

Working time optimization for manufacturing machines

A web application that facilitates the weekly planning of specific operations during manufacturing process, and monitors the plan execution.

Overview _

Client:

Manufacturing company
> 1000 employees
Romania

Business case:

- + Plan the manufacturing of complex articles
- + Implement "ready to build" concept
- + Optimize machine loading on the workshop floor

Industry _

- + Manufacturing

Services _

- + Product development

Project type _

- + Web

Technology _

- + Angular
- + Typescript
- + Java
- + SpringBoot
- + JPA
- + MySQL
- + HTML
- + CSS

Description _

A web application that maximizes the loading degree of the production machines. Because the machines are very expensive, the plant manager has to keep them busy. Therefore, the application facilitates the weekly planning of the specific operations of a given manufacturing process and also monitors the execution of the plans.

Challenges _

Developing a software product from scratch, based on client's needs and specifications, needs a lot of unstructured exploration. We boarded this manufacturing-related software product with several challenges:

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- + Allow the workshop floor operators to interact with the application without the presence of a workstation.
- + Display all the critical data in a single comprehensive page.
- + Define new complex products along the way, based on existing data.

Solutions _

We met client's high expectations with a series of cross-technology solutions:

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- + Optimize the user interface for tablet access.
- + Implement a dashboard with an integrated Gantt chart, to visualize critical information at once.
- + Add an import utility to integrate product structures defined in Excel.