CS 12: Computer Programming II
Machine Problem II: Simon Says

1 Introduction

For this machine problem, you will be implementing the game *Simon Says* using gtkmm.

2 The Game

The computer will light up the colored buttons in sequence (only one to begin with) and play a series of tones (optional). You must then repeat what the computer did, pressing the buttons in the correct sequence. The game progresses by adding to the sequence every turn. The game ends when the player misses when repeating the sequence.

3 Implementation

In this machine problem, the minimum specifications for implementation are as follows:

- The GUI for the game must be implemented using gtkmm. No input (or output) must be taken from (or shown in) the terminal.

- The GUI must contain four buttons, and could be arranged similar to the image below:

- The GUI must show the current score of the player.

- The sequence of buttons to be clicked must be stored not in an array, but in a list.

- The game starts with just a single button to click in the sequence.

- The sequence must be displayed to the user by making the buttons light up (or 'blink'). The accompanying tone for the buttons is optional.

- The game progresses on every successful repeating of the current sequence. Each progress lengthens the sequence by 1 and increases the score by 1.

4 Bonus

Creativity will merit bonus points.

5   Deliverables

The following are the deliverables for this machine problem:

- Source code, images, and sound files
- Makefile
- Documentation using Doxygen
- Peer Evaluation (if applicable)

6   Deadline and Demo

The deadline of submission of complete deliverables is on **29 May 2015, 11:59pm**. The demo is scheduled the day after.

7   Notes

- You may only collaborate with your partner.
- Code plagiarism will be dealt with mercilessly.
- Follow all specifications. Non-compliant submissions will not be entertained.
- Any modifications to the specifications will be announced in the FB group. Check it regularly.
- As always, if you have any questions, you may consult with your instructors.

References

[1] Simon Says. *http://www.lilgames.com/simon.shtml*.