## Coding Question: (Order Manager)

Assumptions:

1. I assumed Steps for logging in were not part of this task. Since I did not have access to the packages Uiowa.Common.ActiveDirectory, and UIowa.Login.Core.OIDC I had to comment out the packages and areas where they were used. I also do not have a HawkId so why the assumption.

Uncertainty:

I wasn’t sure how far to go with this. In a real environment I would expect to have the scope and requirements for the project allowing me to give a more complete response.

Status:

Project has a good initial Architecture using good practices to de-couple logic and data. Should make it easier for Unit Tests going forward. Few places had HARD coded values so would need further requirements to determine best results going forward. Login was not implemented fully so it did not have a value when trying to populate CreatedBy columns. I feel the project is a good start and can easily continue to add functionality. You can see more details in the Tests Section where I outlined the tests I performed.

Recommendations:

I would recommend adding some more abstraction over services to enforce consistent implementation. Added benefit would be the ability to have architectural unit tests, ensuring service implantation is being followed. Some defensive coding could be added as well. Every class is public might want to restrict some class to internal or sealed to protect against innocent coding mistakes.

Remedies:

1. Had to comment out the packages Uiowa.Common.ActiveDirectory, and UIowa.Login.Core.OIDC. I figured I don’t have access to the antifactory those exist in.
   1. Commented out code that used these packages. It all had to do with logging in to the app which I don’t have id’s or access.
2. In the Order Entity CreatedBy was being set to null, did not want to change the database as that seemed to a legitimate constraint. So I defaulted CreatedBy to NA.
3. The query to return orders there was a where clause over IsSystemGenerated(). That is not allowed in the entity query. The method only returned false, so was no real logic around this, so I commented it out. I would assume this should be a database column, especially if it is to be used in Database Queries.

Tests:

1. Tested all links (except Login see assumption) to make sure they worked. All links seemed to perform as expected.
2. Query Orders
   1. IsSystemGenerated was part of the where clause. Since it was just returning a hard coded false I commented out that logic. Further investigation is needed to understand how this will be used.
3. Added Orders
   1. Blank order descriptions were allowed. Since the database allows it, I left it. Just seems odd with limited data being collected.
   2. Added multiple orders to make sure the paging was working.
   3. Added description to check for more than 100 characters, the validation check worked.
   4. When adding CreatedBy was being set to NULL, it was required in the database so I defaulted to NA. Not the optimal solution, however need login to work to add a userid so needs addressed.