

Capstone 2 Project	Warehouse Management System	Giovanni Hasbun-Prinstein, Juliana Prankevicius, Megan Wee Tom
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Chapter 2 - IN-DEPTH LIMITATIONS ANALYSIS

Shortcomings

Throughout the project there were some basic issues and extraneous factors that got in the way of the overall product. For, there was a breach of security that led us to lose a lot of progress in the mid term of the project's production. This led the team to change the code language from Python to C# for writability ease and development speed due to previously having worked with C# in extents greater than that of Python.

Besides a breach of security setting us back, our team experienced some minor implementation issues such as implementing individual pages per category. In the program, there is a category drop-down box, and in the C#-language it is called a "combo box". This combo box allows the user to select a table of said name that they can manage straight from the cells of the table, being able to save or delete the entirety of the row, but never column.

Budget was also of issue, we did not receive any budget and as a result we were unable to ethically pay out of pocket to develop and deliver a product out of our own financial deficits.

Other issues we found were time management. The project became a heavy assignment throughout each sprint due to the time constraint. Time constraints resulted in massive workloads for students as we progressed the project. We also had materials to go through for various classes the team was taking simultaneously. This led to some things being possibly overlooked and code possibly being more complex.

1.1. Security Breach Issue

Databases are far more complicated than it meets the eye, the premise of a database is to keep valuable information for a company to manage and determine the best for a customer or a client in most cases. This means that various sensitive data could be in each table. Customer names and emails, possibly even password

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and usernames. Some cases, identities and credit card information can be stolen and through the project though it was a shortcoming of sorts as it affected the allotted remaining time, it also taught the team that security is key when it comes to projects such as these. Mostly can be avoided using cloud database systems like Azure by Microsoft.

1.2. Implementation Errors

Implementation-wise the issues we had with time constraints led things to be possibly poorly optimized and possibly leaning towards having to maintain more extensively. This can lead to some errors also being in the code that may need further debugging. The team recommends another team to take up the project to polish and create employee account features as well as role features and communications to the project manager app for the company.

1.3. Budget Limitation

For this product there were massive budget limitations. The effective budget was \$0.00 as this was a school project and assignment by Capstone 2 professor Masoud Sadjadi. Our limitations led to programs like Azure to not be possible to use, as the offline ‘free’ version of the program had major connectivity issues to our program, leading us to make a free local database on our system.

1.4. Time Constraints

A security breach caused major time constraints on an already time-intensive project. Product Owner Aydin Danaci also was under the impression that the project would be worked on consecutively for a year’s worth of school, being a 2-semester project term. This was not the case as we had one semester’s worth of time to work on this project and as a team had limited time to do what was planned, which was not realistic for the time allotted truly was. This was later fixed but still created some fairly unforgiving time constraints which we

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managed to work out for the most part, leaving fairly small effects on the project itself.

1.5. IN-DEPTH LIMITATIONS ANALYSIS SUMMARIZATION

1.5.1. Security Breach Issue

- Security breach created a disparity in time allotted and further increased issues with time. This also as a result affected implementation and was a result of low budgeting due to not being able to use more secure means like Azure's cloud.

1.5.2. Implementation Errors

- Implementation had difficulties as a result of other limitations and possibly could lead to needing debugging and further progress by other teams

1.5.3. Budget Limitation

- Azure systems and some other systems were not possible to use due to its costly value for what was in criteria for the program.

1.5.4. Time Constraints

- Time was an issue as it was a semester's workload, planned to be a workload for a year until PO was informed that the time allotted was half of what was expected.
- There was not much time to add more functionalities for quality of life and may require further expanding on and work.