Lecture 18:
Designing for mobiles

Mobile devices: an overview

- Constraints
  - Small screens
  - Diverse screen sizes
  - Limited resources (battery, RAM, etc.)
  - Touch based (fat fingers)
  - Diverse OS with different design guides and styles

- Can be moved easily – allows for newer affordances
  - Location/position awareness, for example

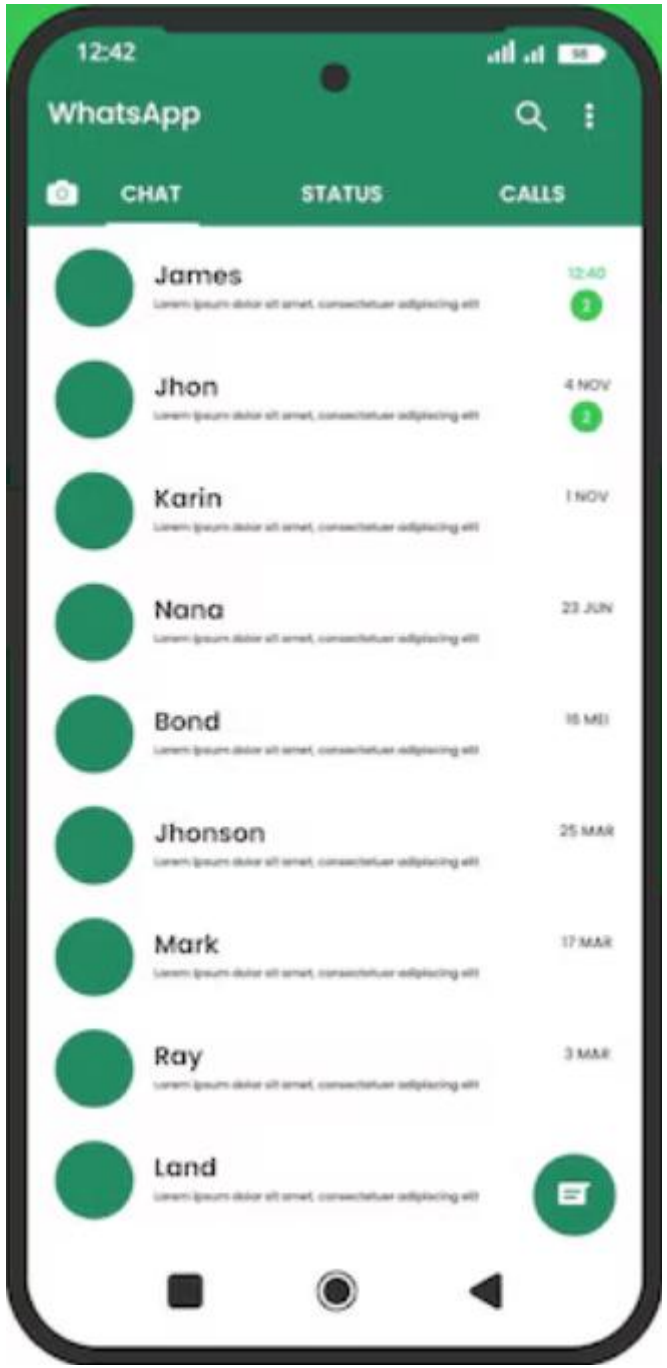
- Consistently with other interfaces (web equivalent, for example)

Two kinds

- Mobile web
  - Responsive
- Native mobile apps
  - Android, iOS, etc.
- Principle stay the same; but specific guidelines
  - Swipe left/right vs. swipe top.

Home / landing screens

- The first thing that comes up when you open
- Look at home screens of 2-3 of the following:
  - Your mobile phone
  - Ola/Uber/other ride booking apps
  - Gpay/PayTM…
  - Email app
  - Whatsapp
  - Instagram
  - Google drive
  - Swiggy, campus haat, Blinkit, Big Basket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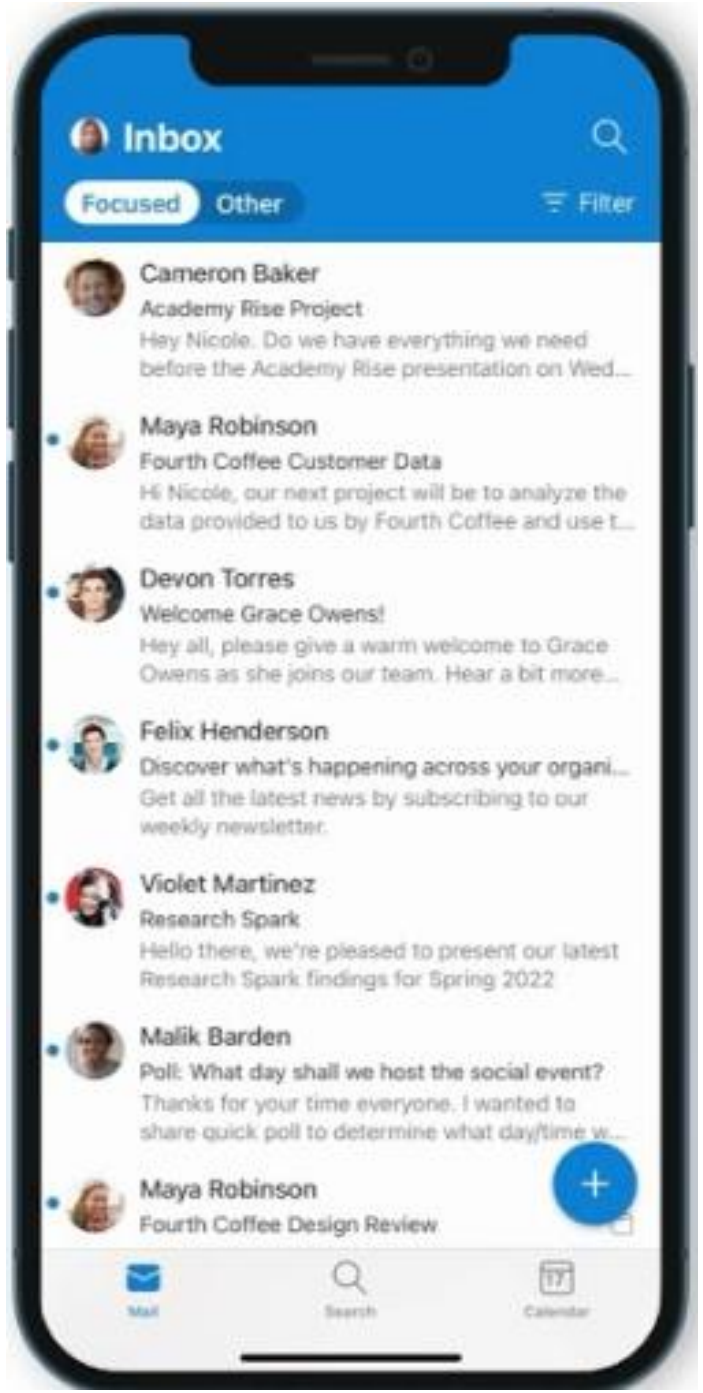
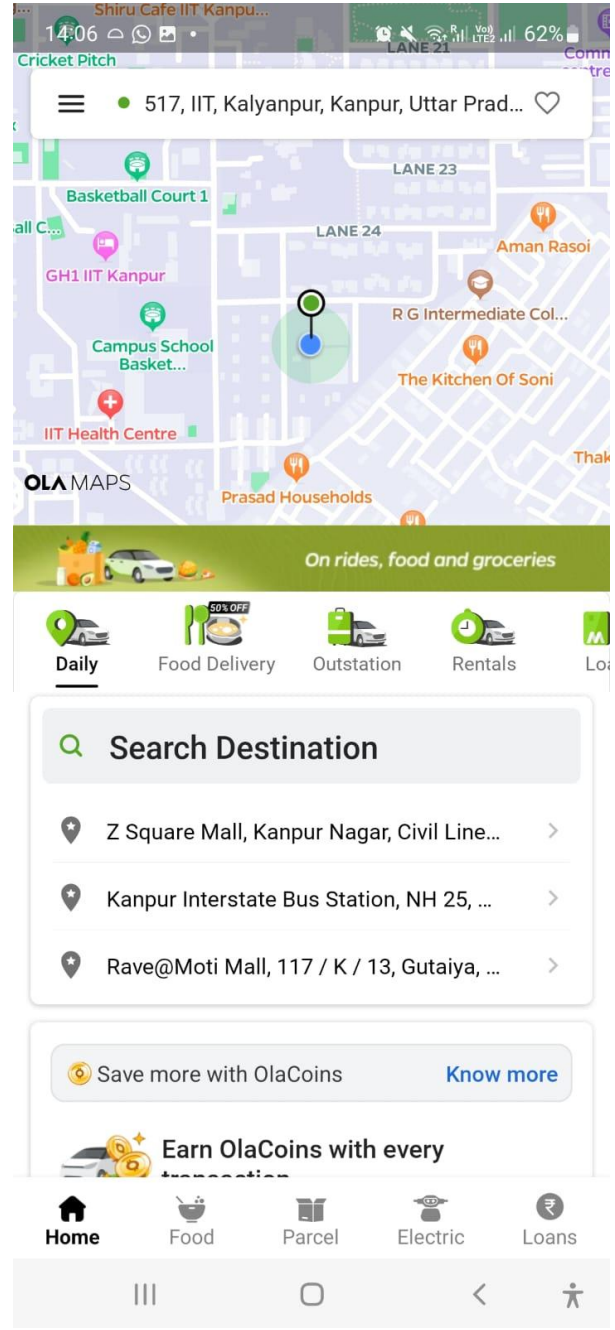
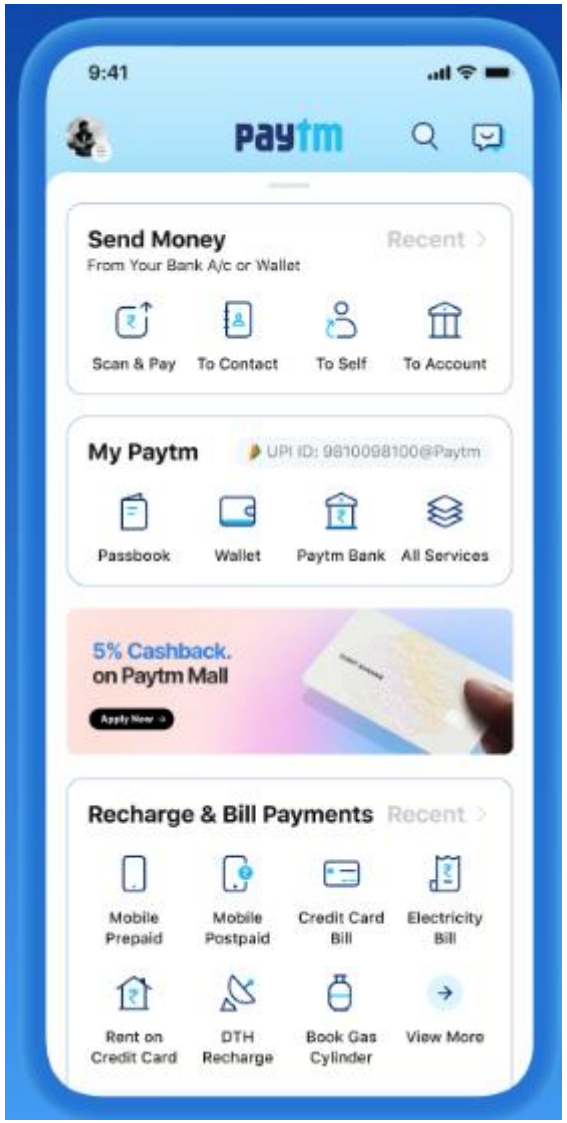
WhatsApp
CHAT
STATUS
CALLS
James
Jhon
Karin
Nana
Bond
Jhonson
Mark
Ray
Land


Inbox
Focused
Other
Filter
Cameron Baker
Academy Rise Project
Hey Nicole. Do we have everything we need before the Academy Rise presentation on Wed...
Maya Robinson
Fourth Coffee Customer Data
Hi Nicole, our next project will be to analyze the data provided to us by Fourth Coffee and use t...
Devon Torres
Welcome Grace Owens!
Hey all, please give a warm welcome to Grace Owens as she joins our team. Hear a bit more...
Felix Henderson
Discover what's happening across your organi...
Get all the latest news by subscribing to our weekly newsletter.
Violet Martinez
Research Spark
Hello there, we're pleased to present our latest Research Spark findings for Spring 2022
Malik Barden
Poll: What day shall we host the social event?
Thanks for your time everyone. I wanted to share quick poll to determine what day/time w...
Maya Robinson
Fourth Coffee Design Review


14:06
62%
517, IIT, Kalyanpur, Kanpur, Uttar Prad...
Cricket Pitch
LANE 23
Basketball Court 1
LANE 24
GH1 IIT Kanpur
Aman Rasoi
R G Intermediate Col...
Campus School Basket...
The Kitchen Of Soni
IIT Health Centre
OLA MAPS
Prasad Households
On rides, food and groceries
Daily
Food Delivery
Outstation
Rentals
Search Destination
Z Square Mall, Kanpur Nagar, Civil Line...
Kanpur Interstate Bus Station, NH 25, ...
Rave@Moti Mall, 117 / K / 13, Gutaiya, ...
Save more with OlaCoins
Know more
Earn OlaCoins with every
Home
Food
Parcel
Electric
Loans

Give user what they need most, right away!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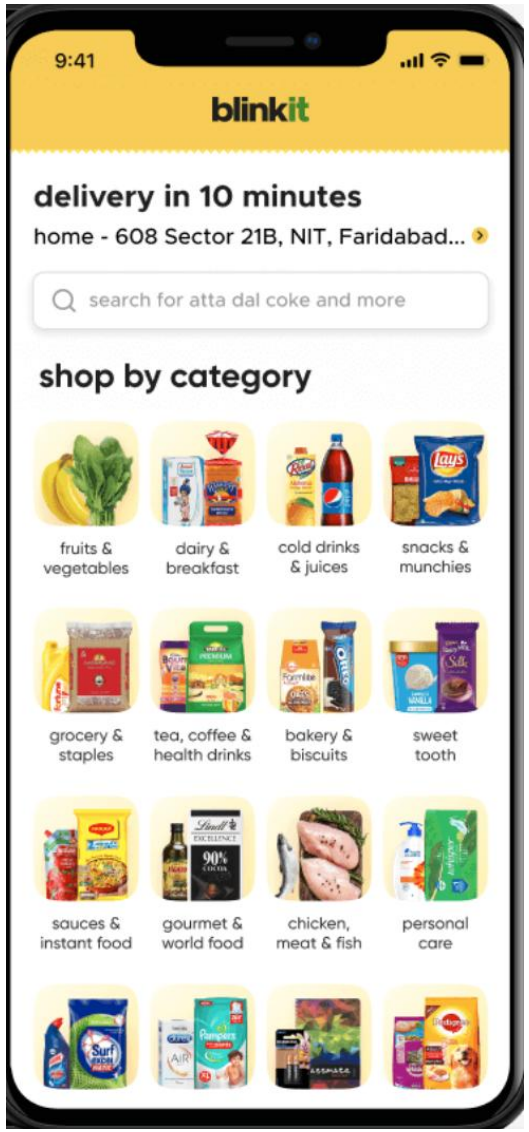
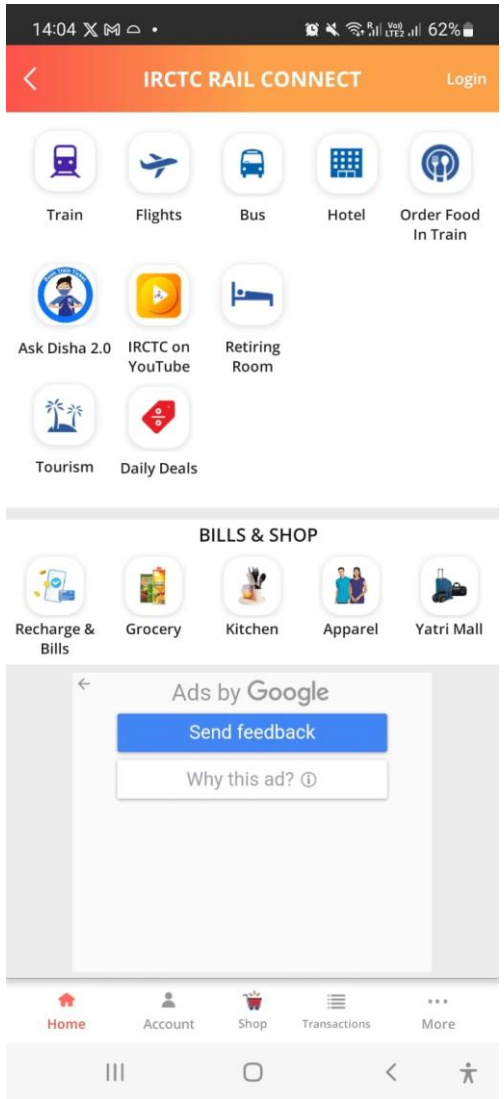
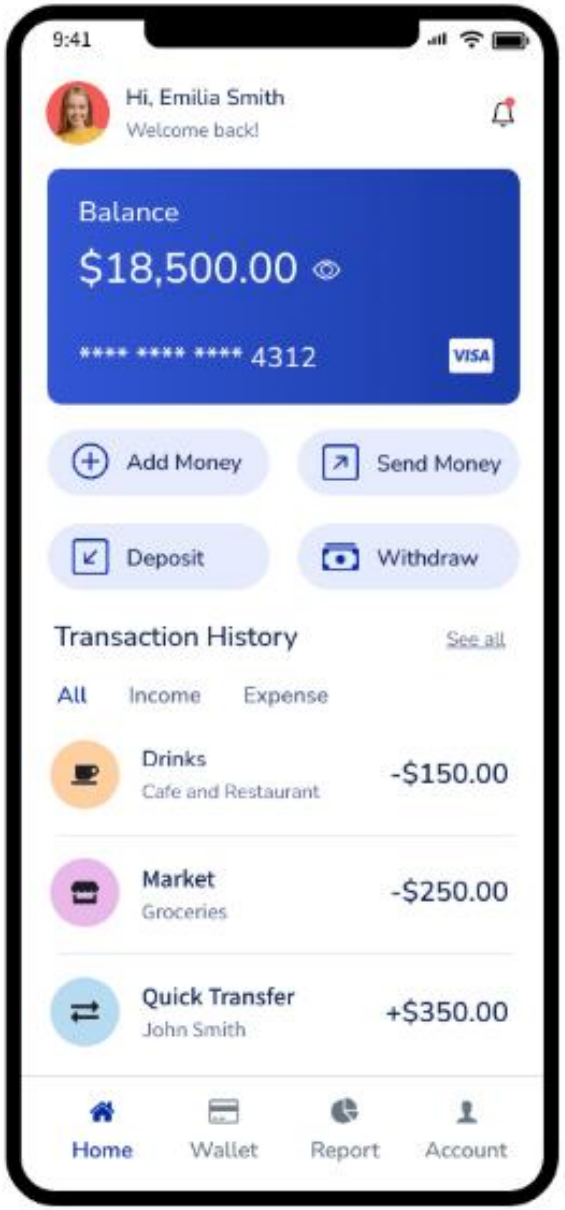
Paytm
Send Money
From Your Bank A/c or Wallet
Recent
Scan & Pay
To Contact
To Self
To Account
My Paytm
UPI ID: 9810098100@Paytm
Passbook
Wallet
Paytm Bank
All Services
5% Cashback.
on Paytm Mall
Apply Now
Recharge & Bill Payments
Recent
Mobile Prepaid
Mobile Postpaid
Credit Card Bill
Electricity Bill
Rent on Credit Card
DTH Recharge
Book Gas Cylinder
View More

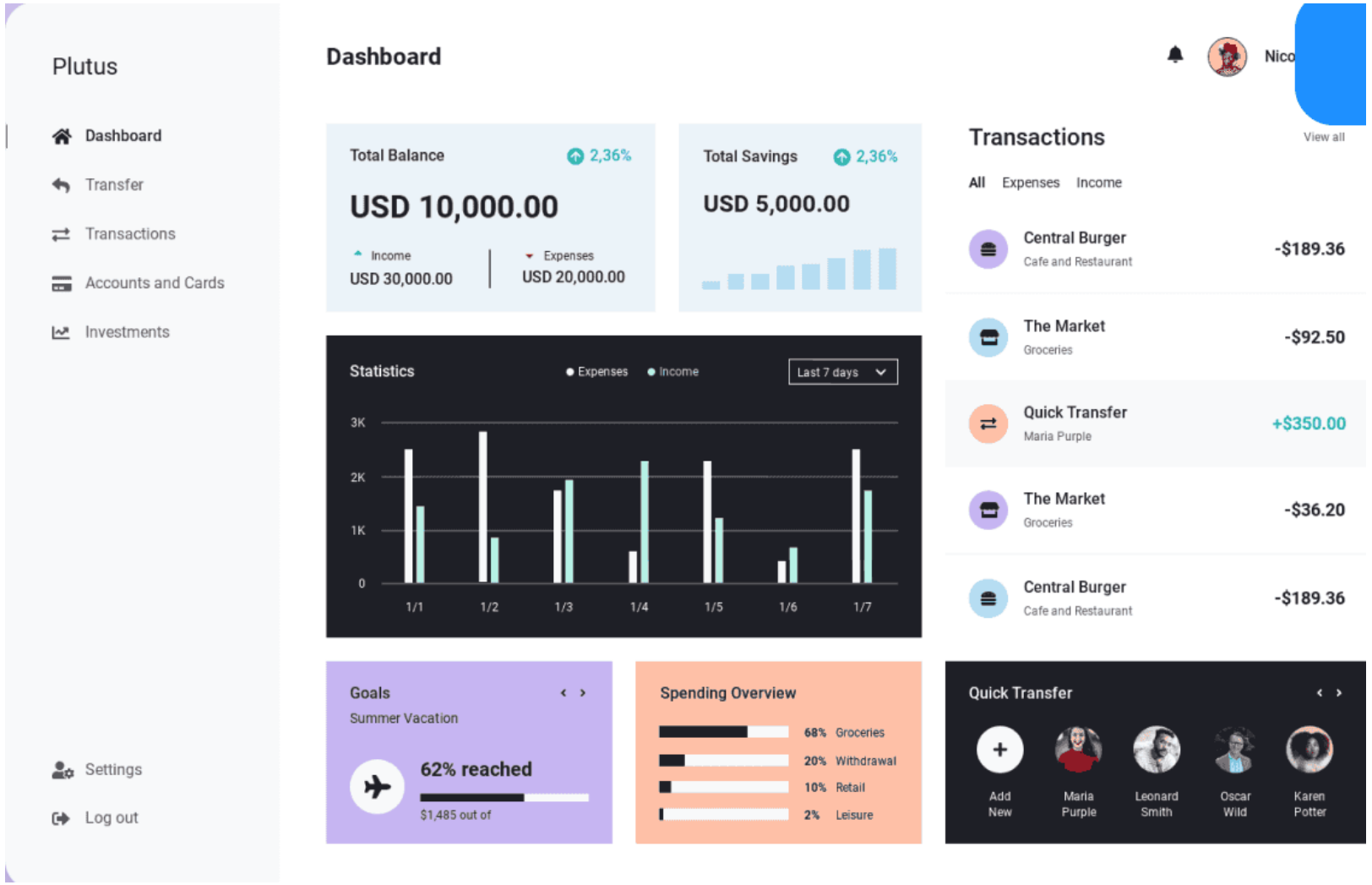

9:41
blinkit
delivery in 10 minutes
home - 608 Sector 21B, NIT, Faridabad...
search for atta dal coke and more
shop by category
fruits & vegetables
dairy & breakfast
cold drinks & juices
snacks & munchies
grocery & staples
tea, coffee & health drinks
bakery & biscuits
sweet tooth
sauces & instant food
gourmet & world food
chicken, meat & fish
personal care


14:04
62%
IRCTC RAIL CONNECT
Login
Train
Flights
Bus
Hotel
Order Food In Train
Ask Disha 2.0
IRCTC on YouTube
Retiring Room
Tourism
Daily Deals
BILLS & SHOP
Recharge & Bills
Grocery
Kitchen
Apparel
Yatri Mall
Ads by Google
Send feedback
Why this ad?
Home
Account
Shop
Transactions
More

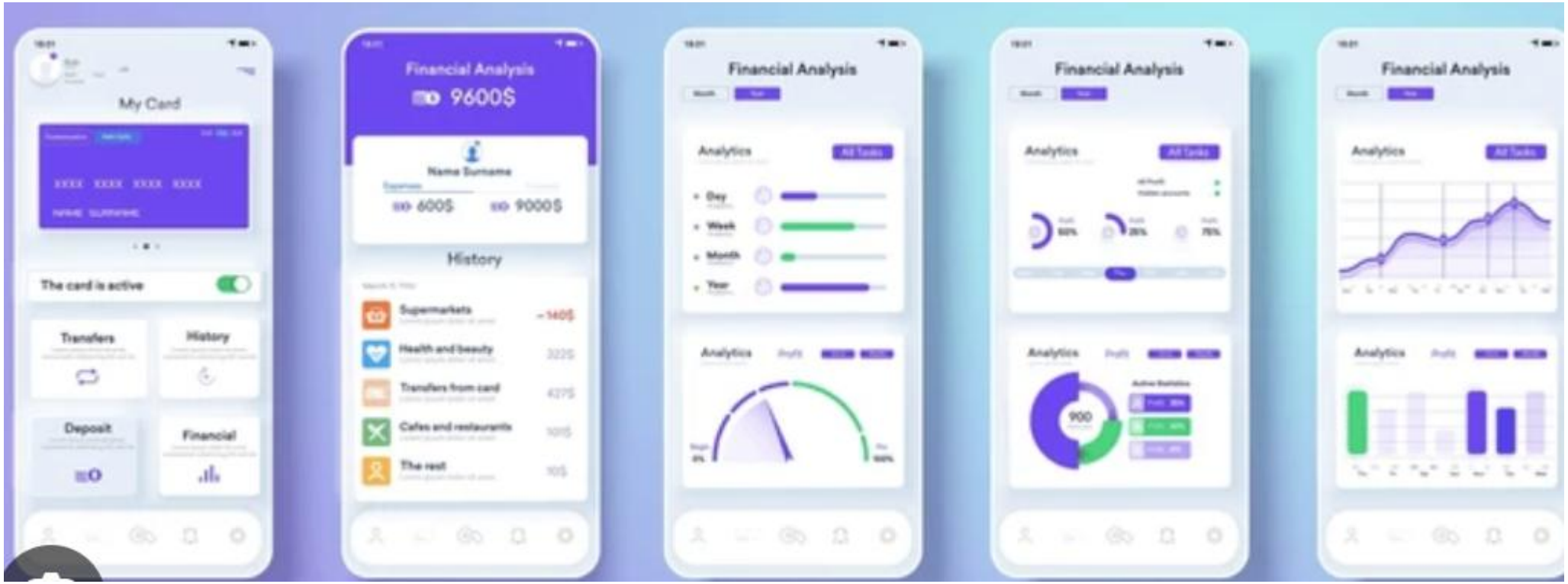

9:41
Hi, Emilia Smith
Welcome back!
Balance
$18,500.00
**** **** **** 4312
VISA
Add Money
Send Money
Deposit
Withdraw
Transaction History
See all
All
Income
Expense
Drinks
Cafe and Restaurant
-$150.00
Market
Groceries
-$250.00
Quick Transfer
John Smith
+$350.00
Home
Wallet
Report
Account

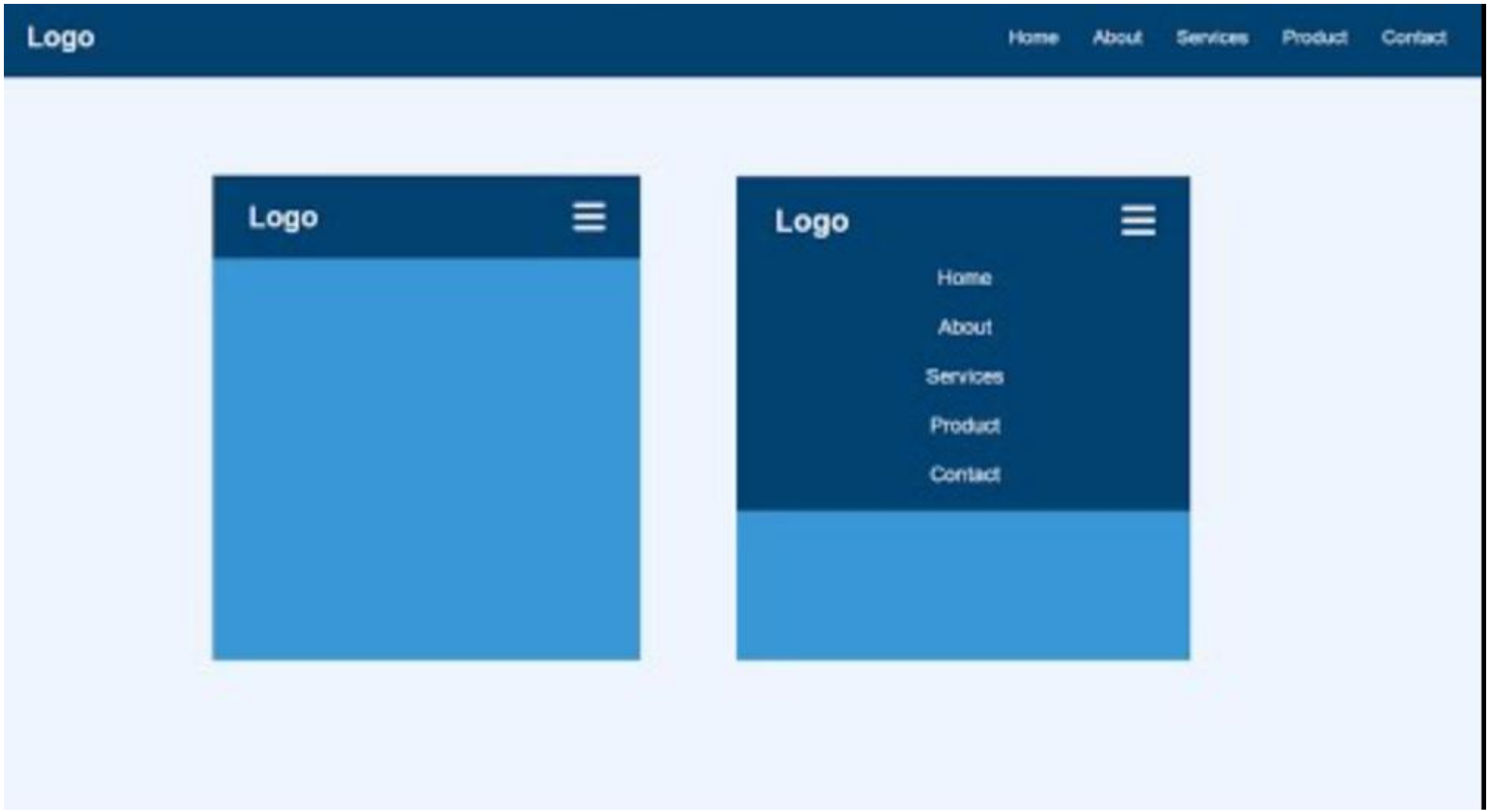
If there’s more than one likely option, make them all available!

Navigation: Desktop vs. Web

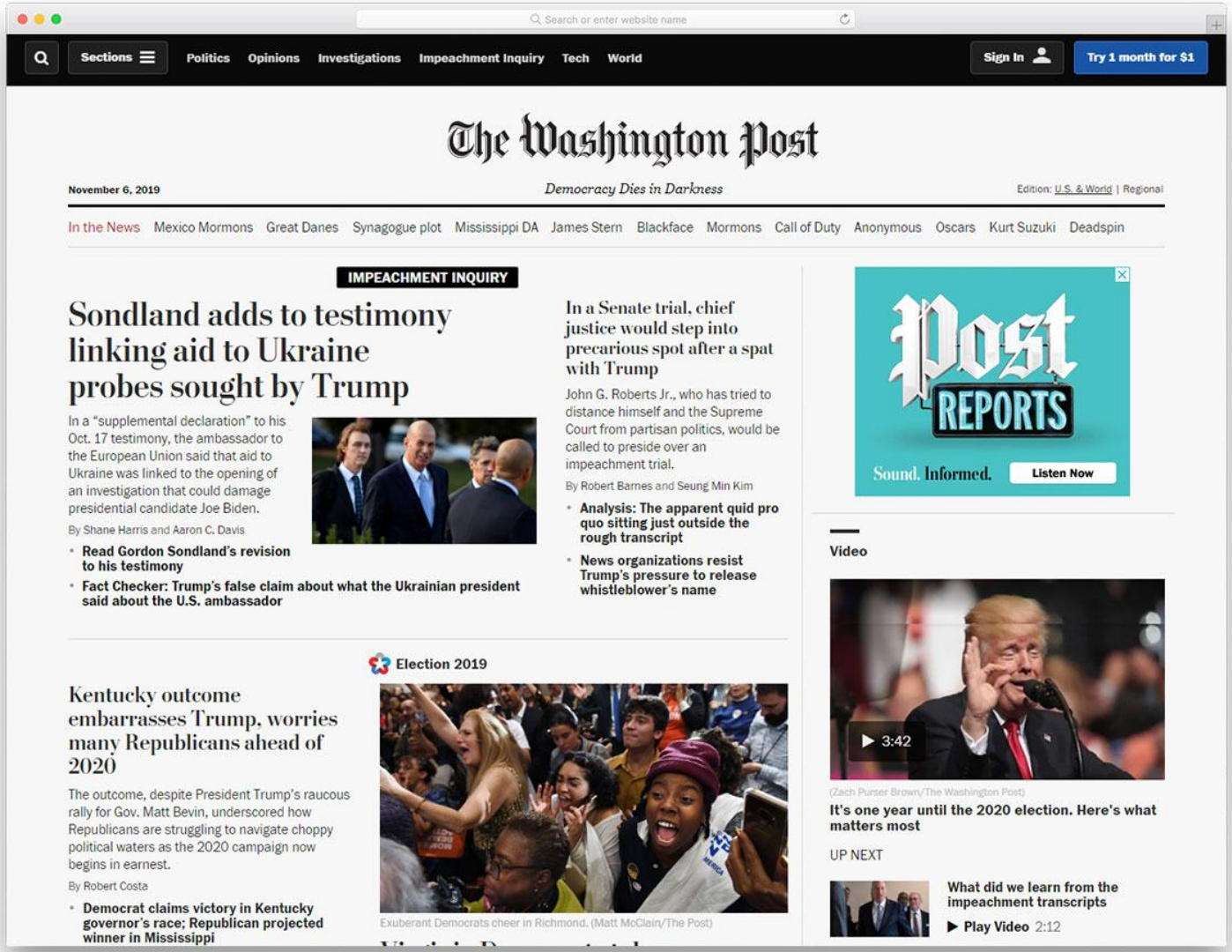


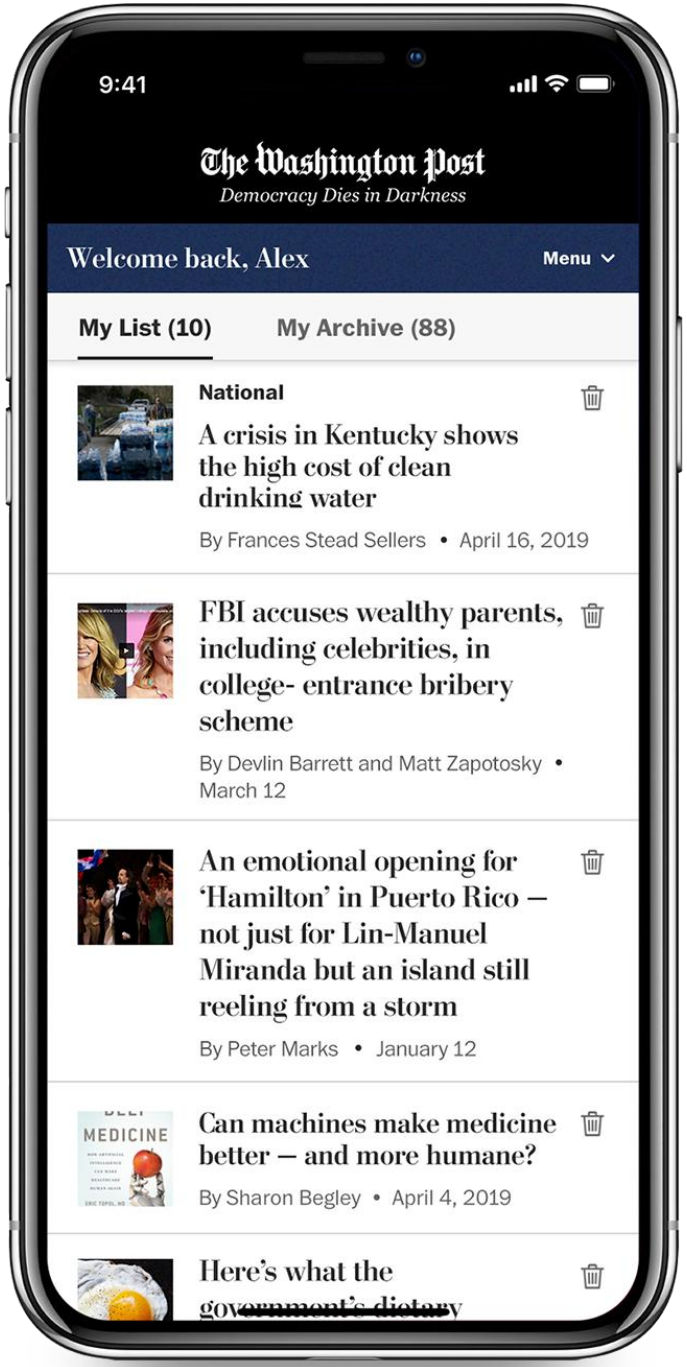
Navigation: Desktop vs. Web




Logo
Home
About
Services
Product
Contact
Logo
Logo
Home
About
Services
Product
Contact

Content: Mobile vs. Web

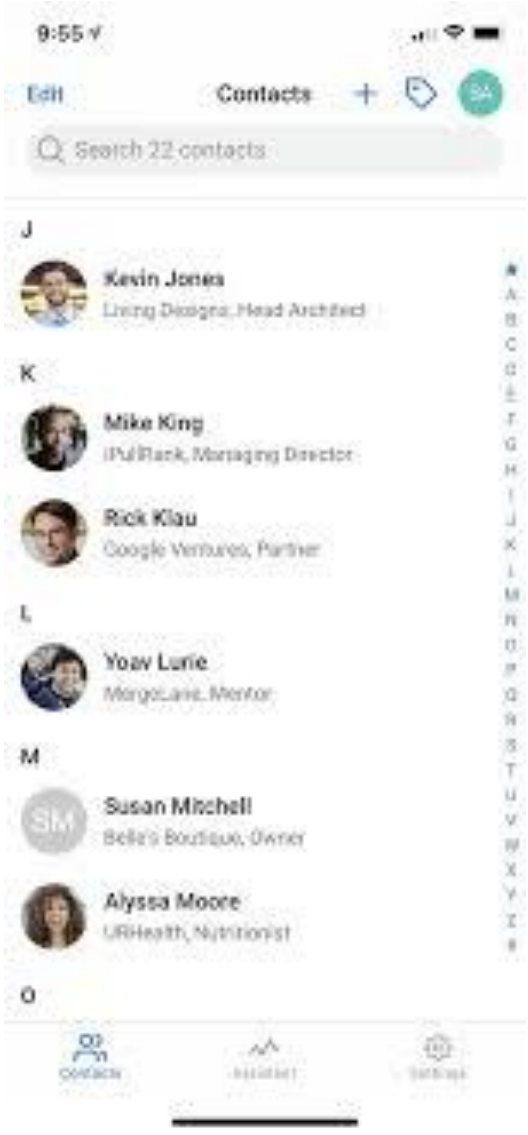




Content: Desktop vs. Mobile

Contact List | Filter | Hide fields | Search records

ID	Last name	First name	email address	comments	Email Subject
…2W9RD5Q	Smith	John	john.smith@abc.com	Interested in partnership	Catch up soon?
…2W9RD5R	Doe	Jane	jane.doe@xyz.com	Follow up next quarter	
…2W9RD5S	Brown	Emily	emily.brown@dataworks.com	Send proposal	
…2W9RD5T	Williams	Brian	brian.williams@streamline.com	Potential investor	
…C9071YZ	Johnson	Sarah	sarah.johnson@greenlife.com	Attending conference	
…C9071Z0	Davis	Michael	michael.davis@fasttrack.com	Needs product demo	
…C9071Z1	Jones	Emily	emily.jones@foodies.com	Interested in bulk order	
…C9071Z2	Garcia	Carlos	carlos.garcia@travelsmore.com	Client since 2019	
…C9071Z3	Martinez	Amanda	amanda.martinez@fitlife.com	New client	
…C9071Z4	Anderson	Mark	mark.anderson@cleantech.com	Request meeting	
…C9071Z5	Wilson	Christine	christine.wilson@solarnow.com	Send contract	
…C9071Z6	Thomas	Nancy	nancy.thomas@globex.com	In negotiation	
…C9071Z7	Taylor	Laura	laura.taylor@bookmate.com	Follow up on order	
…C9071Z8	Moore	Karen	karen.moore@digicraft.com	Send invoice	
…C9071Z9	White	Eric	eric.white@healthplus.com	Confirm appointment	



What’s going on?

- Small screen – limited options
- Wrong clicks on mobiles mean tracking back long ways
- So, make decision making very, very clear

- Also, think in terms of “user flows”
- What user wants to do next – break down into steps, and each step is a screen.
- Desktop allows space for most steps / mobiles are unforgiving

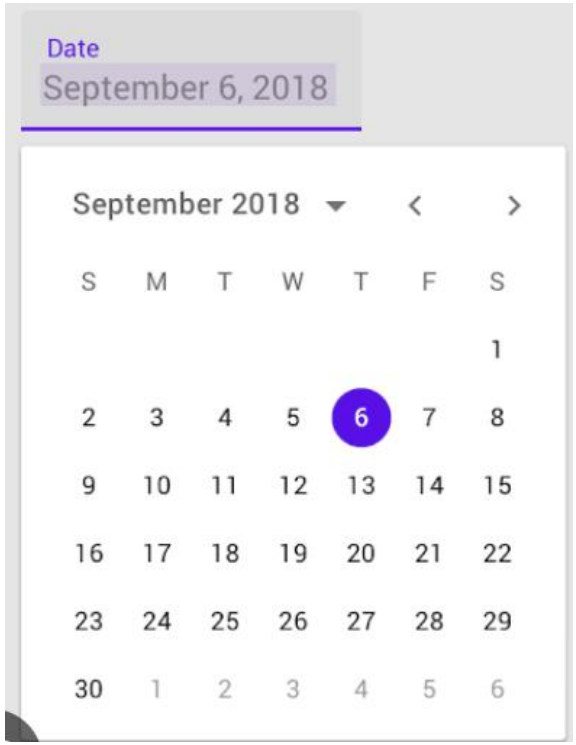
Inputs

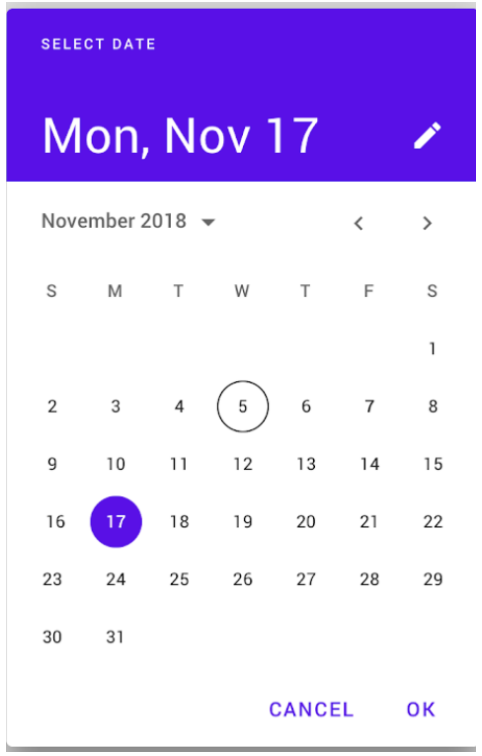
- No space for unscrollable drop downs
  - Allow search
  - Allow scrollview navigation (e.g., your contacts and alphabets)
  - Categorize and categorize more and replace with buttons.

- Text typing
  - Small keyboards, fat fingers
  - Swipe typing, autofill (automatic email responses are a blessing!), audio (speech to text), emojis instead of words!

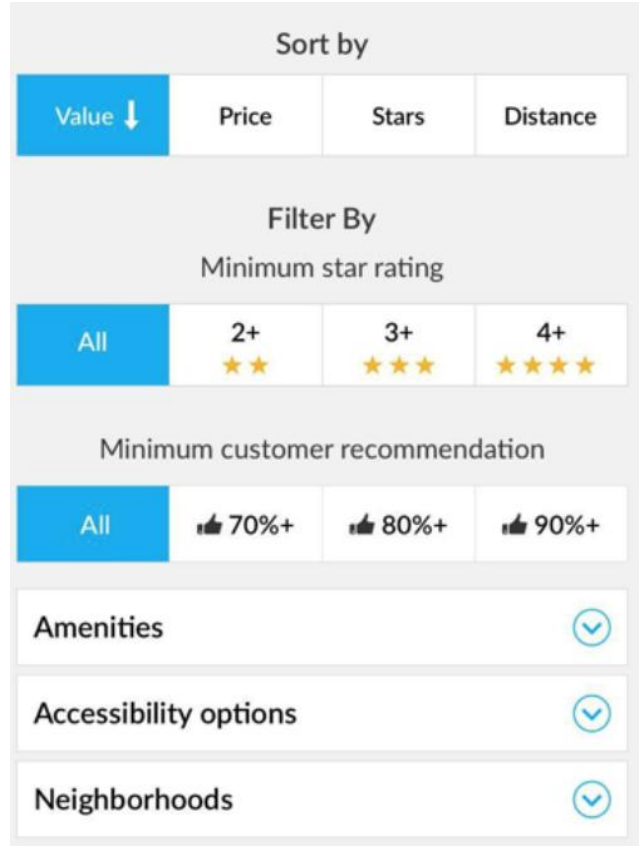
Inputs

- Date pickers





- Radio buttons, check boxes are bad for touch
  - We tap to select / unselect
  - See Myntra/Airbnb/Expedia filters on mobile vs. desktop



In general…

- Phone websites are needed because getting to desktop is inconvenient (on the go, commute, urgent, etc.)
- So, get to the task quickly; allow for ease and efficiency
- If there's too much content
  - Ruthlessly organize
  - Ruthlessly cut it down
  - Every click / screen counts!
  - One step per screen; shorten long tasks to avoid long paths.
- Look for standards and controls
  - React and Angular are both great for ideas and have excellent components
- Adhere to platform guidelines (iOS, Android, Google guidelines)
  - Platforms also offer standard controls; use them, don't reinvent wheel!

Practice: Suppose Pingala goes mobile…

- What would the home screen look like for students?
  - Ask yourself:
  - What are the most common tasks for a student?
  - Where do less common tasks go?
- Pick one task from your list
- Design a series of screens showing “user flow” for that task
  - List down steps in logical order
  - Go one screen at a time
  - Think of natural mapping (right corner for next, left corner for back, etc.)

- Ideally, don’t make user scroll
  - Scroll could lead to accidental touch-based selection!

Practice: Suppose Pingala goes mobile…

For your projects…

- https://www.nngroup.com/articles/mobile-ux-study-guide/
- Here is a useful set of material to go over