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CI505 Functional programming

Reflective report on the development of a software system

In the lab you will examine the assessment brief in detail and start preparing for coursework development.

1) Download and read the assesment brief carefully, noting the deadline

2) Using the requirements, start drafting data structures to be used in the project

3) Create a Word document that you will populate in the labs, which will form the basis of your coursework submission.

4) Consider how to implement each requirement and start making notes into the document.

5) What are the main differences between OOP and FP? How is the solution going to be different when using FP over OOP? Answers to these questions should help you structure your solution.

1. Explain the potential benefits and limitations of the functional paradigm.

2. Solve problems using standard functional techniques and abstractions, such as recursion and the use of higher-order functions.

3. Write programs in a functional style.

4. Use a functional approach to solve modern software problems, such as testing, and/or in domains such as web frameworks, distributed systems and parallelisation.

Define student: id, name, course and module, year

Multiple modules to one course

Marks of the modules

List/ dictionary maybe??

<https://www.geeksforgeeks.org/arraylist-of-arraylist-in-java/>

{[studentID,studentFName,studentLName,yrOfStudy,course,[[moduleID,mark], [moduleID,mark], [moduleID,mark],]], [studentID,studentFName,studentLName,yrOfStudy,course,[[moduleID,mark], [moduleID,mark], [moduleID,mark],]]}

Separate it to 2 lists ??

[studentID,studentFName,studentLName]

[studentID,yrOfStudy,course,[[moduleID,mark], [moduleID,mark], [moduleID,mark],]]

New student: generate id , give name, give course, give year, required modules, choose other module.

Delete student, give id as confirmation, search algorithm and remove?

Query- advanced search, with multiple variables and can be sorted based on a variable.- functions wrapped in functions?

# INTRODUCTION

# DEVELOPMENT

# CRITICAL REVIEW

# CONCLUSION

# ESTIMATED GRADE

# REFERENCES