**Report**

The Contract Manager is an app that manipulates the data of the client. According to the details of the client, this app creates, display, and find the data. Therefore, the data in the system should be protected. Since this app is often sued by the administrator panel there should be Authorization and Authentication. By ensuring that aspects the access for modifying, visualizing, or finding the data is granted if and only if the user who uses the app is authorized. By doing that we can ensure this data can be accessed by authorized people. To do that when the app is started the credential is asked from the user and if the user granted permission, then the user can use the app features. Since the data is written to the file system app should make sure that unwanted or malicious data not to be written to the file.

This app deals with the data of the client. Therefore, the privacy of data should be considered because these data cannot be seen by third parties. Therefore, a legal agreement should be provided to ensure that data privacy is provided by this app. Also, the ownership of the data is legal consideration. Also, what data is kept by the system and why do we need that data? Also, the system should provide CIA security aspects to the system. Also, there should be legal consideration of the confidentiality of the system. Also, if the app is crashed due to some reason data saved to the file should be protected without any modification until the system is back. To ensure the that we need to consider the validity of the app and give a certificate for the system. And should prove that no unauthorized users cannot see/ modify the data.

This app is dealing with customers’ data. Therefore, there must be a mechanism to ensure the confidentiality of the data. To minimize the risk data models such as the contract should have advanced methods such as encapsulation. By doing that private data of each object can be protected from unwanted access. To ensure confidentiality we can introduce a login and validation system to control the access to the methods which are dealing with the data.

In the prototype, all the main validation parts are implemented and work successfully. The prototype has several classes. App class is the class where the main method is implemented. And it calls the runApp() method f the Driver class. All the main 4 methods including exit are functionally working correctly for every input.

In the summary, this app is working functionally correct without any error. All the possible unit testing and integration testing is done, and they were successful through the implementation process.