DATA STRUCTURES AND ALGORITHMS II, 2022-2023

PROJECT TITLE

STUDENT NAMES

STUDENT NUMBERS

DATE OF SUBMISSION

# PROJECT REPORT TEMPLATE [At most 5000 words in total]

### TABLE OF CONTENTS [At least all the sections detailed below]

## INTRODUCTION [At most 250 words]

*This section should describe the context, problem definition, existing solutions you looked at for inspiration, your proposal and objectives met, and the structure of the report.*

## PROJECT OBJECTIVES [At most 2500 words]

*This section should cover the objectives met by the project.*

***Each objective*** *presented in the below subsections should cover the following items:*

* *Overview: Describe how it was implemented. Beyond what was given to you in the guidance document, please indicate the main characteristics of the data structures and algorithms implemented towards this objective and its behaviour. This should include:*
  + *Which variables were used and for which purpose?*
  + *What were the data structures chosen for this objective? What is their expected use?*
  + *What was the algorithm chosen for this objective? What is its expected behaviour? What about its performance in Big O?*
  + *What limitations does the algorithm have? What about its implementation?*
  + *What can be improved?*
* *Time: Time required for developing this objective*
* *Location: What line of code and of which file this implementation belongs to.*

### Mandatory objectives met

*This subsection should describe which mandatory objectives were implemented by your project following the structure and items presented above.*

### Desirable objectives met

*This subsection should describe which desirable objectives were implemented by your project following the structure and items presented above.*

### Exploratory objectives met

*This subsection should describe which exploratory objectives were implemented by your project following the structure and items presented above.*

## SOLUTION [At most 1500 words]

*This section should dive deep into the solution developed for this project.*

### System Architecture [At most 750 words]

*This subsection should include at least a diagram of the system architecture and a description of the main blocks and their functionality.*

### Error Handling [At most 250 words]

*This subsection should describe how errors were handled in the project and the reasoning behind.*

### Data model design [At most 250 words]

*This subsection should include at least a data flow diagram of the solution and its description.*

### Dataset description and processing [At most 250 words]

*This subsection should include a description of the dataset(s) used, how they were read and processed.*

## REFERENCES

*This section should include the references used in the report. These references include any websites, reading material, publications or books used for inspiration.*