

Introduction

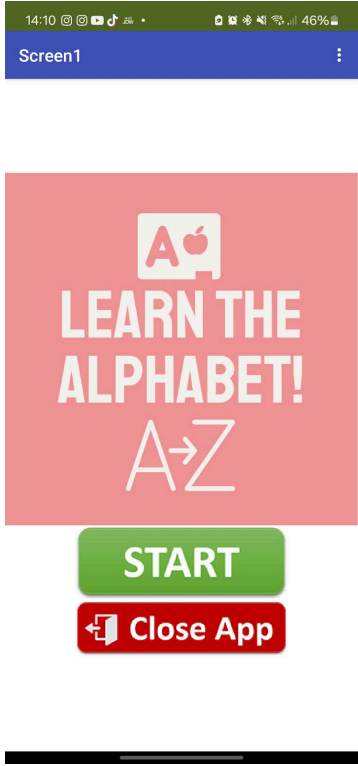

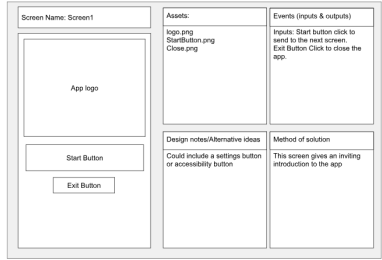
In this assignment i will be developing, testing and reviewing a mobile app for Cambria Creative to help children learn the alphabet.

Asset/Sources Log

Description of asset	File name	Source	Modifications made	Where used
App logo showing name of app 'Learn the Alphabet!'	logo.png	Original	Renamed	Screen1 Complete
Big green start button	StartButton.png	MIT App inventor	Renamed	Screen1
Large image of the letter A	LetterA.png	https://marketplace.canva.com/EAFrKIHYO7c/1/0/1600w/canva-alphabet-letters-a-z-circle-flashcards-in-colorful-bold-style-xrMHc8dndSg.jpg	Renamed	LetterA
Large image of the letter B	LetterB.png	https://marketplace.canva.com/EAFrKIHYO7c/1/0/1600w/canva-alphabet-letters-a-z-circle-flashcards-in-colorful-bold-style-xrMHc8dndSg.jpg	Renamed	LetterB
Large image of the letter C	LetterC.png	https://marketplace.canva.com/EAFrKIHYO7c/1/0/1600w/canva-alphabet-letters-a-z-circle-flashcards-in-colorful-bold-style-xrMHc8dndSg.jpg	Renamed	LetterC
Large image of the letter D	LetterD.png	https://marketplace.canva.com/EAFrKIHYO7c/1/0/1600w/canva-alphabet-letters-a-z-circle-flashcards-in-colorful-bold-style-xrMHc8dndSg.jpg	Renamed	LetterD

Large image of the letter E	LetterE.png	https://marketplace.canva.com/EAFrKIHYO7c/1/0/1600w/canva-alphabet-letters-a-z-circle-flashcards-in-colorful-bold-style-xrMHc8dndSg.jpg	Renamed	LetterE
Large image of the letter F	LetterF.png	https://marketplace.canva.com/EAFrKIHYO7c/1/0/1600w/canva-alphabet-letters-a-z-circle-flashcards-in-colorful-bold-style-xrMHc8dndSg.jpg	Renamed	LetterF
"A" sound file	A.mp3	Original	Renamed	LetterA
"B" sound file	B.mp3	Original	Renamed	LetterB
"C" sound file	C.mp3	Original	Renamed	LetterC
"D" sound file	D.mp3	Original	Renamed	LetterD
"E" sound file	E.mp3	Original	Renamed	LetterE
"F" sound file	F.mp3	Original	Renamed	LetterF
Small blue button with a speaker button	PlaySoundButton.png	MIT App Inventor	Renamed	LetterA, LetterB, LetterC, LetterD, LetterE, LetterF
Big green "Start Again" button	StartAgain.png	MIT App Inventor	Renamed	Complete
Big red 'Close App' again button	Close.png	MIT App Inventor	Renamed	Screen1, Complete
Splash image showing a face winking with thumbs up and displaying Well Done	CompleteSplash.png	https://t3.ftcdn.net/jpg/01/08/84/82/360_F_108848216_xDD3H6mIBxMueyBoMEQS9ThKHeTalBaY.jpg	Renamed	Complete
Small orange button with an arrow pointing right	NextButton.png	MIT App Inventor	Renamed	LetterA, LetterB, LetterC, LetterD, LetterE, LetterF
Small red button with an "X"	ClearButton.png	MIT App Inventor	Renamed	LetterA, LetterB, LetterC, LetterD,

				LetterE, LetterF
--	--	--	--	------------------

Screen no 1 Start Screen		
Completed Screen	Blocks (with comments)	Initial plan/design
		
<p>The screen has been developed to match my plan almost exactly.</p> <p>The screen is suitable for the audience as even if the child can't read very well yet most kids recognise that green is go and red is leave/stop.</p> <p>The code is very simple to avoid bugs in more complex code and can be maintained very easily.</p>		

Screen no 2 LetterA		
Completed Screen	Blocks (with comments)	Initial plan/design

LetterA

```

when LetterCanvas is dragged
  start start pencil point connect connect? dragstylestyle
  1: call [PlaySoundButton] Play
  2: call [ClearCanvas] Clear
  3: call [NextLetter] Next
  4: call [OpenScreen] Open
  5: call [OpenScreen] Open
  6: call [OpenScreen] Open
  7: call [OpenScreen] Open
  8: call [OpenScreen] Open
  9: call [OpenScreen] Open
  10: call [OpenScreen] Open
  11: call [OpenScreen] Open
  12: call [OpenScreen] Open
  13: call [OpenScreen] Open
  14: call [OpenScreen] Open
  15: call [OpenScreen] Open
  16: call [OpenScreen] Open
  17: call [OpenScreen] Open
  18: call [OpenScreen] Open
  19: call [OpenScreen] Open
  20: call [OpenScreen] Open
  21: call [OpenScreen] Open
  22: call [OpenScreen] Open
  23: call [OpenScreen] Open
  24: call [OpenScreen] Open
  25: call [OpenScreen] Open
  26: call [OpenScreen] Open
  27: call [OpenScreen] Open
  28: call [OpenScreen] Open
  29: call [OpenScreen] Open
  30: call [OpenScreen] Open
  31: call [OpenScreen] Open
  32: call [OpenScreen] Open
  33: call [OpenScreen] Open
  34: call [OpenScreen] Open
  35: call [OpenScreen] Open
  36: call [OpenScreen] Open
  37: call [OpenScreen] Open
  38: call [OpenScreen] Open
  39: call [OpenScreen] Open
  40: call [OpenScreen] Open
  41: call [OpenScreen] Open
  42: call [OpenScreen] Open
  43: call [OpenScreen] Open
  44: call [OpenScreen] Open
  45: call [OpenScreen] Open
  46: call [OpenScreen] Open
  47: call [OpenScreen] Open
  48: call [OpenScreen] Open
  49: call [OpenScreen] Open
  50: call [OpenScreen] Open
  51: call [OpenScreen] Open
  52: call [OpenScreen] Open
  53: call [OpenScreen] Open
  54: call [OpenScreen] Open
  55: call [OpenScreen] Open
  56: call [OpenScreen] Open
  57: call [OpenScreen] Open
  58: call [OpenScreen] Open
  59: call [OpenScreen] Open
  60: call [OpenScreen] Open
  61: call [OpenScreen] Open
  62: call [OpenScreen] Open
  63: call [OpenScreen] Open
  64: call [OpenScreen] Open
  65: call [OpenScreen] Open
  66: call [OpenScreen] Open
  67: call [OpenScreen] Open
  68: call [OpenScreen] Open
  69: call [OpenScreen] Open
  70: call [OpenScreen] Open
  71: call [OpenScreen] Open
  72: call [OpenScreen] Open
  73: call [OpenScreen] Open
  74: call [OpenScreen] Open
  75: call [OpenScreen] Open
  76: call [OpenScreen] Open
  77: call [OpenScreen] Open
  78: call [OpenScreen] Open
  79: call [OpenScreen] Open
  80: call [OpenScreen] Open
  81: call [OpenScreen] Open
  82: call [OpenScreen] Open
  83: call [OpenScreen] Open
  84: call [OpenScreen] Open
  85: call [OpenScreen] Open
  86: call [OpenScreen] Open
  87: call [OpenScreen] Open
  88: call [OpenScreen] Open
  89: call [OpenScreen] Open
  90: call [OpenScreen] Open
  91: call [OpenScreen] Open
  92: call [OpenScreen] Open
  93: call [OpenScreen] Open
  94: call [OpenScreen] Open
  95: call [OpenScreen] Open
  96: call [OpenScreen] Open
  97: call [OpenScreen] Open
  98: call [OpenScreen] Open
  99: call [OpenScreen] Open
  100: call [OpenScreen] Open
  
```

Screen Name: LetterA

Picture of the Letter A

Play sound Button

Clear Canvas Button

Next Letter Button

Assets:

LetterA.png
PlaySoundButton.png
ClearCanvasButton.png
NextLetterButton.png

Events:

Input: Play sound Button plays a sound file of a person saying the letter A.
Clear canvas Button clears any drawing the user has done.
Next Letter Button takes the user to the next screen.
Output: The Play sound Button uses the speakers to play an audio file.

Design notes/Alternative ideas:

Could allow options for different colours or size when drawing.
Could use pictures of animals or objects that start with the same letter as the screen to help the user memorise. For example A for Ant.

Method of solution:

This screen attempts to assist the user in recognising, writing and saying the letter A.

The screen is exactly what I was aiming for in my design.

The buttons on this page are simple and easy to understand as I have just used simple symbols rather than words.

The code is very simple to avoid bugs in more complex code and can be maintained very easily.

Screen no 3 LetterB

Completed Screen

LetterB

```

when LetterCanvas is dragged
  start start pencil point connect connect? dragstylestyle
  1: call [PlaySoundButton] Play
  2: call [ClearCanvas] Clear
  3: call [NextLetter] Next
  4: call [OpenScreen] Open
  5: call [OpenScreen] Open
  6: call [OpenScreen] Open
  7: call [OpenScreen] Open
  8: call [OpenScreen] Open
  9: call [OpenScreen] Open
  10: call [OpenScreen] Open
  11: call [OpenScreen] Open
  12: call [OpenScreen] Open
  13: call [OpenScreen] Open
  14: call [OpenScreen] Open
  15: call [OpenScreen] Open
  16: call [OpenScreen] Open
  17: call [OpenScreen] Open
  18: call [OpenScreen] Open
  19: call [OpenScreen] Open
  20: call [OpenScreen] Open
  21: call [OpenScreen] Open
  22: call [OpenScreen] Open
  23: call [OpenScreen] Open
  24: call [OpenScreen] Open
  25: call [OpenScreen] Open
  26: call [OpenScreen] Open
  27: call [OpenScreen] Open
  28: call [OpenScreen] Open
  29: call [OpenScreen] Open
  30: call [OpenScreen] Open
  31: call [OpenScreen] Open
  32: call [OpenScreen] Open
  33: call [OpenScreen] Open
  34: call [OpenScreen] Open
  35: call [OpenScreen] Open
  36: call [OpenScreen] Open
  37: call [OpenScreen] Open
  38: call [OpenScreen] Open
  39: call [OpenScreen] Open
  40: call [OpenScreen] Open
  41: call [OpenScreen] Open
  42: call [OpenScreen] Open
  43: call [OpenScreen] Open
  44: call [OpenScreen] Open
  45: call [OpenScreen] Open
  46: call [OpenScreen] Open
  47: call [OpenScreen] Open
  48: call [OpenScreen] Open
  49: call [OpenScreen] Open
  50: call [OpenScreen] Open
  51: call [OpenScreen] Open
  52: call [OpenScreen] Open
  53: call [OpenScreen] Open
  54: call [OpenScreen] Open
  55: call [OpenScreen] Open
  56: call [OpenScreen] Open
  57: call [OpenScreen] Open
  58: call [OpenScreen] Open
  59: call [OpenScreen] Open
  60: call [OpenScreen] Open
  61: call [OpenScreen] Open
  62: call [OpenScreen] Open
  63: call [OpenScreen] Open
  64: call [OpenScreen] Open
  65: call [OpenScreen] Open
  66: call [OpenScreen] Open
  67: call [OpenScreen] Open
  68: call [OpenScreen] Open
  69: call [OpenScreen] Open
  70: call [OpenScreen] Open
  71: call [OpenScreen] Open
  72: call [OpenScreen] Open
  73: call [OpenScreen] Open
  74: call [OpenScreen] Open
  75: call [OpenScreen] Open
  76: call [OpenScreen] Open
  77: call [OpenScreen] Open
  78: call [OpenScreen] Open
  79: call [OpenScreen] Open
  80: call [OpenScreen] Open
  81: call [OpenScreen] Open
  82: call [OpenScreen] Open
  83: call [OpenScreen] Open
  84: call [OpenScreen] Open
  85: call [OpenScreen] Open
  86: call [OpenScreen] Open
  87: call [OpenScreen] Open
  88: call [OpenScreen] Open
  89: call [OpenScreen] Open
  90: call [OpenScreen] Open
  91: call [OpenScreen] Open
  92: call [OpenScreen] Open
  93: call [OpenScreen] Open
  94: call [OpenScreen] Open
  95: call [OpenScreen] Open
  96: call [OpenScreen] Open
  97: call [OpenScreen] Open
  98: call [OpenScreen] Open
  99: call [OpenScreen] Open
  100: call [OpenScreen] Open
  
```

Screen Name: LetterB

Picture of the Letter B

Play sound Button

Clear Canvas Button

Next Letter Button

Assets:

LetterB.png
PlaySoundButton.png
ClearCanvasButton.png
NextLetterButton.png

Events:

Input: Play sound Button plays a sound file of a person saying the letter B.
Clear canvas Button clears any drawing the user has done.
Next Letter Button takes the user to the next screen.
Output: The Play sound Button uses the speakers to play an audio file.

Design notes/Alternative ideas:

Could allow options for different colours or size when drawing.
Could use pictures of animals or objects that start with the same letter as the screen to help the user memorise. For example B for Bear.

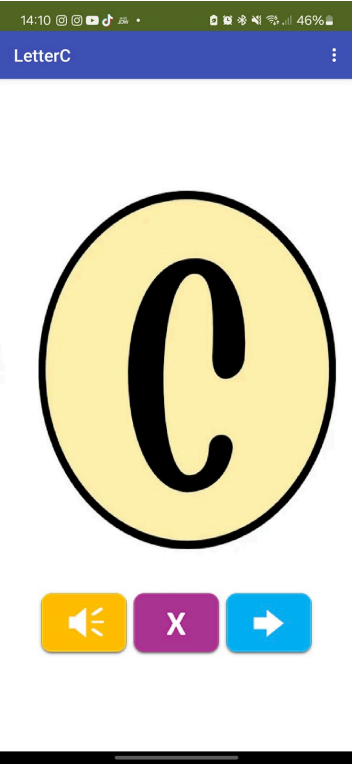
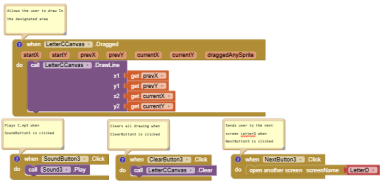
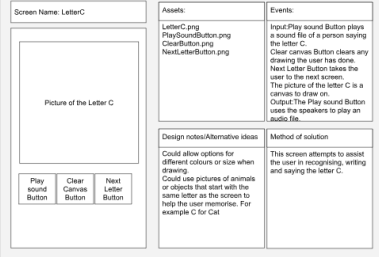
Method of solution:

This screen attempts to assist the user in recognising, writing and saying the letter B.

The screen is exactly what I was aiming for in my design.

The buttons on this page are simple and easy to understand as I have just used simple symbols rather than words.

The code is very simple to avoid bugs in more complex code and can be maintained very easily.

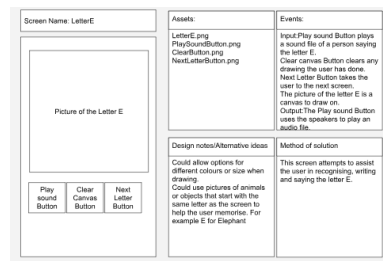
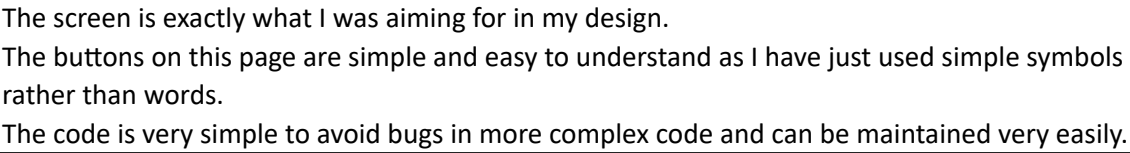
Screen no 4 LetterC		
Completed Screen	Blocks (with comments)	Initial plan/design
		

The screen is exactly what I was aiming for in my design.

The buttons on this page are simple and easy to understand as I have just used simple symbols rather than words.

The code is very simple to avoid bugs in more complex code and can be maintained very easily.

Screen 5 LetterD		
Completed Screen	Blocks (with comments)	Initial plan/design



The screen is exactly what I was aiming for in my design.

The buttons on this page are simple and easy to understand as I have just used simple symbols rather than words.

The code is very simple to avoid bugs in more complex code and can be maintained very easily.

Screen no 7 LetterF		
Completed Screen	Blocks (with comments)	Initial plan/design

The screen is exactly what I was aiming for in my design.

The buttons on this page are simple and easy to understand as I have just used simple symbols rather than words.

The code is very simple to avoid bugs in more complex code and can be maintained very easily.

Screen no 8 Complete		
Completed Screen	Blocks (with comments)	Initial plan/design

Screen Name: Complete	Assets	Events
 <div>Restart</div> <div>Quit</div>	logo.png Complete/splash.png StartAgain.png Close.png	Input Restart takes user back to Screen1 Quit Button closes the app
Design notes/Alternative ideas Could make the logo smaller into a banner to allow for the well done image to be larger and feel more rewarding. The quit button could also possibly be removed as the user could use the home button the their device instead.		Method of solution This screen lets user know they've done well by congratulating them as well as giving them the option to do it again. This allows the user to instantly have another go and keep learning the alphabet.

The screen is exactly what I was aiming for in my design.
 The only buttons on this screen are very similar to the first screen so the user can use the same principles as before to use green and red to distinguish between what the buttons' purposes are.
 The code on this screen is very simple and shouldn't need any maintenance as the code should be future proof.

Test Plan & Log

Test No	Screen	Test	Expected Outcome	Actual Outcome	Comments
1	Screen1	Open app	Screen 1 displays and all image and buttons are displayed and fully visible	Successful	
2	Screen1	Press start button	LetterA screen displays	Successful	
3	LetterA	Display LetterA Screen	LetterA screen displays and all images and buttons are displayed and fully visible	Successful	
4	LetterA	Trace LetterA on screen with finger	Line is drawn on screen	Successful	
5	LetterA	Press sound	"A.mp3" is played	Successful	Sound file

		button	and heard clearly		occasionally repeats for no known reason
6	LetterA	Press clear button	All lines drawn are cleared from screen	Successful	
7	LetterA	Press Next button	LetterB Screen is displayed	Successful	
8	LetterB	Display LetterB screen	LetterB screen displays and all images and button are displayed and fully visible	Successful	
9	LetterB	Trace LetterB on screen with finger	Line is drawn on screen	Successful	
10	LetterB	Press sound button	"B.mp3" is played and heard clearly	Successful	Sound file occasionally repeats for no known reason
11	LetterB	Press clear button	All lines drawn are cleared from screen	Successful	
12	LetterB	Press Next button	LetterC Screen is displayed	Successful	
13	LetterC	Display LetterC Screen	LetterC screen displays and all images and buttons are displayed and fully visible	Successful	
14	LetterC	Trace LetterC on screen with finger	Line is drawn on screen	Successful	
15	LetterC	Press sound button	"C.mp3" is played and heard clearly	Successful	Sound file occasionally repeats for no known reason
16	LetterC	Press clear button	All lines drawn are cleared from screen	Successful	
17	LetterC	Press Next button	LetterD Screen is displayed	Successful	
18	LetterD	Display LetterD Screen	LetterD screen displays and all images and buttons are displayed and fully visible	Successful	

19	LetterD	Trace LetterD on screen with finger	Line is drawn on screen	Successful	
20	LetterD	Press sound button	"D.mp3" is played and heard clearly	Successful	Sound file occasionally repeats for no known reason
21	LetterD	Press clear button	All lines drawn are cleared from screen	Successful	
22	LetterD	Press Next button	LetterE Screen is displayed	Successful	
23	LetterE	Display LetterE Screen	LetterE screen displays and all images and buttons are displayed and fully visible	Successful	
24	LetterE	Trace LetterE on screen with finger	Line is drawn on screen	Successful	
25	LetterE	Press sound button	"E.mp3" is played and heard clearly	Successful	Sound file occasionally repeats for no known reason
26	LetterE	Press clear button	All lines drawn are cleared from screen	Successful	
27	LetterE	Press Next button	LetterF Screen is displayed	Successful	
28	LetterF	Display LetterF Screen	LetterF screen displays and all images and buttons are displayed and fully visible	Successful	
29	LetterF	Trace LetterF on screen with finger	Line is drawn on screen	Successful	
30	LetterF	Press sound button	"F.mp3" is played and heard clearly	Successful	Sound file occasionally repeats for no known reason
31	LetterF	Press clear button	All lines drawn are cleared from screen	Successful	
32	LetterF	Press Next button	Complete Screen is displayed	Successful	
33	Complete	Display	Complete screen	Successful	

		Complete screen	displays and all images and buttons are displayed and fully visible		
34	Complete	Press Start Again button	Screen1 is displayed	Successful	
35	Complete	Press Close App button	App closes	Unsuccessful	Software did not support this feature during testing

Final Review

I believe the app I have developed is suitable for the user requirements and meets the intended purpose of the app which is to teach young children the alphabet. The app appeals to the user as it's all very interactive as well as being colourful which may be good for the demographic. The prototype teaches the user the look of the letters as well as their sounds and order in the alphabet. The app does this by allowing the user to trace over the letter on screen which is intended to help the user remember the shape of the letter easier. The app also allows the user to play an audio file of someone saying the letter so the sound may be recognised as well. When developing the app no changes were made from the initial plan as there were no major problems encountered. The only constraints I encountered when developing the app were issues with the audio files as even though the code seems quite simple the audio plays without reason and repeats. Unfortunately I don't possess the knowledge to fix this slight issue. To improve the app one of the main issues is the audio bug which could be repaired with more practice. Another possible improvement to all screens would be more consistent sizes for the buttons and letters as while cropping to size and implementing to the app some of the sizes have changed to be inconsistent between screens and decrease the overall experience using the app.