Main code	Definition	Sub-Codes	Definition	Sub-Codes	Definition	Sub-Sub-Codes	Definition	Sub-Sub-Sub-Codes	Definition	Example
Expectations for different types of smart devices	Reflects the different levels of concern with both types of smart devices	Causes for same levels of concern with both types of smart devices	Reasons that the participant has the same security and privacy expectations towards smart security cameras and smart light bulbs							"I think at the end of the day what I'm primarily concerned is whether or not my information is going to be shared. I don't see any reason why it needs to be... That's how I went about shopping for either one of these"
		Causes for different levels of concern with both types of smart devices	Reasons that the participant has different security and privacy expectations towards smart security cameras and smart light bulbs	Invasive						Security camera collects more sensitive and critical data that participants would not want to be shared/sold with others
App UI	Reflects the participant's attitudes towards the UI and layout of the app	Comfort with app UI	Reflects reasons as to why participants feel comfortable with the app UI	Compare	Reflects UI reasons as to why participants are comfortable when using the compare feature	Compact	Compare feature allows user to view all three devices and warnings			"The pros of the app was that it's simpler, it's quick, you can put everything on one screen"
						Warnings	Red/white boxes allow for easier comparison between devices			"I saw that being able to see this decision, if I were wanting to buy something that day, it would make sense to me..."
				Preferences	Reflects reasons as to why the preferences feature is beneficial	Flexible	Can change preferences when clicking into a row during viewing a device's settings and in the preferences feature			"I like how that I can change my preferences, if I click on them, so if I decided oh I changed my mind..."
				Definitions	Participant finds additional explanations about terms useful					"I really like how, when you hover over or I suppose it's it's like an information icon over or something that would explain what that means"
	Reflects the participant's attitudes towards the UI and layout of the app	Discomfort with app UI	Reflects UI reasons as to why participants are uncomfortable with the app UI	Wording	Terms or definitions used in app are not straightforward	Warnings	Warn/Don't Warn settings in preferences feature is confusing			"Warn/Don't Warn, I wasn't sure how to like flag or something"
				Unnatural flow	Ordering of icons do not match the settings -> scan -> compare usage of the app					"This one maybe I would like switch these around or like rearrange the icons on this..."
				Order of information	Attributes are not presented in the same order across the label and the app					"Because this is the label was listed at the bottom of the secondary label I would've thought the first place, I would look, for it would be at the very bottom. So that is why I mention it"
				Overwhelming	Preferences screen shows an overwhelming amount of information	Duplicate information	Duplicate information is visually taxing and overwhelming			"I don't know about like this layout because you're really duplicating a lot of work that goes a little bit more"
						Abundant information	A lot of information is confusing			"There's just a lot of words. If the process is the first last one, going through like trying to learn, what this is..."
						Multiple sensors	Having to select preferences for every sensor individually is overwhelming to the participant			"To be able to check or see apply to all the sensors types"
						Colors	Use of attribute header and warning colors in preferences screen makes it difficult to comprehend the organization of information			"So I don't notice as much like these on the it so maybe having these in a brighter color than the warnings..."
						Expendable attributes	Having preferences tables for all attributes is overwhelming, have them be expendable instead			"Instead of having all of them out like on a list like this, maybe have them into expandable folders."
				Style	App has different styles of UI features that makes it disjoint					"Oh, you have an iOS slider here versus a the one, I would initially just choose I would prefer just have one type of slider just have one type of slider just..."
Suggestions	Reflects participant's suggestions to improve the app	Functionality	Reflect participant's suggestions to improve the app's functionality	Compare	Reflect participant's suggestions to improve the compare feature	Ecosystem	Compare across different types of devices to look at it within the scope of all of their devices			"I was just curious about that, like if I was building an ecosystem that included a light bulb and security camera I want to see if the security is similar"
						Deletion	Deleted saved devices on the app to not be overwhelmed with information			"Let's just say I go to this store and I have there's six different light bulbs and these are the top three now and I, and I narrow it down to hey I like these two I wouldn't want to see these other four..."
				General	Reflect participant's suggestions to improve the app in general	Hover definitions	Show definition of a term when hovering over it			"If there was a way to integrate this pretty settings with this [preferences] page, I would like it better"
						Integration	Integrate preferences and priority settings pages			
						Flow	Introduce a different flow to make process more efficient			"Basically compare first and then go back in and select which ones are important, just eliminating one extra step of going through and identifying preferences first."
		Platform	System would be more useful on a different platform than the app	Database	Have a database of updated products to search through rather than scanning					"Maybe it'd be nicer to me if you didn't have to scan the QR code, if you could just go in and look right away. If a company's released a security update, how is that going to protect... the products... the app is current?"
				Walkthrough	Include a walkthrough of the app to introduce its features					"However, I don't know if I would go out of my way to download a specific app for this. I think if you could integrate it with an app..."
		Additional information	App and system would benefit from providing additional information	Opt-in	Indicate whether settings are opt-in					"Why not just have a video of how to use it, like a walkthrough? Something user friendly, like this is your app if you want to follow along..."
				Warning level	Some preferences take precedent over others					"For that I want to have a product that allows me to opt out of certain information, if they're going to be... invasive for me."
				Approval	Include a stamp of approval that asserts credibility of the label info					"I will probably go with the Google one just because it was best and I'd not shared with the manufacturer, which to me, that's more I guess about who I'd share my data with..."
				Definitions	Include more explanation about terms and settings					"I would like to see, because a company can claim we don't do this and whatnot, but in the past, we have seen how personal data has been manipulated and sold. So have there been some, some explanation on here with what this means would be good, especially like privacy policy this me because I'm not like I'm not too knowledgeable on likes and privacy stuff so I think this will be useful."
				Expertise	Include justification for experts					"You know from experts, I mean my thing would be like, who makes this person or you know, user..."
Security and privacy preferences with smart devices	Reflects participant's preferences with smart devices	Concerns	Reflects concerns participants have with smart devices	Data sharing	Reflects concerns participants have with data being shared	No action	Taking no action to manage the issue of data being shared			"I think, maybe it's tied in just like a lifestyle choice, if you if you're buying a smart device, then you consent to have your like sort of just an acknowledgment that they're going to take your data."
						Advertising	Concerns with using data for advertising purposes			"I know that some tech companies gout there may generate their revenue from ads, for example. I don't like the idea of any smart device, like collecting my data how many times I'm using a smart device and selling it off... I don't want... be bombarded by like emails for advertising."
				Security mechanisms	Reflects concerns participants have with security mechanisms					"My thought process is making sure that passwords are encrypted somehow, you know whether that that would ensure password security. Two step, kind of, authentication would be interesting."
				Hacking	Reflects concerns participants have with others gaining access to their devices					"Well I'm a little bit nervous about them, because I think sometimes they can get hacked and I would be worried about somebody hacking into my security cameras so that's a concern. That's my number one concern."
				Data practices	Reflects concerns participants have with the data practices settings	Cloud	Concerned about data practices in the cloud			"I definitely wouldn't go for cloud hosting video. Although I would either have it saved to an SD card to you know, for me to view it that way as opposed to put it up in the cloud..."
						Local	Concerned about data practices in the device			"If I was expecting device storage does it is it going to store it in the smartphone I don't want to store it in my smartphone right?"
						Data linkage	Concerns about data linkage or lack thereof			"Not linked to other sources, which is good."
						Data collection	Concerned about collecting data			"Oh I don't like it already because it's got data collection frequency continuous."
						Data inference	Concerns about data inference or lack thereof			"I definitely don't want the device to kind of learn about me and what I mean by that is my whether, whether it's listening in the background of just through my actions, and it gets a little bit of certain things with the device where it kind of like remember's things, I would be a bit more about me and then start giving suggestions and things like that..."
				Type of data	Reflects concerns participants have with the type of data being shared	De-identified	Data that does not contain any personal identifiers			"I mean I'm looking at the features right now real quick yeah probably the probably the microphone one because it's identifiable data it's secure and that when I don't want my girl, I don't want to be like recognizable in that sense."
						No preference	Data shared can be of any type			"data stored in the cloud same thing, it's just like data storage. I know that they're taking my data anyways so I guess it doesn't really bother me if it's de-identified versus none at all."
				Control	Reflects concerns participants have with lack of control in the features of their smart device					"I would prefer something where it's manually done that, if I wanted to change something I could do it on my, you know, knowing something done manually rather than automatically done to make sure it's easy to use, not confusing and I..."
				Other factors	Reflects other factors that participants look at when making a purchase decision	Compatibility	When the device links to a network of devices they already own or a compatible app and security/privacy sharing with their brand is already established			"Probably look and see which one is a compatible with the rest of the devices I own, you know, one uses a certain type of app that I already have so I'm looking at my passwords, my information across multiple different apps and things like that."
		Purchasing sentiments	Reflects how strongly participants consider security and privacy when purchasing smart devices	Strongly	Security and privacy is the top consideration when purchasing a smart device					"Yeah privacy and security is the most important for me"
				Pretty Strongly	Security and privacy is one of the top considerations when purchasing a smart device					"I consider it pretty strongly, it's something that I feel like a lot of companies aren't always very transparent and there's a limited amount of information that you can get. Sometimes I kind of depend a little bit more on the brand's reputation and what I've heard from other customers and hope for the best."
				Medium	Participant considers security and privacy, but not that strongly					"I would say a moderate amount, it's not my top consideration but it is something that if some of those settings I had, set in the app, I think there would be certain things would be a deal-breaker for me, but it wouldn't be like ultimately deciding like something... as it's a factor, and I think it's more of a way that eliminate options at consideration than to select it as the best choice ultimately."
				Low	Participant does not really consider security and privacy					"I guess I don't really consider it. I just consider what it can do for me."
Customization system	Reflects the participant's attitudes towards the customization aspect of the app	Comfort with customization system	Reflects reasons as to why participants feel comfortable with the customization tools in the app	Purchasing tool	Reflects reasons as to why the app is beneficial for the purchase decision process	Comparison	Helpful to compare different products and evaluate them against personal preferences			"I think it's summarizing all the information visually in one easy to read, table"
						Personalization	Users with different concerns and tailor the preferences and priority features to their own security and privacy preferences			"I think just the ability to customize it like to pick exactly what I wanted for to look at it. I like being able to select things that just weren't a concern to kind of declutter everything like it will..."
						Time efficient	Establishing preferences and priority settings initially saves time over multiple purchases			"It also really like how customizable it is how I can you know pick exactly what I want to look at a like to be informed about and then a box because if it were just out of the box there might be things that are important that are concerns for me that you would not I want to be stressed somethings that I really just doesn't matter to me. You know, they may warn me but that might not be a big deal I like that level of customization I don't think it would take long to set it up. probably no more than five minutes, and then it would just be set for each item is ready easy to read, when I'm store shopping for advice I would love to have enough like this..."
				Priority settings	Reflects reasons as to why the priority settings feature is beneficial					"The feature of the app I would say is the priority settings, being able to like basically rank some of the areas of concerns that I might have when purchasing a smart device..."
	Reflects the participant's attitudes towards the customization aspect of the app	Discomfort with customization system	Reflects reasons as to why participants feel comfortable with the customization tools in the app	Time consuming	Setting up preferences and priority settings is tedious					"This whole exercise is just basically like a more thought out version of what I would do in the brain as I'm looking at a product label, basically, but it takes more time, I guess, to kind of group things into your things... Me as a consumer, probably wouldn't go through the exercise of being so scientific about it... I don't know too many people who would go through this whole exercise and use it to arrive at a decision, but these definitely will be people who would."
Overall sentiment	Reflects the participant's feeling towards the app during the interview	Customization tool	Reflects the participant's feelings towards the customization component of the app	Confident	Participant immediately went to the customization features and decisively changed/kept the settings					Participant started with the customization features, expressed their preferences and took the appropriate actions
				Receptive	Participant expressed hesitant towards the app but made some actions without prompting					Participant expressed their preferences and asked for clarification on how they should set them
				Confused	Participant verbal the customization features and had a misconception about the purpose of the customization system or did not understand how to use the feature					Participant thought that the customizations were filters and did not use them at all
	Reflects the participant's feeling towards the app in general	Compare feature	Reflects the participant's feelings towards the compare feature of the app	Confused	Participant verbal the compare feature or had a misconception about its purpose or did not understand how to use the feature					P10 - Participant forgot it existed
				Overwhelmed	Participant mentions an overwhelming amount of information					"It's like you've given me a lot of good information, too much, but you know, you don't give me a lot of information there."
				Uninterested	Participant has many not the target audience for this app					"I quite go through all of this seriously. I mean this is good if you're interested in that but I'm not this seems to be a lot of work, in my this stuff was overkill."
				Interested	Participant finds the app useful					"I think this app itself is actually pretty intuitive and makes sense. I can see it actually being pretty helpful"
	Reflects the participant's feelings towards whether they would download and use the app	App usage		Inquisitive	Participant had questions					Participant asked many questions about different features of the app
				Yes	Participant said they would use the app					"Yeah, I would probably download this"
				Unsure	Participant was unsure of whether they will use the app			Hesitant			Participant was unsure about whether they would use the app
Preferences	Reflects approaches participants take to use the preferences feature	Warn	Participant changed the setting from Don't Warn to Warn	Control	Participant was not fine with a setting because it did not provide enough control for their preferences and did not trust the device/manufacturer					"I went [a warning for automatic update] because sometimes things will update and then not work, so I would want to know on this... because I wouldn't want my, 'For manufacturer I just sort of assume they're going to have some..."
				Data Access	Participant was fine with the level or parties that have access to data with this setting					"I don't really as long as me I'm going to uncheck these because I wouldn't want to receive that data it's already, or me not receive system security updates oh yeah that would be something I'd like to know about to stay up to date on that"
	Reflects approaches participants take to use the preferences feature	Don't Warn	Participant changed the setting from Warn to Don't Warn	Security Updates	Participant was fine with any type of security update					"I don't really mind if they're automatic because it's a good thing to get it out of the way"
				Confused	Participant maintains Warn since they're confused why devices would have this setting					"continuous data collection isn't a big deal to me so I'll move it, you know we'll do that"
		No change	Not changing the preferences	Data Access	Participant was fine with the level or parties that have access to data with this setting					"I don't know why you would need I would like let me to go with here but it knows, but doesn't affect if it's going to be secure anyway I won't worry about if it's shared with data or not."
Priority Settings	Reflects approaches participants take to use the priority settings feature	Prioritize	Participant prioritized an attribute that was previously not a priority attribute	Helpful!	Participant believes this attribute provides beneficial information to them					"And then the local time date. Well then the local time date, that which I'd enjoy the no, so the person for like how long, especially if you're going to be the priority for me here, especially for the wanting to use it again..."
				No reason	Participant did not provide a reason for prioritizing this attribute					"Data Collection frequency, because I do want to know how often it's being collected for what it's mine"
	Reflects the participant's...	De-prioritize	Participant de-prioritized an attribute that was previously a priority attribute	Device Type	Participant did not want to prioritize attribute due to the type of device					"Yeah I don't think so, I don't think it, you know, because I probably just turn it off if I want to I'm just so worried about like privacy and..."
				Detail	Participant did not want too much detailed information					"So that's something I want to know the frequency doesn't really matter because frankly if they're using it they're using it and that's what matters more to me"
		No change	Participant did not change the priority status of an attribute	No reason	Participant did not provide a reason for maintaining this attribute					"So that's something I want to know the frequency doesn't really matter because I'm not sure of that or not I don't think we need to look at that, it shouldn't be too important it's more like a security flaws, or the security can you think that's more."