

Project Description

*AceMarket Business Enterprise Platform*

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**Company**

AceMarket

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# Background Description

AceMarket is a local retailer based in Horsens and they run a family type business and AceMarket’s aim is to provide local grown products to their customers. They have succeeded meeting the market demands and at the moment expansion is expected to happen. Despite AceMarket’s commercial success, they are facing internal challenges and a re-organization of the company’s working methods is needed in order to increase efficiency and profitability of their business.

AceMarket consists of three structures (to be known as entities or actors): the warehouse, the retailer and the headquarters. The warehouse provides inventory and delivery of products where the retailer is providing inventory and sales operations. The headquarters is in control of these two structures, as it manages their operations.

A key factor of AceMarket’s lack of efficiency is their inability to store and process data accurately. As it has been reported, the company’s stock inventories are being done over multiple Excel spreadsheets which lead to inaccurate stock inventory. Also, as for sales operations, they are using an outdated system that does not provide any insights of purchases or consumer behavior. Therefore, AceMarket headquarters cannot do any predictions or business planning on long term.

For these reasons, AceMarket have requested an interconnected system that would allow them to have a general overview of their current affairs but also to be able to have data processing tools in relation to their inventory stocks and sales operations.

The system will be able to perform analyses on the data, keeping track of minimum and maximum stock, the acquisition rate of individual items for every retailer and the expected stock needed for all retailers over a period.

# Definition of purpose

The purpose is to create a system that will provide data stocking and processing tools on the company’s inventory stocks, sales operations and current affairs to help manage stock between warehouse and retailer.

# Problem Statement

The project focus is to create a platform that can input, stock and process data so that each business unit can function efficiently with a reduced margin of errors. The system must be able to manage all the data related to stock inventory, logistics and sales, and perform analyses on the data.

## Main question

* What kind of integrated system AceMarket needs and to which dimensions this system could expand?

## Sub-questions

* What is needed in order for the data to be stored, and what methods would organize and manage the data?
* What kind of data analyses the system needs to perform?
* What does the system need to do to manage the stock?

# Delimitation

* Invoicing system will not be implemented.
* The system will not be accessed by external entities.
* The system will only be accessed by Java application on computer.

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# Choice of model and methods

|  |  |  |
| --- | --- | --- |
| What  Partial problem | Why  Why study this problem? | Which  Which models/theories are expected to be used to solve this problem |
| What is needed to be created in order for the data to be stored? | To successfully manage the company’s data and processes. | Relational database and a Java model |
| What methods would organize and manage the data? | Important factor to make the system work. | Combining java methods with SQL queries |
| What kind of data analyses the system needs to perform? | It is essential to discover useful information and evaluate important data | Mathematical models |
| What kind of relations the databases will have? | To keep data integrity | Follow normalization steps until at least 3rd normal form . |
| What kind of data modelling the system will use? | To separate development of the business logic, GUI and view model. | Following the MVVM pattern architecture |

# Time schedule

# Risk assessment

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Risks | Description | Likelihood  Scale: 1-5 | Severity Scale: 1-5 | Product of Likelihood and Severity | Risk mitigation | Identifiers | Responsible |
| Risk 1 | Lack of time before hand-in | 4 | 4 | 16 | Respect the time schedule and deadlines | Stressed to meet the deadlines | Jaume |
| Risk 2 | Steering off course | 5 | 3 | 15 | Regular meetups to discuss our previous and future work | Misunderstanding short-term and long-term objectives of our project | Dave |
| Risk 3 | Increasing the complexity of the project | 4 | 4 | 16 | Follow the group decision on the objectives of the project | Workload increasing from normal standards to advanced standards | Florin |
| Risk 4 | Lack of knowledge | 5 | 3 | 15 | Research, study group and meetings with the supervisor | One or more members having problems implementing the solutions | Kenneth |
| Risk 5 | Lack of motivation and focus | 4 | 4 | 16 | Teambuilding activities (breakfast/lunch/ beer meetings) | One or more members not being mentally present during the work sessions | All members |
| Risk 6 | Isolating the group from external help (supervisor, librarians or other groups) | 5 | 3 | 15 | Asking for help or advice | Getting stuck in a problem and creating a time debate out of it | All members |
| Risk 7 | Conflicts between group members | 5 | 3 | 15 | Teambuilding activities (breakfast/lunch/ beer meetings) | Time consuming debates about non-project related issues | Florin |
| Risk 8 | Group members missing team meetings | 5 | 3 | 15 | Respect the Thursday Project Day meetings and meetings set by the group | One or more group members missing to communicate and justify their absence | Jaume |

# References

VIA UC, 2019. *Project Guidance: Studynet.* [Online]   
Available at: https://studienet.via.dk/projects/Engineering\_\_project\_methodology/General/Guidelines/2018%20Project%20Description%20(Appendix%201)%20VIA%20Engineering%20Guidelines.pdf