

Personalised Learning Checklist	RAG
1.3 How data is exchanged between different systems	1, 2, 3
1.3.1 Compression, Encryption and Hashing	
I understand Lossy vs Lossless compression.	
I can explain run length encoding and dictionary coding for lossless compression.	
I understand Symmetric and asymmetric encryption.	
I can explain the different uses of hashing.	
1.3.2 Databases	
I can describe relational databases, flat file, primary key, foreign key, secondary key, entity relationship modelling, normalisation and indexing.	
I understand the methods of capturing, selecting, managing and exchanging data.	
I can explain the process of Normalisation to 3NF.	
I understand SQL – Interpret and modify.	
I can describe referential integrity.	
I understand Transaction processing, ACID (Atomicity, Consistency, Isolation, Durability), record locking and redundancy.	
1.3.3 Networks	
I can explain the characteristics of networks and the importance of protocols and standards.	
I understand the internet structure for The TCP/IP Stack.	
I understand the internet structure for DNS	
I understand the internet structure for Protocol layering	
I understand the internet structure for LAN and WAN	
I understand the internet structure for Packet and circuit switching.	
I can explain network security and threats, use of firewalls, proxies and encryption.	
I understand network hardware.	
I can explain client-server and peer to peer networks.	
1.3.4 Web Technologies	
I understand HTML	
I understand CSS	
I understand JavaScript.	

I can explain search engine indexing.	
I can explain PageRank algorithm.	

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.