NUI Galway
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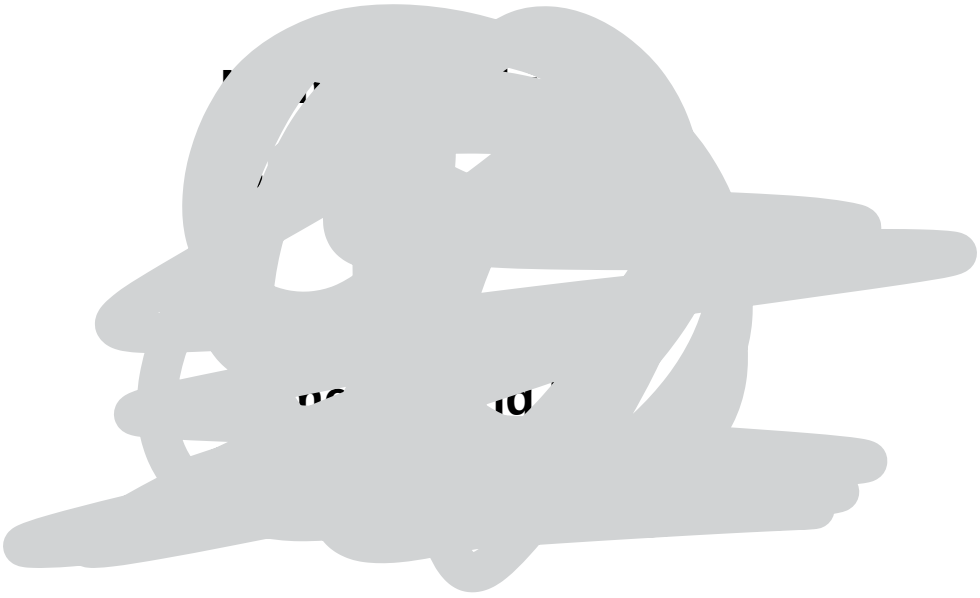
EE5124 Bioinstrumentation Design 2

Assignment 6



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Chapter 1 Design & Rationale

Note: All the functions worked well on the interviewer's phone, but some functions don't work on designer's phone. This is because different phones use different version of Android systems, so that some functions won't work on all phones.

1. The design/size of every page

Our design considered different phones screen, for instance, one of the participant's phone has a bottom bar all the time (as figure 1 shows), so we designed our app vertical proportion of 90% of the whole screen.

And also, we considered the front camera of phones, so we didn't put any elements on the top right hand corner screen. (as figure 2 shows)

Figure1

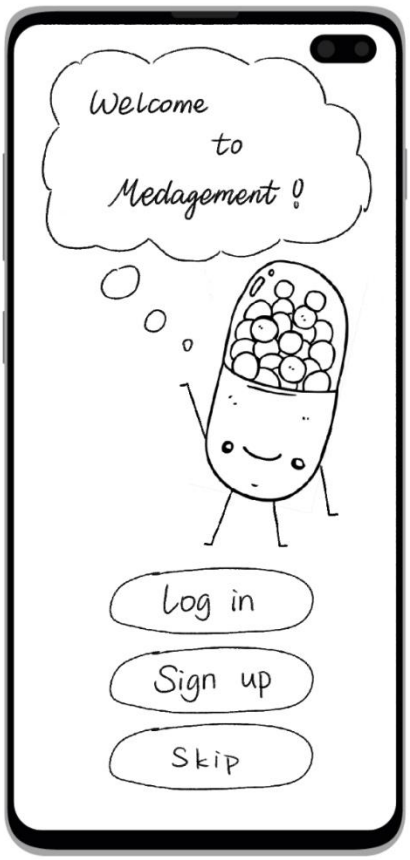


Figure 2

2. The design of Game and bug handling

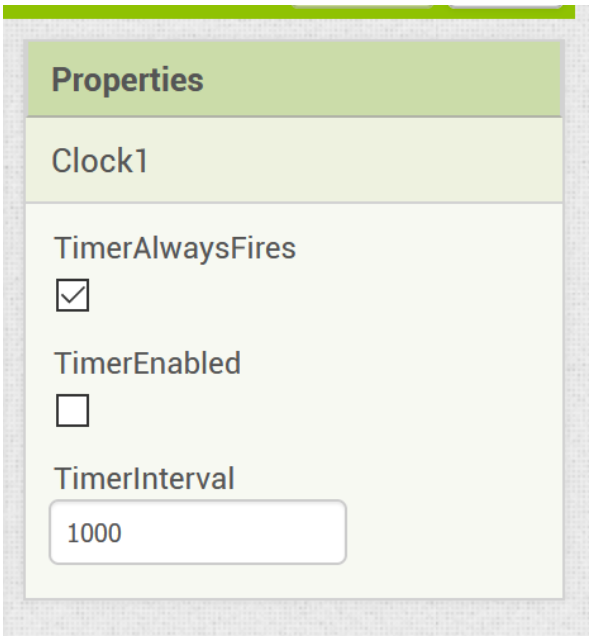
Design: There are 6 cards in our memory game, 3 pairs of animals. Users need to find out all the 3 pairs of animals by flipping the cards. If the user flipped a wrong pair, the wrong cards will face down again. When the 3 pairs of animals are found, users win.

Bug:

(Property setter was expecting a com.google.appinventor.components.runtime.Button component but got a IntNum instead.)

Solution:

Turn off TimerEnable. (https://community.appinventor.mit.edu/t/property-getter-was-expecting-a-com-google-appinventor-components-runtime-button-component-but-got-a-yaillist-instead/19964)



3. The design of recording diary

Design:

A speech recognizer is used on this page. After the Speech recognizer turns the user’s speech into text, the content is shown in the textbox above, this textbox cannot be changed by users. Users can choose to write a diary in the first textbox by themselves.

Fault:

The storage function does not work properly.

4. The design of Progress page

Design:

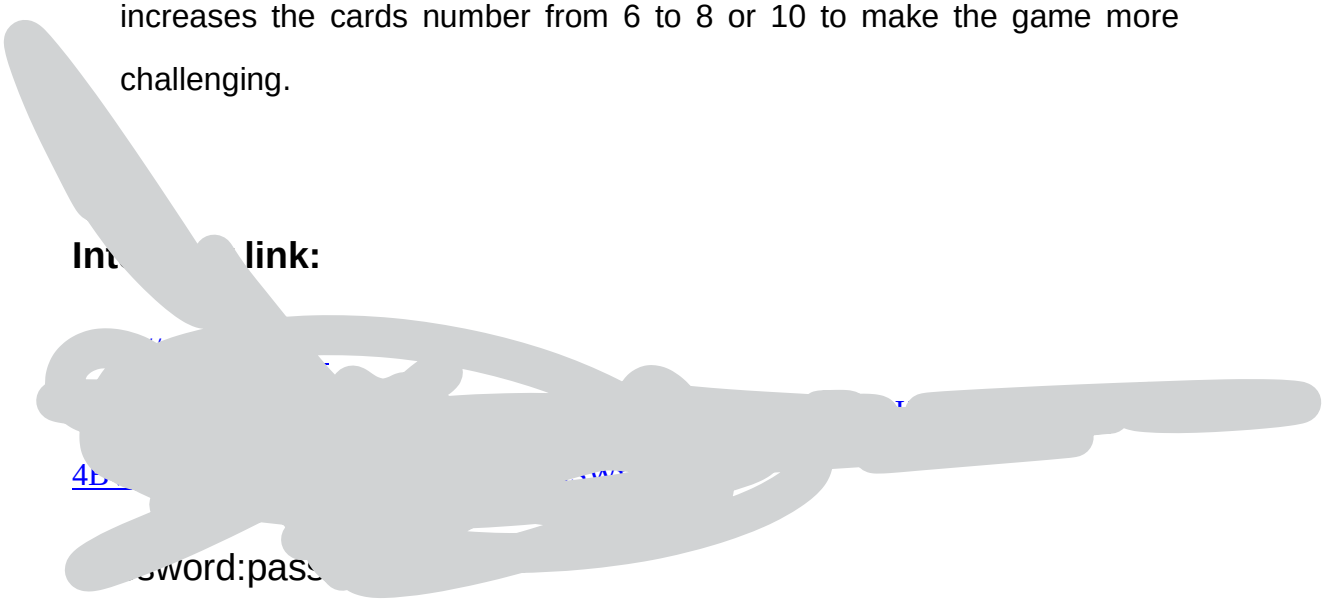
On the progress page, we designed a calendar and can change based on the chosen date.

Fault:

However, due to our lack of time and not much experience in MIT application development, we cannot fully implement this feature.

Chapter 2 User Feedback：

1. Users love the design of our APP because they feel involved in this app design and provide a lot of design ideas.
2. And users satisfied with most functions we designed and think they are useful.
3. About the game function, users think we can make it harder. For instance, increases the cards number from 6 to 8 or 10 to make the game more challenging.



Int link:

4B

sword:pas

Chapter 3 Reflection：

We interviewed users after the APP was developed. The feedback from our users has been very positive, and we have been praised and encouraged.

But, in general, the difficulty of the whole assignment 6 is very great. Although our group spent two weeks to develop MIT app, there are still many functions that are difficult to achieve.

However, our team members enjoyed the development process, enjoying the process of dealing with every bug and creating new things. The best thing about working in a team is that we can gather ideas when we run into obstacles. If we had more time for development, we believe our group could create a better App.

References Link:

[1] https://appinventor.mit.edu/explore/ai2/tutorials

[2]https://community.appinventor.mit.edu/t/property-getter-was-expecting-a-com-google-appinventor-components-runtime-button-component-but-got-a-yaillist-instead/19964

[3] Nielsen, J. (no date) Heuristic Evaluation Ten Usability Heuristics.

[4] Nielsen, J. and Molich, R. (1990) “Heuristic evaluation of user interfaces,” in Conference on Human Factors in Computing Systems - Proceedings. New York, New York, USA: Association for Computing Machinery, pp. 249–256. doi: 10.1145/97243.97281.

[5] Michie, S., Atkins, L. & West, R., 2014. The behaviour change wheel : a guide to designing interventions, S.I.]: Silverback Publishing.

[6] Abraham, C., Michie, S. and Psychology, H. (2008) “A Taxonomy of Behavior Change Techniques Used in Interventions,” *Psychological Association*, 27(3), pp. 379–387.

[7] Michie, S., van Stralen, M. M. and West, R. (2011) *Implementation Science The behaviour change wheel: A new method for characterising and designing behaviour change interventions.*