Data

AP Computer Science Principles · Vocabulary in context

Word	Example
bits /bɪts/	A byte is made of eight **bits**.
byte /baɪt/	One **byte** can store one letter, such as A. A
binary /'baɪnəri/	In **binary**, the number 5 is written 101. 5 101
decimal /'desɪml/	The binary number 101 is 5 in **decimal**. 101 5
Overflow error /ˌəʊvə'fləʊ 'erə/	An **overflow error** happens when a number is too big to store.
Round-off (rounding) error /raʊnd ɒf 'erə/	0.1 + 0.2 giving 0.30000000000000004 is a **round-off (rounding) error**. 0.1 + 0.2 0.30000000000000004
pixels /'pɪkslz/	A photo is made of millions of **pixels**.
abstraction /əb'strækʃn/	A map uses **abstraction**: it leaves out small details.
analog /'ænəlɒg/	A vinyl record stores **analog** sound: a smooth wave.
digital /'dɪdʒɪtl/	A **digital** signal uses only 0 and 1. 0 1
sample /'sæmpl/	The computer takes a **sample** of the sound wave thousands of times a second.
Compression /kəm'preʃn/	**Compression** makes files smaller.
Lossless compression /'lɒsləs kəm'preʃn/	**Lossless compression** keeps every detail of the file.

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Lossy compression /ˈlɒsi kəmˈpreʃn/	**Lossy compression** removes some detail to make the file much smaller.
run-length encoding /rʌn leŋθ enˈkəʊdɪŋ/	**Run-length encoding** stores AAAA as 4A. AAAA 4A
redundancy /rɪˈdʌndənsi/	Two power supplies give **redundancy**: if one fails, the other works.
Data /ˈdeɪtə/	**Data** can be numbers, words, pictures or sounds. ` `
information /ˌɪnfəˈmeɪʃn/	I need some **information** about the bus.
correlation /ˌkɒrɪˈleɪʃn/	There is a **correlation** between light and plant height, but that does not prove one causes the other.
Metadata /ˌmetəˈdeɪtə/	A photo's **metadata** includes the date and place it was taken.
cleaning data	**Cleaning data** means removing errors, such as a height of 20 metres. 20 metres
scalability /ˌskeɪləˈbɪlɪti/	**Scalability** means the system can grow when more users join.
filtering /ˈfɪltərɪŋ/	**Filtering** keeps only the rows you need.
visualizing /ˈvɪʒuːəlaɪzɪŋ/	**Visualizing** data as a chart makes trends clear.
privacy /ˈprɪvəsi/	**Privacy** means people control who sees their information.
clustering	**Clustering** puts similar items into groups.

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Word	Example
classifying	**Classifying** puts each item into a known group.

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