

# AQA Computer Science A Level

## 4.11.1 - Big Data

### Flashcards

Which of the three Vs of big data describes that the data consists of many different types of data?

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Variety

# Define big data

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A catch-all term for data that won't fit the usual containers

# How is useful information extracted from big data?

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By using machine learning techniques to discern patterns in the data

Which programming paradigm is well suited to processing big data?

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Functional programming

# List the three Vs of big data

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Volume

Velocity

Variety

Which property of data structures in functional programs means that their value doesn't change after instantiation?

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Immutability

# Why can't big data be stored using conventional databases?

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## Conventional databases require data to conform to a row and column format

What represents relationships between entities in graph schema?

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## Arrows

What is the most challenging  
aspect of big data?

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## The data's lack of structure

Which property of functional programs means that they have no side effects?

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Statelessness

Using the fact-based model, how can a computer ensure that it uses the most recent available information?

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Compare the timestamps of the facts

Which three features of functional programs make it easier to write correct, efficient, distributed code?

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Statelessness

Immutability

Support for higher-order functions

What is represented by nodes  
in graph schema?

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## Entities