

EDUTEK'S MOBILE APP DESIGN

1. Problem Definition Statement

EduTek needs an interactive app designed to help kids learn alphabet so here I want to show prototype of an app that will contain six letters of alphabet, pre-defined code and assets that will demonstrate how this app will work

2. Purpose and user requirements

This app will teach kids the alphabet using interactive and attractive elements.

It needs to be interesting to kids to make them want to learn alphabet also it needs to be interactive to do that.

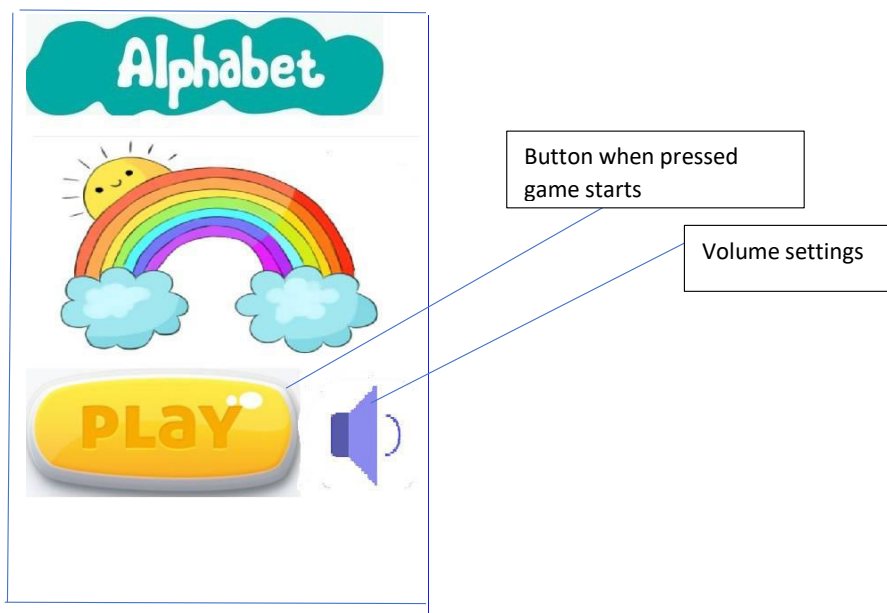
Also it needs to be user friendly because it will be used by kids.

And it needs use appropriate design to make it friendly to kids.

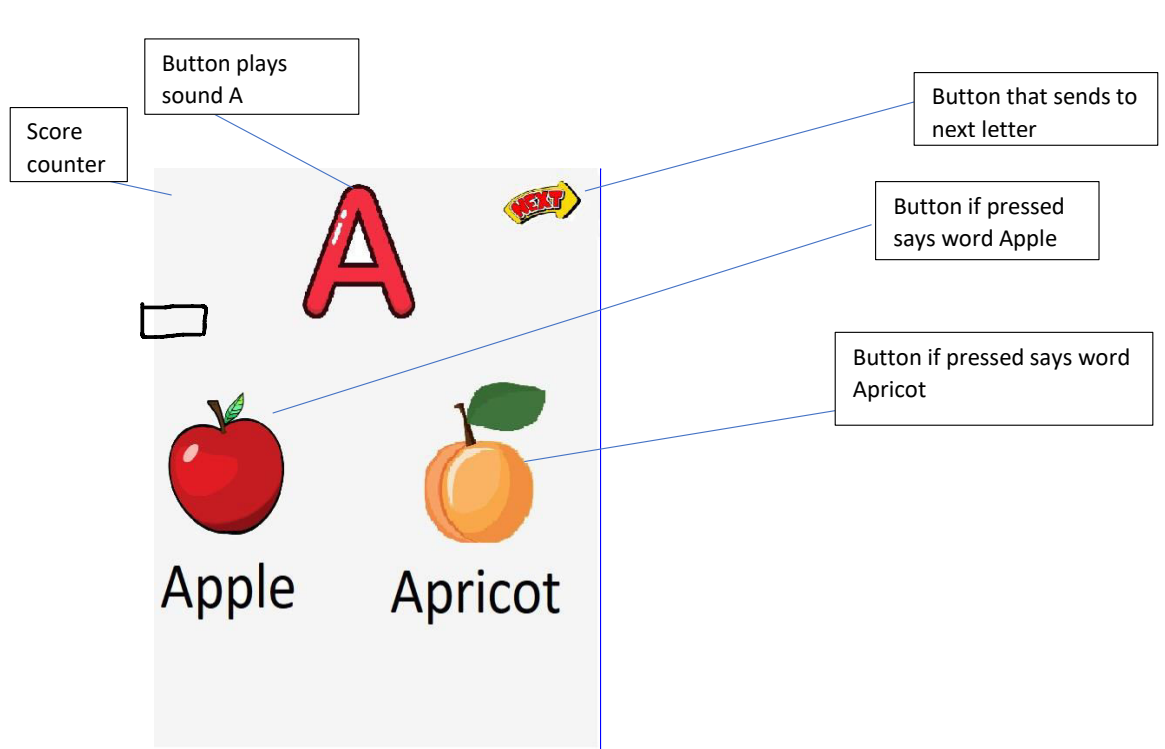
Kommentar [JB1]: 2B.P2

3. Description of main program tasks

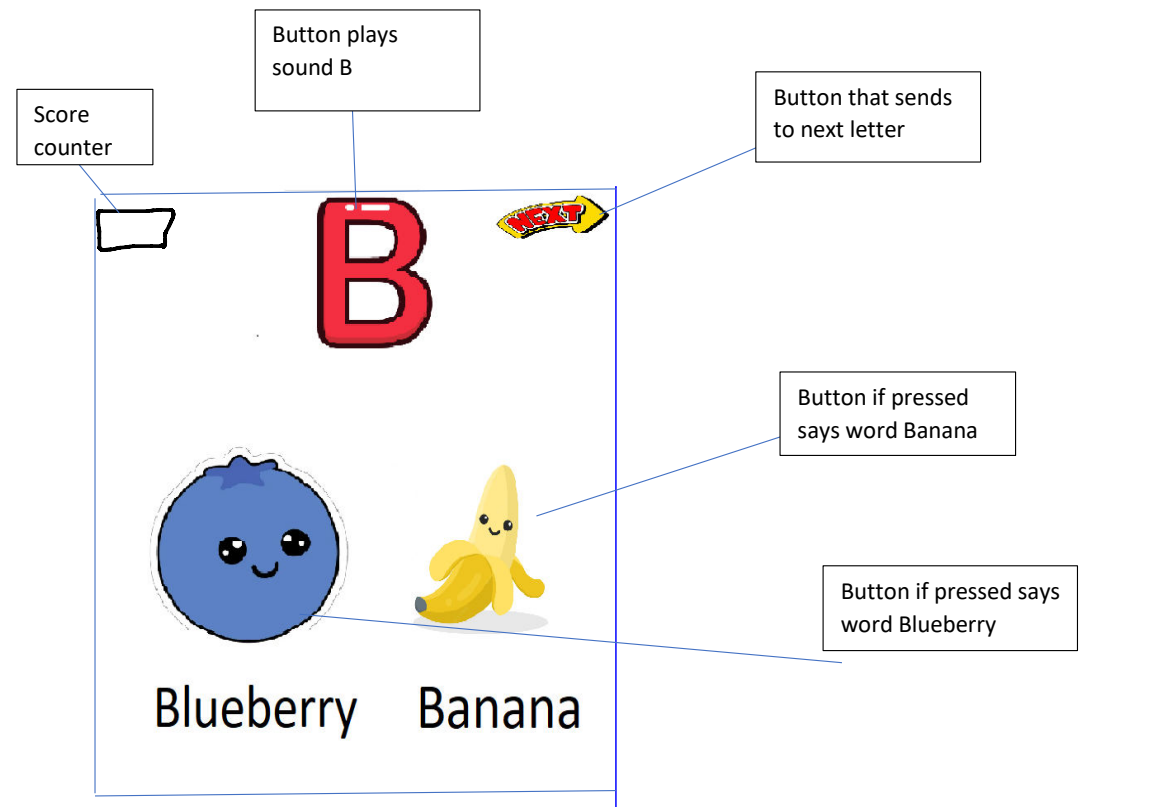
Main screen



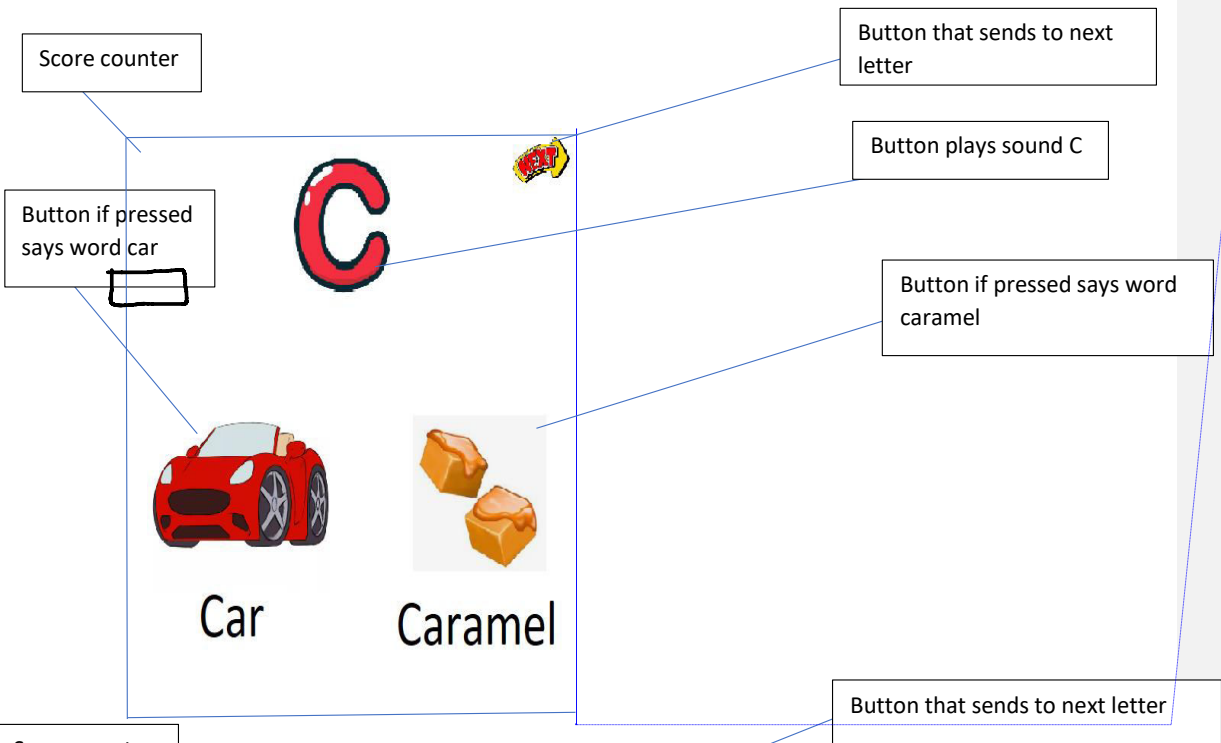
Kommentar [JB2]: 2B.P3
Would be better if could see the screen frame too. Where's the game?



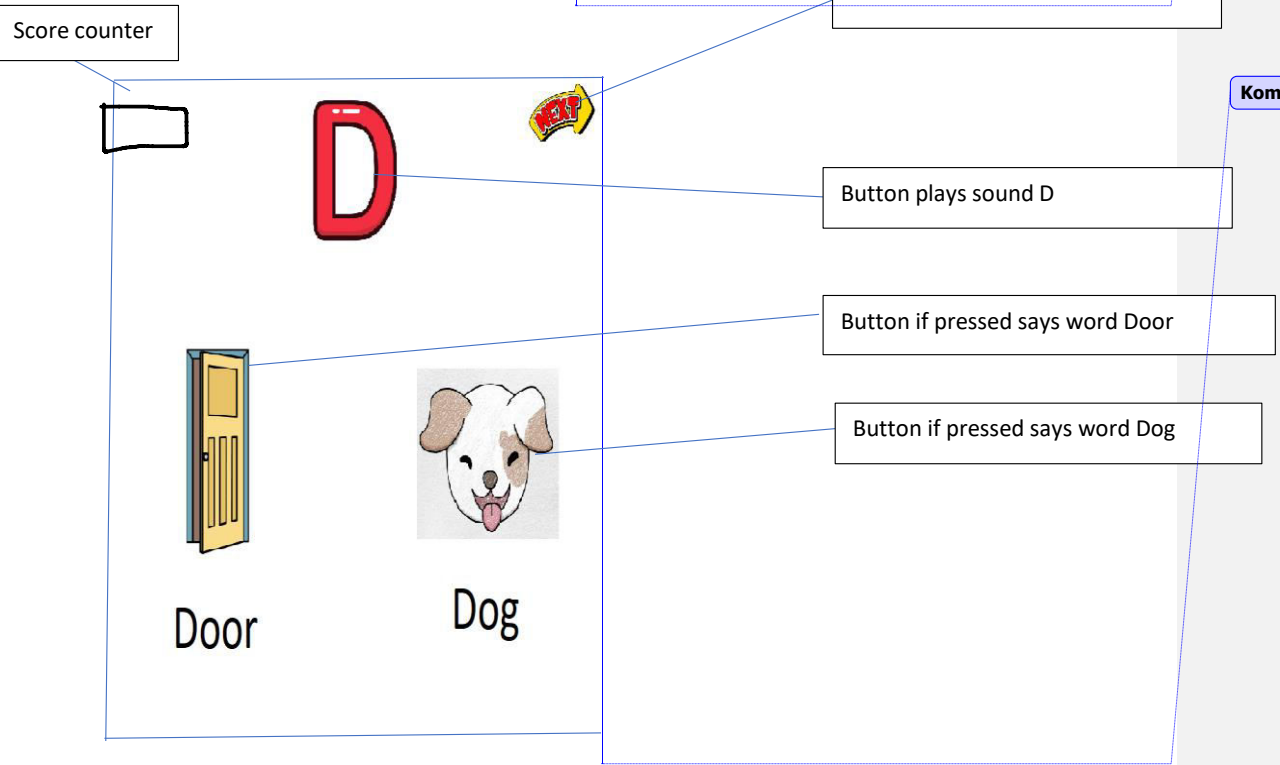
Kommentar [JB3]: 2B.P3 and 2B.M2



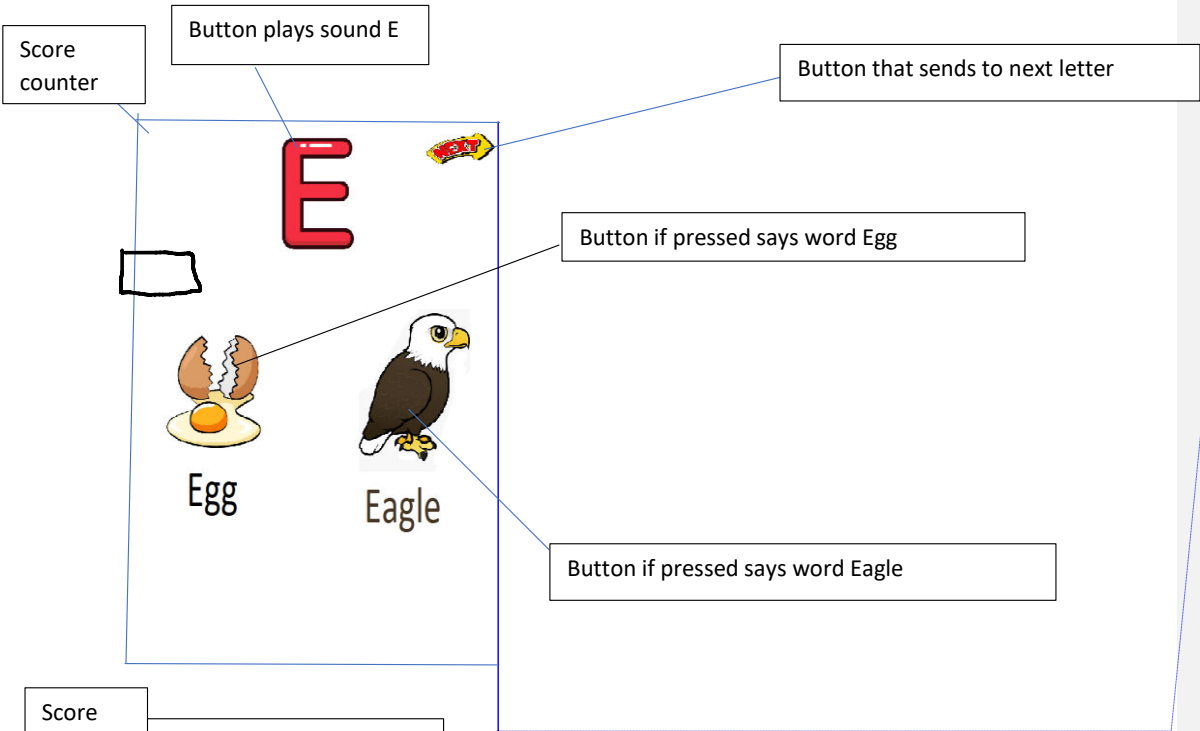
Kommentar [JB4]: 2B.P3 and 2B.M2



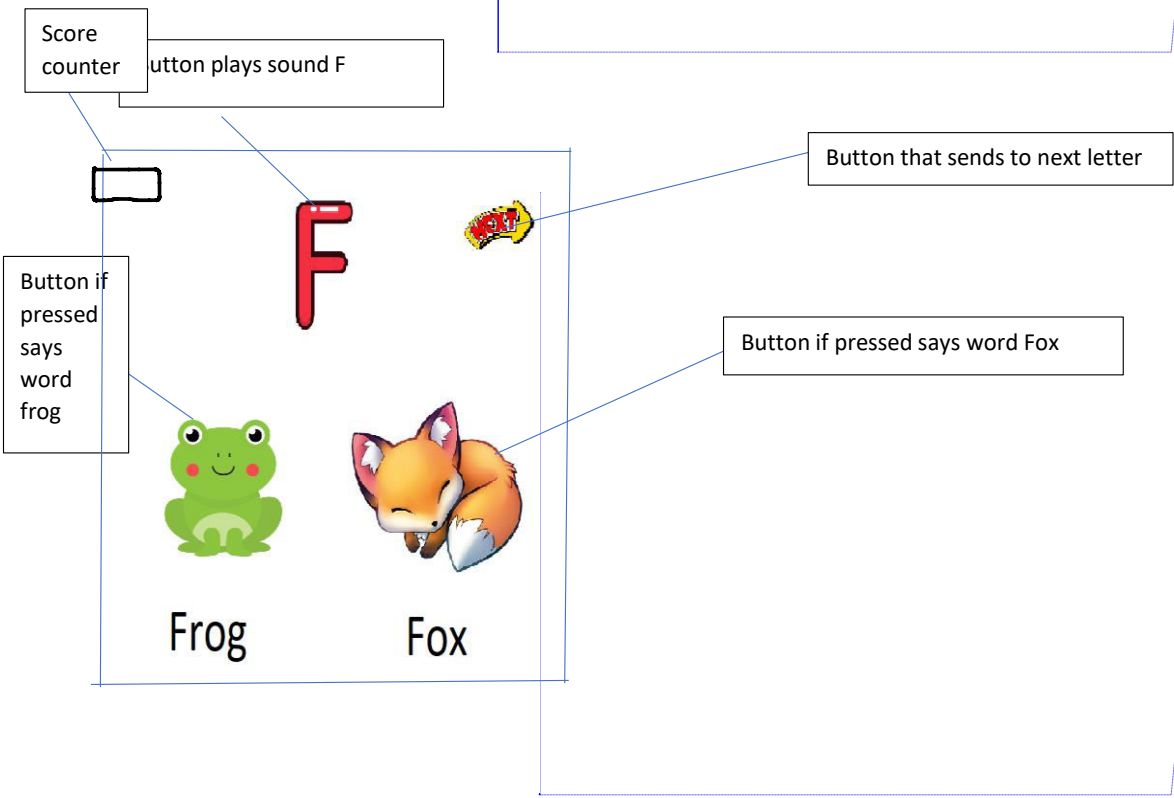
Kommentar [JB5]: 2B.P3 and 2B.M2



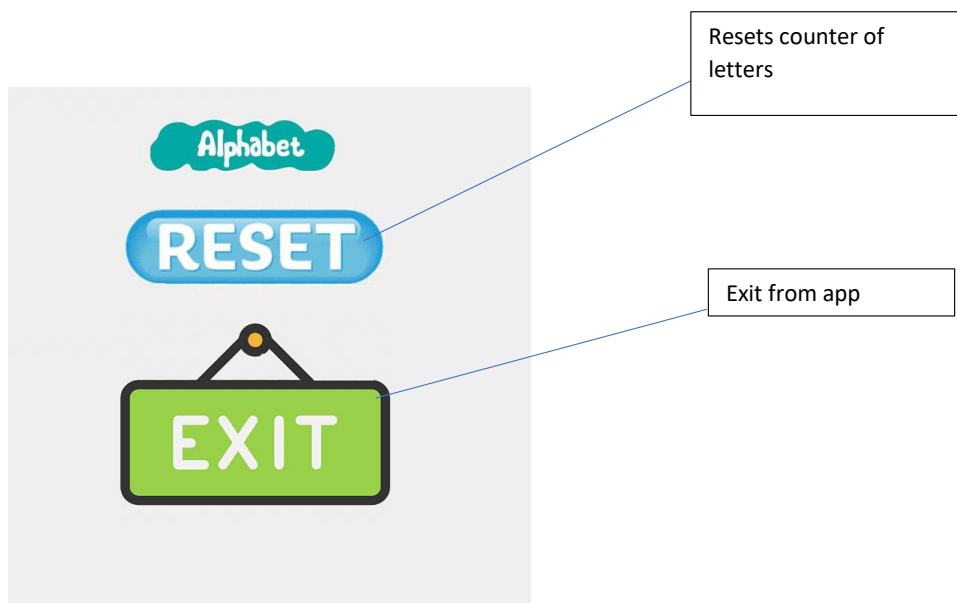
Kommentar [JB6]: 2B.P3 and 2B.M2



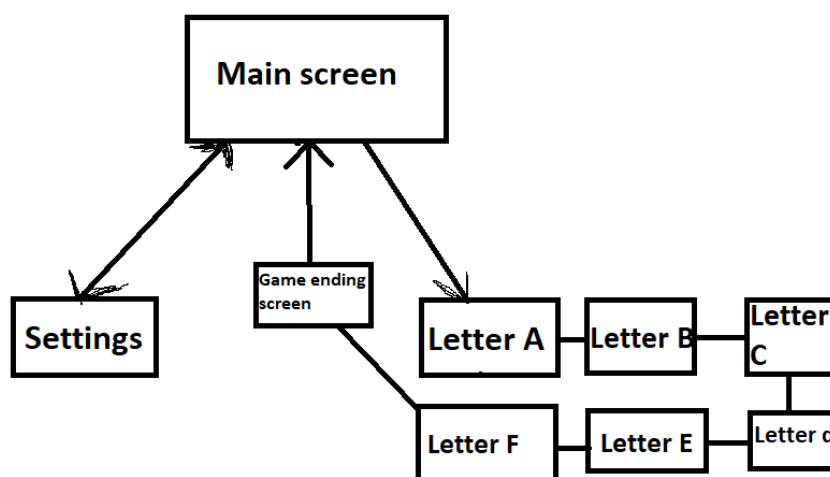
Kommentar [JB7]: 2B.P3 and 2B.M2



Kommentar [JB8]: 2B.P3 and 2B.M2



Screen Navigation



Kommentar [JB9]: 2B.P3

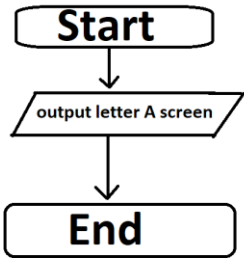
Data Dictionary

Variable Name	Type	Scope	Purpose
Score counter	int	Main screen	Count how many letters are learned and change main screen
Loudness of sound	int	settings	To set up loudness

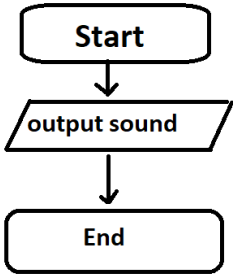
Kommentar [JB10]: 2B.M2
Not clear where this is shown?

Flow charts

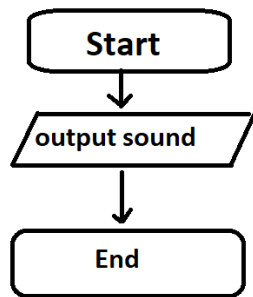
Play button



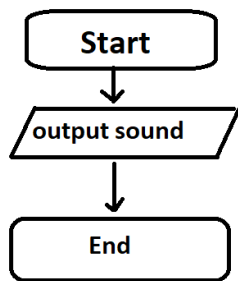
A button



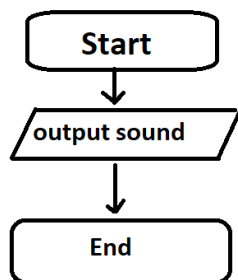
Apple button



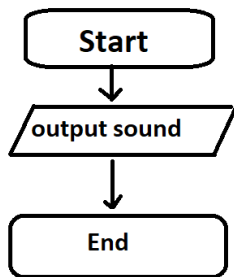
Apricot button



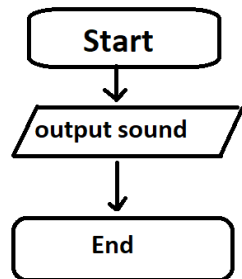
B button



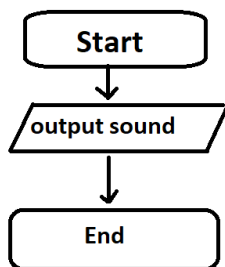
Blueberry button



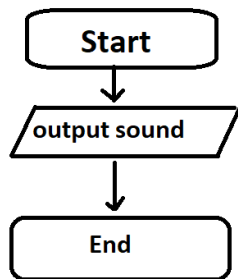
Banana Button



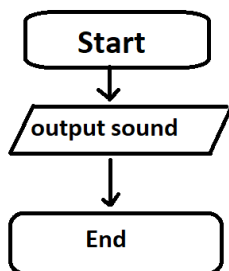
C button



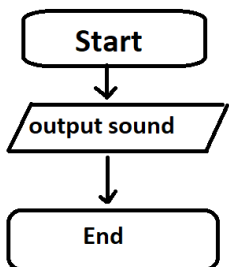
Car button



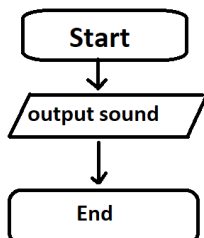
Caramel button



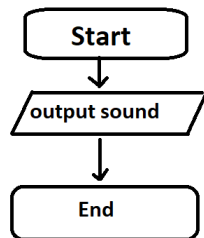
D button



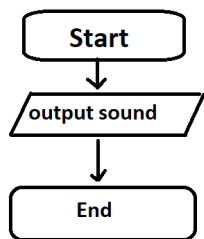
Door button



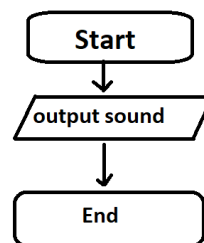
Dog button



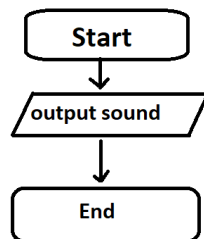
E button



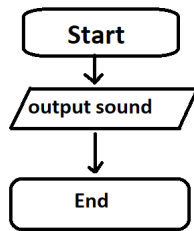
Eagle button



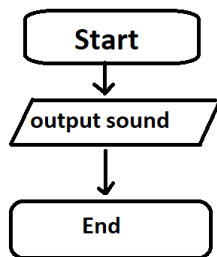
Egg button



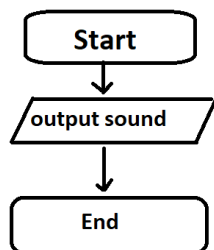
F button



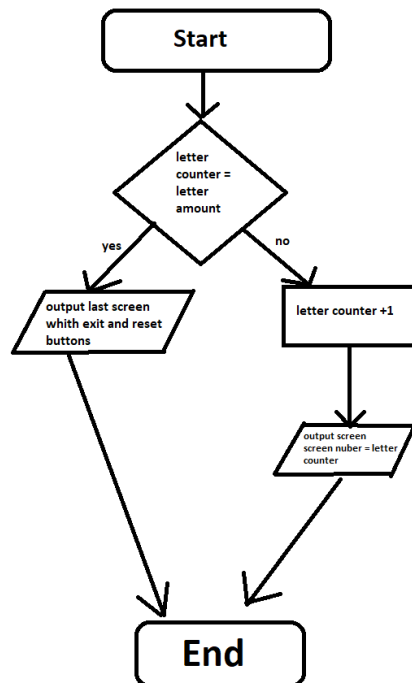
Frog button



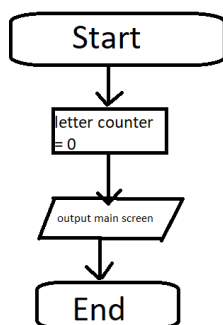
Fox button



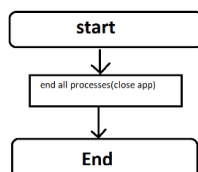
Next button



Restart button



Exit button



Asset list

Should include all images, sounds and any snippets of code you think you might need

Kommentar [JB11]: 2B.P3 and 2B.M2
Good list of assets. Missing code snippets.

Asset	Source	Where it is used
Alphabet	https://pixers.uk/body-pillows/kids-alphabet-44057956	Main screen
Play button	https://www.behance.net/gallery/14593891/Clean-Play-Button-Psd	Main screen
Settings button	https://www.freepik.com/premium-vector/set-circle-buttons-game-premium-vector_28300486.htm	Main screen
Rainbow image	http://www.lessdraw.com/kak-narisoivat-radugu/	Main screen
A	https://www.iconfinder.com/icons/1553032/A_letter_red_alphabet_letters_icon	A screen
B	https://www.iconfinder.com/icons/1553032/B_letter_red_alphabet_letters_icon	B screen
C	https://www.iconfinder.com/icons/1553032/C_letter_red_alphabet_letters_icon	C screen
D	https://www.iconfinder.com/icons/1553032/D_letter_red_alphabet_letters_icon	D screen
E	https://www.iconfinder.com/icons/1553032/E_letter_red_alphabet_letters_icon	E screen
F	https://www.iconfinder.com/icons/1553032/f_letter_red_alphabet_letters_icon	F screen
Apple	https://lightlisketched.com/2022/07/14/how-to-draw-an-apple/	A screen
Apricot	https://in.pinterest.com/pin/714946509580682619/	A screen
Blueberry	https://www.etsy.com/uk/listing/1290588833/berry-cute-blueberry-sticker?gla=1&ga=1&utm_source=google&utm_medium=pc&utm_campaign=shopping_uk_en_gb_e-paper_and_party_supplies-paper-other&utm_custom1=k_CjQKCQIA6LyBHC3ARisAG4gkF9e-DDwFWHaMOe-skda-930DKrMMPYf4ldXMIx5eB8vXXL72qMaAjaEALw_wcB_k&utm_content=go_12576471817_122334761249_507694609580_pla-314261241347_c_1290588833engb_506237450&utm_custom2=12576471817&gclid=CjQKCQIA6LyBHC3ARisAG4gkF9e-DDwFWHaMOe-skda-930DKrMMPYf4ldXMIx5eB8vXXL72qMaAjaEALw_wcB	B screen
Banana	https://www.freepik.com/premium-vector/cute-banana-kawaii-character_4782346.htm	B screen
Car	https://easydrawingart.com/how-to-draw-a-sports-car/	C screen
Caramel	https://www.pinterest.com/pin/433682639118922121/	C screen
Dog	https://helloartsy.com/how-to-draw-a-dog-face/	D screen
Door	https://iheartcraftythings.com/door-drawing.html	D screen
Next arrow	https://www.vectorstock.com/royalty-free-vector/yellow-arrow-with-text-next-comic-text-sound-vector-19406090	All letter screens
Eagle	https://www.redbubble.com/i/sticker/Cute-Cartoon-Bald-Eagle-by-Birdorable-by-birdorable/22188596.EJUG5?country_code=US&gclid=CjQKCQIA6LyBHC3ARisAG4gkF9e-DDwFWHaMOe-skda-930DKrMMPYf4ldXMIx5eB8vXXL72qMaAjaEALw_wcB	E screen
Egg	https://www.dreamstime.com/mobile-image220378190	E screen
Fox	https://www.redbubble.com/i/art-board-print/Cute-fox-by-	F

	SaraMariotti/30216900.7Q6GI	screen
Frog	https://www.vecteezy.com/vector-art/5257336-vector-illustration-of-cute-frog-isolated-on-white-background	F screen
Code for sound A	https://appinventor.mit.edu/explore/ai2/tutorials	A screen
Code for play button	https://appinventor.mit.edu/explore/ai2/tutorials	Main screen
Code for Next button	https://appinventor.mit.edu/explore/ai2/tutorials	All letter screens

Test plan

Kommentar [JB12]: 2B.P3 and 2B.M2
Missing tests for all app screens.

Test No	Date/time	Test Description	Test data / action	Expected result	Actual result	Action taken
1	Next assessment	Test if app opens	Open app	App I opened		
2	Next assessment	Test loudness setting	Change loudness	Loudness changed		
3	Next assessment	Test sound A button	Press sound button	Hear sound		
4	Next assessment	Test play button	Press play button	Game starts		
5	Next assessment	Test next button on screen A	Press next button	Sends to next screen		
6	Next assessment	Test counter of letters	Complete game	See buttons restart and exit		
7	Next assessment	Test restart button	Press restart button	game starts from beginning		
8	Next assessment	Test exit button	Press exit button	Exits from game		
9	Next assessment	Test sound B button	Press sound button	Hear sound		

10	Next assessment	Test sound C button	Press sound button	Hear sound		
11	Next assessment	Test sound D button	Press sound button	Hear sound		
12	Next assessment	Test sound E button	Press sound button	Hear sound		
13	Next assessment	Test sound F button	Press sound button	Hear sound		
14	Next assessment	Test next button on screen A	Press next button	Sends to next screen		
15	Next assessment	Test next button on screen B	Press next button	Sends to next screen		
16	Next assessment	Test next button on screen C	Press next button	Sends to next screen		
17	Next assessment	Test next button on screen D	Press next button	Sends to next screen		
18	Next assessment	Test next button on screen E	Press next button	Sends to next screen		
19	Next assessment	Test next button on screen F	Press next button	Sends to next screen		

Design justification

My app design is a simple example of achieving goals such as that the app should be iterative and teach the alphabet. Now only 6 letters are presented for the target audience of children who are just learning to read (2-4 years). To meet these criteria, I made a design by selecting pictures and buttons suitable for this age category. There are interactive elements in my design, and also the interface is designed so that it would be easy for a child to use it. As an alternative idea, the option was considered to select all the words under one category such as, for example, "fruits", but in my opinion it is more interesting for children when different pictures are used and there is no need for any categories. Since this application will be used by very young children there is no way to use any quizzes or other complex elements, I believe that a simple design with colorful pictures is the ideal way to complete this task. Also, the advantage of this design is the speed and cost of creating such an

application, since there are no complex elements here, you can get the job done in the shortest possible time without significant financial outlays. Also, this prototype can be easily modified to the state of a fully functional application with the entire alphabet according to the same principle that is used in the first six letters presented here.

Kommentar [JB13]: 2B.D2
Would need to show alternative design