Candice Morris
Final Project

If I was to design an application it would be like how Instagram is, so I am going to use information like Instagram to complete this. So, I am talking about my own app if I was to create one that would be like Instagram, but I am adding the Instagram name to it since I don't have a name for my own.

Application

*My own app would have the same features as Instagram, and it would be a social networking service where you can share pictures, videos, and chat with other people all over the world. You can also shop on my app as well, the only difference from Instagram is that on my app is that not only can you shop local brands, but you can also sell stuff on there as well.

Features:

- Share pictures and videos with friends and family
- Share stories
- Have conversations through messenger with the people you follow
- Watch videos
- Shop latest trends from your favorite brands and creators
- Discover content and creators based on your interests
- Create Reels; fun, entertaining, videos to share with friends or with anyone in the world

Project Management Plan

- Project Identification
    a. The projects are identified by businesspeople and IT people
    b. The project sponsor believes in the system and wants to see it succeed.
- Business value
    a. Has two values ; tangible and intangible, where in tangible it can be quantified and measured directly whereas in intangible value, we may not be able to quantify or measure its benefits
- Feasibility Analysis
    a. Finding the risks within the project and can you overcome them
- Technical Feasibility
    a. Identify the risks and can the project be built
- Economic feasibility
    a. Should we build the project
    b. Identify the costs and benefits
    c. Assign values to the costs and benefits
    d. Determine cash flow
- Organizational feasibility
    a. Will they use it
    b. Is the project strategically aligned with the business?
    c. Conduct a stakeholder's analysis
- Project selection

    a. Projects are approved, declined, or delayed based on value added vs. risks
    b. Selected projects enter the project management process
- Project management tools
    a. Aids in creating workplans
    b. Identify all tasks, their sequence and estimate the time to complete each one
    c. Work breakdown structures
    d. Gnat charts
    e. Network diagrams
- Project effort estimation
    a. Estimation involves trade-offs between functionality, time, and cost
    b. Use-case point method
- Creating and managing workplan
    a. Workplan: dynamic and sequential list of all tasks needed to complete a project
    b. Approaches: modify existing or completed projects. Derive the tasks from the methodology being used
    c. Unified process: iterative and incremental. Tasks and time intervals follow the phases. Different tasks executed for each workflow
- Evolutionary work breakdown structures
    a. Organized across all projects
    b. Created in an incremental and iterative manner
    c. Supports learning from past mistakes and successes
    d. Unified process: workflows are the major divisions. Workflows are decomposed along the required tasks. Tasks are added as each iteration is completed
- Scope management
    a. “creep”
    b. Occurs after the project is underway. Results from adding new requirements to the project. Can have a deleterious effect on the schedule
    c. Techniques to manage scope: identify all requirements at the outset. Allow only those changes deemed necessary. Carefully examine the impact of suggested changes. Delay some changes for “future enhancements”. Time boxing
- Staffing the project
    a. Goals: determine how many people are required. Match skills sets to required activities. Motivate the team to meet the objectives. Minimize conflicts
    b. Deliverable – the staffing plan: number and kind of people assigned. Overall reporting structure. The project charter
- Creating a “jelled” team
    a. A team of people so strongly knit that the whole team is greater than the sum of its parts

    b. Characteristics: very low turnover rate, strong sense of identity. A feeling of eliteness. Team vs. individual ownership of the project. Team members enjoy their work
- Staffing plan
    a. Calculate the number of people needed.
    b. Lines of communication increase exponentially as people are added to a project
    c. Create a reporting structure for projects with large numbers of people assigned
    d. Form sub-teams as necessary
    e. Assign the project manager, functional lead, and technical lead
- Motivating people
    a. Motivation is the greatest influence on performance
    b. Monetary rewards usually do not motivate
    c. Motivation techniques: 20%-time rule. Peer-to-peer recognition awards. Team ownership. Allow members to focus on what interests them. Utilize equitable compensation
- Handling conflict
    a. Preventing or mitigating conflict
    b. Other techniques: clearly define plans for the project. Make sure the team understand the importance of the project. Develop detailed operating procedures. Develop a project charter. Develop a schedule of commitments in advance. Forecast other priorities and their impact on the project.
- Environment and infrastructure management
    a. Environment: choose the right set of tools
        i. Use appropriate CASE tools: increase productivity and centralize information. Utilize diagrams
        ii. Establish standards to reduce complexity
    b. Infrastructure – document the project appropriately
        i. Store deliverables and communications in a project binder
        ii. Use unified process standard documents
        iii. Don’t put off documentation to the last minute
- Time
    a. This project could take either hours or days to plan and to work on. It might take about 8-10 hours a day to do the software. So, overall about 8 weeks for software engineers to develop the product version.
- People
    a. The people who would be involved is different from the team who would be working on this. These people could be volunteers or workers to help with the planning process for a project. Unlike the “team”; they don’t build the project, but they do give their ideas on the what the project would look like and what it could do.

b. I believe there should be no more than 5 people who would give their ideas towards the project. While in a team there could be no more than 20 people. This way their able to split up into groups to get more of the work done.

After all this, the last step would be the design aspect of the app.
These steps are what you need to take into consideration when developing a mobile app and when creating a project plan, this is all included within the background of a project.

Requirements Documentation
Functionality: UX|UI, better ways to send pictures/videos on Instagram
Problem analysis

- Asking customers if there are problems with the system and if there is anything that can be done to improve the app. So that's why there will be a review section where customers can leave their opinions, comments, and concerns in that area.

Root-caused analysis

- Where we would look at the problems that customers may find with the app, find the cause of the problems, and figure out ways to solve them to make the app better.

Duration analysis

- Looking at time and seeing how long it would take to solve these problems and see if there is an alternative like another app to be downloaded or looked at that can be issued to the customer until the problems are taken care of. If there isn't any alternative, then the customer going to be asked to leave the app alone for a certain amount of time until its resolved.

Activity based costing

- Need to see the problems are going to cost us any money that we may or may not have. See if the alternatives is going to cost us anything as well. if there is a cost in fixing the problems then see whether we have the money or not. If not, then try and find a way to get the money or ask the user to pay an amount to help get what they want since it's for them. If they don't want to pay anything then decide whether you're going to pay for it or not.

Informal benchmarking

- See if there are other apps that are like this one, then ask the customer if they want to purchase this app instead of the one that is having problems or see if they just want to wait or pay for the one, they want if it's not available at the time. If it never gets fixed and winds up getting taken off the app store, then let the customer know to see what they want to do at that time.

Outcome analysis

- After knowing what the customer wants, it's a matter of trying to get it for them. If your able to get it for them then that's great, but if not then see if there's a similar app that they don't mind getting in place of the one they couldn't get from the beginning. If the customer is happy with what they get then we know that the customer was satisfied in the end.

Technology analysis

- Could develop an app that is like the Venmo app where it would work better and won't cause the customers grief and confusion. Some apps like Venmo, can be developed based on the customers preferences where it doesn't cost much and where its efficient for them and Apple.

Activity elimination

- Eliminate the app that is giving the customers the most trouble; the app that is not working or functioning properly.

Gathering Techniques

- Some techniques that could be used for this is
    - Questionnaires
    - Interviews
    - Joint Application Development
    - Reviews on certain products
- We can use questionnaires to get feedback on certain products anonymously and electronically. When doing this, honesty plays a big part because when customers submit their feedback they will probably be as brutally honest as can be which is fine since you can use that feedback and try to improve the app.
    - The steps to take for this is:
        - selecting participants in a large population
        - design the questionnaire with carefully selected questions
        - administer the questionnaire to get good feedback; if they don't want to take it offer an incentive that they might like to get them to take it.
        - have a questionnaire follow up; where you send the results of the questionnaire back to the customer and thank them for their corporation.
- When conducting interviews, you must think about what to ask them. Designing the questions to be open-ended or close-ended. Arranging the questions in a structured or unstructured manner, how to conduct the interview, and having a follow up after the interview with the customer.
- In the process of a joint application development, you have a meeting with other users to talk about certain problems about the Venmo app. To have a successful meeting; you need to see who is going to be remote or not, whether they brought their documents or user manuals on the Venmo app. During their part of the meeting, if certain rules aren't followed then they can't come back.

Document Analysis

- In the program, the application may have a document analysis that customers can see if they want to look at the manuals or policies for the application.
    - It provides information about the different apps and what you can do with them.
    - They can review technical documents if there is any.
    - They can review user documents like forms, reports, and policy manuals.

Observation

- Besides customers, the employees who are designing an app like Venmo and getting it onto the app store are observed on what they do. Sometimes they forget what they do

and don't remember what they've done to implement the app. So even though they may be the sole developer for an app or in charge of getting the Venmo app onto the app store; there will be someone whose sole job is to oversee whether the app was implemented right and whether they reached the app store on time and in the right format.

To get the word out or share ideas with someone else about an app design or the best way to develop an app; we can use three ways to get developers ideas shared.

Story cards and task lists

- Get someone's thoughts on a requirement that could be implemented into the requirements document using story cards or index cards
- Choose a requirement card and file it, this would be done to each one
- Then discuss each requirement card and organize them to see which one is more important to use right in that moment, and which one should be used first based on certain circumstances.

The System Proposal – the step taken after analysis and the planning process

- We'll combine everything that was discussed during the planning process and create a summary of everything that was happening in the planning process and put it all together. Then, by making a workplan is where to figure out when and how to implement the planning process into an actual project.

Use-Cases

The diagram is an overview of what the owners and users do within the Instagram app. The owners of the Instagram app is Kevin Systrom and Mike Krieger. Kevin Systrom is an American computer programmer and entrepreneur. He co-founded Instagram, the world's largest photo sharing website, along with Mike Krieger. Systrom was included on the list of America's Richest Entrepreneurs Under 40 2016. Michel Krieger is a Brazilian-American entrepreneur and software engineer who co-founded Instagram along with Kevin Systrom and served as its CTO. Instagram expanded from a few million users to 1 billion monthly active users while Krieger served as CTO. In the Use-Case, the owners built a way for all user to be able to connect with friends and family in different states when they couldn't see each other. Kevin Systrom created this app because of his love for photography and wanted others to have the same experience and be able share it with the world. For the users, it was a way for people to keep in touch and see what they're doing all those years they haven't seen each other. Instagram allows users to edit and upload photos and short videos through a mobile app. Users also have the option of making their profile private so that only their followers can view their posts.

What triggers the Use-Case?

- Owners call a meeting about new features being added to the app.
- Users leave reviews about the problems or the need for an update that needs to be addressed
- Update or routine maintenance

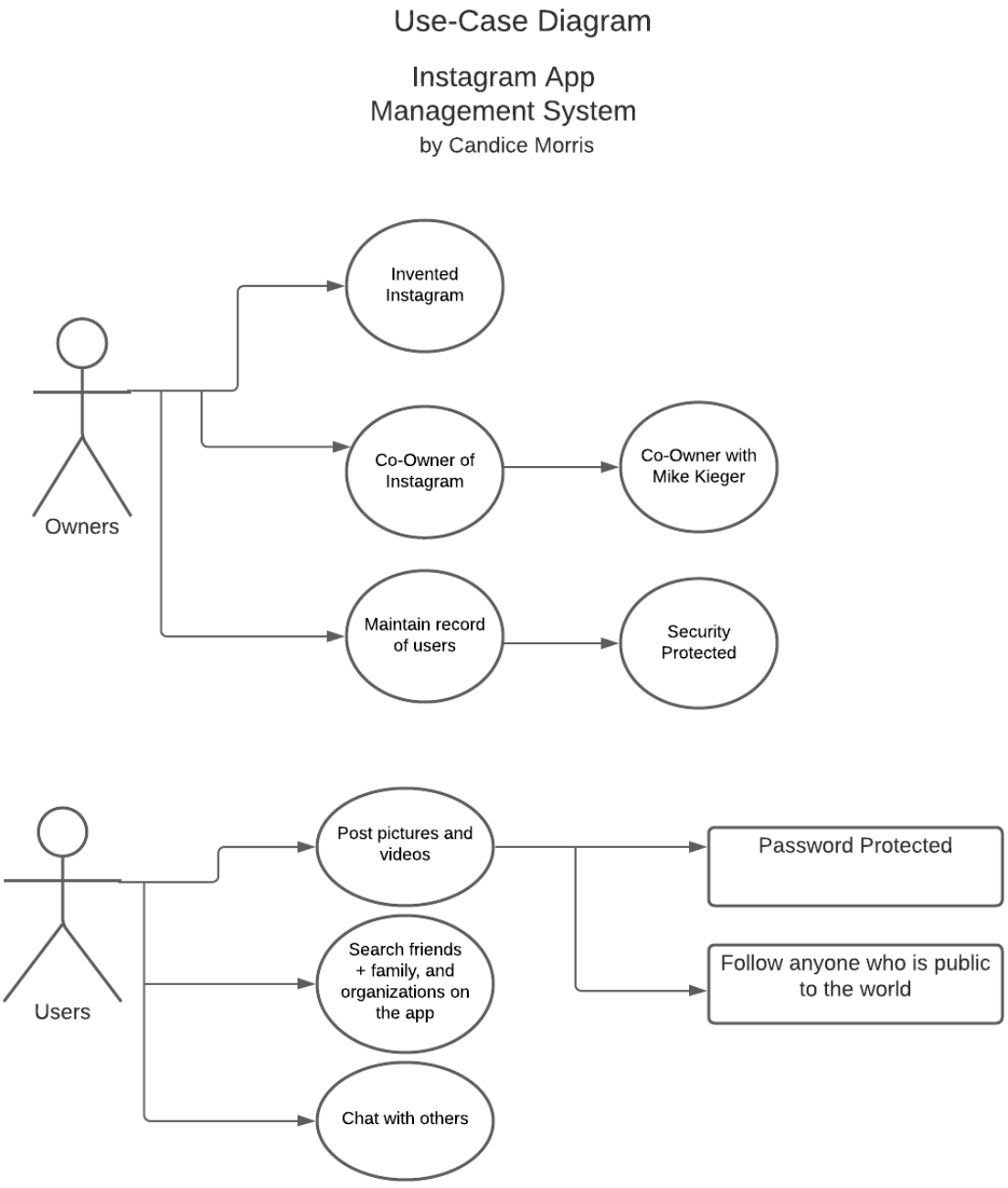
Relationship to other Use-Cases:

- The association between actor and use case

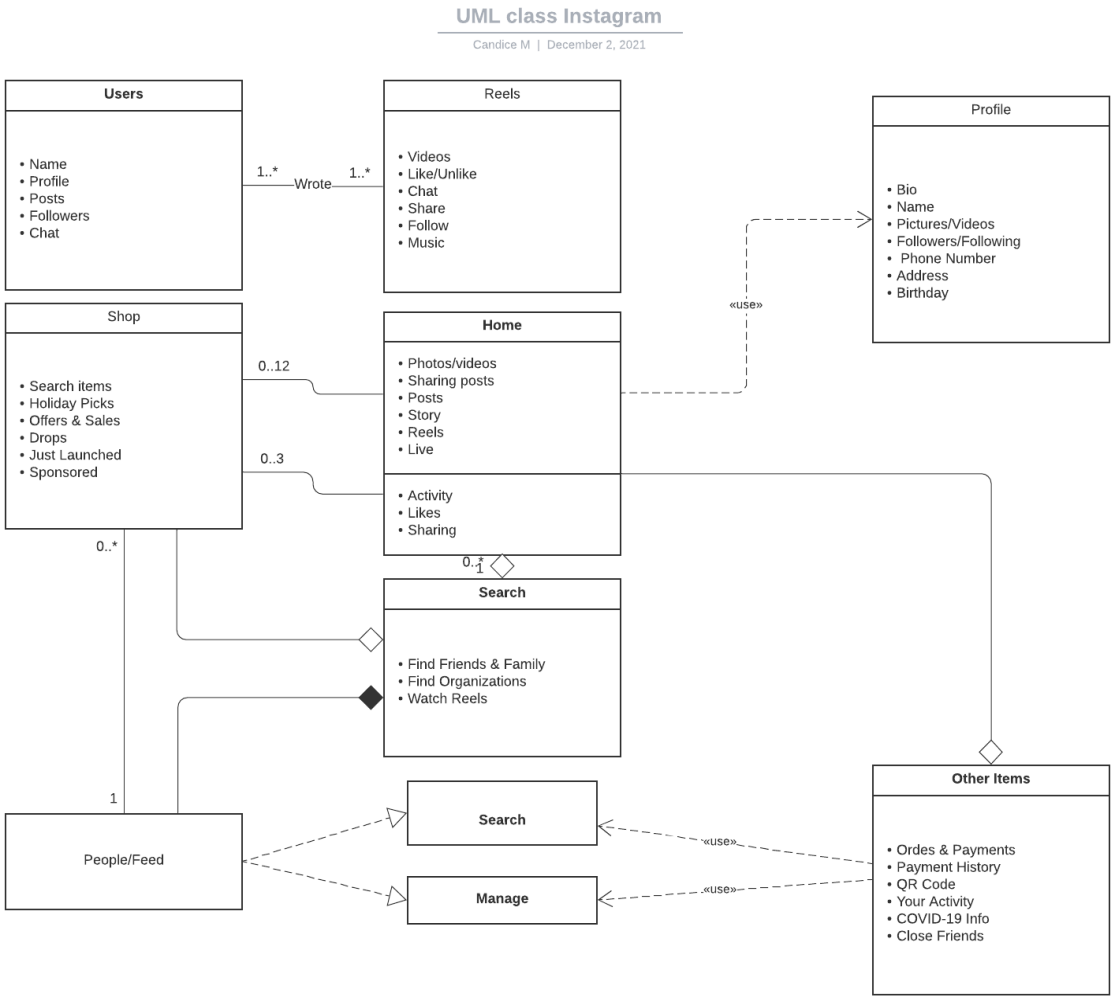
- Generalization of the actor
- Extend between two use cases
- Include between two use cases
- Generalization of a use case

These are the relationships that most use cases have, my use case may have one or two of these relationships but not all.

Use-Case UML Diagram



Database UML Diagram

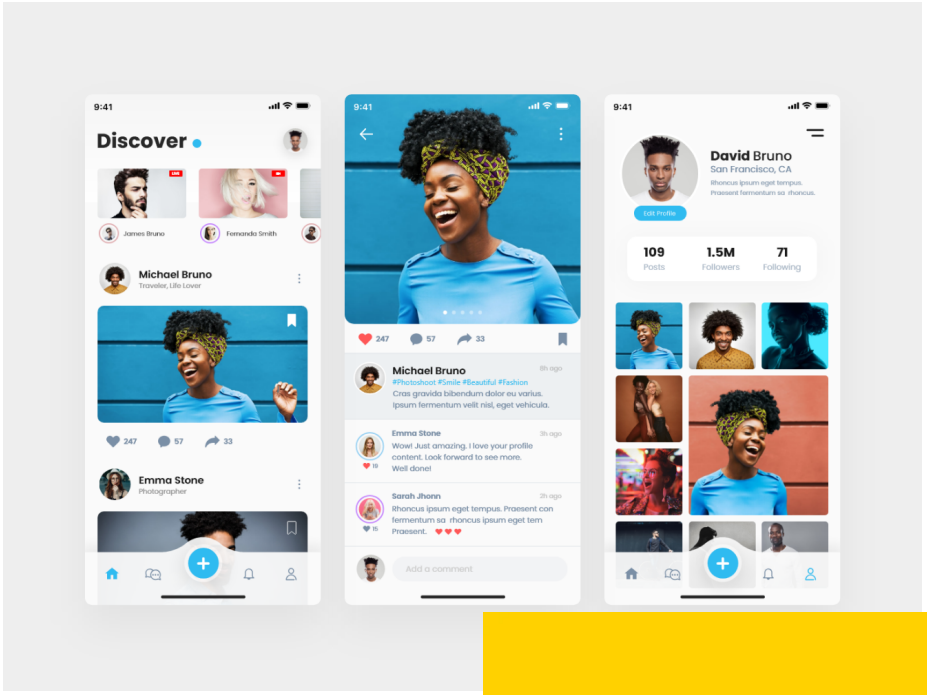


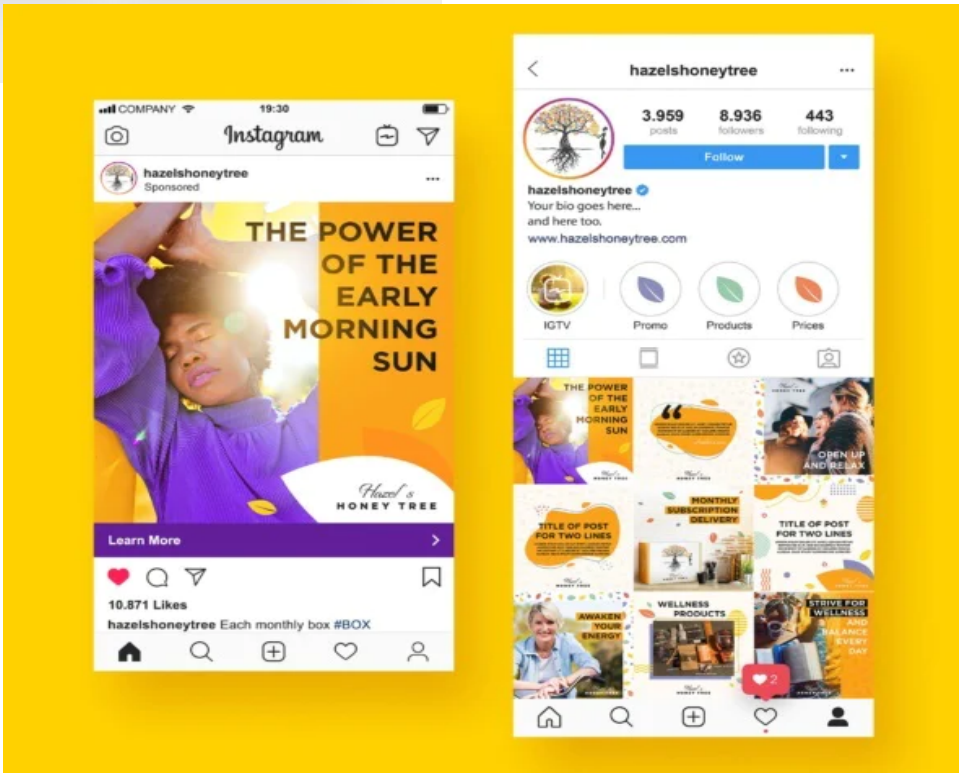
Layout/design

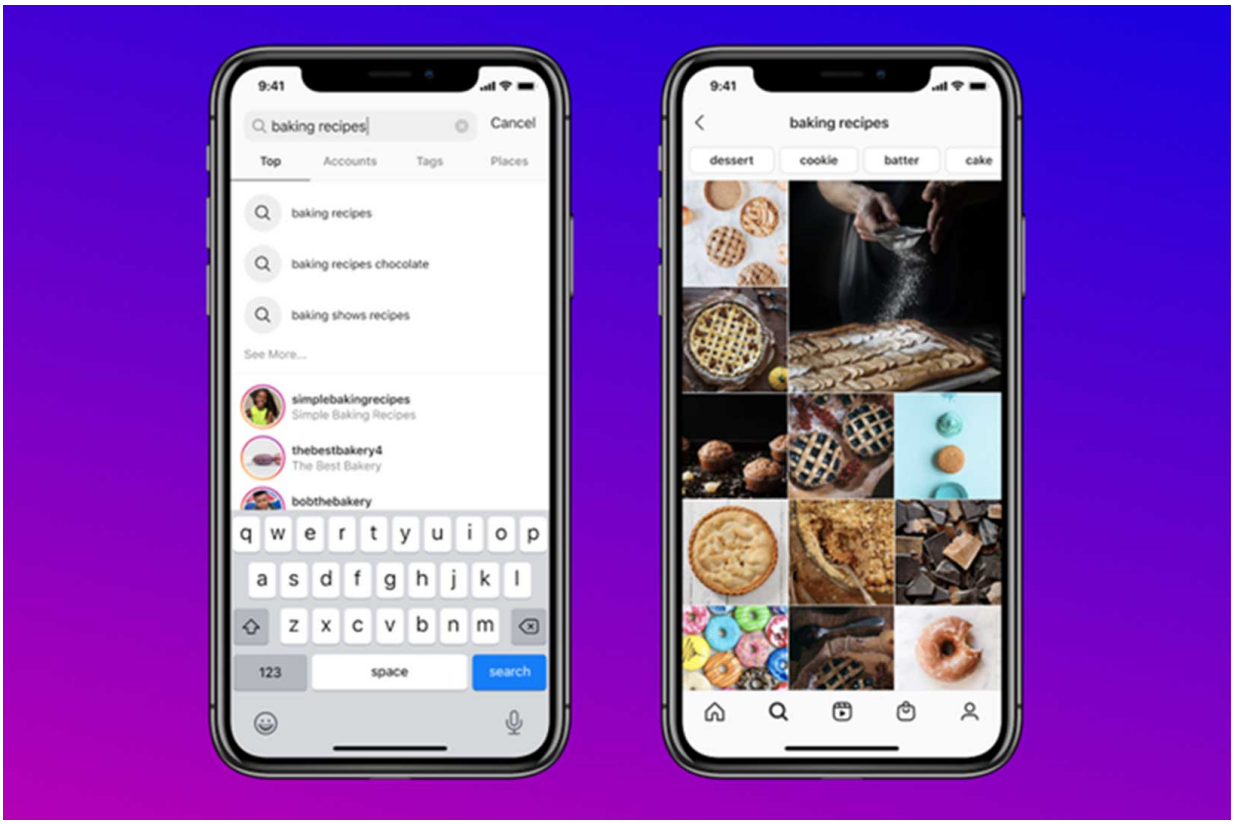
User interface/User experience

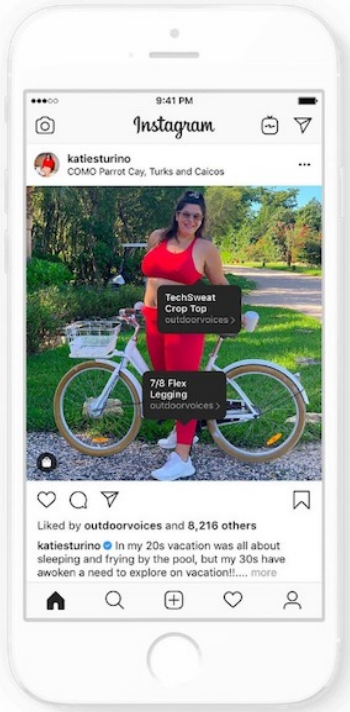
- Functionality
- Pictures
- Speech
- Videos
- Connectivity (would use both WIFI and Cellular Data; when there's no WIFI available)
- Themes/color schemes
- Security

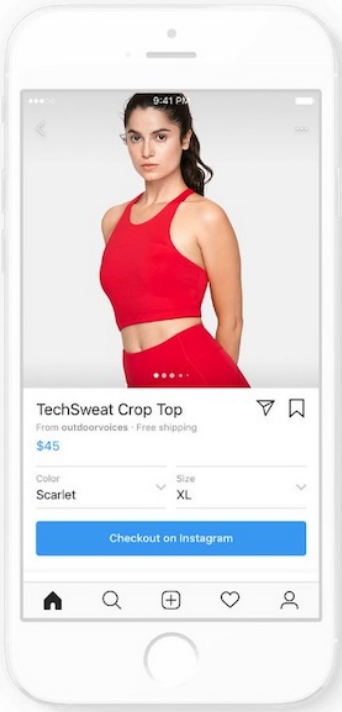
These are some screenshots that would be part of the layout/design portion of the app, and they would also be within an app that I create like this one as well.

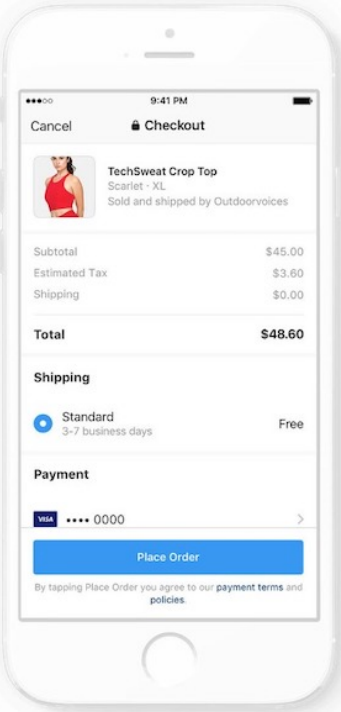





9:41
baking recipes
Cancel
Top
Accounts
Tags
Places
baking recipes
baking recipes chocolate
baking shows recipes
See More...
simplebakingrecipes
Simple Baking Recipes
thebestbakery4
The Best Bakery
bobthebakery
space
search
baking recipes
dessert
cookie
batter
cake


9:41 PM
Instagram
katiesturino
COMO Parrot Cay, Turks and Caicos
TechSweat
Crop Top
outdoorvoices
7/8 Flex
Legging
outdoorvoices
Liked by outdoorvoices and 8,216 others
katiesturino In my 20s vacation was all about sleeping and frying by the pool, but my 30s have awoken a need to explore on vacation!!.... more


TechSweat Crop Top
From outdoorvoices · Free shipping
$45
Color
Scarlet
Size
XL
Checkout on Instagram


9:41 PM
Cancel
Checkout
TechSweat Crop Top
Scarlet · XL
Sold and shipped by Outdoorvoices
Subtotal
$45.00
Estimated Tax
$3.60
Shipping
$0.00
Total
$48.60
Shipping
Standard
3-7 business days
Free
Payment
•••• 0000
Place Order
By tapping Place Order you agree to our payment terms and policies.

Database Management/System

The database management and system that I believe would work for this would have a data location of both local storage and cloud storage. Local storage would be kept at a facility that is the main site where the designers and developers work in making this app and designing its interface. It also would be for the workers working on the app to store and receive data from it so that everything they work on will be backed up into the local storage area in case they need it. So, if something goes wrong during the implementation and testing faze and the work gets destroyed somehow then they can go back into the storage area and retrieve the work they have been working on since the beginning. The cloud storage would be for the users to use so when they put in their personal information or share something private, they will not only be secured with the security protocols put in place, but anything they share on the app whether that's pictures, videos, chats, etc. they will be automatically backed up and stored within the cloud. In case for any type of emergency or if it's for their own peace of mind and want to store everything in the cloud then they can to an extent. If they want more storage, then they might have to buy more to increase its capacity. The database system that I would have for this app would be a relational database and for application files I would have master and transaction file systems for important documents that should be kept private about the users. For electronic type of files, I would have a sequential file system for other things beside searching but used for writing reports seldomly.

Construction/Installation

Construction is an important part of the system development where it includes the software, implementation, testing and configuration, programming, and change management workflows. Programming is the largest part of this process where we need to manage it and assign tasks to the program managers and coordinate activities to get the tasks done. When coordinating activities, there will have to be weekly project meetings to discuss the development, testing, and production of the development of the app. Managing the schedule will give the project managers and developers a sense of when the project needs to be done, and if there are any additions or changes to the product then the schedule will help them by giving them a timeline of how much time they are working with to make any of those changes or additions to the product. After they make sure whether they need to make changes or additions to it then they can test the product to see if it works correctly, and if it doesn't then the schedule will help them in whether they need to make changes or not. There are numerous tests that need to be done in making sure the product is working efficiently and correctly. So, a test plan must be created to figure out when and which tests should be conducted, this plan should be developed in the beginning and then modified as the system evolves throughout the process. The tests that would be conducted would be unit test, integration tests, system tests, and acceptance tests. There would also be documentation too, both system and user documentation. Also under documentation, there would also be help manuals and tutorial videos on how to work the app in case there is a piece of functionality that a user has trouble using. On the interface side, even though there will be pictures, videos, chats, etc. there will also be a table of contents to quickly access certain things. It's just like a menu tab that would either be located on the left

side of the screen or the top right corner of the screen. There would be some navigation on there as well, like certain buttons at the bottom of the home screen of the app; those would be shortcuts to other pages of the app. Like, one button may take you to a page that is for shopping, or one that will take you to a page that is all videos. There would also be real navigation on there like maps so you can look up different locations of where you want to go like stores, restaurants, etc. that may be close to your current location. To take into consideration is cost, because it will cost plenty depending on how in depth the app is going to go and what extra components might be needed to make it functionable and marketable. Also, whether you would need funding for the project and if the funding doesn't cover everything than you must figure out where the rest of the money is going to come from and how much you may need. UX/UI should be kept in the back part of your mind when constructing the app because if cost is a factor in developing the app, then finding out what would make users happy should be part of the goal in developing the app as well.