

# lineUp



## Description

With lineUp, you can find great phone plans in just a few steps!

No need to spend endless hours looking at multiple network providers. lineUp will do the work for you! Simply download the app and answer a few questions about what kind phone plan you want! lineUp will show you the best phone plan in your country in seconds.

With lineUp you'll be able to,

- Select your needs in a few simple and easy steps
- Find the best phone plans in a specific location based on your needs
- Compare multiple phone plans and find the best price
- Discover where to purchase phone plans (Online or nearest store)
- Save your phone plan preferences for later

### Ready. Set. lineUp!

Feel free to check out the live prototype here: <https://xd.adobe.com/view/733bo1f1-5485-44c0-59c4-c954690485ab-050a/?fullscreen>



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**Playfair Display**

Roboto



## Amanda Davis

Age 24

### Interests

Programming, Travel, Doodling (Mostly Chibis)

### Mission, Goals, & Beliefs

Amanda loves to research products before a purchase. She enjoys it so much that she volunteers to do the research for her friends and family when they intend to buy something. Her goal is to provide her friends and family with the most up to date info, and to help find the best product for them. She loves to travel and enjoy new experiences. She is often found doodling when she isn't occupied with research.

### Personality Strengths

- Analytical
- Playful
- Wants the best for everyone

### Personality Weaknesses

- Too selfless
- Gets lost in the details
- Overly idealistic



## Karen Ludgate

Age 38

### Backstory

Karen is a construction manager at Bechtel, a San Francisco based global construction company. Karen has to travel often to oversee the company's construction projects.

### Resources

Karen travels to new locations for weeks at a time, and has to relocate each time. Her company usually covers the cost for travel and living expenses. She uses a phone plan with Verizon Wireless with roaming in the past. However, she has found that roaming charges are far too expensive and that she often cannot access adequate service on construction sites. She uses her phone mostly to keep in touch with her family and friends, and to keep up with work communications.

### Emotions

Karen leads a hectic life with her position as a construction manager. She tries to keep in touch with her older parents and siblings at home whenever she finds some free time. She wants to stay accessible to work related calls and her family at all times, and is beginning to feel frustrated about the lack of service available in certain locations with the international roaming phone plan she currently uses.

### Goal

Karen wants to find a phone plan that allows her to stay accessible to work communications and family even when she is at construction sites, although she doesn't have much time to research phone plans at each location she visits.

### Scenario

Karen lands in Sydney, Australia to manage a construction project that is half-way through completion. Her first day on the construction site, she finds that she gets poor phone service with her roaming plan. When she gets back to her temporary living space she initially Googles phone plan options, but find that she has to explore plan information for each service provider separately. She finally finds a phone plan comparison app, and downloads and enters information such as a her current location and the services she wants like wide network coverage in the country, unlimited talk and text, and data. Karen views the list of phone plans available locally, and selects and purchases the plan she desires online.





## Alexander Wu

Age 27

### Backstory

Alexander is working for Amazon as a product manager after he completed his computer science and marketing degrees as an international student at University of Washington several years ago. His parents live in Shenzhen, China and visit Alexander in Seattle once a year.

### Resources

Alexander leads a busy work life due to his position. He is very tech-savvy, unlike his parents who rely on Alexander to manage their tech issues. Alexander usually purchases the same monthly pre-paid phone plan for his parents whenever they visit.

### Emotions

Alexander is family-oriented. Although his parents have travelled to the U.S. many times before, he still worries about them during their travels within the U.S. He finds that the monthly pre-paid plan he currently gets for his parents doesn't fulfill his parent's needs for a data plan and is too expensive.

### Goal

Alexander wants to find a cheaper short-term phone plan with great data availability quickly and easily.

### Scenario

Alexander starts searching for alternative short-term phone plans online, but finds that he cannot compare across multiple phone plans at the same time. He realizes there should be a more efficient and easier way to complete this task, and finds a phone plan comparison app. He inputs the necessary information such as needing a short-term plan and a data plan and views the available options based on price. Alexander is able to find a cheaper phone plan that also fulfills the data needs of his parents.



## Preeti Moorjani

Age 45

### Backstory

Preeti is a full-time mommy vlogger and documents most of her and her family's life online. She is based in India and has two children, ages 7 and 14 along with her husband.

### Resources

Preeti leads a hectic life juggling her responsibilities to her family and her career in social media. She is very tech-savvy and is always looking for better alternatives to the tools she uses. She does a lot of live-streaming for her YouTube channel.

### Emotions

Preeti is currently signed up for a family phone plan that includes talk and text, and data for the entire family. With the addition of her older child, the current phone plan has become expensive and does not provide the data services Preeti needs for her work. She is annoyed at the price and the lack of flexibility for a data plan.

### Goal

Preeti wants to find cheaper alternatives to the current family plan with better options for data packages.

### Scenario

Preeti is frustrated with the lack of lack of information about phone plans available in India. She has been searching for a platform where she can find the phone plan she wants, as all of the phone plan information is only available in service providers' separate websites. She comes across the phone comparison app during her search and begins using it by entering her location, and her needs for a family plan that offers flexibility with data packages. The app provides her a list of phone plans sorted by price, and Preeti finds that there are many other phone plan that are more affordable than her current plan.

This customer journey map depicts the different actions, emotions, and pain-points users will experience at each stage, if the phone plan comparison app did not exist.

This customer journey map helps us understand the problems that arise when users normally try to complete the task of finding a suitable phone plan. By identifying the issues in the customer journey, we can get a better idea of the types of solutions to implement with the app.

CUSTOMER JOURNEY WITHOUT APP	DISCOVERY	REACTION & CONSIDERATION	DECISION	USAGE
ACTIONS	<ul style="list-style-type: none"><li>Search online for phone plans available</li><li>Ask family/friends about phone plans</li><li>If travelling<ul style="list-style-type: none"><li>Ask locals about good phone plans</li><li>Search for phone plan options at airport</li><li>Wait for roaming information from current service provider</li></ul></li></ul>	<ul style="list-style-type: none"><li>Accesses each website separately to view phone plan information for each service provider</li><li>Evaluates info provided by friends/family (joining family plan etc.)</li><li>Evaluates info provided by locals</li><li>Checks out options available at airport</li><li>Evaluates roaming charges for current phone plan</li></ul>	<ul style="list-style-type: none"><li>Decides to purchase phone plan based on available info</li><li>Looks for nearest location to purchase the sim card and phone plan</li><li>Looks at options to purchase sim card and phone plan online</li><li>Purchases sim card and phone plan from airport</li><li>Continues using roaming phone plan</li></ul>	<ul style="list-style-type: none"><li>Continues using phone plan (short-term/long-term use)</li><li>May find that current phone plan features fall short of needs (not enough data, talk and text, too pricey etc.)</li></ul>
EMOTIONS	Curious, Annoyed, Tired	Curious, Frustrated	Anticipating, Eager, Unsure, Defeated	Annoyed, Unsatisfied
PAINPOINTS	<ul style="list-style-type: none"><li>Unsure because don't have comprehensive info about all phone plans</li><li>May receive biased info/targeted ads</li><li>Limited phone plan options available</li></ul>	<ul style="list-style-type: none"><li>Frustrating experience phone plans from different providers can't be compared in one place</li><li>Biased info about family plans</li><li>Limited phone plan options available</li><li>Expensive roaming charges</li></ul>	<ul style="list-style-type: none"><li>Limited options available in airport</li><li>Purchased phone plan may not be the most suitable as lack of information</li><li>Locations that sell specific phone plans may not be easily accessible</li><li>Pays high roaming charges</li></ul>	<ul style="list-style-type: none"><li>Unsatisfied with phone plan features as users may discover there are better options</li><li>Incurring high roaming charges</li><li>Still unsure whether selected phone plan was the best option</li></ul>



This customer journey map shows the user's experience with the phone plan comparison app.

This customer journey map helps us visualize how this app might solve the problems that arise in the user journey, and the types of features to develop within the app.

CUSTOMER JOURNEY WITH APP	DISCOVERY	REACTION & CONSIDERATION	DECISION	USAGE
ACTIONS	<ul style="list-style-type: none"><li>Search online for phone plans available</li><li>Find phone plan comparison app and download</li><li>Ask family/friends about phone plans</li><li><b>If travelling</b></li><li>Wait for roaming information from current service provider</li></ul>	<ul style="list-style-type: none"><li>Accesses phone plan comparison app and inputs info/needs (data, talk and text, pre-paid etc.)</li><li>Evaluates comprehensive list of phone plans available in location based on needs (price etc.)</li><li>Compares info from app to info provided by friends/family (joining family plan etc.)</li><li>Compares app info with options available at airport</li><li>Compares roaming charges for current phone plan with other options through app</li></ul>	<ul style="list-style-type: none"><li>Decides to purchase phone plan based on available info</li><li>Finds nearest location to purchase the sim card and phone plan from app</li><li>Finds options to purchase sim card and phone plan online in app</li><li>Purchases sim card and phone plan from airport after comparing with info on app</li><li>Continues using roaming phone plan</li></ul>	<ul style="list-style-type: none"><li>Continues using phone plan (short-term/long-term use)</li></ul>
EMOTIONS	Curious	Curious, Pleased	Confident, Pleased, Excited	Satisfied, Pleased
SOLUTIONS/ LIKES	<ul style="list-style-type: none"><li>Unsure at first but phone plan comparison app provides comprehensive information about all phone plans in location</li></ul>	<ul style="list-style-type: none"><li>Phone plans from different providers can be easily compared in one place</li><li>No biased info or targeted ads</li><li>No limitations of options</li><li>Easy comparisons</li><li><b>Painpoint</b></li><li>User may suspect app of data collection and legitimacy of info (real-time updates?)</li></ul>	<ul style="list-style-type: none"><li>Confidence in finding most suitable phone plan</li><li>Can purchase immediate from options available in airport after considering info in app</li><li>Comprehensive info available to user at tap of button</li><li>Nearby locations that sell specific phone plans can be found on app</li><li>Knows whether roaming phone plan is cheaper</li></ul>	<ul style="list-style-type: none"><li>Satisfied with phone plan features</li><li>No doubts about whether selected phone plan was the best option</li></ul>



In the initial stages of conducting user research, I developed an online survey through Qualtrics and shared it via email and online forums. I aimed to understand users’ process of selecting a plan, the criteria they consider when choosing a plan, any tools they use, and demographic data through this survey.

There were 17 responses.

Phone Plan Comparison App

Hello everyone! I am completing a project for one of my classes that involves creating and designing a mobile app interface for a phone plan comparison app! We all know finding the best phone plan for you that is affordable and useful can be a challenge, especially when we travel outside our place of residence.

In a phone plan comparison app, users would be able to compare the different cell phone service plans available in a specific location/country to choose a plan that is best for them. Users would be able to select certain features (Data, Minutes, Device Availability etc.), and view all of the phone plans that provide these features within a specific country.

I would really appreciate it if you could answer some of the questions indicated below about your experience with phone service plans. Thank you so much for your time and help!

The information you provide will be kept confidential and data collected from this survey will never include your name.

Again thank you very much for your time!

How often do you travel outside of your country of residence?

- ☐ More than several times a year
- ☐ Once a year
- ☐ 4-6 times a year
- ☐ 2-3 times a year
- ☐ Less often than once a year
- ☐ Don't know

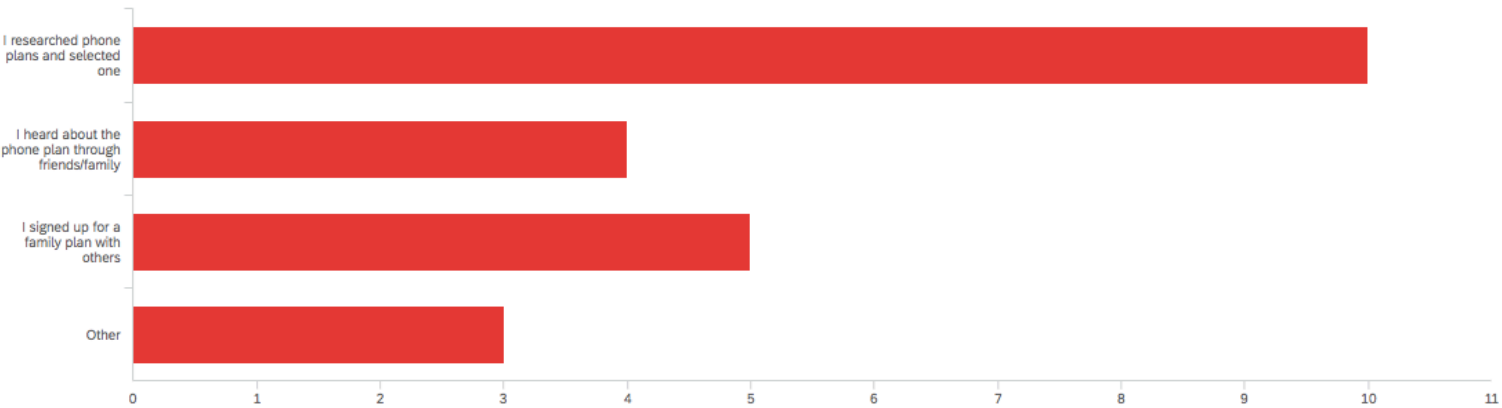
What is the current phone plan you are using (Verizon, T-Mobile, Dialog etc.)

How did you find out about your current phone plan?

- ☐ I researched phone plans and selected one
- ☐ I signed up for a family plan with others
- ☐ I heard about the phone plan through friends/family
- ☐ ...

Q21 - How did you find out about your current phone plan?

Page Options



How often do you travel outside of your country of residence?

- More than several times a year
- Once a year
- 4-6 times a year
- 2-3 times a year
- Less often than once a year
- Don't know

What is the current phone plan you are using (Verizon, T-Mobile, Dialog etc.)?

How did you find out about your current phone plan?

- I researched phone plans and selected one
- I heard about the phone plan through friends/family
- I signed up for a family plan with others
- Other

If you used online resources to research your current phone plan, what did you use?

What type of phone plan do use currently?

- Pre-paid
- Post-paid
- Contract with Service Provider

If your current phone plan is contract-based,

- I brought my own device
- I got the device when I signed up

What are some features you looked at before you chose your current phone plan?

- Device availability
- Amount of Data available
- Number of minutes in talking time
- Number of text messages
- Number of lines needed (Family Plan etc.)
- International use/ Roaming
- Device Compatibility (work with locked devices)
- Price
- Network coverage
- Other

When you travel outside of your country of residence, how do you find information about phone plans?

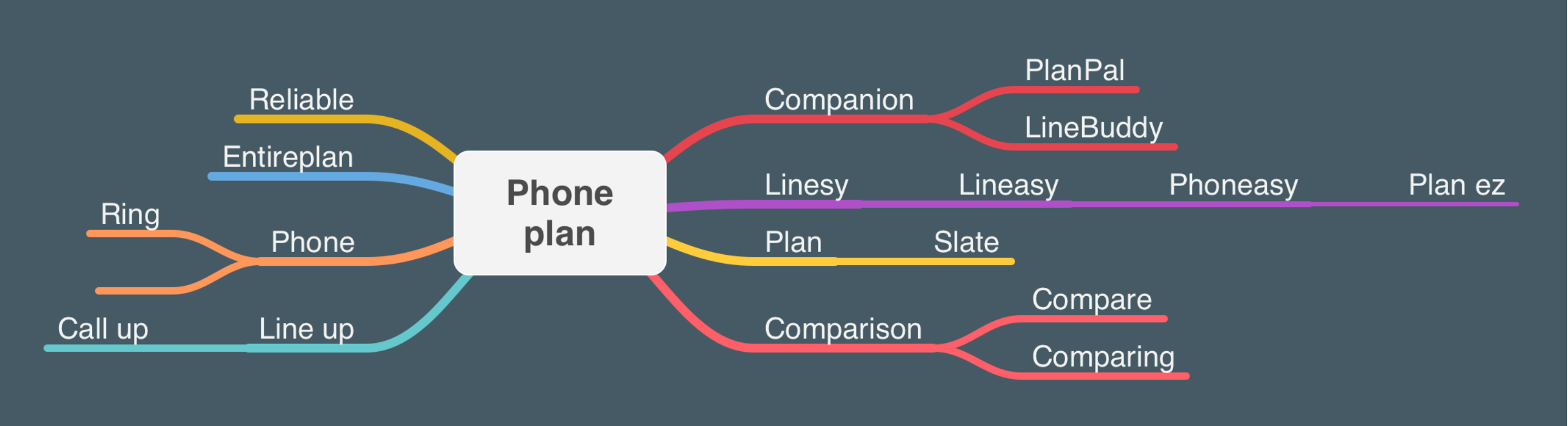
How useful would a phone plan comparison app be to you?

- Extremely useful
- Moderately useful
- Slightly useful
- Neither useful nor useless
- Slightly useless
- Moderately useless
- Extremely useless

What would you look for in a phone plan comparison app? What do you think would work best? What features would you like to see?

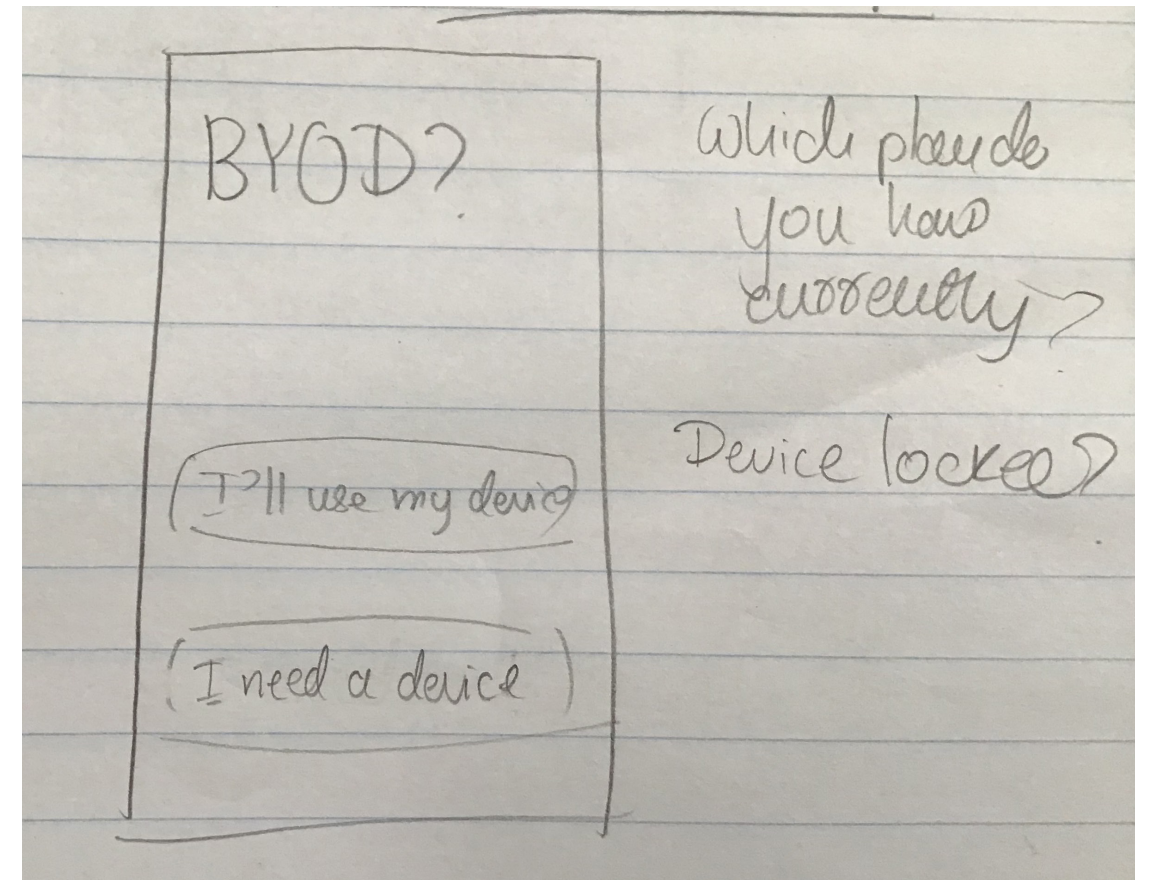
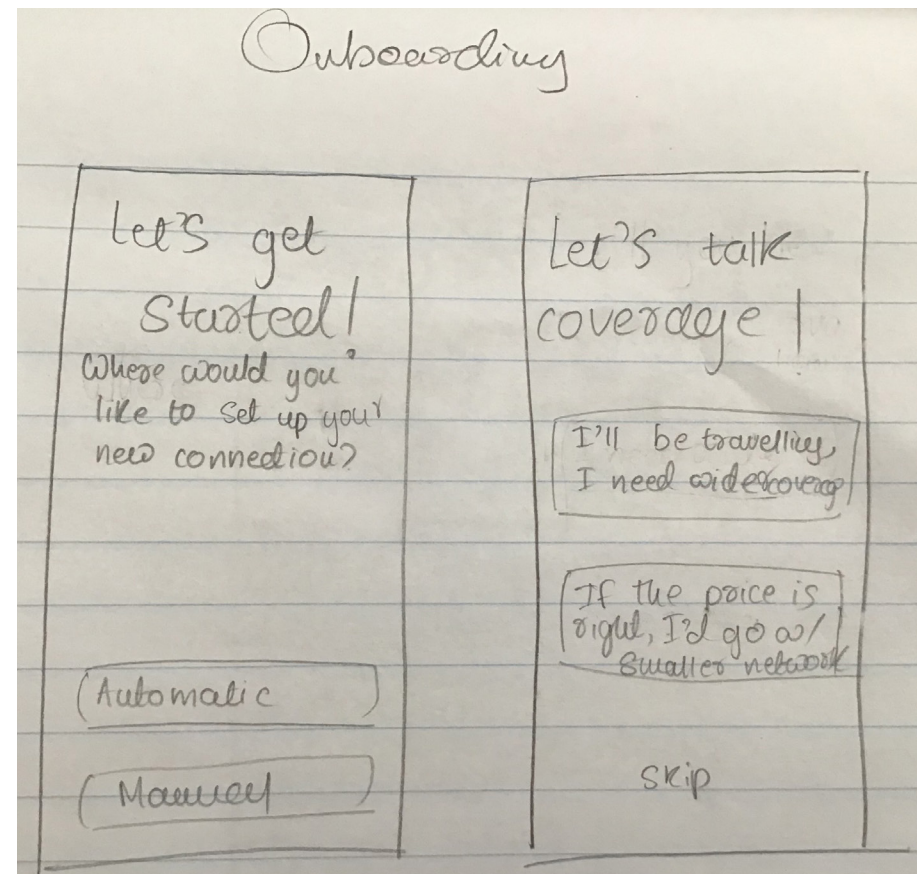
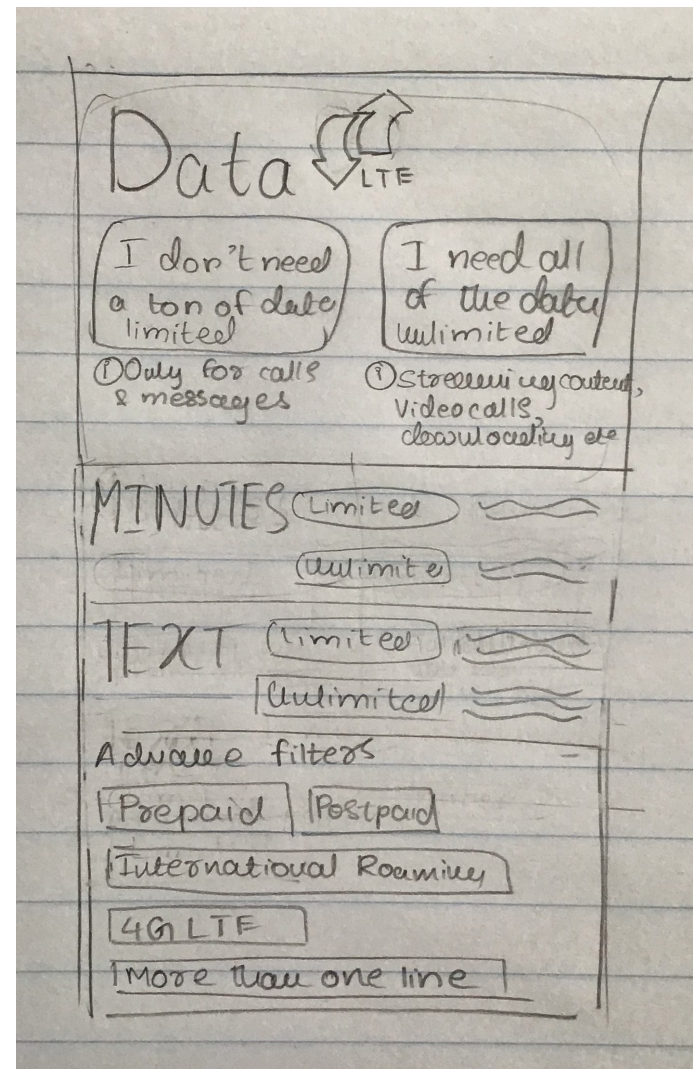
Have you used any phone plan comparison apps before? If so, which apps have you used and what did you like about them? What did you dislike about them?

If you could choose one feature in a phone comparison app that would motivate you to download the app, what would it be?



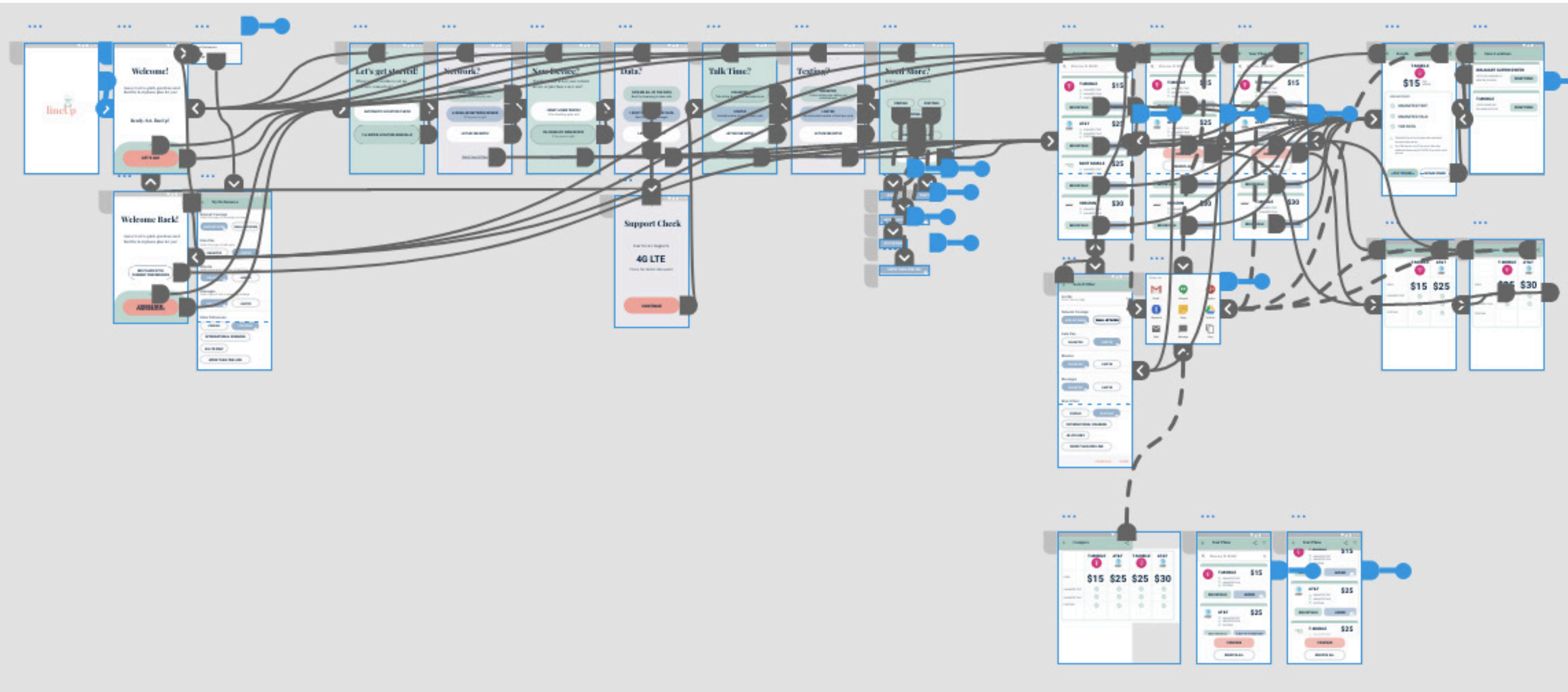


After gathering design requirements through user research, I started developing low-fidelity wireframes to establish the general layout of the app. Next, I began creating a high-fidelity prototype using Adobe XD.







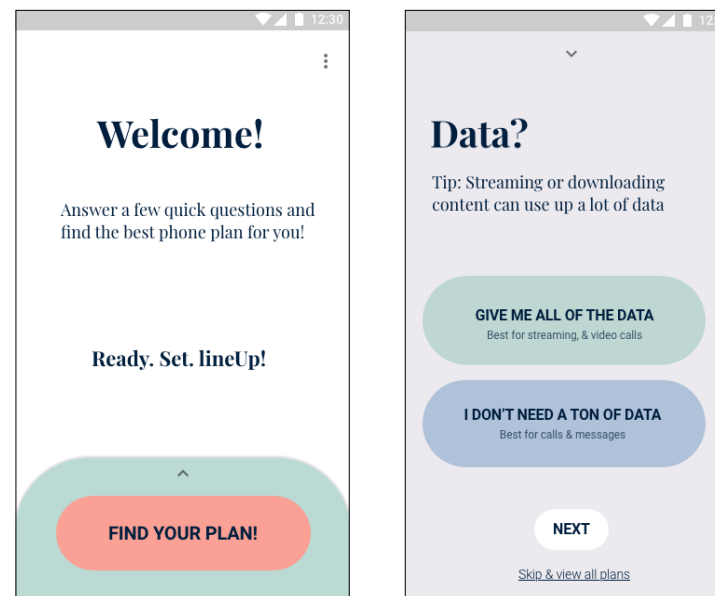
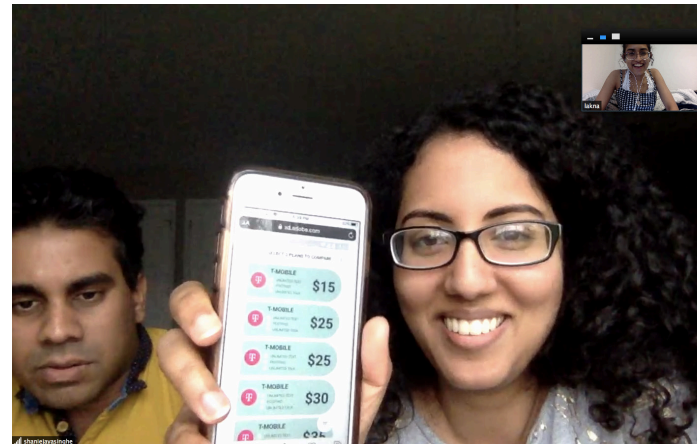




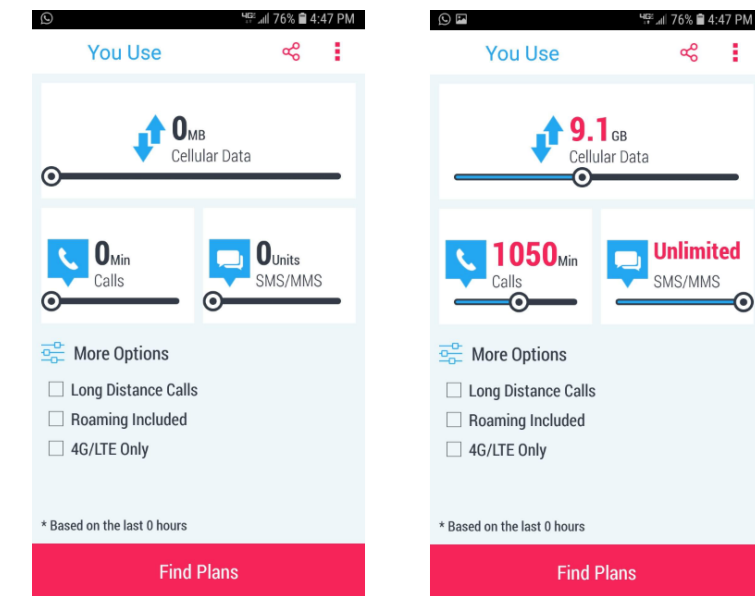
After developing the prototype in Adobe XD, I began testing the prototype with potential users. This app prototype consisted of a step-by-step process where users can indicate their phone plan preferences by answering a set of questions (See Image on right).

Firstly, I conducted an usability session with two users via Zoom. After sharing the live prototype, I introduced the broad task of finding a phone plan that is suitable for them and asked them to “think-aloud” while using the app. I also asked the users several pre-determined questions about their overall impression of the app. During the usability session I introduced a second set of screens taken from an existing plan comparison app with a different preference entry format with sliders (See Image on right). In a form of A/B testing, I asked the users to indicate which prototype they preferred.

Next, I developed an online survey through Qualtrics and shared the live prototype of the app. The survey consisted of the same task and set of questions as in the usability session. Respondents were asked to pull up the prototype on their mobile devices while they answered the survey questions on a different device.



App Prototype



Existing App

## USABILITY TESTING

## Participants

- Five users were recruited for usability testing (Live testing and online survey)
- Users were between the ages of 21 to 35
- All users were experienced with technology and mobile devices
- Four of the five users were experienced with the process of purchasing a phone plan
- One of the five participants had not purchased a phone plan prior to the testing session

## General Findings

- Users found the app easy and intuitive
- Some users found the app visually pleasant and liked the color scheme (however accessibility issues for visually impaired users were pointed out)
- The phone plan selection process was easy to understand, and provided appropriate guidance to novice users
- Users preferred the step-by-step phone selection process in the prototype to the selection process with sliders in the existing app
- Users typically did not have a general idea of how much data, how many minutes of talk time, and how many text messages they use in a cycle
- The phone plan results view was confusing for users (For example users didn't realize they could access a more detailed view of a plan, and that multiple plans could be selected for comparison)

## Usability Script

Hello! Thank you again for taking the time to participate in this usability session. I am creating and designing a mobile app interface for a phone plan comparison app! We all know finding the best phone plan that is affordable and useful can be a challenge, especially when we travel outside of where we live.

In this phone plan comparison app, you would be able to compare the different cell phone service plans available in a specific location/country to choose a plan that is best for you. You can select certain features (Data, Minutes, Device Availability etc.), and view all of the phone plans that provide these features within a specific country.

Before we begin, I'm going to give you a brief overview of the session and how it will work. This session is pretty straightforward — I'll be giving you a broad task to complete and then will ask questions as we go along. Your answers will help us understand the strengths and weaknesses of the app idea.

It's really important to know that we are only testing the app, not you. You can't do or say anything wrong in this survey. Please feel free to write down within the survey anything you like, dislike, anything that's confusing etc. I promise you won't hurt my feelings :)

Also, I'd like you to "think aloud" as much as possible and talk through your thought process. By that, I mean that I'd like you to say your thoughts as often as you can. For example, you may be looking at a screen, suddenly see something you didn't see before and want to click on it. In that case, saying something like "this caught my eye so I tapped on it" would be very useful.

Ok, Let's get started!

Hi everyone! Thank you again for taking the time to participate in this survey. I am creating and designing a mobile app interface for a phone plan comparison app! We all know finding the best phone plan for you that is affordable and useful can be a challenge, especially when we travel outside our place of residence.

In a phone plan comparison app, users would be able to compare the different cell phone service plans available in a specific location/country to choose a plan that is best for them. Users would be able to select certain features (Data, Minutes, Device Availability etc.), and view all of the phone plans that provide these features within a specific country.

Before we begin, I'm going to give you a brief overview of the survey and how it will work. This session is pretty straightforward — I'll be giving you a broad task to complete and then will ask questions on the survey as we go along. These questions ask for your feedback on the app. Your answers will help us understand the strengths and weaknesses of the app idea.

It's really important to know that we are only testing the app, not you. You can't do or say anything wrong in this survey. Please feel free to write down within the survey anything you like, dislike, anything that's confusing etc. I promise you won't hurt my feelings :)

Here is the first app prototype for you to tap through:  
<https://xd.adobe.com/view/733b01f1-5485-44c0-59c4-c954690485ab-050a/?fullscreen>.

The app is designed for android devices.

It would be great if you could access the prototype through your mobile device. Initially the prototype takes time to load, and you will be presented with a blank screen. Don't worry it's just loading!

Ok, Let's get started!

When you think about criteria like data, talk time, and text messages – how do you assess how much of each of these criteria you might need in a phone plan? (For example: 30 minutes of talk time vs. unlimited talk time)

What is your initial reaction to the phone plan comparison app?

- Extremely positive
- Somewhat positive
- Neither positive nor negative
- Somewhat negative
- Extremely negative

How appealing is this app compared to other apps or websites currently available?

- Extremely appealing
- Very appealing
- Somewhat appealing
- A little appealing
- Not at all appealing

How relevant is this app to you personally?

- Extremely relevant
- Moderately relevant
- Slightly relevant
- Neither relevant nor irrelevant
- Slightly irrelevant
- Moderately irrelevant
- Extremely irrelevant



From the list below, which best describes your thinking about this app?

- I need it because nothing else solves this problem
- This would be slightly better than what I am currently using
- This is essentially the same as what I am currently using
- What I am currently using is better than this
- I don't see any reason to use this

Did you purchase your current phone plan?

- Yes
- No

How confident are you about having the knowledge required to purchase a phone plan?

- Extremely confident
- Very confident
- Moderately confident
- Slightly confident
- Not confident at all

Have you used a similar tool before (phone plan comparison app, website)? If so, please describe the tool and your experience using it in the text box below.

What did you think of the overall layout of the content in the app?

What did you think about the process/series of steps and questions in selecting a phone plan within the app?

What do you like MOST about this app?

What do you like LEAST about this app?

How would you change the features you like the least about this app?

How did you find the experience of using the app to complete this task?

The second link is a set of screens of an existing phone plan comparison app. These screens are not clickable. The first screens shows the initial screen as soon as you open the app. This app has sliders to select the phone plan options you want. You can swipe to the second screen to see what it looks like after tapping and dragging the sliders to select an option. Now I will be asking you to compare this prototype with the previous prototype and indicate what you like, dislike about both apps. Here is the link:

<https://xd.adobe.com/view/eed5d8de-1348-4040-738c-93f98eecf991-98e4/>

What do you like MOST about this second app?

What do you like LEAST about this second app?

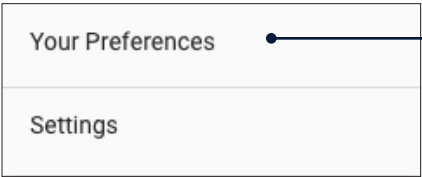
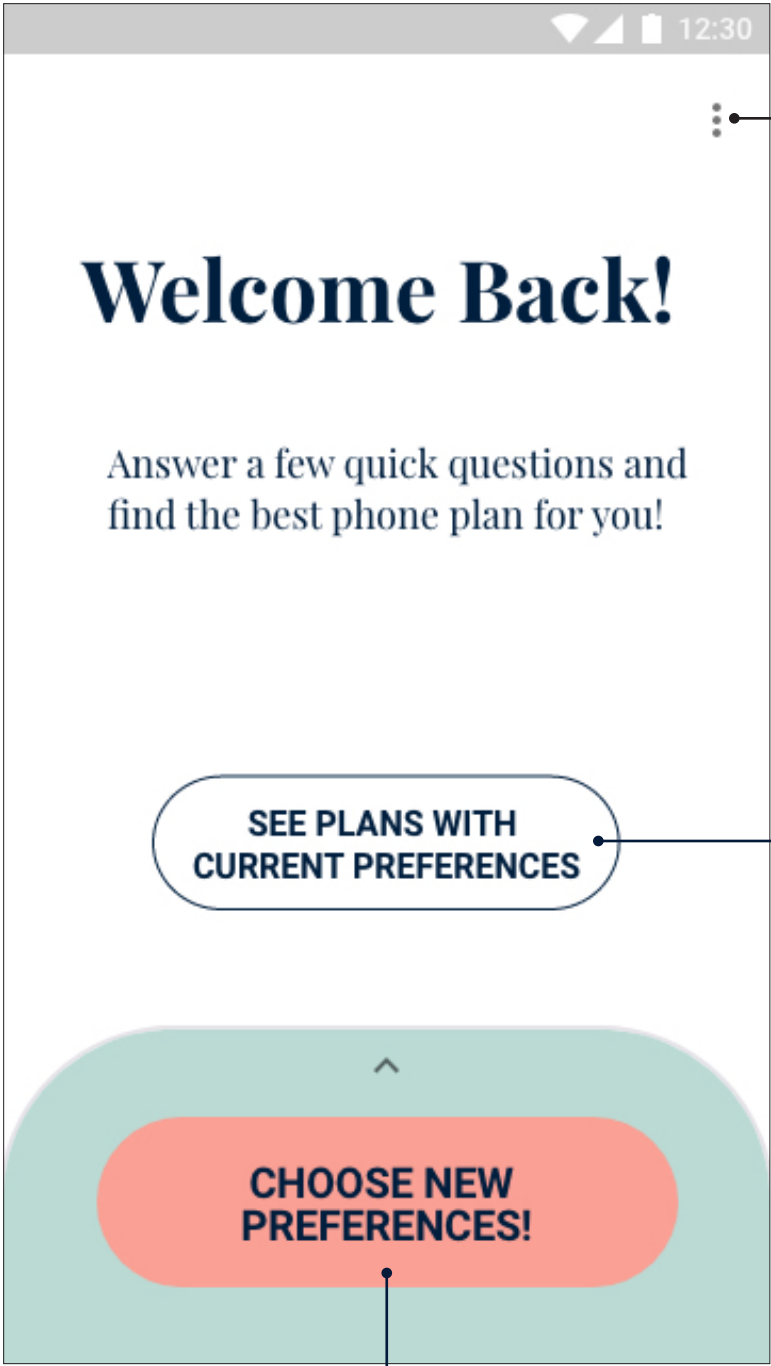
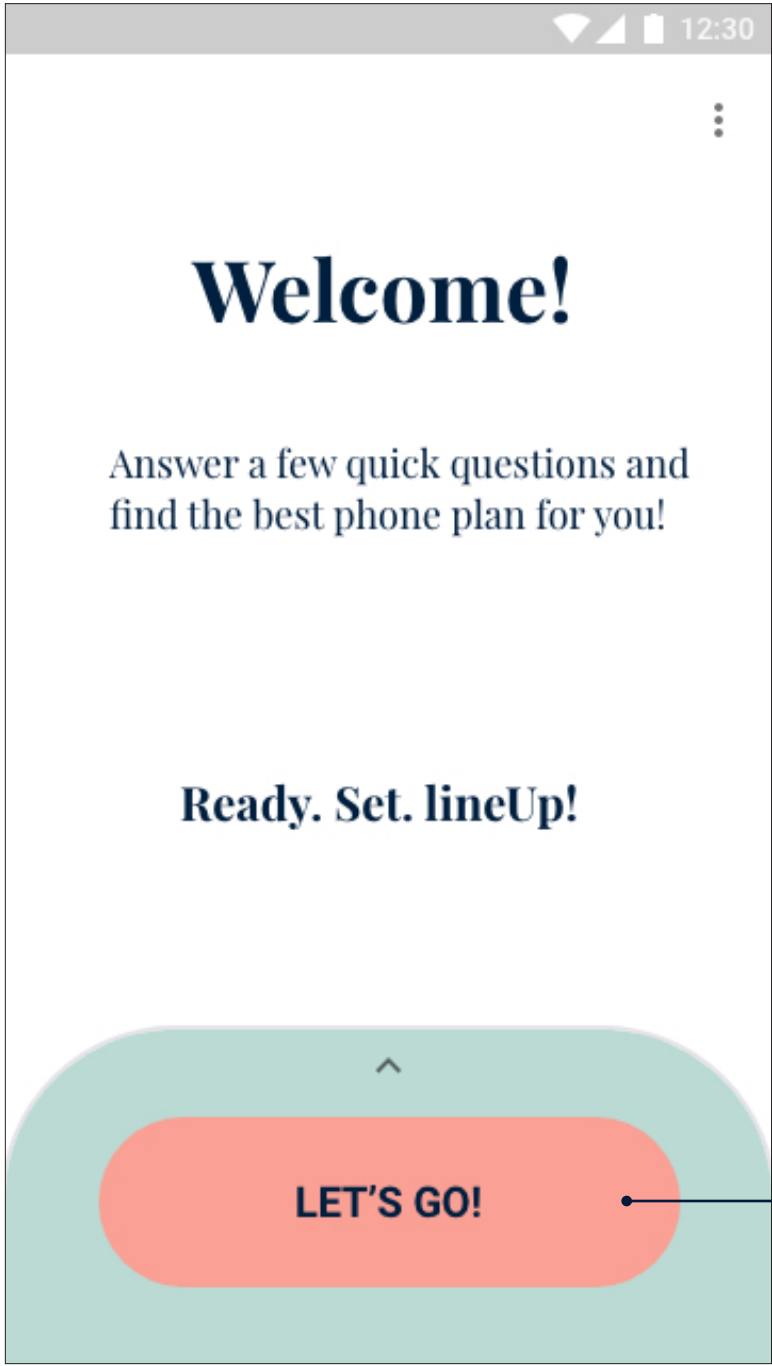
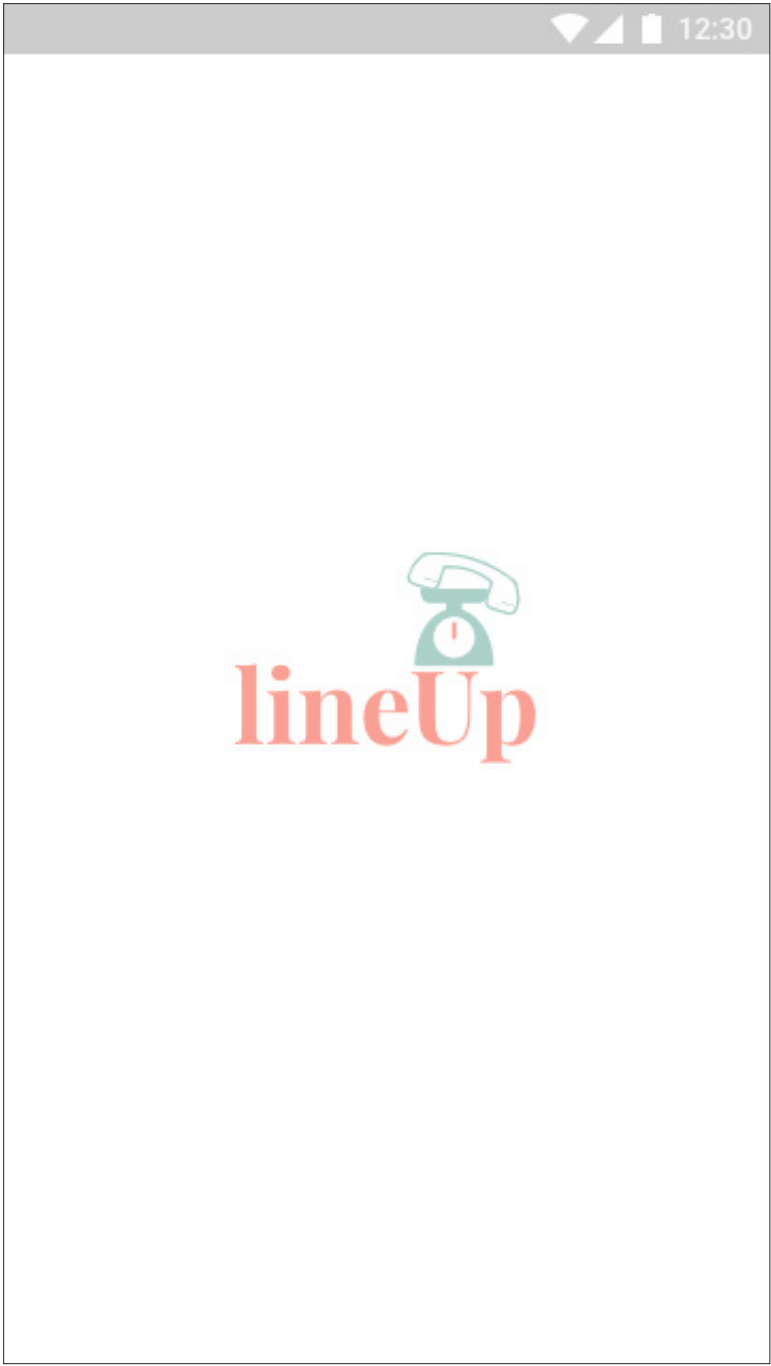
What did you think about the process/series of steps and questions in selecting a phone plan within the app?

Which of these two prototypes/options do you find best? Why?

After gathering feedback through the usability session, I incorporated the feedback into the design and created the following screens.

As soon as the app is downloaded, users can begin the process to find the best phone plan.

When users access the app a second time, they can immediately view phone plans based on their previously set preferences.

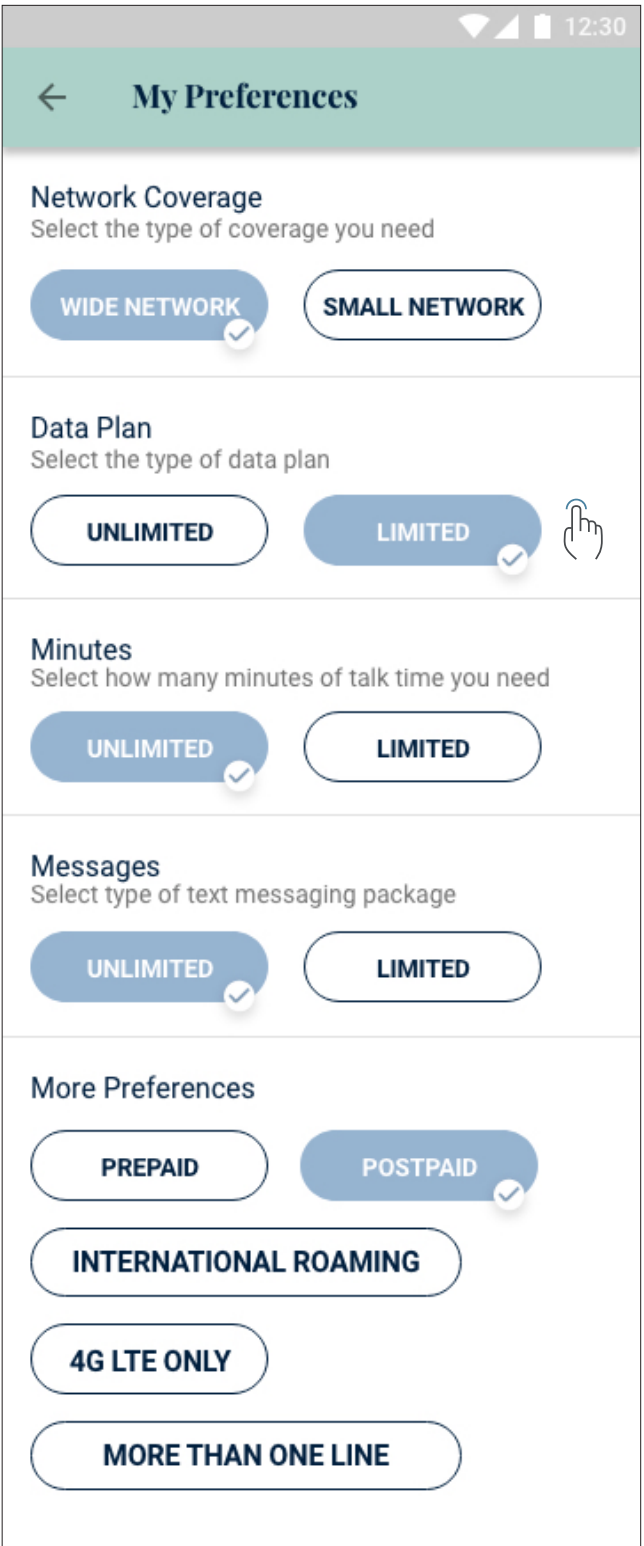


Location permissions are obtained when app is initially downloaded.

To Deck 20

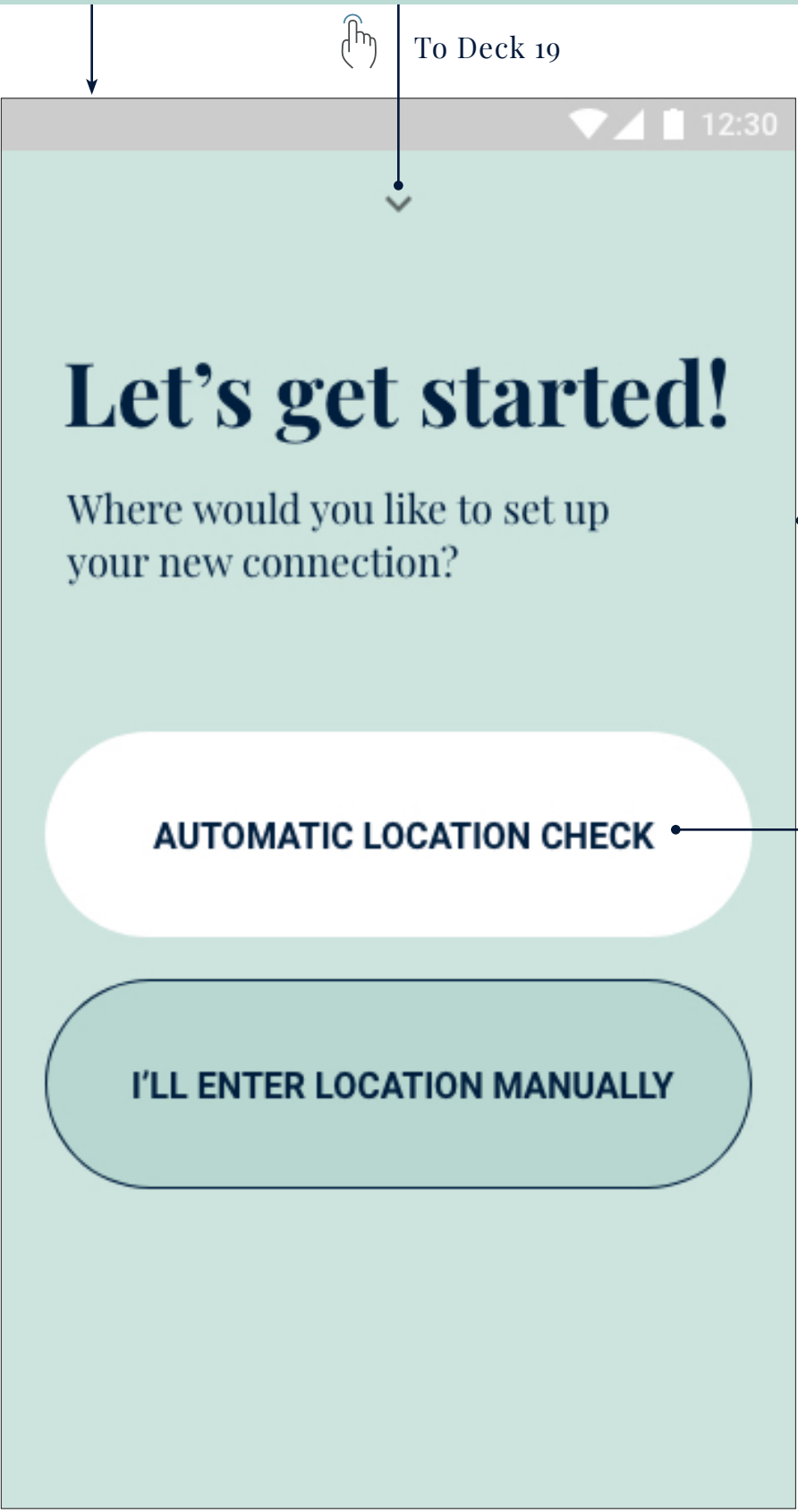
To Deck 23

To Deck 21



Users can view and change their preferences through the menu.

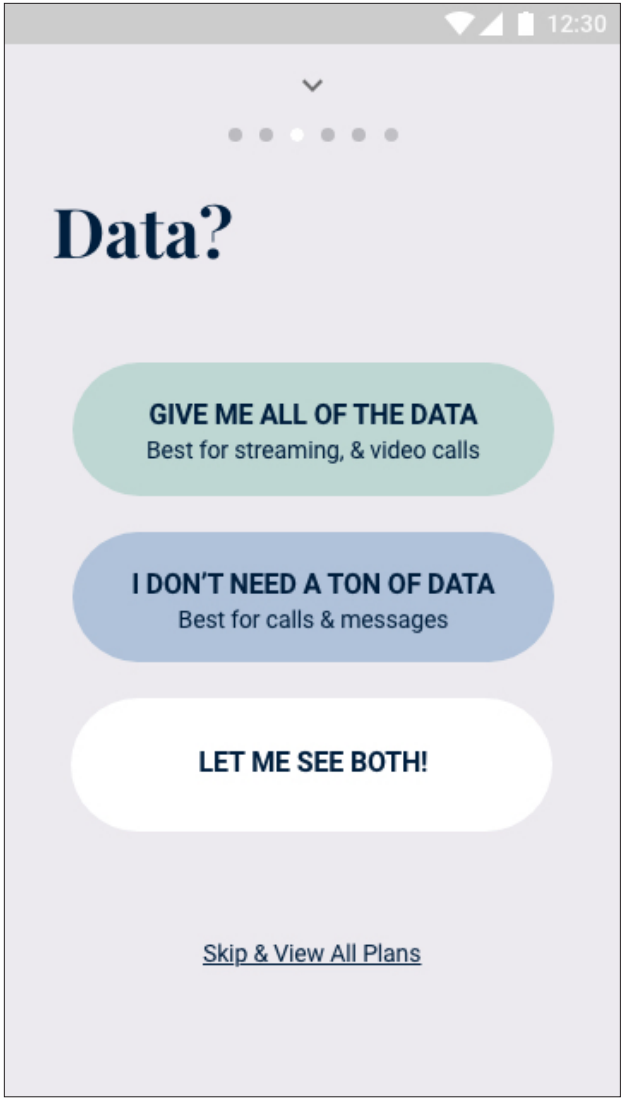
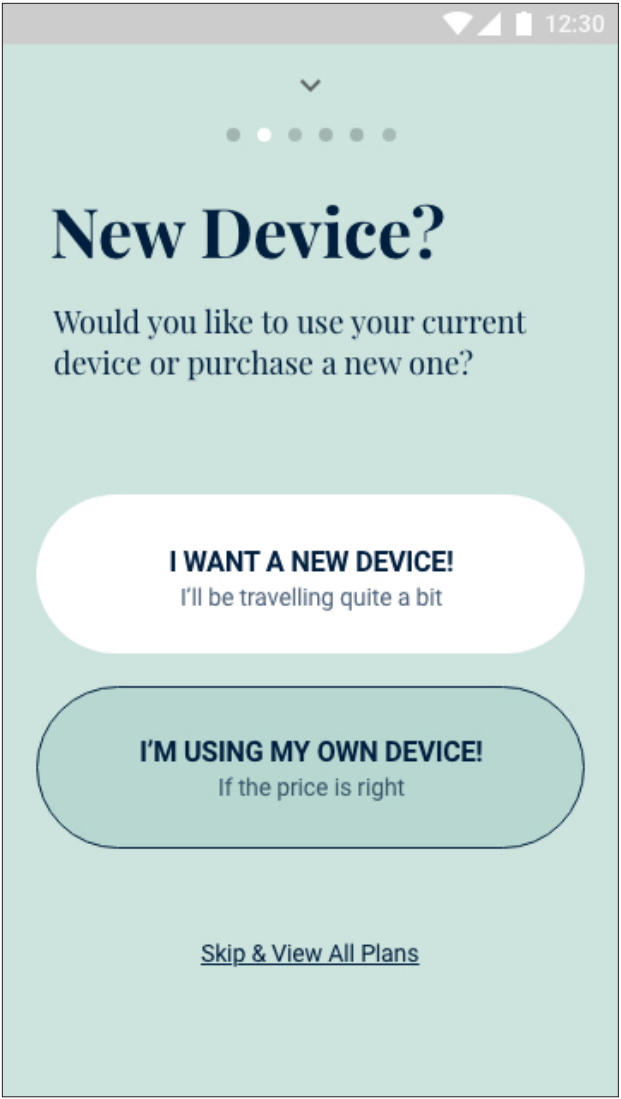
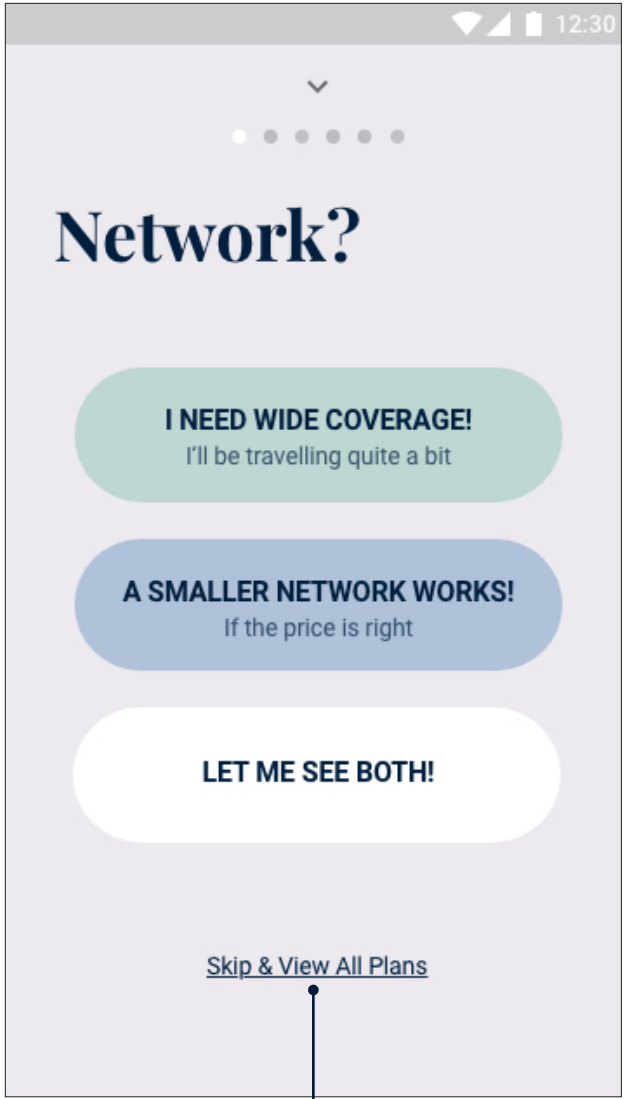




To Deck 19

If users granted location permissions in the play store, the app will automatically access device location. If not, users will be asked for permission again with automatic location check. User can also enter a location manually by entering city name, zipcode, or country

Users will be asked a set of 6 questions about the kind of phone plan they need in a step-by-step process. Users can tap to select an option and auto-advance to the next step



To Deck 22



To Deck 23

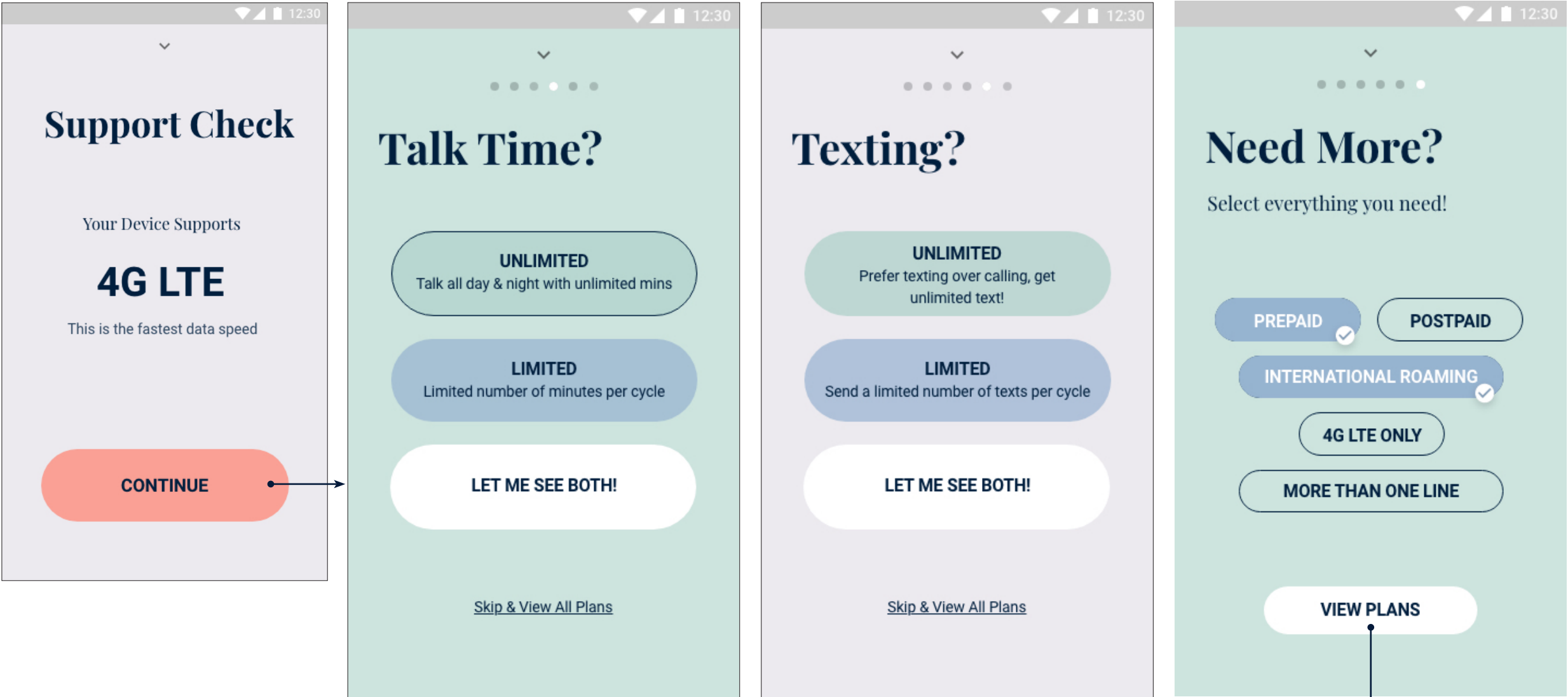
Users can skip the plan selection process entirely and view all available

APP SCREENS - PLAN SELECTION

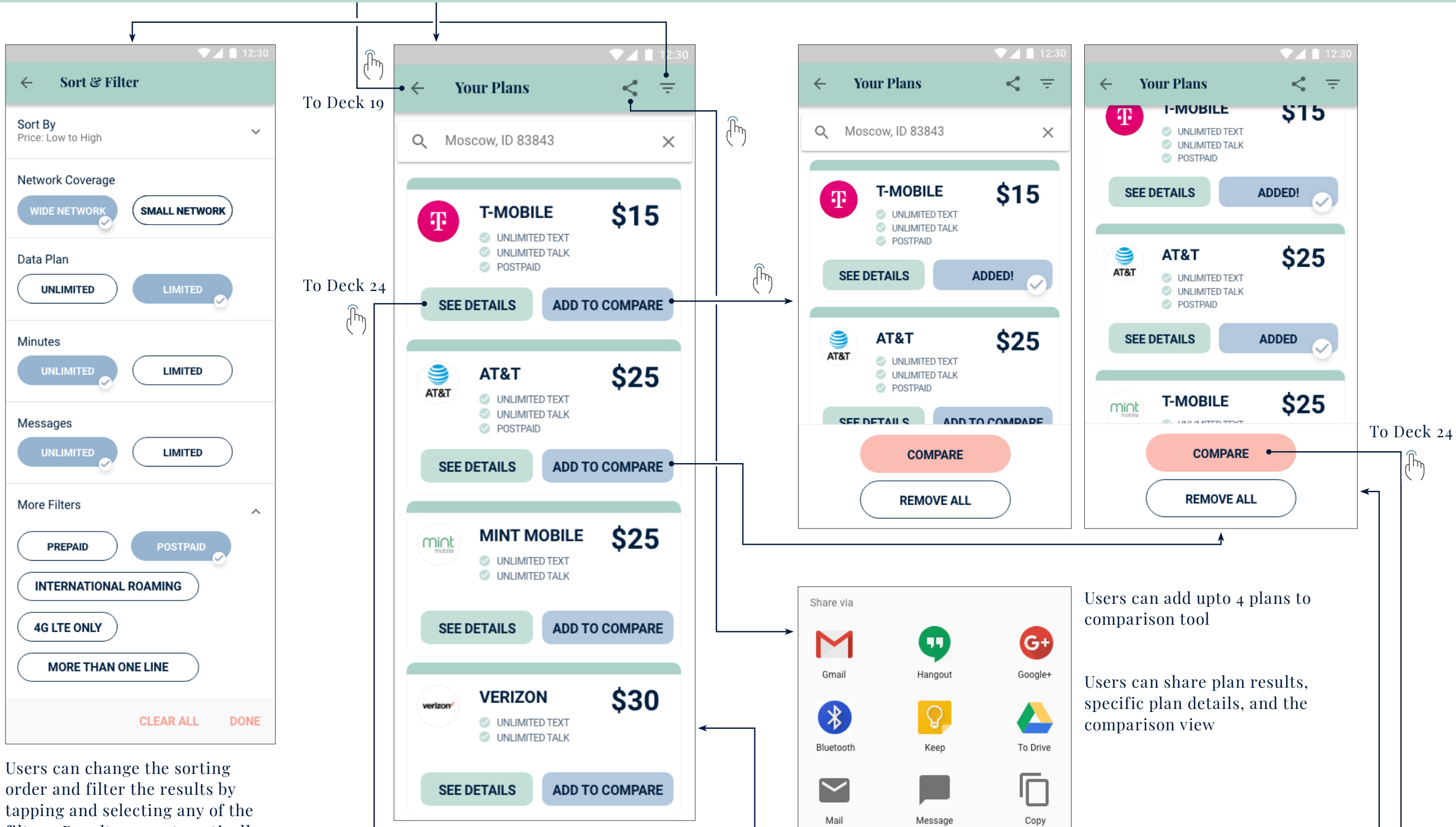
Users can exit out of the selection process and head back to the home screen anytime by tapping the downward arrow

Users can tap on each filter to further refine the phone plan results

If user indicates that they will use their own device, there will be a data support check when users first go through the plan selection process



To Deck 23



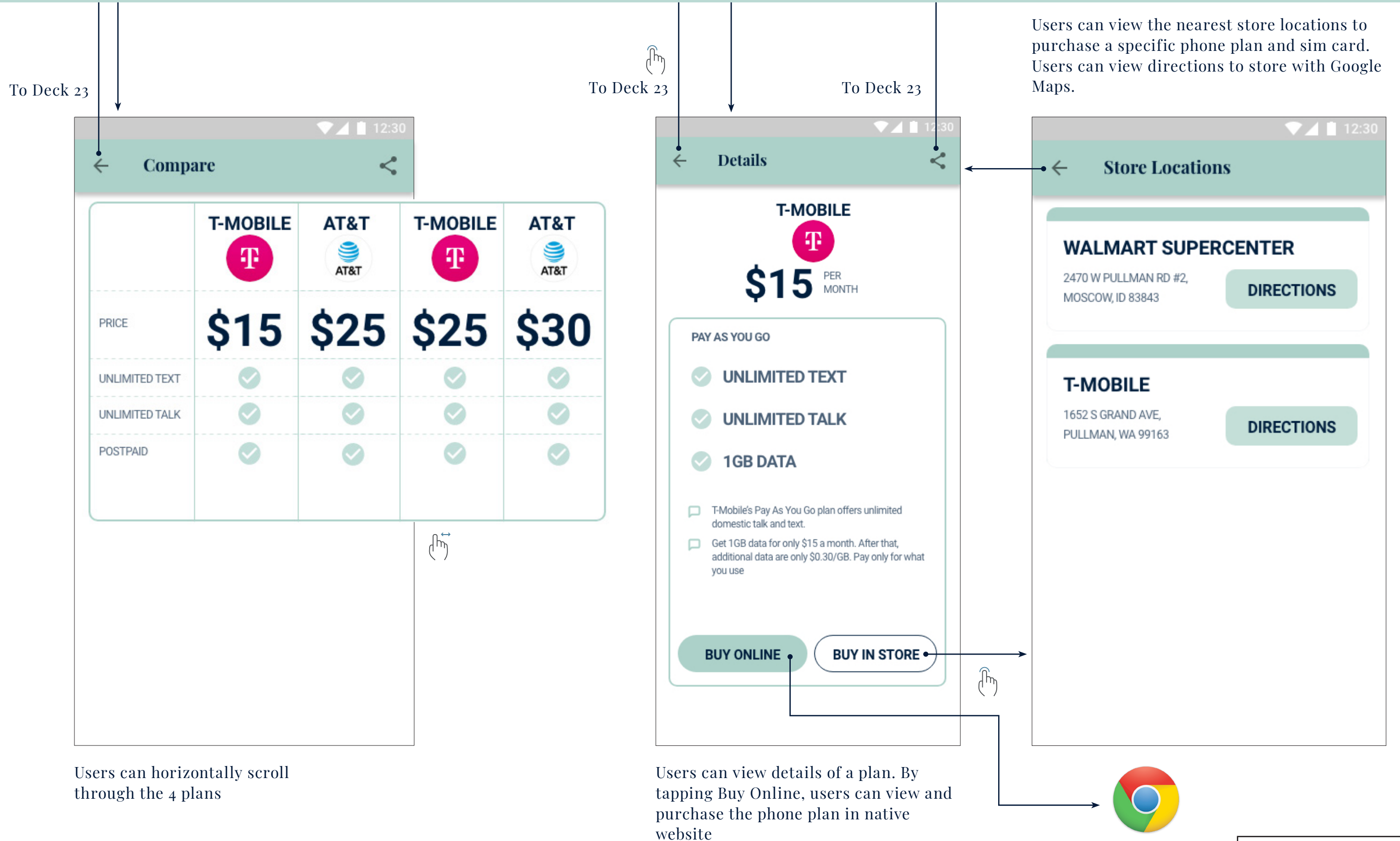
Users can change the sorting order and filter the results by tapping and selecting any of the filters. Results are automatically sorted by price low to high.

Users can change the location and view different results

Users can add upto 4 plans to comparison tool

Users can share plan results, specific plan details, and the comparison view

## APP SCREENS - PLAN RESULTS



APP SCREENS - COMPARISON AND DETAIL VIEW