Graduate Student Individual Project

On-Demand Service App

ITIS-6350 Rapid Prototyping

Submitted by:

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Introduction

This project report is the part of our Graduate student individual project for ITIS-6350 Rapid Prototyping course. This report mainly focuses on the research of new prototyping tool which was not covered through our course. This project is intended to make use of the new tool or techniques by making an interactive prototype and analyzing what can be achieved with this tool. What are the advantages and disadvantages using this tool over other tool discussed in the class.

Here I have researched and make my prototype on Adobe XD tool. The prototype which I made using this tool is of on-demand services app. Which helps users get services when need at their own home.

Furthermore, I will be discussing in detail about the tool Adobe XD and how it helped me to make my prototype. The functionality or aspects my prototype is covering, design patterns I incorporated into my prototype, Wizard of OZ study with four or more participants, content-fidelity matrix,etc.

Overview of the Prototyping Tool

Adobe XD is a vector-based user experience design tool for web apps and mobile apps, developed and published by Adobe Inc. This tool focuses on design as well as prototyping. Users can create quite elaborate and aesthetically fantastic web apps and mobile apps using their wide range of UI plugins and UI kits.

Although, Adobe XD is quite new in the race of many prototyping tools. It still have few flaws, still running in their beta version. But with every update and release they are making a great progress in the designing world. The program allows for the creation of complex interactive prototypes, offers device preview and online revision of a prototype, and is integrated with Creative Cloud apps through CC Libraries support. Adobe XD supports both Windows and macOS. it also supports website wireframing, and creating simple, immersive, interactive click-through prototypes.

We already learned many amazing prototyping tools in the class like Balsamiq, Axure RP, Microsoft Powerpoint and Inkscape. So, for this project I wanted to explore something new and interesting. When I researched on Adobe XD, I found it very elaborate and perfect for prototyping this project.

Let's see some features of Adobe XD in detail.

1. **ArtBoard Sizes** : Adode XD offers pre-made commonly used canvas sizes. You can select one for the application you are designing varing from iPhone, tablet to desktop applications.You can also made your custom sized canvas to work on.
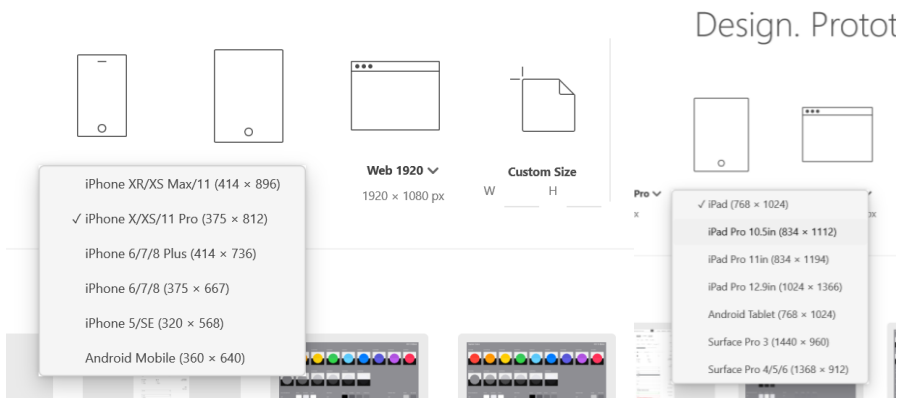
2. **Clean Interface**: The interface is very tidy with less tools to work from.Its not very cluttered looking lilke other designing tools. Still you can design pretty awesome designs for mobile and web apps. It helps you concentrate on other important aspects than so many things on the page itself.
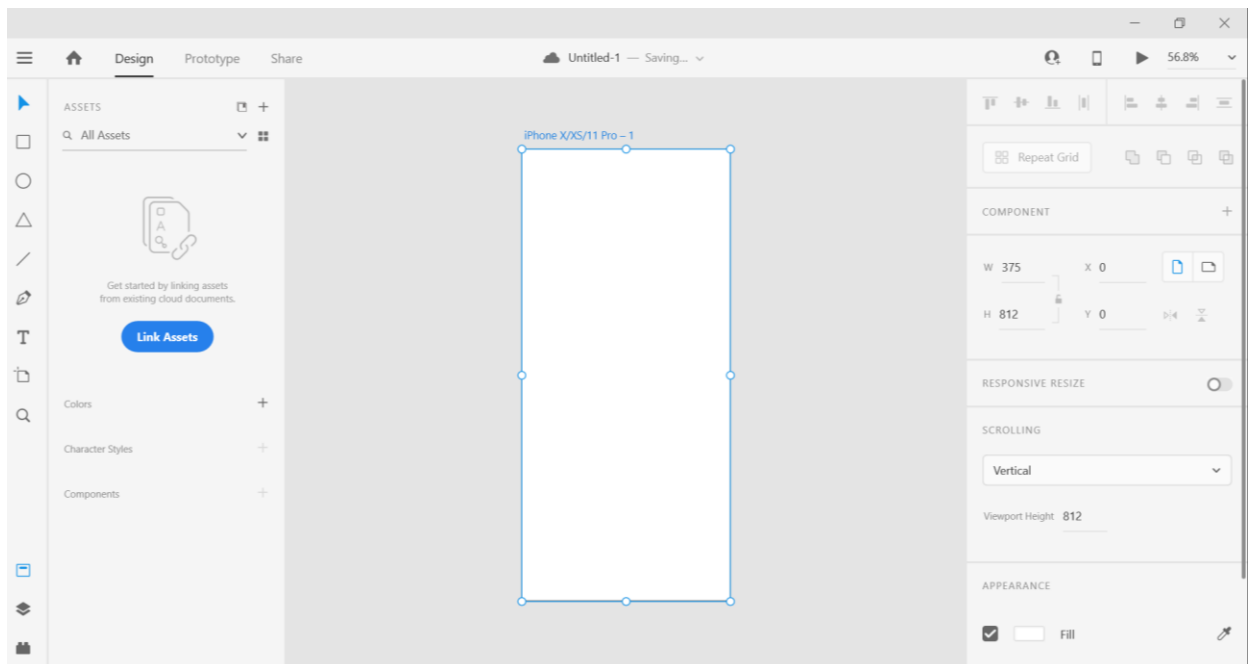
3. **Image Placing** : Putting images never have been easier. You just need to select a shape and fill it with the image.It automatically resizes it and fits in the shape. You can crop and scale the image according to the need.
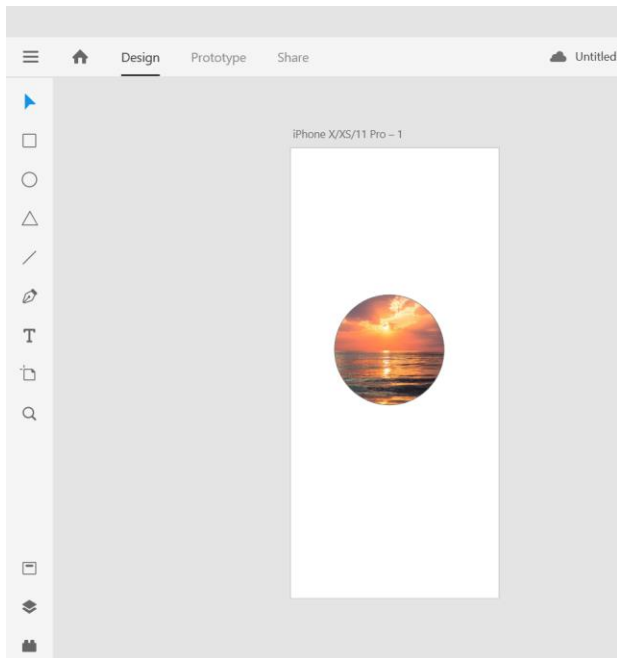

4. **Repeat Grid** : Repeating grids are one of the best features in Adobe XD in my opinion. No more copy pasting similar contents. Whenever you need to duplicate content just use repeating grids to duplicate it horizontally or vertically.
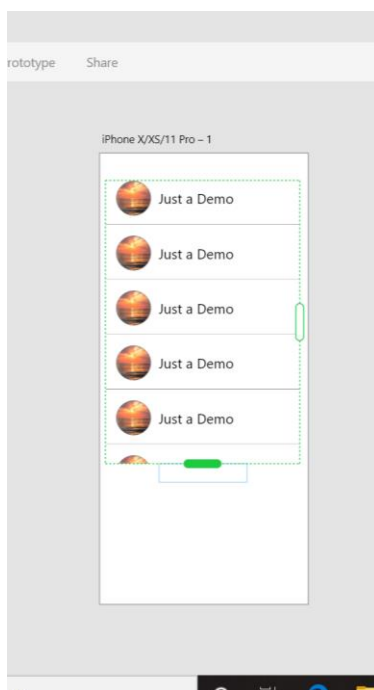
5. **Easy Prototyping** – Prototyping is so easy in XD, no extra plugin is needed to create high fidelity prototypes. You just need to link pages to each other and preview your prototype in the separate popup window. It can also be viewed on the mobile phone by just connecting it to the computer with a USD cable and installing Adode XD viewer and that's all.
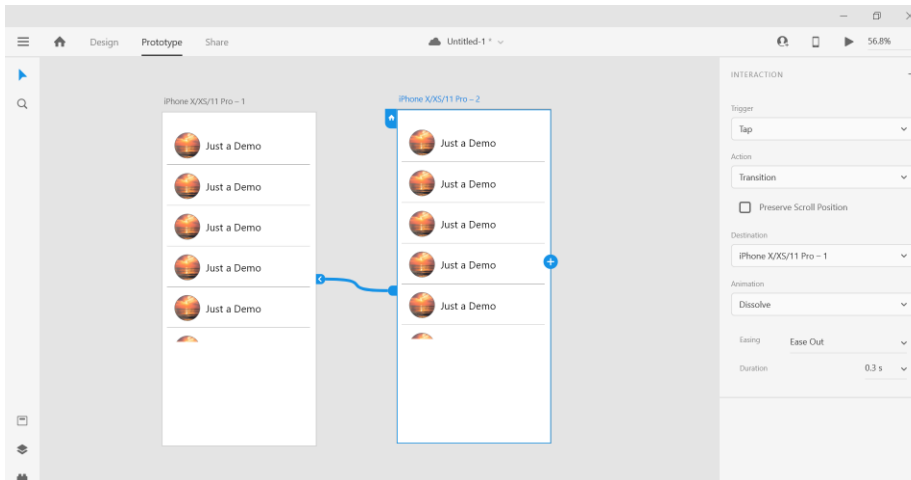
6. **Wide range of Plugins** – XD offers a wide range of plugins and UI kits. which can be downloaded and used. Best thing is they are all free. For few features may be you have to pay.My favorites are "Icons 4 Design" and "Photosplash" plugin.I also used iPhone UI kit in my project.
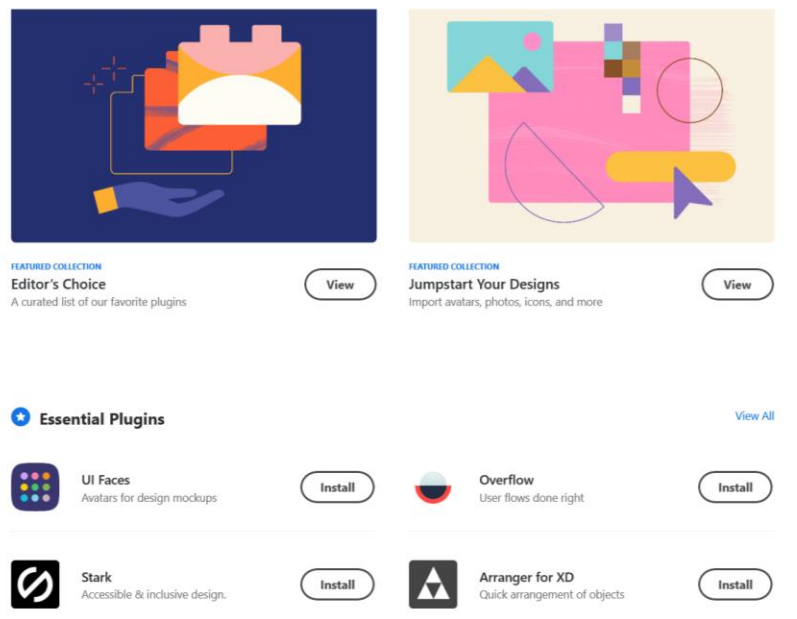
7. **Resizing Text -**It works similar to Photoshop and Illustrator. You just select text object and resize it like you will resize images or any vector objects. It's better than Sketch in this case, since Sketch doesn't let you resize text like other objects.

TradeOffs with other tools

Comparison with Balsamiq

Balsamiq is best used to create easy to prototype and share low fidelity mockups at an early stage of a project. Balsamiq is useful when you have to make a quick dirty prototype with greeking and simple icons. Since it doesn't provide any way to make or design icons whereas XD provides good tools to make your own component and save it to reuse it. Adobe XD is good in cases where extensive designing is needed with low fidelity prototyping. However, it is troublesome to repeat artboards just to make few interactive elements.

Comparison with Axure RP

Axure RP is all about prototyping. It can offer highly interactive elements and wireframing with conditional flow logic.I think Axure has a upper hand over XD if you have to do extensive logic based prototyping. It gives you wide range of conditional logic statement. Text manipulation options.Making variables and setting their value is so easy in Axure. Adobe Xd lacks in all these feature.XD is mostly about making vector based designs. Axure also has their own hosted solution, Axure Share, so you can publish and share your designs and prototypes online.

Advantages and Disadvantages of Adobe XD

Advantages:

1. Cleaner Interface
2. Custom canvas board options
3. We can view all the art pieces at one location
4. Repeating grids feature helps to avoid copy paste similar content.
5. Inbuilt prototyping support as compared to other designing tools
6. Good supports of various plugins and UI kits
7. Good animations can be implemented.

Disadvantages:

1. Cannot design shapes other than circles, ovals, squares and rectangles.
2. No way to get CSS styles
3. Math operations cannot be performed
4. Cannot explore much with prototyping
5. No conditional rendering of objects.
6. No "copy style" or format button
7. Frequent freezes and crashes while using XD, resulting in unsaved projects.

List of Design Patterns Used

- **Feature, Search, and Browse** – At various places I have placed search bar
- **Wizard** – The services details and data entry part has many pages which user has to go through before booking. So it follows the wizard pattern.
- **Clear Entry Points**- The website has a clear entry point where user can click on and enter website
- **Breadcrumb** - At the bottom of all the pages there is a breadcrumb from where user can navigate to different pages
- **Animated transition** - There is an animated transition at all services page where I have implemented carousel
- **Visual framework** - The design and color scheme is almost similar throughout the pages so it's just following a pattern of usual framework
- **Grid of equals** - I've used a grid of equals at many pages where I have shown the list of services and the customer feedback.
- **Titled section** - on yoga instructor page there are many titles sections like the services you are looking for, services included, customer feedback etc.
- **Module tabs** - I have used module tabs on my booking page where I have 2 tabs for current booking and previous bookings
- **Right-left alignment** - I have used to right left alignment aligning my labels and my text boxes on yoga instructor page where user have to fill in the date and time.
- **List Inlay** - Used listing inlay at the main services page where all the services are listed as a row in one column user can see an image and the text for that and click on that to see its detail page.
- **Carousel** - I have used Carousel on all services page where user can see all the services at one place
- **Button Groups** - Button groups are placed on home page and add as well as many places across the site
- **Prominent "Done" Button** - There is a prominent done button at most of the pages they're not set as "done" but they're called proceed so they're quite prominent and in contrast with whole page color scheme which is white and these buttons are black.
- **Forgiving Format** - Few text fields have forgiving format
- **Input Prompt** - at places I've placed input prompt where user can see what input he has to give on that text fields
- **Dropdown Chooser** - I have placed dropdown chooser to choose a service and to choose type of yoga and many places across the site
- **Touch Tools** -this app is for mobile screen so mostly everything is touch tool
- **Thumbnail-and-Text List** - I've used thumbnail and text list at customer review section and the services page
- **Hairlines** - I've placed it here lines here pattern at many places where I have to segregate few contents.
- **Corner Treatments** - On the buttons and text fields are having rounded corners
- **Few Hues, Many Values** - I've used mostly Shades of Grey and black and white across my sites so that that makes very few hues.
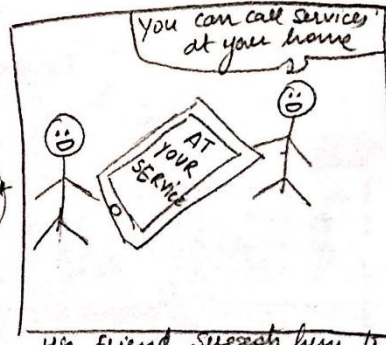
Wireframes:

Screen 1 — Electrician
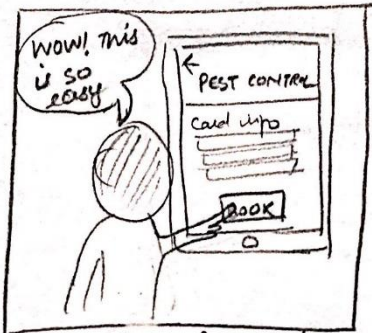
← (back)

Electrician

What do you want help with?

⊗ ~ ⊗ ~ ⊗ ~

What Customers are saying?

★ 4.7 out of 5 stars

⊗ ~~~~ ★ 50
⊗ ~~~~

⊗ ~~ ★ ~

Screen 2 — Login/Sign Up

←

Login/Sign UP

☐ +1 [~~~]

Proceed →

Screen 3 — Checkout

← Checkout

Payment details
| Card | ~ | ~ |

Card information

[~~~~]
[~~~~]
[~~~~]
[~~~~] [~]

Billing information

[~~~~]

⊠ ~ ⊠ ~ ⊠ ~ ⊠ ~
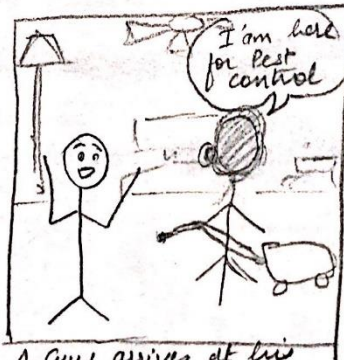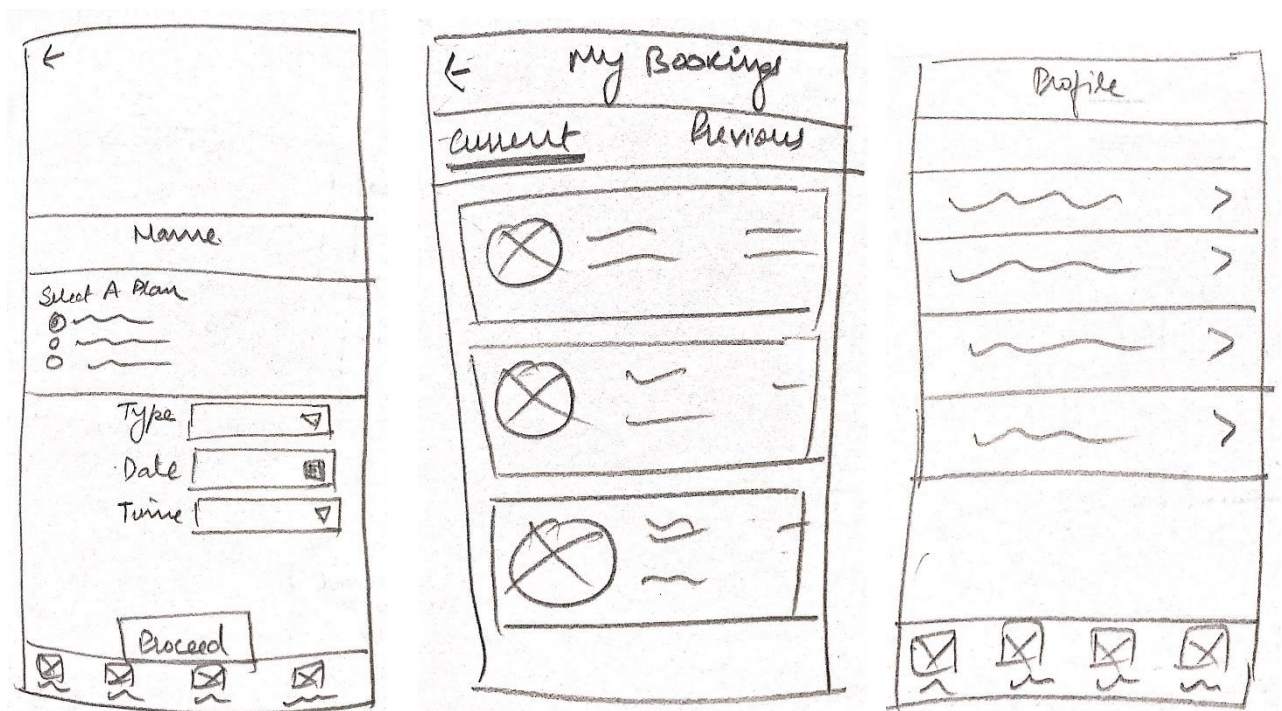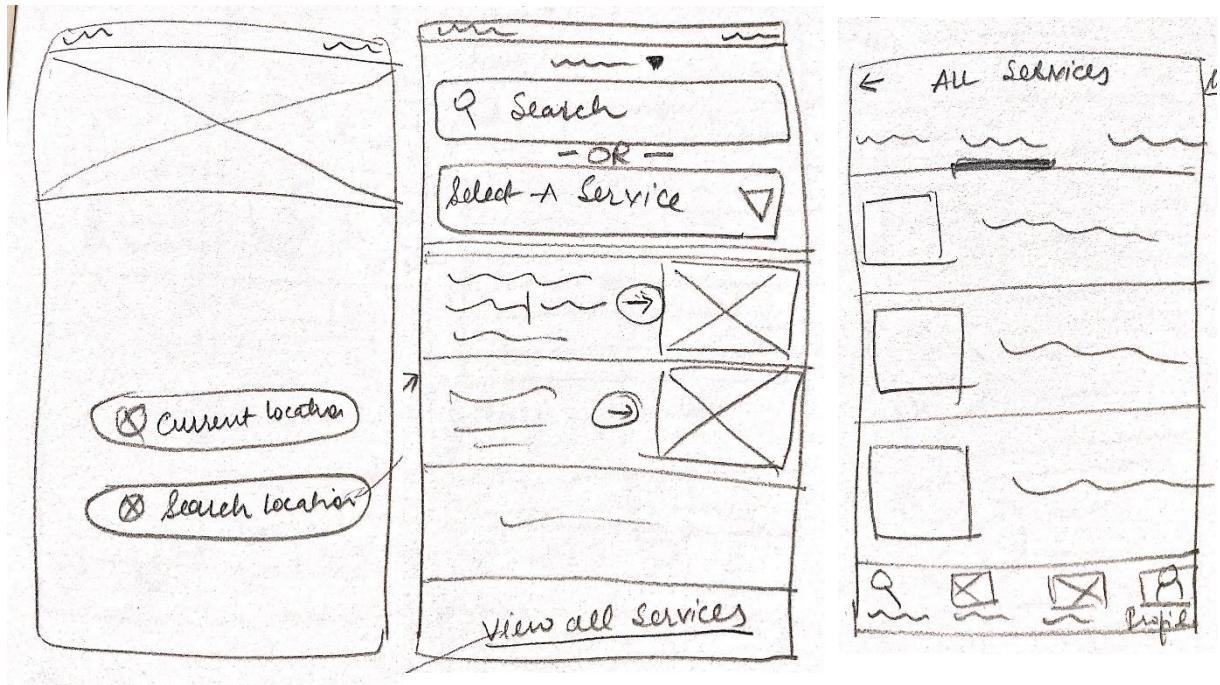
1. User starts the app by clicking on the icon
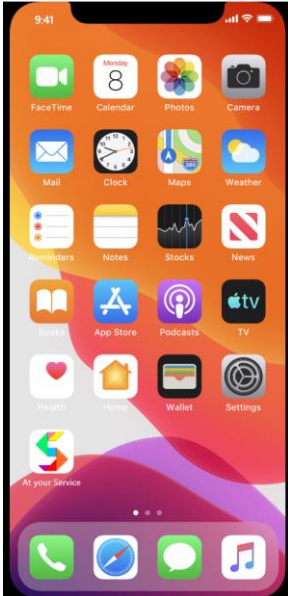
2. Next user sees the location finding search bar or he can search his current location by using gps
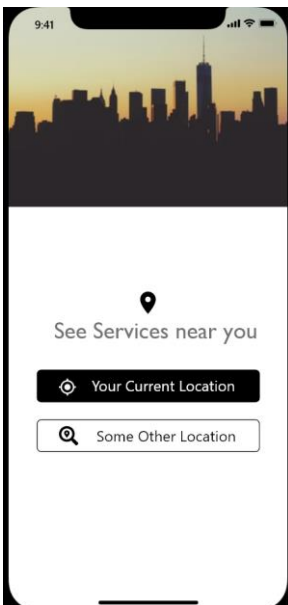
3. When user selects the current location, his location is shown on the top and he can view the featured services along with search bar, a dropdown to select services. User can view all the services.
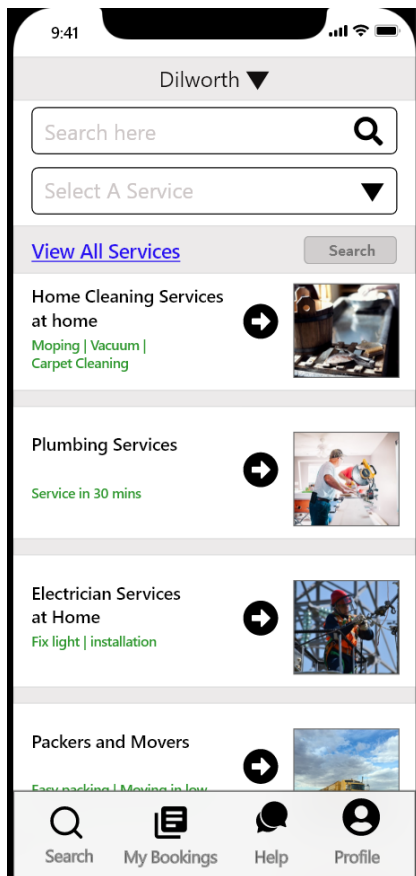
4. User selects "Yoga Instructor" from dropdown.
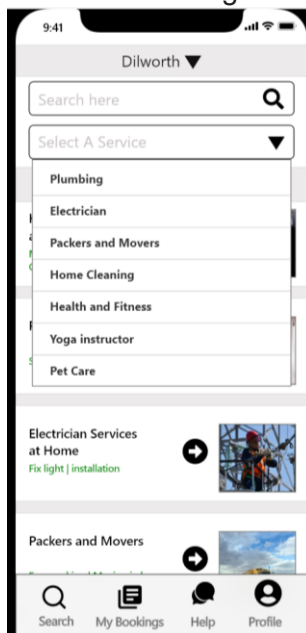
5. Then clicks on search, he sees the yoga instructor page.
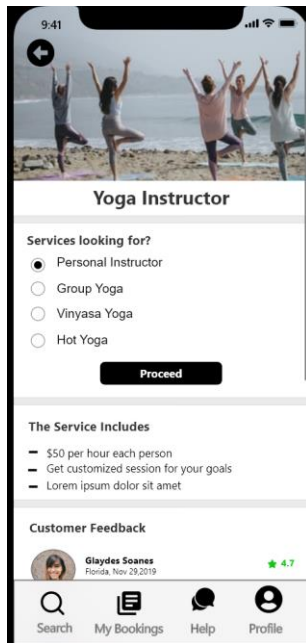
6. When user view all service, a carousel is shown with all the services categories.
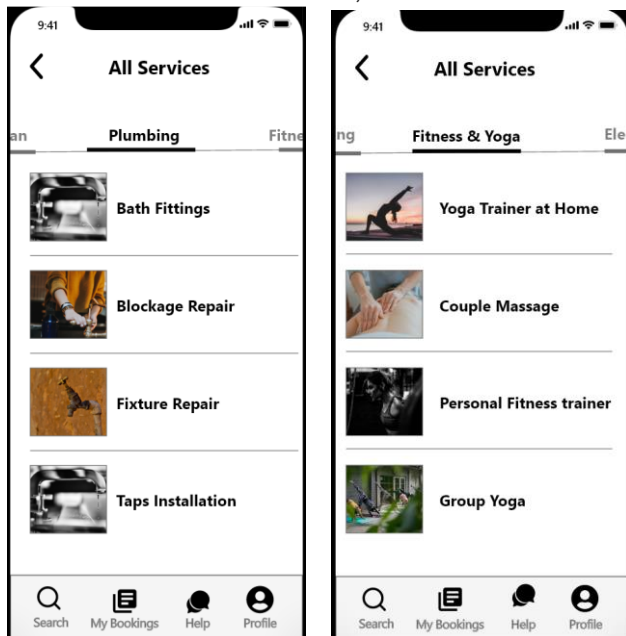
7. Again if user clicks on yoga page, he will be redirected to yoga details page. On detail page user can select a type of yoga service, view the services offered, and customer reviews.User clicks on proceed.

Vinyasa Yoga

Hot Yoga

Proceed

The Service Includes

- $50 per hour each person
- Get customized session for your goals
- Lorem ipsum dolor sit amet

Customer Feedback

Glaydes Soanes
Florida, Nov 29,2019
★ 4.7

Ashton
Florida, Nov 29,2019
★ 4.3

Josh Green
Charlotte, Nov 29,2019
★ 4.7

Juale fernandes
Florida, Nov 29,2019
★ 4.5

John Doe
California, Nov 9,2019
★ 4.7

Search   My Bookings   Help   Profile

8. When user clicks proceed user lands to a page where he needs to fill more details.

9:41

Yoga Instructor

Select A Plan
- $50 for 30 mins
- $100 for 60 mins
- Lorem Ipsum

Yoga Type   Select

Select Date   Select Date

Preferred Time   Select Time

Proceed

Search   My Bookings   Help   Profile
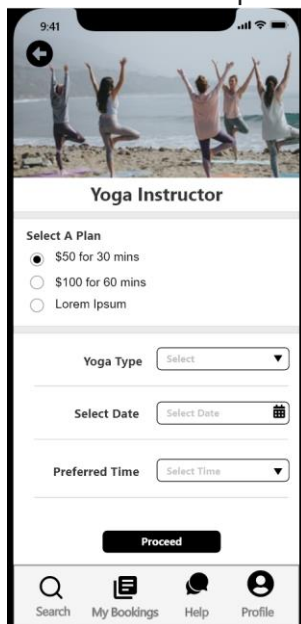
9. User fills up the details and proceed.
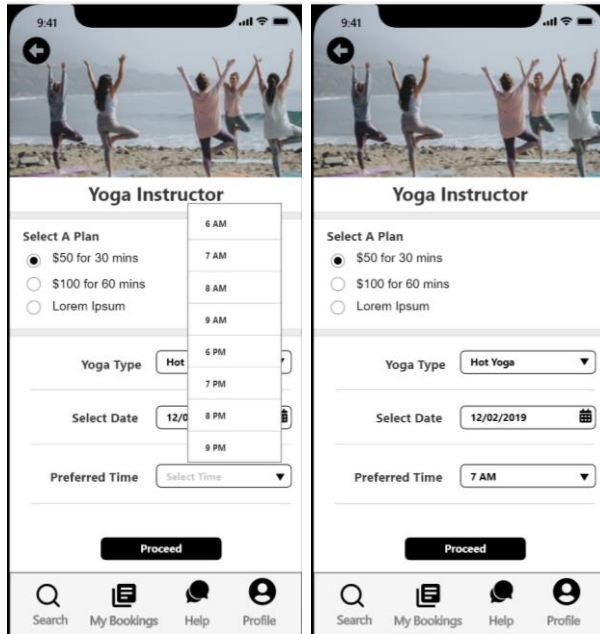
10. After proceed user goes to the checkout page. Here user fills in his payment details and address details.And clicks on confirm booking.
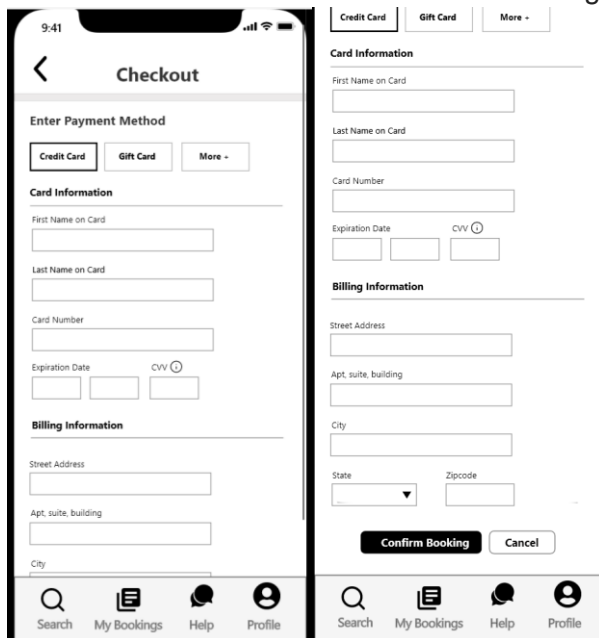
11.After confirm his booking, user is redirected to the his booking page. There he can see his current booking and previous bookings.

9:41

‹ **My Bookings**

Current Bookings   Previous Bookings

Yoga Instructor

Peter green
★ **4.7** (280 Ratings)
On Dec 02, 2019 at 7am

Edit
Cancel

🔍 Search   📖 My Bookings   💬 Help   👤 Profile

9:41

‹ **My Bookings**

Current Bookings   Previous Bookings

No Previous Bookings!

🔍 Search   📖 My Bookings   💬 Help   👤 Profile
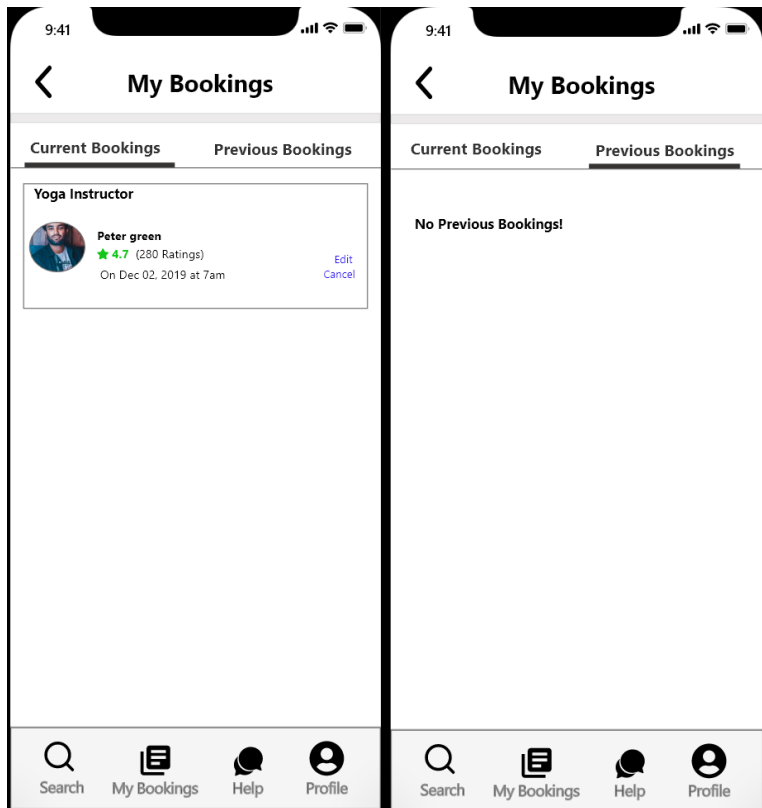
12. user can access his profile view profile button on each page and create a login from here.

9:41

‹ **Profile**

Login/Register   ›

Sign up to Provide Services   ›

Know more about us   ›

Contact At Your Service Team   ›

Share With Friends   ›

🔍 Search   📖 My Bookings   💬 Help   👤 Profile

9:41

‹

Login/Signup

🇺🇸 +1 [   ]

PROCEED

1	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PQRS	8 TUV	9 WXYZ
	0	⊗
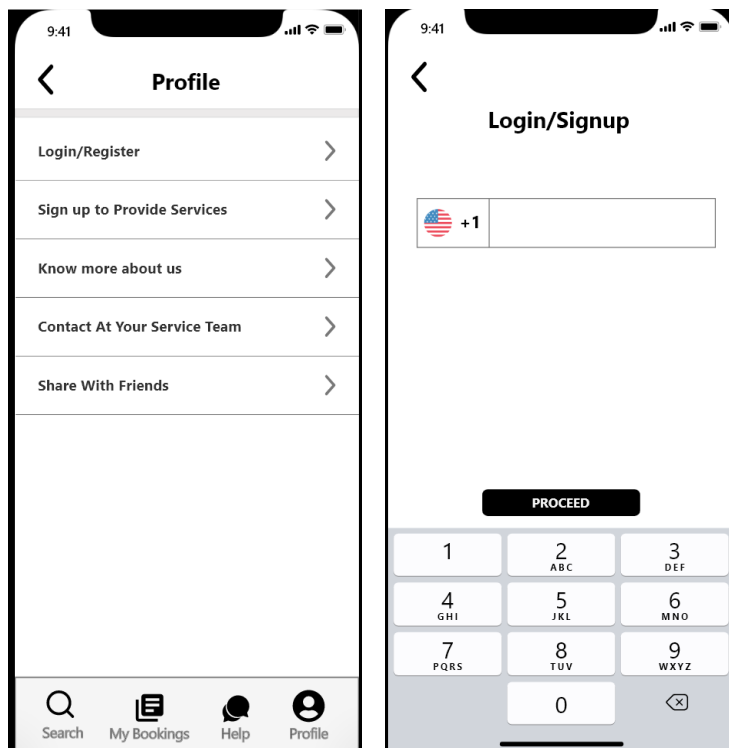
Content-Fidelity Matrix

Content	Very Low Fidelity	Low Fidelity	Medium Fidelity	High Fidelity	Very High Fidelity
Information Design				X	
Interaction Design			X		
Visual Design & Branding					X
Editorial Content				X	

Explanation:

- **Information Design:**
  - The content of the application is well segregated on the basis of different categories like search, my bookings, profile, chat etc.
  - All the content is properly placed on the screen where ever they need to be in original app.
- **Interaction Design:**
  - The prototype is high fidelity because I have included interactions at maximum places.
  - Still few things are not yet interactive or all the features are not implemented yet.
- **Visual Design and Branding:**
  - The application is branded quite well and goes with the theme of the website.
  - The consistency of the color scheme across the application is well maintained.
  - There are visuals and graphic images accompanying each section to emphasize the content of each of them.
- **Editorial Content:**
  - The editorial content is quite accurate, still at few places I placed lorem Ipsum text that why its not very high fidelity but only high fidelity.
  - The services and their categories are written accurately at most of the places.

Wizard of Oz Evaluation

I did Wizard of OZ study with four of my friends. It was an individual study. I went to each one of them explain what my app is about and the process that I will be following. I told him that I will be giving them a set of tasks they have to perform those tasks. I will note down few points while they were doing their tasks. Here are the few set of tasks and the post ask questions which I asked from each of my participant.

Tasks:

- Open "At your Service app" and let gps find your current location.
- Name few services provided by this app and Search for a "yoga instructor" in your area.
- Book a yoga instructor.
- Tell me about your previous bookings.

Post-task Questions

- How easy was the app to navigate on a scale of 1-10? 1 being easiest.
- Did you like the app?
- Did you find any difficulty while using the app?
- Can you suggest some improvements?

Participant 1

Tasks

- Open "At your Service app" and let gps find your current location.He was able to open the app.while searching he tried to search from the search bar but later he realized that there is another button on Top of that from which he can search using the GPS.

- Name few services provided by this app and Search for a "yoga instructor" in your area.On the services page he mostly told the services which were on Top of the page and he also explored all services page. It took some time to search Yoga instructor .

- Book a yoga instructor.
  He followed all the links and buttons to book a yoga instructor but sometimes I had to guide him through the form firstly. He wasn't sure how to select the calendar I had to tell him that this is just a prototype. He suggested to make a few more links clickable.

- Tell me about your previous bookings.
  He was able to navigate to my bookings page but he wasn't sure how to see the previous bookings.After some time like 3 or 4 seconds later he was able to see my previous booking tabs which was empty

Post-task Questions

- How easy was the app to navigate on a scale of 1-10? 1 being easiest.

3
- Did you like the app?
  Yes, very much
- Did you find any difficulty while using the app?
  No not as such but i did feel that few features could have been little bit more elaborate there were few loose connections here and there
- Can you suggest some improvements?
  I would suggest you to add more features and there can be a login in the starting of the app.

Participant 2

Tasks

- Open "At your Service app" and let gps find your current location.
  He was able to open the app.He promptly clicked the current location button.

- Name few services provided by this app and Search for a "yoga instructor" in your area.
  He explored all the services by scrolling the page down.He saw all services page also then he went to the dropdown and saw the services.He took quite good amount of time in seeing all the service and exploring and then finally he found yoga instructor.

- Book a yoga instructor.

  He followed all the links and buttons to book a yoga instructor. He tried to select other form of yoga by the radio button but all of them were not working so i had to tell him that all of them are not working right now.

- Tell me about your previous bookings.
  He was able to navigate to my bookings page And then he saw previous booking but that was empty obviously.

Post-task Questions

- How easy was the app to navigate on a scale of 1-10? 1 being easiest.
  2
- Did you like the app?
  Yes
- Did you find any difficulty while using the app?
  No
- Can you suggest some improvements?
  May be more connections will be better.

Participant 3

Tasks

- Open "At your Service app" and let gps find your current location.
  She was able to open the app and found the button at the home page.

- Name few services provided by this app and Search for a "yoga instructor" in your area.
  She opened the all service page and then she explored everything with the carousel.She was able to select the yoga instructor quite quickly.

- Book a yoga instructor.
  She followed all the steps to book a yoga instructor and she successfully booked it.

- Tell me about your previous bookings.
  She went to the previous booking tab and told me that there is no previous booking. She also explored other features of the app like a log in and help.

Post-task Questions

- How easy was the app to navigate on a scale of 1-10? 1 being easiest.
  4
- Did you like the app?
  Yes I liked it. But there can be few fixes.
- Did you find any difficulty while using the app?
  No
- Can you suggest some improvements?
  May be little more colorful.And you didn't ask to login anywhere before checkout.

Participant 4

Tasks

- Open "At your Service app" and let GPS find your current location.She was able to open the app.This participant wasn't willing to open her GPS because of the security issues so she searched by the search bar but that wasn't working in my app so she was a little upset about that.

- Name few services provided by this app and Search for a "yoga instructor" in your area.
  She opened the all service page and then she explored everything with the carousel. She was able to select the yoga instructor quite quickly.

- Book a yoga instructor.
  She followed all the steps to book a yoga instructor. She said that more categories can be added in yoga instructor like if she's elected group yoga there should be more options in the group yoga are the app should ask like how many people are doing the group yoga. These kind of things that that was missing in the app.

- Tell me about your previous bookings.
  She went to the previous booking tab and told me that there is no previous booking.

Post-task Questions

- How easy was the app to navigate on a scale of 1-10? 1 being easiest.
  3
- Did you like the app?
  Yes I liked it. Could have more categories and features.
- Did you find any difficulty while using the app?
  No
- Can you suggest some improvements?
  May be little more colorful. There could be sharing options if I want to invite some of my friends.

Lessons Learned

- The app could have been more colorful
- Should have asked login before confirming the booking
- Could have more flexible options for user while booking a yoga instructor.
- Sharing widget need to be included.
- More functionalities should be there.

Maybe I'll fix these issues in next iteration of this app.But I had a better understanding of the usability problems which my app had.

Project prototype Video link:

https://youtu.be/x4Su9LhSMqM