

<b>Personalised Learning Checklist</b>	<b>RAG</b>
<b>1.2 Software and software development</b>	<b>1, 2, 3</b>
<b>1.2.1 Systems Software</b>	
The need for, function and purpose of operating systems.	
Memory Management (paging, segmentation and virtual memory).	
Interrupts, the role of interrupts and Interrupt Service Routines (ISR), role within the Fetch-Decode-Execute Cycle.	
Scheduling: round robin, first come first served, multi-level feedback queues, shortest job first and shortest remaining time.	
Distributed, embedded, multi-tasking, multi-user and Real Time operating systems.	
BIOS.	
Device drivers.	
Virtual machines - executing intermediate code or running an operating system within another.	
<b>1.2.2 Applications Generation</b>	
The nature of applications, justifying suitable applications for a specific purpose.	
Utilities.	
Open source vs closed source.	
Translators: Interpreters, compilers and assemblers.	
Stages of compilation (lexical analysis, syntax analysis, code generation and optimisation).	
Linkers and loaders and use of libraries.	
<b>1.2.3 Software Development</b>	
I understand the waterfall lifecycle, agile methodologies, extreme programming, the spiral model and rapid application development.	
I can explain the relative merits and drawbacks of different methodologies and when they might be used.	
I understand how to write and following algorithms.	
<b>1.2.4 Types of Programming Language</b>	
I understand the need for and characteristics of a variety of	
I understand procedural languages.	
I understand assembly language (including following and writing simple programs with the Little Man Computer instruction set).	
I understand the modes of addressing memory (immediate, indirect and indexed).	

**Complete the RAG by giving a 1,2 or 3 on your confidence of this gained knowledge.**

**1 - Red - I am not confident of this knowledge.**

2 - Amber - I have some knowledge in this area.

3 - Green - I am very confident in this area, I have this knowledge secured.