**Project Title**: <Your mini-project title>

**Name**: <Your name>

**Representations**

|  |  |
| --- | --- |
| **(LO1)** Understand and apply **Knowledge Graph Embeddings** | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

|  |  |
| --- | --- |
| **(LO2)** Understand and apply **logical knowledge** in KGs | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

|  |  |
| --- | --- |
| **(LO3)** Understand and apply **Graph Neural Networks** | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

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| --- | --- |
| **(LO4)** Compare different Knowledge Graph **data models** from the database, semantic web, machine learning and data science communities. | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

**Systems**

|  |  |
| --- | --- |
| **(LO5)** Design and implement **architectures** of a Knowledge Graph | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

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| --- | --- |
| **(LO6)** Describe and apply **scalable reasoning** methods in Knowledge Graphs | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

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| --- | --- |
| **(LO7)** Apply a system to **create** a Knowledge Graph | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

|  |  |
| --- | --- |
| **(LO8)** Apply a system to **evolve** a Knowledge Graph | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

**Applications**

|  |  |
| --- | --- |
| **(LO9)** Describe and design **real-world applications** of Knowledge Graphs | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

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| --- | --- |
| **(LO10)** Describe **financial Knowledge Graph** applications | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

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| --- | --- |
| **(LO11)** Apply a system to provide **services** through a Knowledge Graph | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

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| --- | --- |
| **(LO12)** Describe the **connections** between Knowledge Graphs (KGs), Machine Learning (ML) and Artificial Intelligence (AI) | I showed **basic** proficiency  **exceeded** basic proficiency |
| <1-2 Sentences how you addressed this LO in your portfolio> | <Page(s) in the portfolio where this is discussed> |

**Additional Information  
HAS NO EFFECT ON MARKING!**(please fill it out honestly, even if it is less than what is suggested in the ECTS breakdown – you are not judged on time spent!)

|  |  |
| --- | --- |
| How many hours did you spend on your  **mini-project**?  (the ECTS breakdown suggests **40** hours for this) | <XX\*> hours |

\* please exclude any hours you spent on parts reused from other courses

|  |  |
| --- | --- |
| How many hours did you spend on your  **portfolio document preparation (this PDF)**?  (the ECTS breakdown suggests **15** hours for this) | <XX\*> hours |

\* please exclude any hours you spent on parts reused from other courses

|  |  |
| --- | --- |
| Please indicate if you have **reused** parts of the **mini-project** from other courses | I reused some parts:  <XX>% of the mini-project |
| <If this is the case, please describe here what parts you reused and how you adapted them. Note that this is perfectly fine if you did so and has no effect on marking!> | |

|  |  |
| --- | --- |
| Please indicate if you have **reused** parts of the **portfolio document** from other courses | I reused some parts:  <XX>% of this document |
| <If this is the case, please describe here what parts you reused and how you adapted them. Note that this is perfectly fine if you did so and has no effect on marking! To avoid (self-)plagiarism, do not forget to also cite appropriately in this document.> | |

**Declaration**

|  |  |
| --- | --- |
| I have marked all parts generated by Generative AI (e.g., ChatGPT) and given any prompt I used either in a footnote or in an appendix making clear which parts are generated by which prompts or similar. | I confirm this |

Here follows your portfolio (report), structured as you wish!

A possible structure (but by no means a suggestion, use whatever you like) is:

1. Introduction
2. Background
3. Method
4. Results
5. Conclusion

**IN PARAGRAPHS WHERE YOU EXPLICITLY DISCUSS A PARTICULAR LEARNING OUTCOME (ESPECIALLY THOSE MENTIONED IN YOUR COVER PAGES), PLEASE USE REFERENCES IN THE FORM OF (LO1) TO INDICATE THAT.**

An example:

*“For creating my Knowledge Graph (LO7) I used a combination of logical rules encoding the domain knowledge of XXX and a Knowledge Graph embedding that infers edges between entities not explicitly given in the source data. […]*

*Let me discuss the Knowledge Graph embedding (LO1) used for that in more detail […]”*

You do not have do that everywhere (it is not a competition on how often you mention a particular learning outcome), but especially at places that you explicitly reference in your cover pages, it helps you (and us) to see more easily which point you want to emphasize!