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# NotiBoard

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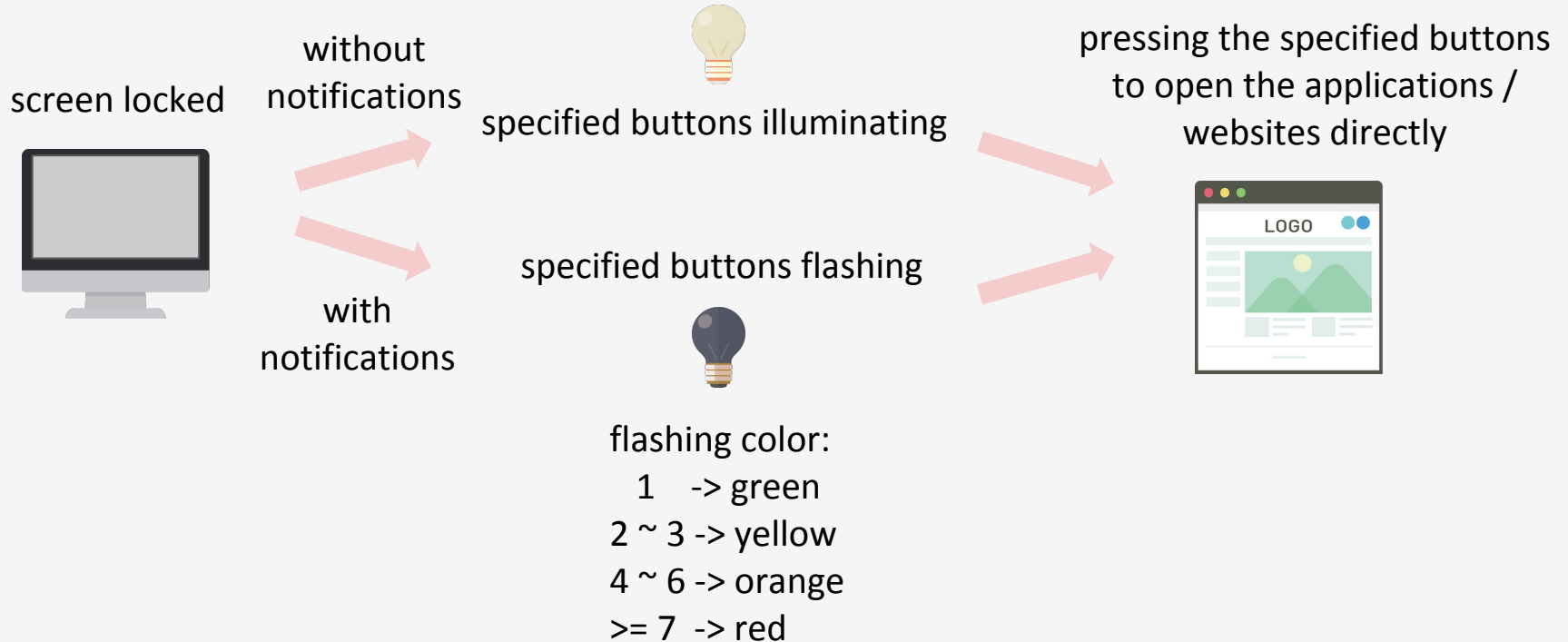
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# Motivation

- Smartphones can easily display new notifications the user receives.
- Mix this notification concept with an LED keyboard lighting effect.
- When the specific buttons **illuminate** in **lock screen** scenario  
⇒ Receive new notifications from corresponding applications.



# Framework



# Method - Keyboard Setting

button	function
F	Facebook
L	Line
S	Skype
M	Mailbox
W	Weather
I	Information Center
Y	Youtube
G	Logitech G Hub

Without notifications:

**LogiLedPulseSingleKey()**

-> buttons changing between two specified colors

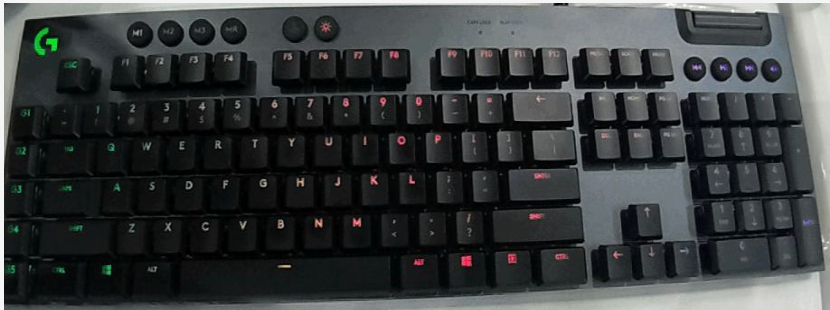
With notifications:

**LogiLedFlashSingleKey()**

-> buttons flashing to remind the user that there are some notifications

## Method - Screen Locked

1. Building a function **isDesktopAvailable()** to detect whether the screen is locked.
2. Before the screen locked: all the keyboards are illuminating in gradient colors  
After the screen locked: only the specified buttons are illuminating or flashing
3. After unlocking the screen, the keyboard could be used as usual, with illuminating in gradient colors.



## Method - Load Notifications

1. We developed a UWP app called NotiSend.
2. We use Microsoft API **UserNotificationlistener** to catch the toast notification data in Win 10 then send the information to NotiBoard.

# Difficulties

1. We originally want to use the Windows API in LED to get the toast notification. However, `UserNotificationlistener` requires a newer library version which the code Logic provides us doesn't support.

Solution: Write an extra UWP app to receive notifications and then send it to Notiboard.

2. The project is a DAEMON and would fetch the first press after the screen unlocked.



Demo



# Future Prospects

1. Connect the computer with a smartphone. Whenever there's an audio/video call, a specific button would be illuminated. Users can answer it by pressing the button.
2. Extending this function from the lock screen scenario. When user press G1 (or any preserved button), the notification illumination feature can display immediately.