**Solution #1**

Develop a solution to capture images of an aircraft engine during the inspection process, categorise these documents and store them in a cloud database to support distribution.

Screen layouts

|  |  |
| --- | --- |
|  |  |

Screen 1 allows the user to capture an image of an engine component on their phone, document which ESN (Engine Serial Number), Category of document (e.g Inspection, damage), Type (e.g. Cowling, Fan Blade)

Screen 2 allows the user to specify an ESN, Category and/or Type. Once these are entered, the system will return the images for that entry. From here, the user will be able to select an image and present it in full screen mode.

Solution #2

Emergency Alert Application, this application will allow you to record one or more contacts to be notified in case of emergency and if you press the alert button then a text message is sent to your contact(s) giving your location and also possibly a description of the problem.

|  |  |
| --- | --- |
|  |  |
| This screen allows the user to record who they will sent alert messages to and also what are standard messages should be. | To send an alert, this screen is opened, the user clicks on one of the default messages and presses “Send alert”. This will send a text message to the user which will include a google maps link with the persons location. |

Solution #3 – EGT Margin Calculator

This solution works as an Exhaust Gas Temperature margin calculator. It uses standard lookup tables to calculate the condition of the engine and its eligibility to operate at different thrusts.

|  |  |
| --- | --- |
|  |  |
| In this screen, you enter the current details for the engine. When you submit, the app looks up a database reference table (taken from a service bulletin) and returns the allowable thrusts. It will also store the current EGT Margin | This is the result and shows you what thrusts and EGT Magin the eingine can operate at. The EGT margin must be positive. It also estimates the Time to Shop visit. |