental Premier

Services 

- Dental cleanings
- X-rays
- Fillings, root canals

## Comparison Page

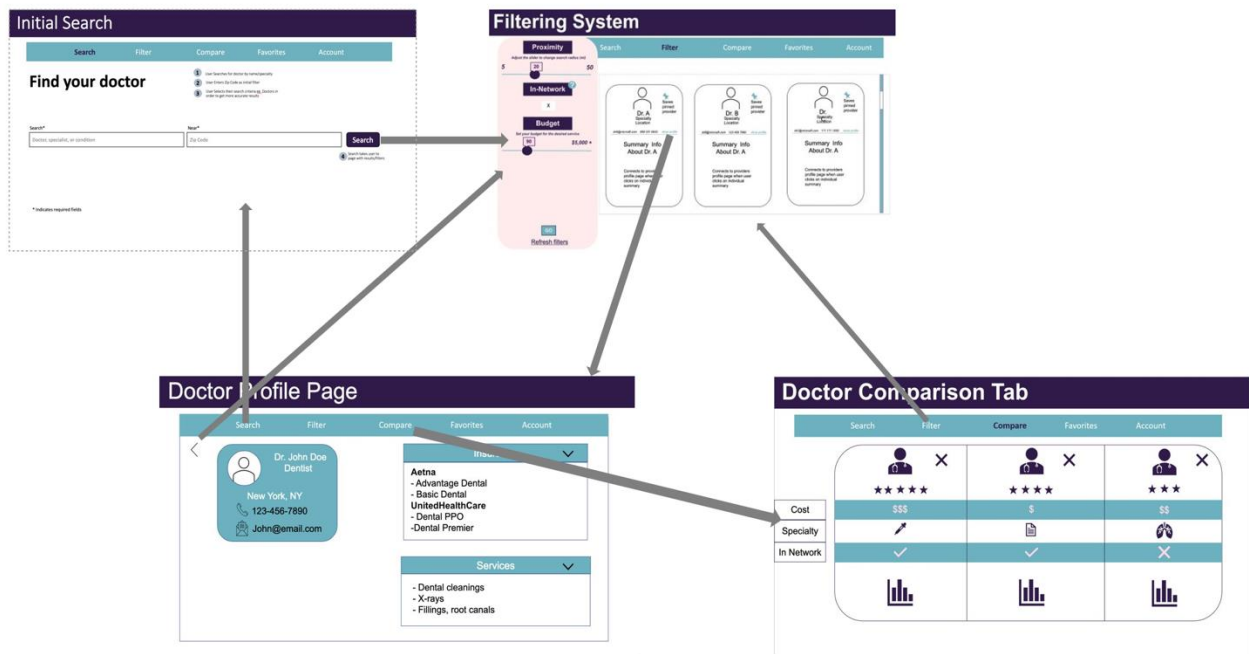
The comparison page enables users to get a more in-depth look at multiple doctors at once. Each doctor will have more information than seen on the filter page, and if users want to learn more, they can tap on the doctor and go to the individual page.

## Doctor Comparison Tab

	<a href="#">Home</a>	<a href="#">Filter</a>	<a href="#">Compare</a>	<a href="#">Favorites</a>	<a href="#">Account</a>
					
	★★★★★	★★★★★	★★★★★		
Cost	\$\$\$	\$	\$		
Specialty					
In Network	✓	✓	✗		
					



## Navigation



## Breakdown of work

Key:

**Green** – P0

**Yellow** – P1

**Red** – P2

Lighter shades of the colors specified above indicate that the assignment is of lower priority (i.e. lighter green has a lower priority than darker green).

User Story	Pri	Engineering Description	Depends on	Assigned to:
(All) Navigation Bar	P0	Connect the pages together and change pages on button presses	Having Mock Pages	Concepta – nav bar, links to each page (as a component)
(Home) Search Bar	P0	The user will input either a doctor or service, so we need a data structure for to hold the list of doctors and list of providers. After the user input, the	None	Ian – home page layout

		<p>home page will send the user to the filter page with the input as a filter</p> <p>-----</p> <p>---</p> <p>Things to keep in mind: The data structure for storing this information, is there two search bars, is there an active drop down that shows results as you type</p> <p>-----</p> <p>---</p> <p>Very important: Search and filter need a system to open the filter page with the input fields from search as a filter</p>		
(Filter) Proximity, in-Network, budget filters	P0	<p>Depends on each doctor having quantifiable attributes that will act as values for each filter. When a filter is applied, the list of doctors has to be iterated, checking the filter attribute, so the list of shown doctors will update for the user</p> <p>-----</p> <p>---</p> <p>Things to keep in mind: May need to have a separate data structure to hold the list of currently shown doctors</p>	Search results from search bar (not urgent), Doctor card	Dennis – filter page layout, refresh search results from go
(Filter) Doctor Card	P0	Needs a doctor object that includes attributes for all the filters, basic information, and a list of accepted providers. Each card will show a small amount of data, and when pressed, will send the doctor object to a template doctor page to fill out.	None	Ian – create doctor component, for layout.
(Filter) Add doctor to comparison list	P0	Each doctor card also needs to have a button to add to the compare page, so pressing the button will add the doctor object to a list (limited at 3 or 4)	Doctor card,	Ian, Carlos
(Doctor) Information sections	P0	Mostly requires CSS to use dropdowns to open and close information	None	Rachel – layout of doctor page
(Doctor) Doctor's profile	P0	<p>Research task + Layout</p> <p>-----</p> <p>---</p> <p>Things to keep in mind:</p>	None	Rachel – layout (for now)

(Doctor) Dropdown with services applicable to the individual doctor	P0	Research Task	None	<b>TBD</b>
(Filter - Provider List) Display phone number and email on card	P0	Research task + Layout	None	TBD
(Filter - Provider List) Create Price Gauge and Display on Card	P0	Research Task + Layout	None	<b>TBD</b>
(Comparison) Full comparison display	P0	Requires CSS and displaying an “expanded” doctor’s card with additional information side by side (In columns) ----- --- Things to keep in mind: Will the cards be connected horizontally, rows will need to refer to the same attributes	Doctor card, Doctor info?	Carlos – layout of comparison page
(Comparison) Remove doctor	P0	Remove the doctor from the list the of comparable doctors and update the screen ----- --- Things to keep in mind: Using redux to modify this data structure across pages	Doctor card	<b>TBD</b>
(All) Complex terms description	P1	A bubble that provides a description of a highlighted term when a user hovers over the term		Concepta
(Home) Top Searches	P1	Active search bar that updates as the user inputs, requires a string parsing algorithm and looking through the data with similar names		Ian
(Home) Popular Specialties	P1	Buttons that jump to filter system with a filter already preset		Concepta
(Filter) More Filters	P1	Research task		Dennis
(Filter) Collapsible Filter	P1	Mostly requires CSS, but may need to include updating the page with which filters are active		Dennis

(Provider List) Change number of cards viewed	P1	Mostly a CSS task, but also relates to a possible sorting feature		Carlos
(Doctor) Ratings/Testimonies	P1	Research task		Rachel, Ian
(Doctor) Additional Information	P1	Research task		Rachel
(Comparison) Additional Rows – languages, years of practice etc.	P1	Research task + Updating the rows to reflect the user being able to add / remove rows ----- --- Things to keep in mind: Page should remember which rows are active so user can go back and forth from search		Carlos, Dennis
(User profile) Favorites	P2	Similar implementation to Comparison Page		Ian
(Provider List) Directly call/email provider	P2	Hyperlinks		Concepta

## Competitor Analysis

The “Strengths” and “Weaknesses” focus solely on our competitors; “Opportunities” and “Threats” focus on our product in relation to our competitors.

Strengths	Weaknesses
<p><i>Direct Competitors</i></p> <ul style="list-style-type: none"> <li>• Personal connection with users</li> <li>• Available to book appointments 24/7</li> <li>• Good filtering system</li> <li>• Quick, streamlined process guiding users to end goal (information needed)</li> <li>• Information through crowd-sourced reviews</li> </ul> <p><i>Adjacent Competitors</i></p> <ul style="list-style-type: none"> <li>• Extensive database of users</li> <li>• Expansive information on a variety of issues to address the majority if not all of the user’s questions</li> </ul>	<p><i>Direct Competitors</i></p> <ul style="list-style-type: none"> <li>• Not clear whether doctor is in network/out of network</li> <li>• Doctors can reschedule appointments without notifying users</li> <li>• Inefficient search scope for users in rural areas</li> <li>• Robust Rating Systems</li> <li>• Insufficient information on the provider’s profile</li> <li>• Competitors do not display all options</li> </ul> <p><i>Adjacent Competitors</i></p>

<ul style="list-style-type: none"> <li>• Quick, streamlined process guiding users to end goal (information needed)</li> </ul>	<ul style="list-style-type: none"> <li>• Too much information is presented at times, requiring lengthy reads for the user</li> <li>• Shallow breakdown of cost estimates</li> <li>• Little to no information on provider options</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Adding costs estimates for procedures</li> <li>• Personalizing the experience by having user's insurance data on the app</li> <li>• Allowing users to directly compare providers</li> <li>• Helping users comprehend complex terms</li> <li>• Ensuring accessibility regardless of user's location</li> <li>• Enabling crowd sourcing to obtain more information</li> </ul>	<ul style="list-style-type: none"> <li>• Users' discomfort sharing health information</li> <li>• Obtaining data for the app might be difficult, considering health is private and many people might not trust personal reviews</li> <li>• Not having a schedule appointment feature like most of our competitors</li> <li>• Estimating costs accurately is difficult given factors like follow-up care, insurance policy, severity of injury, etc.</li> <li>• Obtaining accurate cost estimates and Doctor's availability as they change</li> </ul>

## Future opportunities

- Enable booking within the application:
  - Currently Carefree focuses on giving people quick and easy access to healthcare.
  - In future we would like to round off the process by enabling booking within the application to further ease the process, and to be at par with some competitors in that aspect.
- Expand the target audience
  - Carefree's primary audience is young adults who are unfamiliar with navigating health services. In future we hope to further develop the app for other audiences who might find the services offered useful.