1. Describe at least one design principle from each of the chapters (1, 5 and 6)

   Solution

   *Chapter 1 design principle (**App Navigation and Exploration**)*

   - *Show the value of your app upfront.*
     This principle emphasizes that applications should highlight tasks clearly to users as well as placing their calls to action upfront. This should be done in order to reduce the confusion and frustration that users go through when presented with information/tasks at inappropriate places in the application.
   - *Make it easy to manually change location.*
     This principle advises that our applications should not be limited to only picking the user's current location but rather enable them to be able to manually enter their desired location or pick their current location when they're using location-based services.

   *Chapter 5 design principle (**Form Entry**)*

   - *Communicate form errors in real time.*
     This principle emphasizes the need to show errors to users when inappropriate actions are taken/performed rather than waiting for them to first submit the form to inform them of a missing field or how long an entry in a certain field is supposed to be.
   - *Match the keyboard with the required text inputs.*
     This design principle points out that appropriate keyboards are displayed/provided by the application depending on the kind of entry to be made. This means that in instances where a user is required to enter a number, the *numeric keypad* should be provided to them instead of the *alphanumeric one*.

   *Chapter 6 design principle (**Usability**)*

   - *Speak the same language as your users.*
     This design principle advises against the use of ambiguous terms or phrases in applications as this is bound to increase on the user's cognitive load. We should aim at designing applications with clear and easily comprehendible terminology.
   - *Provide text labels and visual keys to clarify visual information.*
     This principle emphasizes the use of labels for visuals and iconography in our apps as these can have varying meanings in different contexts for the users of our applications. Furthermore, the principle advises that when providing a visual categorization to a user, a key describing what's represented should be added in order to reduce the user's confusion.
   - *Ask for permission in-context.*

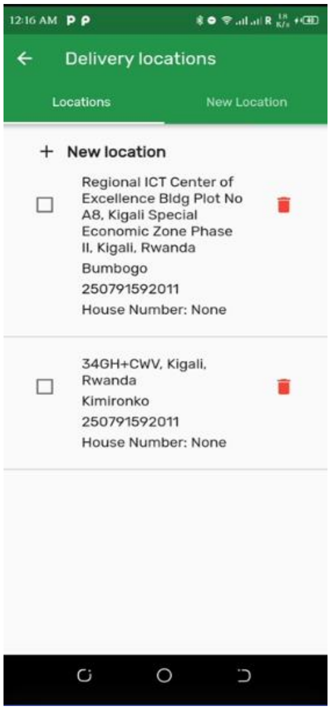
This design principle points out to designers and application developers to ask permission for the app to access certain phone resources in-context (when the application is about to perform an action that requires that resource) as well as communicate the value the access will provide as this increases the chances of users granting the permission easily.

2. Provide and explain a concrete example of apps you've used that either do a good job, or not, of illustrating these three principles.

   Solution

   Chapter 1 concrete example: Make it easy to manually change location.

   - **Vuba Vuba App**: This application is used in Rwanda to make orders online for different products. I usually use to order for food. This is the feature that they use pick the delivery location for the customer and I believe they do a good job at providing options of whether to automatically pick the location address or to manually enter it.



12:16 AM

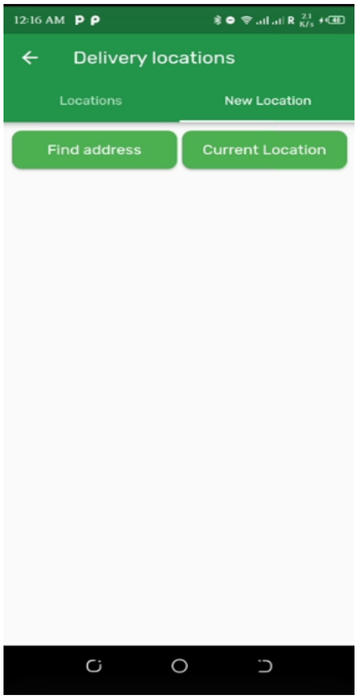
Delivery locations

Locations | New Location

+ New location

□ Regional ICT Center of Excellence Bldg Plot No A8, Kigali Special Economic Zone Phase II, Kigali, Rwanda
Bumbogo
250791592011
House Number: None

□ 34GH+CWV, Kigali, Rwanda
Kimironko
250791592011
House Number: None



12:16 AM

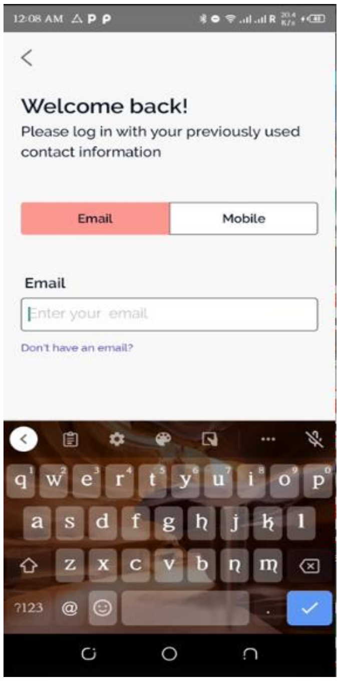
Delivery locations

Locations | New Location

Find address | Current Location

Chapter 5 concrete example: Match the keyboard with the required text inputs.

- **Diwala:** This is an application that is used by the MTN Foundation (back in Uganda) to provide students (who have gone through their mentorship programme) with their certificates. The screenshot below shows their login page and it shows the different kinds of keyboard layouts when a user is required to enter an email and it changes when they have to log in using their phone number.



Welcome back!

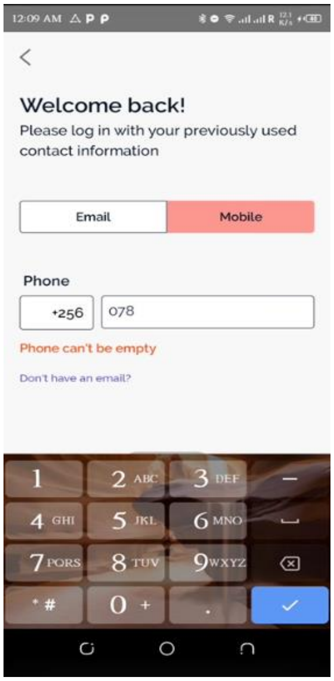
Please log in with your previously used contact information

Email | Mobile

Email

Enter your email

Don't have an email?



Welcome back!

Please log in with your previously used contact information

Email | Mobile

Phone

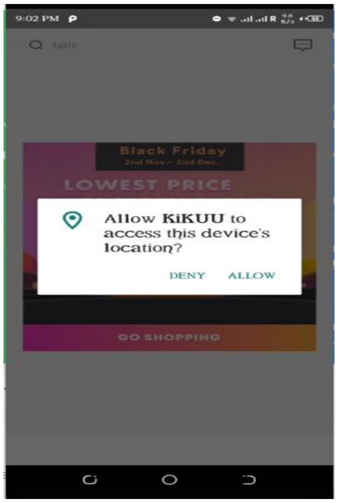
+256 | 078

Phone can't be empty

Don't have an email?

Chapter 6 concrete example: Ask for permission in-context.

- *Kikuu:* This is an e-commerce application that I also use sometimes to buy some (cheap) gadgets online. The reason I chose it is because I don't think it does a good job at asking for permission in-context. The screenshot below shows the application asking for permission the moment I opened it even without searching for anything in its store.



Allow KiKUU to access this device's location?

DENY ALLOW