

Project ID : R25 - 062

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Component : Suggesting the Best Location and Space optimization.

Summary of the RP work carried out during the Initiation period.

Date	RP work.
10/12/2024 - 17/12/2024	Research background on the warehouse management systems and modern storage optimization.
17/12/2024 - 24/12/2024	Selected the topic 'Finding best location to store and optimize the shelf space'. Collect initial ideas and reasons.
24/12/2024 - 31/12/2024	Identified main research problems and formed research objectives and scope.

31/12/2024 - 07/01/2025

completed project proposal draft and finalized the structure for the do the project.

07/01/2025 - 14/01/2025

conduct feasibility study on warehouse optimization techniques and reviewed related works.

Summary of the RP work carried out during the planning phase.

Date .	RP Work .
14/01/2025 - 21/01/2025	Analyzed technical requirements such as data inputs, warehouse parameters and constraints.
21/01/2025 - 28/01/2025	Created an initial project plan and the timeline and work -

28/01/2025 - 04/02/2025.

Performed detailed requirement analysis for warehouse layout data and optimization criteria.

04/02/2025 - 11/02/2025

Identified possible risks in implementation and planned methods.

11/02/2025 - 18/02/2025

Prepared the final schedule including milestones and deliverables.

18/02/2025 - 25/02/2025

Organized all gathered information and finalized planning documents for the next phase.

Summary of the RP work carried out during the Design phase.

Date	RP WORK
25/02/2025 - 04/03/2025	created usecase diagrams to understand system interactions and main functionalities.
04/03/2025 - 11/03/2025	Designed diagrams for database structure to product and storage data.
11/03/2025 - 18/03/2025	Built system architecture diagrams showing module connection and data flow.
18/03/2025 - 25/03/2025	Finalize the design plan and organized for development phase .
25/03/2025 - 01/04/2025	collected data about products , shelves and warehouse

01/04/2025 - 08/04/2025	Prepared the data to test how different storage arrangements could improve space usage.
08/04/2025 - 15/04/2025	Analyzed the gathered information and compared different layout ideas.
15/04/2025 - 22/04/2025	Completed the design and documentation needed to start building the system.

Summary of the RP work carried out during the Development phase.

Data	RP work
22/04/2025 - 06/05/2025	Begin the work to find the best location for storing items.

06/05/2025 - 13/05/2025

Tested the first version
of the method with the
sample data.

13/05/2025 - 20/05/2025

Adjusted the method to make
it more practical and
effective.

20/05/2025 - 27/05/2025

Finished the main version
of the finding the best
location..

27/05/2025 - 03/06/2025

Tested how well the system
detect the best location
according to the different
products.

03/06/2025 - 10/06/2025

Start the development on the
shelf optimization. (selected
shelf)

10/06/2025 - 17/06/2025	Do the first testing on the self optimization using the dummy data.
17/06/2025 - 24/06/2025	Recorded the results and tested for further more different variations to see the system workings.

Summary of the RP work carried out during the Implementation & Testing.

Date	RP work.
24/06/2025 - 01/07/2025	Tested how well the system use both best location & shelf space in different layouts.
01/07/2025 - 08/07/2025	Improve the calculations to make the optimization more accurate.

Atlas

08/07/2023 - 15/07/2023

Compared the results of shelf optimization to check the space saved.

15/07/2023 - 22/07/2023

Completed the full shelf optimization with the tested results and interpret it visually.

Summary of the RP work carried out during the development interface.

Date	RP work
22/07/2023 - 05/08/2023	Organized the storage data and created a simple layout display for easier understanding.
05/08/2023 - 12/08/2023	Got an idea to make the empty space optimization.

12/08/2025 - 19/08/2025	Develop- Start developing and modifying the self optimization to empty space also.
19/08/2025 - 26/08/2025.	Tested the empty space shelf optimization successfully and optimized it further.
26/08/2025 - 02/09/2025.	Implemented the comparision also to the system and make the testing .

Summary of the RP work carried out During the Final Testing and the Refinement .

Date	RP work .
02/09/2025 - 09/09/2025.	Combined all part of the System to one complete version .

09/09/2025 - 16/09/2025.

Tested full work to ensure the system run smoothly. Also measured the final improvements in space efficiency.

16/09/2025 - 23/09/2025.

Finalized the best location shelf full and empty space optimization & comparision model for the project.

23/09/2025 - 01/10/2025.

Adding comparision graph and visualization outputs to finalize the system.

01/10/2025 - 08/10/2025.

Start on the working on the report and research paper up to new version.

Summary of RP work carried out during
the completion and finalization stage.

Date	RP work .
08/10/2025 - 15/10/2025	Done the research paper editings and submissions .
15/10/2025 - 20/10/2025	Completed all the reports Submissions and enhancements in the system . Completed the presentation .
20/10/2025 - 27/10/2025	Presented the final project and conducted the viva session and concluded the research

supervisor's signature : M.T.C.R.....

Date : 2025/10/31.....