

APPLICATION FAILURE

AN EXPERT WITNESS VIEW

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READING CROWN COURT



1 Fraud

- (1) A person is guilty of fraud if he is in breach of any of the sections listed in subsection (2) (which provide for different ways of committing the offence).
- (2) The sections are—
 - (a) section 2 (fraud by false representation),
 - (b) section 3 (fraud by failing to disclose information), and
 - (c) section 4 (fraud by abuse of position).
- (3) A person who is guilty of fraud is liable—
 - (a) on summary conviction, to imprisonment for a term not exceeding 12 months or to a fine not exceeding the statutory maximum (or to both);
 - (b) on conviction on indictment, to imprisonment for a term not exceeding 10 years or to a fine (or to both).



“IT DISASTERS”

Boeing: Is the 737 Max software bug the most expensive one ever (assuming that the problem is in the software)? Expensive for Boeing and stakeholders. It looks as if the MCAS anti-stall system went rogue.

TSB IT meltdown cost bank £330m and 80,000 customers

British Airways owner loses £170m in value after IT meltdown



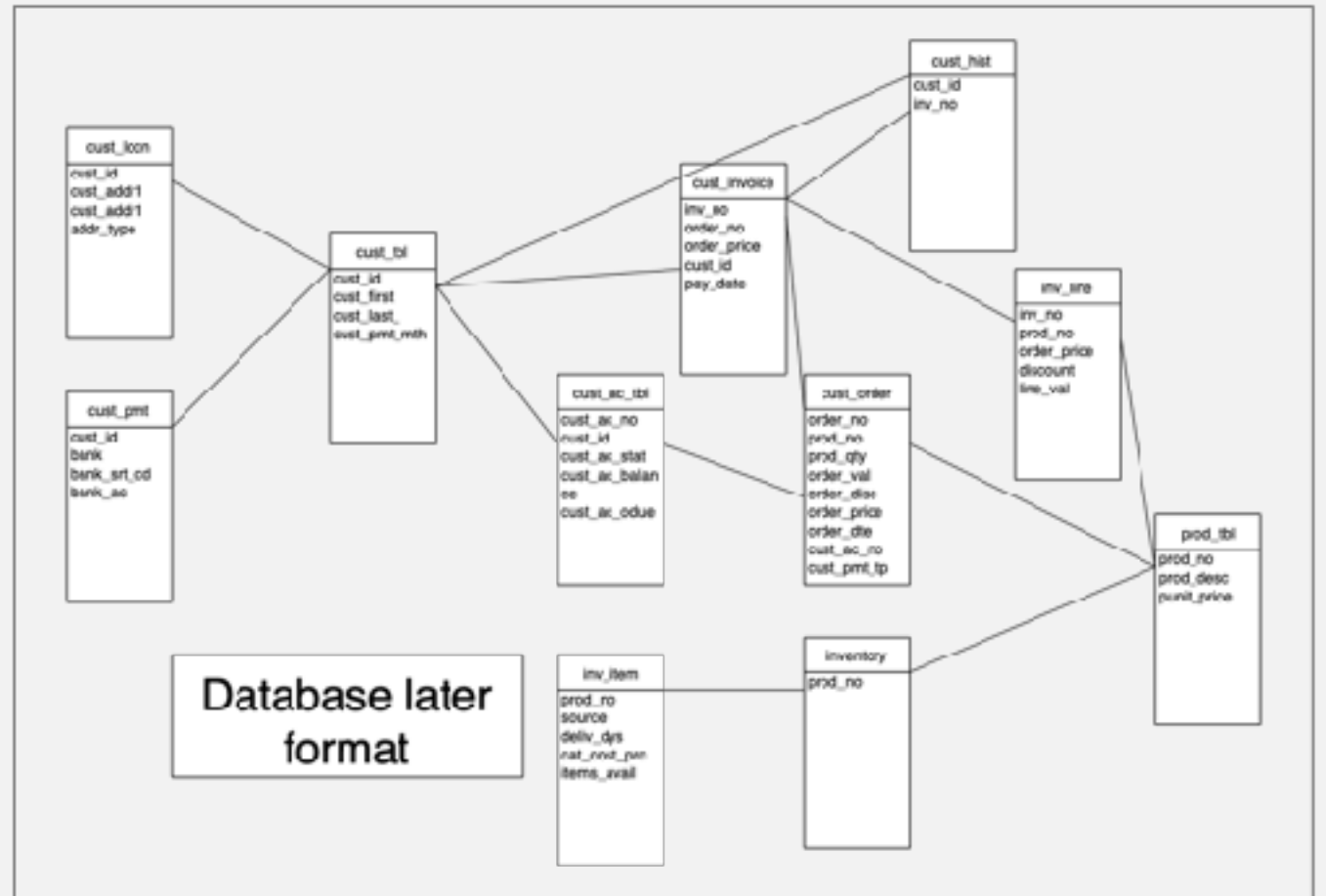
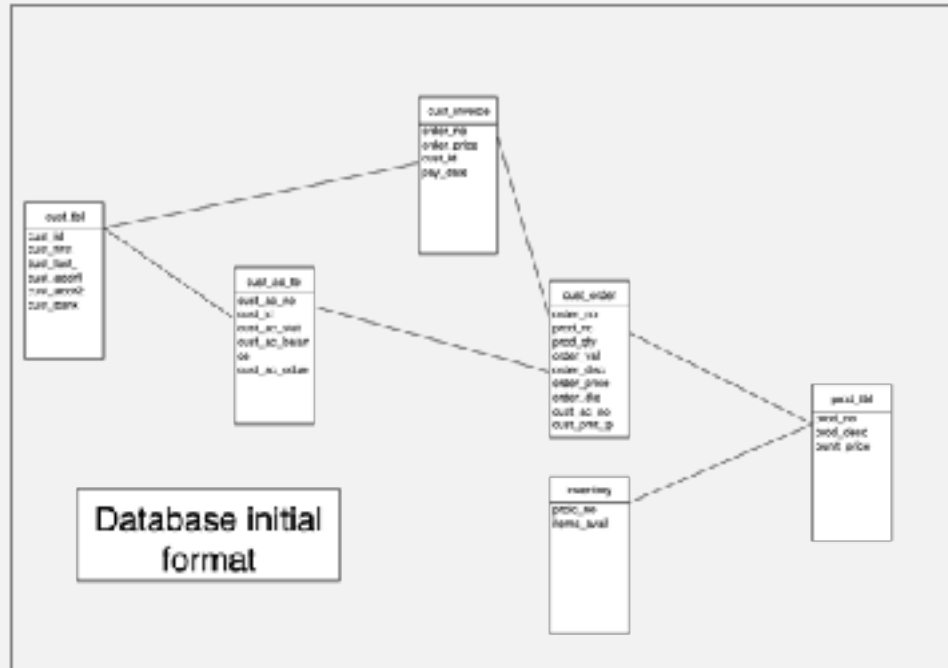
APPLICATION FAILURE



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FRAUD DATABASES



AVAILABILITY

Words with 'K' in third position

Database table modification

$$w_{i,j} = tf_{i,j} * \log \frac{N}{df_i}$$



Words beginning with 'K'

Disk head crash

Wall Street Journal feed is down

$8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 > 1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8$

APPLICATION FAILURE

	SLOW	FAST
OBVIOUS	Adobe Flash Orphan Open Source Python 2.7 developments XP Applications	BBC Subtitling Ariane 5 Microsoft Voice to Text
HIDDEN	Sentiment analysis – TF-IDF Fraud and conspiracy case database	Apollo 11 Boeing 737MAX

REPUTATION IS NO PROTECTION

Windows Vista
Speech to Text Demonstration

SUMMARY

- Hardware and network failures are well understood, and can be avoided
- Application failure is more nebulous, and harder to understand
- Application failure is, in many cases more likely to cause financial, reputational and commercial damage than any other form of systems failure.