

1 Project Charta

1.1 Problem Definition

Formulate the problem and important information about the domain and/or business area in which the product is to be developed: What exactly is the problem and the expected benefit of the project? Why should we undertake this effort?

This includes a summary of the most important findings from the user analysis: relevant segments and user groups. Describe the problems and needs of the users of the product to be developed.

Stakeholders: List the people involved in and affected by the project. Describe their goals and relationships with each other. Visualisation in the form of a stakeholder map can provide a quick overview.

You can reference more detailed analyses such as individual “personas” or interviews in separate documents in the appendix.

1.2 Situation Assessment

Describe the available resources (personnel, material, (software) tools, infrastructure, etc.) and time as well as restrictions and constraints. Possible risks that may arise during the project are also identified.

1.3 Project Goals and Success Criteria

When is the project successful from a client/stakeholder perspective: Formulate (qualitative) objectives, wherever possible, corresponding key metrics and the target values to be achieved within the project.

It is also often helpful to specify what is explicitly excluded from the project objectives (out of scope).

1.4 Data Mining Goals

Map the problem definition, datasets to be used and primary objective onto a data mining task, e.g.:

- Classification
- Regression
- Clustering
- Outlier Detection
- Association rule learning (market basket analysis)
- Recommender System
- Visualisation
- ...

Along with the definition of the actual technical problem (category) to be solved, the project goals must be mapped onto suitable quantitative metrics and corresponding target values. For example, for a classification task one might specify an *F-score* of 0.9 as a minimal requirement for an acceptable solution.

Such a requirement should be aligned with the overall project goals and/or literature references or justified by other references, respectively.

1.5 Project Plan

Divide the project into individual phases, describe them briefly and draw up a preliminary timetable, e.g. as a Gantt chart:



Figure 1.1: Project Plan

See [Mermaid syntax for Gantt charts](#). It might not be displayed correctly in Safari → use Chrome. [Live editor with export functionality](#)

```

gantt
    title A Gantt Diagram
    dateFormat YYYY-MM-DD
    tickInterval 5day
    section Project Understanding
        Define problem,      :a1, 2024-07-01, 1d
        Determine project goals :a2, 2024-07-01, 1d
        List available resources :a3, 2024-07-02, 1d
        Set data mining goals :a4, 2024-07-03, 1d
        Create project plan :a5, 2024-07-03, 1d
        Project checkpoint: milestone, m1, 2024-07-04, 4m
    section Data Acquisition and Exploration
        Acquire data :a6, 2024-07-02, 2d
        Exploratory data analysis :a7, 2024-07-03, 2d

    section Modelling
        Create initial model :a8, 2024-07-09, 1d
        Additional feature engineering :a9, 2024-07-10, 1d
        Prepare modelling report :a10, 2024-07-10, 2h
    section Evaluation
        Prepare presentation :a10, 2024-07-10, 2h
        Project presentation : milestone, m2, 2024-07-11, 4m

```

1.6 Roles and Contact Details

List the people involved in the development work here with their role titles, tasks and contact details