

Project assignments

Marcel Bollmann

Introduction

This document contains instructions for the project assignments in *Language Technology*. The course is co-taught as **729G86** and **TDP030**; the information in this document applies to both course codes equally.

Contents

1	Project structure	2
2	Deliverables	3
2.1	D1: Group contract	3
2.2	D2: Project plan	3
2.3	D3: Project title and abstract	4
2.4	D4: Project presentation	5
2.5	D5: Peer feedback	5
2.6	D6: Post-project paper	6
3	Guidelines for the post-project paper	7
3.1	Part 1: Describe your work	8
3.2	Part 2: Examine your experience	8
3.3	Part 3: Articulate your learning	9
4	Assessment	9
4.1	Project complexity and presentation (D4)	9
4.2	Post-project paper (D6)	10
4.3	Final grade	11

1 Project structure

The project's main purpose is to put you in a position to *make judgements about the difficulty and feasibility* of applications of language technology (learning outcome 4). A secondary goal is to allow you to deepen and apply the knowledge you have acquired in the course.

The project should be carried out in groups of approximately 6 students. The minimal project looks as follows:

- Choose an application of language technology.
- Choose a concrete system that implements the chosen application.
- Evaluate the chosen system with respect to relevant properties.
- Draw conclusions about the difficulty and feasibility of the chosen application.

More advanced projects will typically involve more elaborate evaluations (system comparisons or user studies) and/or own system development. When you choose to do system development as part of your project, consider using libraries such as scikit-learn and spaCy rather than coding your own solutions from scratch. Recall that the project purpose is to let you assess the difficulty and feasibility of language technology applications, not merely build or evaluate a specific system.

Choice of topic You can freely choose both the application area and the specific system that you want to investigate. To get some inspiration for the choice of your project topic, you can have a look at the abstracts of previous projects on the course website.

Time requirements The project runs for the full course, but most work is concentrated during the project weeks. When you plan your time for the project, you should calculate approximately 53 hours per group member; i.e., 318 hours for a group with 6 members. Here is a suggested breakdown of this time into concrete tasks:

- **10 hours** for project preparations
- **33 hours** for the most intensive part of the work during the project weeks
- **2 hours** to participate in the project presentations
- **8 hours** for the post-project paper

2 Deliverables

Throughout the project, you will have to produce six *deliverables* (D1–D6), which are designed both to keep you on track and to give you feedback on your progress. This section contains detailed information about these deliverables. For the exact due date on each deliverable, please refer to the course website and/or Lisam.

2.1 D1: Group contract

As a first step, you will form your project group. You will receive more information on how project groups are formed during the “project introduction” session in the first week of the course.

After formation, your group is required to make a *group contract* that will govern your collaboration. The contract should spell out the behaviours that you expect of all group members, and procedures for resolving impasses in the group. Specific questions to think about include:

- How will we communicate with each other? At what times?
- How often and where will we meet?
- How will we make sure that our meetings are productive?
- What will we do if somebody does not show up at a meeting?
- What will we do if somebody breaks any rule set out in this contract?

Instructions

Make a group contract and have it signed by all members of the group. Include both the name and the LiU-ID of each group member. Scan the signed contract and submit it as a PDF document.

Upon receiving your group contract, we will assign you a *group ID* that you should use in future submissions.

2.2 D2: Project plan

During the first weeks of the course, your group should meet at least once a week to plan the project. At the end of this phase, your group is required to hand in a *project plan* that should answer the following questions:

- Which application of language technology do we want to investigate?
- Which specific system do we want to evaluate?
- How will we interact with the system? (*For example, is there a web interface, or do we have to run a program?*)
- How will we evaluate the system? (*What are our evaluation criteria and our evaluation method?*)
- How much system development will we need to do?
- How much annotation work (production of data) will we need to do?
- How will our project serve its purpose? (*Make a connection to the learning objective.*)
- Who will be responsible for what in the project?

Instructions

Write a project plan answering the above questions and submit it as a single PDF document.

Feedback You will get feedback on your project plan from the examiner. You can use this feedback to understand to what degree your planned project meets the assessment criteria for project complexity and presentation (see Sec. 4.1).

2.3 D3: Project title and abstract

At the end of the project weeks, your group is required to submit a *title* and a *short abstract* for your project. The abstract should summarize what you have done in the project and your main results. The purpose of the abstract is to announce your presentation ahead of the “mini-conference.” To get some inspiration, you can have a look at the abstracts of previous projects on Lisam.

Instructions

Come up with a title and prepare a short abstract for your project (one paragraph, max. 200 words). Submit this information via the instructions on Lisam.

2.4 D4: Project presentation

In the week following the project weeks, your group will *present your project* at the course's "mini-conference." You are allotted a 15 minute time slot for this presentation, plus 5 minutes for feedback (*see below*). You are free to choose the presentation's content and structure, but you should remember that the presentation needs to be understandable to everybody in the course.

In preparing the presentation, you may want to consider the following questions:

- What was this project about? Why did you choose it?
- Which application or system did you choose to study?
- How does the system that you studied work?
- How have you evaluated the system?
- What are your conclusions regarding the difficulty and the feasibility of the language technology application?

Instructions

Present your project, following the instructions above. The language of the presentation is English.

The mini-conference will take place on different days during the examination week for the course. You only need to attend the session at which your group is presenting (and giving peer feedback).

The examiner will assess your presentation according to the criteria spelled out in [Sec. 4.1](#). **This assessment will contribute to your grade for the project module.**

2.5 D5: Peer feedback

In addition to giving a presentation, your group will provide *oral feedback* on another group's presentation. Your feedback should clarify which aspects of the presentation you found most interesting and which parts you believe can be improved. Each member of your group should be in charge of a specific task:

1. Summarize the presented project in at most three sentences.
2. Presentation of the system: Which parts were clear? Which parts could be made even more clear?

3. Presentation of the evaluation: Which results were most interesting? Which other aspects could be evaluated?
4. Presentation technique: What worked well? What could be improved?
5. Based on the presentation, draw your own conclusion regarding the difficulty and feasibility of the chosen application.

Instructions

Distribute the tasks among the group members and give feedback according to the task descriptions at the mini-conference. All feedback should be constructive.

2.6 D6: Post-project paper

The final project-related assignment is an *individual reflection paper*. The purpose of this assignment is to allow you to reflect on what you have learned from the project. We require you to structure your paper into three parts, where you (a) *describe* your work, (b) *examine* your project experience, and finally (c) *articulate* your learning. These parts are described in detail in Sec. 3.

In addition to the paper itself, we ask you to also submit a *self-assessment form*. The information in this form will allow us to provide more relevant feedback, by focusing on aspects where our own assessment deviates from yours. The form also provides you with an opportunity to vet your paper against the assessment criteria.

Instructions

Write a paper according to the given specification. The paper length should be around 1,500 words (approximately 3 pages). Submit your paper as a single PDF document via Lisam. Please also submit the self-assessment form.

The examiner will assess your paper according to the criteria spelled out in Sec. 4.2. **This assessment will contribute to your grade for the project module.**

3 Guidelines for the post-project paper

For the post-project paper, you are asked to write a *reflection paper* on your project. A reflection paper is an academic essay where you reflect on a course experience. To “reflect” here means that you critically examine your experience and explicitly articulate what you have learned.

Why write reflection papers? Writing a reflection paper offers you the opportunity to process an experience and think about how it has helped your learning. It also trains your analytical skills, as it requires you to link your experience to your existing knowledge. For the examination in this course, a reflection paper is a means to assess to what extent you have achieved a learning objective.

How to write reflection papers? There are many ways to write reflection papers, but for this assignment, we require you to structure your paper into three parts:

1. **Describe your work.** What was the project about, and what was your part in it? Focus on things that let you illustrate what you have learned.
2. **Examine your experience** and link it to relevant course concepts.
3. **Articulate your learning.** What did you learn? How, exactly, did you learn it? Why does this learning matter?

Submissions that do not clearly follow this structure may be returned to you without assessment.



General writing tips

- *Keep it concise.* The suggested length of this paper is ca. 1,500 words or 3 pages of text, which means you will have to select what (and what not) to describe and analyze.
- *Make it understandable.* Imagine that you are writing for a fellow student who is not in the course. Explain technical concepts.
- *Treat it as a piece of academic writing.* Use academic language, structure your text into logical paragraphs, and check your spelling and grammar.
- *Plan ahead.* A good reflection paper takes time to write. The estimated time to invest for this paper is ca. 8 working hours. Make sure to reserve that time in your schedule; don't wait until the last minute!

3.1 Part 1: Describe your work

In this part, you should describe your project experience in an *objective* and *fairly detailed* way. Start by giving a brief summary of what the project was about, before describing your own role and experiences in it. You might want to think about the following questions when writing this part:

- What was the project about? Why did you choose it?
- How did you prepare yourself for the project? What sources did you consult?
- What was your role in the project? What were the roles of the others?
- If you wrote any code, what exactly did you implement? If you performed any experiments, what results did you get?
- What feedback did you get during the project and at the project presentation?



Tip: What you write should be relevant for the learning objective. Don't include every minor detail; focus on aspects significant for your learning.

3.2 Part 2: Examine your experience

In this part, you connect your work to the course content and critically examine your project experience. You should consider at least the following questions:

- What specific concepts and skills (from the course or from any additional reading you did) were relevant to your project? Explain those concepts and skills so that a fellow student who is not in the course can understand them.
- How exactly did you use these concepts and skills in the project?

For a higher grade, you should additionally address one of these more advanced questions:

- How did the project experience affect, change, or enhance your understanding of the course content?
- Was your understanding of the course content and any additional reading adequate, or did the project uncover some understanding that was still lacking?
- Given what you know now, how would you do the project today? Why?



Tip: Review your materials related to the project and think about what you found especially interesting, surprising, or hard.

3.3 Part 3: Articulate your learning

In the last part, you summarize your reflections by explicitly articulating what you have learned. You should address all of the following questions:

- What did you learn? Don't just state specific facts; focus on concepts and skills that are relevant to the course content.
- How exactly did you learn it? Refer back to specific details in the previous parts.
- What value does that learning have for you, and how will you use it?



Tip: Consider how your project experience has helped you achieve the learning objective for the project module, “*be[ing] able to judge the difficulty and the feasibility of language technology applications.*”

4 Assessment

This section describes the exact assessment criteria for the deliverables that contribute to your grade, as well as how your final grade is computed.

4.1 Project complexity and presentation (D4)

Passing requirements These are the minimum requirements on your project's complexity and presentation to receive a passing grade:

1. Your project represents an appropriate amount of work for this course.
2. Your presentation is clear about the method, results, and analysis, so that any student in the course would be able to follow.
3. The methodology and analysis is correct and appropriate for the chosen topic.

Requirements for a higher grade For a higher grade, you need to fulfill all the criteria given above for passing, and additionally fulfill the following:

1. Your project goes beyond what has been covered in the course, and contains more ideas, results, and/or analyses than expected.
2. Your presentation is very clear and pedagogical, so that even students who did not take the course would be able to follow.
3. Your conclusions are convincingly supported by proper experiments, comparison to related work, and/or a good discussion of limitations of your approach.

4.2 Post-project paper (D6)

Passing requirements These are the minimum requirements on your post-project paper to receive a passing grade:

1. The paper needs to be clearly written, with appropriate language and use of terminology.
2. You give a clear description of the project idea, its main results, and your role in it.
3. You connect the work you did in the project to relevant concepts and skills from the course, and explain them so that a student not in the course could understand them.
4. You clearly describe what you learned, how exactly you learned it, and how this is relevant to the learning objective.

Requirements for a higher grade For a higher grade, you need to fulfill all the criteria given above for passing, and additionally fulfill the following:

1. You refer to reading material or other sources outside the course that you used for the project, and describe how this was significant for your learning.
2. You critically reflect on the concepts and skills you used for the project, and your understanding of them.
3. You critically reflect on the value of what you learned and how it extends beyond this specific project.

4.3 Final grade

Your overall grade for the project module takes into account both the group part (Sec. 4.1) and the individual part (Sec. 4.2). Based on the criteria above, we will use a holistic assessment to assign your overall grade, following these principles:

Grade requirements

Grade Fx You do not meet all of the passing requirements.

Grade E You meet all of the passing requirements.

Grade D As for 'E', but you also meet *some* of the higher grade requirements.

Grade C As for 'E', but you also meet *several* of the higher grade requirements.

Grade B As for 'E', but you also meet *most* of the higher grade requirements.

Grade A You meet *all* of the passing *and all* of the higher grade requirements.



Reminder As stated in the course memo, if your course code is TDP030, the ECTS grades are converted to your grading scale as follows:

729G86	Fx	E	D	C	B	A
TDP030	U	3	3	4	4	5

Credits

This document is in large parts based on material developed by Marco Kuhlmann.