

DAILY JOURNAL

IMPORTANT INFORMATION

- INCLUDE TASK ASSIGNMENTS OR MOVEMENTS, REFLECTION ON THE DAY'S NEW LEARNING, ACCOMPLISHMENT, CHALLENGES FACED AND HOW YOU RESPONDED, OBSERVATIONS AND RECOMMENDATIONS ON THE IMPROVEMENT OF SYSTEMS / OPERATION / MANAGEMENT, ETC.
- SCANNED COPIES OF THIS FORM SHALL BE SUBMITTED ON A WEEKLY BASIS THROUGH APPROVED LMS.
- HARD COPIES OF THIS FORM SHOULD BE COMPILED AS PART OF THE STUDENT'S PORTFOLIO.

DATE	05/29/2023	AREA ASSIGNMENT	B&HI Segment RnD Department
TASK	Exploration of Libraries and Frameworks	SHIFT/TIME	8:27 AM to 5:39 PM

Since I already knew the transactions that are on the server that is not on the local terminal from the work I did yesterday, I now created the implementation of transferring these records. At first, I had a hard time as I had to query a lot of fields from the MSSQL database on the server and insert it into the MS Access mdb file on the terminal. To remedy this, I explored using an ORM or object-relational mapper for the query on the MSSQL database using Entity framework. I have used this in the past for ASP.NET Web Form and MCV web applications but have not tried using it for desktop applications. Exploring entity framework led me to easily query data from the SQL database on the server by using LINQ C# commands which use built-in functions for easy querying rather than having to mess with strings, command parameters, and stored procedures. For the MS Access file, I tried exploring the library dapper which is an ORM that works for mdb files, sadly I did not have much success trying this out and decided to stick to using the OLEDB built in library in C# for interfacing with mdb files.


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Malayan Colleges Laguna
A MAPÚA SCHOOL

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DATE	05/30/2023	AREA ASSIGNMENT	B&HI Segment RnD Department
TASK	Transaction Records Sync Initial Implementation	SHIFT/TIME	8:30 AM to 5:35 PM

Through my research and exploring different libraries or frameworks for ORMs, today I was able to create the initial implementation for the syncing of the transaction headers from the server to the terminals. Since the TransactionHeader table had a lot of fields, I had a hard time mapping it to the local mdb file and had to recheck the values multiple times to make sure the correct fields are being mapped. From there I was also able to create the initial implementation for the TransactionItems and TransactionPayment data. These are different from the headers in that one transaction header can have many items within that transaction and can have multiple types of payment like cash and card. From there I ran multiple tests and confirmed the mapping of the tables to be correct. Although I have to confirm some of the fields to my supervisor that is not seen on the server but are present on the terminal.



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DATE	05/31/2023	AREA ASSIGNMENT	B&HI Segment RnD Department
TASK	Refactored Transaction Records Sync Implementation	SHIFT/TIME	8:29 AM to 5:49 PM

Today I refactored my initial implementation for the transferring of files from the server to the terminal for the transaction header, items, and payments. My initial implementation was a bit sloppy, and my sole goal yesterday was to get it to work. Today I improved upon my implementation by removing any redundancies and efficiencies I see on my code.


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DATE	06/01/2023	AREA ASSIGNMENT	B&HI Segment RnD Department
TASK	Develop Sync Transaction Records	SHIFT/TIME	8:16 AM to 5:46 PM

Today I first added sorting of records to be transferred by transaction id, this is so that the records being transferred from the server to the local terminals are by order. Next, I then added a progress bar in order to inform the user of the progress of the transferring of files, this is especially needed when large amounts of data are processed. Next, I improved the UI as so far, I was only working on the functionality of the form. I used the colors of the POS terminal software and fixed the size of the controls.

In the afternoon I refactored and improved my implementation for checking for differences between the records. Rather than checking the transaction ids right away, my supervisor told me to check the number of records first, if the records on the server were higher than that of the local terminal, that is only when the records to be transferred will be checked and fetched.


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DATE	06/02/2023	AREA ASSIGNMENT	B&HI Segment RnD Department
TASK	Improve Sync Transaction Records and Present Progress	SHIFT/TIME	8:22 AM to 5:42 PM

In the morning I fixed the transaction tables mapping that I overlooked. I added getting the salesman and bagger data by getting using their ids in the record and fetching their respective tables. Next I converted all of the SQL database commands that were using strings and parameters to the Entity Framework and querying data using LINQ. This allows for a more robust and easier way of fetching data.

After lunch I had a meeting with my supervisor to show my progress and he approved of my output but had a few feedback that I needed to change. First, I added a confirmation before starting the transfer of the records, this is so that the support person in charge could double check the records that will be transferred before the operation will begin. Lastly, I updated the user interface to match the rest of the Barter point-of-sales terminal user interface design.



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