

KK02 — Advantages and disadvantages of developing software in-house or externally

Cyber Security · Comprehensive exam study guide

Organisations choose to build software with their **own staff (in-house)** or pay an **external** provider. Know the trade-offs of each — a classic compare/recommend question.

In-house vs external

	In-house	External (outsourced)
Control	Full control over the work and data.	Less direct control; rely on the provider.
Knowledge	Deep understanding of the organisation's needs.	May lack context but brings specialist skills.
Cost	Ongoing salary costs; cheaper for long-term work.	Often higher per-project; no permanent staff cost.
Speed/skills	Limited by current staff capacity/skills.	Access to expertise and extra capacity quickly.
Security	Data stays inside the organisation.	Data shared externally — added confidentiality/IP risk.

Security angle

WATCH OUT

External development means sharing data and code with a third party — a confidentiality and IP risk that must be managed with contracts and access controls (links to KK03).

Key definitions to memorise

In-house development	Developing software using the organisation's own employees and resources.
External development	Outsourcing software development to a third-party provider.

Exam technique

EXAM TIP

- For 'recommend' questions, weigh control/knowledge/security against cost/skills/speed and justify for the scenario.
- Mention the security/IP implication of sharing data externally.

COMMON MISTAKES

- Listing advantages of only one option when asked to compare.
- Ignoring the security/confidentiality risk of external development.

Quick revision checklist

- I can give advantages and disadvantages of each approach.
- I can recommend an approach for a scenario and justify it, including security.

Exam practice — questions & model answers

Q1. State one advantage and one disadvantage of developing software in-house.

State · 2 marks

Model answer

- Advantage: full control and deep knowledge of the organisation's needs; data stays internal (1).
- Disadvantage: limited by current staff skills/capacity and ongoing salary costs (1).

Q2. A small team needs a specialised app quickly but lacks the skills. Recommend in-house or external development and justify, including one security consideration.

Recommend/Justify · 3 marks

Model answer

- External development (1),
- because it provides specialist skills and capacity quickly (1);
- but data/code shared with the provider must be protected by contracts and access controls (1).