

Project Budget

\$250 USD - \$750 USD (project must complete within the budget range)

Project Name

Information Banner (IB) – Desktop Application

Project Introduction

A cross-platform desktop application that that able to display a piece of simple information (in text form) with color (such as background, foreground, text, sound, and etc.) on top of a computer screen at all times (in docking mode at all time no matter plays a movie/game/full-screen application or not). The IB can report/receive a status/message from a central server defines by the I.T. department. The IB also can verify/active/deactivate a software license via our Software License Manager (SLM)'s RESTful API where SLM is part of a separate project.

Project Delivery Time

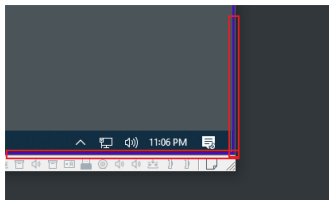
1 ~ 2 months due to COVID-19. (project must complete within the time range)

Project Requirements

UI

1. IB should come with a horizontal banner(bar) across the entire top screen AT ALL-TIME. where ALL-TIME means no matter user max any windows or max the movie, or play a presentation, this banner will display on top of the screen at all time.
2. IB should be able to display on multiple screens at the same time. (e.g. if the user has two monitors, IB should display on both of them one on each monitor)
3. IB should be able to dynamically adjust the width with the current resolution change.
4. IB will check the latest settings from SLM periodically. (e.g. in every 10 seconds depends on the software settings)
5. IB should come with 3 areas contain text located on this banner. e.g. left(A1), middle(A2), and right(A3) where A1 area display text is for current computer basic information, A1 area clickable action is to popup a window to display detail current computer information, A2 area display text is for notification, clickable action will pop up a user login window, then follow by a software setting window, and A3 area display text if for current software condition, A3 area clickable action will exit the program. User login verification will send via SLM's RESTful API.
6. IB should be able to reinforce to restrict total active software based on the SLM licenses assign to the current IB login account.
7. IB should come with a 5-10 pixel colored border across the entire screen as well. (see it on the picture below)

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8. In the A1 area is clickable that will display a computer information window after the user clicks on it. This window will close when user clicks anywhere else or click on the [X] button.



9. In the A2 area, the text should be able to blinking depends on the setting from SLM.
10. IB should come with an alert sound when A2 text is blinking based on the latest setting from SLM. IB will max the computer volume to play the alert sound. (e.g. earthquake warning is displayed in the A2, then there will be an alert sound off as well)

Functions

1. IB should be able to implement with a cross-platform language such as .Net MAUI (latest). e.g. Windows, and Linux.
2. IB should be able to display on top of ALL other programs **exclusively(docking mode/appbar mode)** at ALL TIME. where exclusively means no other application will be able to use any space that IB claims. (e.g. if the computer screen resolution is 1027px X 768px and IB height is 20px,

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the max height any other application can use is 768px - 20px = 748px)

3. A1 area should display current login user information and computer information. (e.g. company logo, company name, contact information, computer assets information, motherboard ID, CPU ID, OS Version, CPU model, RAM id, hard drive information, LAN IP, WAN IP, software license information).

4. IB should come with a software activation mechanism (single key string or volume key via an user login) via remote RESTful API or local license token or file that generates from SLM(from a separate project).
5. IB should contain an RSA public key swap with SLM via RESTful API for security purposes in case software security was compromised. where IB contains a Private Key(IBPvtKey) and a Public Key(IBPubKey). IBPubKey will swap with SLM PubKey via RESTful API provided by SLM.
6. IB should be able to load predefined fields/settings(e.g. color, text content, offset value, and etc.) from a local encrypted config file or via SLM's RESTful API.
 - a. SLM Remote Settings
 - i. IB will use SLM settings if and only if the internet is available at time.
 - ii. IB will sync with SLM for current settings via SLM's RESTful API if and only if the internet is available and if and only if sync setting option is on. (e.g. computer name, IP address, etc.)
 - iii. SLM settings will get high priority than the local settings. (e.g. if SLM's settings set the text color to red, and the local setting is green, then IB text should display as red color)
 - b. Local Settings
 - i. IB will use local settings with a config file if and only if the internet is not available at time.

Required Experience

1. Source Control.
2. Experience in any [Project Management System \(PMS\)](#).
3. Prior experience with Scrum is a plus.
4. Experience in making architectural recommendations is a plus.
5. Windows and Linux desktop application development/testing.
6. Experience in C# with .Net MAUI (latest) [**OR**] experience in C++ with Qt cross-platform framework.

Project Candidate Requirements

1. Ability to communicate clearly in English.
2. Dedication to meet project deadlines on time.
3. **We'll document all activities via our PMS.**
4. Attention to detail.

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