Faculty of Science, Engineering and Technology

Introduction to Programming

Tutorial Task 6.1: Concept Map

Overview

The purpose of this task is to demonstrate you have have a good understanding of structured procedural programming by creating a visualisation of the key programming concepts.

Purpose:	Express your understanding of the programming concepts covered in this unit.
Task:	Create as a class a visual concept map to communicate your new understanding of programming.
Time:	This task should be completed in your tutorial with your tutor in Week 6.
Resources:	▪ Concept Map YouTube video
	▪ Concept Maps or Mind Maps on Wikipedia or a Search Engine
	▪ Programming Arcana (for examples)

Submission Details

You must submit the following files to Doubtfire:

▪ A document containing your concept map – it could be a photo of the class concept map on the whiteboard or it could be a handwritten or computer produced variant of the concept diagram produced with your tutor.

Your tutor will direct this process, by the end your concept map should do the following:

▪ Demonstrate a deep and holistic understanding of the programming concepts and artefacts covered in this unit.
▪ Clearly show important relationships with labels indicating their meaning.

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Instructions

As a class, or at least with your tutor's input, produce a diagram that visually shows programming concepts, how they relate, and how you can picture them when you are creating programs.

The poster (visual concept map) should elaborate on the relationships between the following concepts and programming artefacts (as a minimum, feel free to extend this).

> **Note**: You will all need to think about this as you do it. Try to capture what you think is important and communicate it to the viewer. It should be a class exercise led by your tutor with everyone's input.

Concepts	Artefacts	Action	Terminology
Sequence	Program	Assignment	Statement
Selection	Procedure	Function Call	Expression
Repetition	Function	Procedure Call	Identifier
Type	Variable	If	Parameter
Value	Constant	Case	Global Variable
	Record	Repeat	Local Variable
	Enumeration	While	Condition
	Pointer		
	Variable		

> **Tip**: Be creative and thinking both broadly and narrowly when producing the diagram. Perhaps use metaphors to discuss and communicate key ideas with your classmates.